

AIR CONDITIONING SYSTEMS

CITY MULTI DATA BOOK

MODEL

PQHY-P72-360T(S)LMU-A1

PQHY-P72-360Y(S)LMU-A1

PQHY-P72-360Z(S)LMU-A1

PQRY-P72-336T(S)LMU-A1

PQRY-P72-336Y(S)LMU-A1

PQRY-P72-336Z(S)LMU-A1

-For ground source application

Preface

DATABOOK describes the technical specifications of MITSUBISHI ELECTRIC Corp.'s CITYMULTI air conditioning system products.

In this DATABOOK for ground source application, the information on water-cooled heat source unit PQHY-P-T(S)LMU-A1/PQHY-P-Y(S)LMU-A1/PQHY-P-Z(S)LMU-A1/PQRY-P-T(S)LMU-A1/PQRY-P-Y(S)LMU-A1/PQRY-P-Z(S)LMU-A1 with the connection of standard CITY MULTI indoor unit series is specified.

For capacity tables with indoor units, refer to the DATABOOK for standard CITY MULTI units.

We recommend DATABOOK users to read carefully and take advantage of all the contents inside to design the CITY MULTI air conditioning system and/or to prepare documents for promotions.

Along with the DATABOOK, MITSUBISHI ELECTRIC provides a Design-Tool software to ensure the users to design the system correctly and simplify the calculations.

Please contact your local distributor for this software.

Please be notified that specifications are subject to change without notice due to continual improvements of the product.

For any inquiries, please contact your local distributor.

CITY MULTI

Databook for ground source application

HEAT SOURCE UNITS

BRINE INFORMATION

GENERAL LINE-UP

WY SERIES	1
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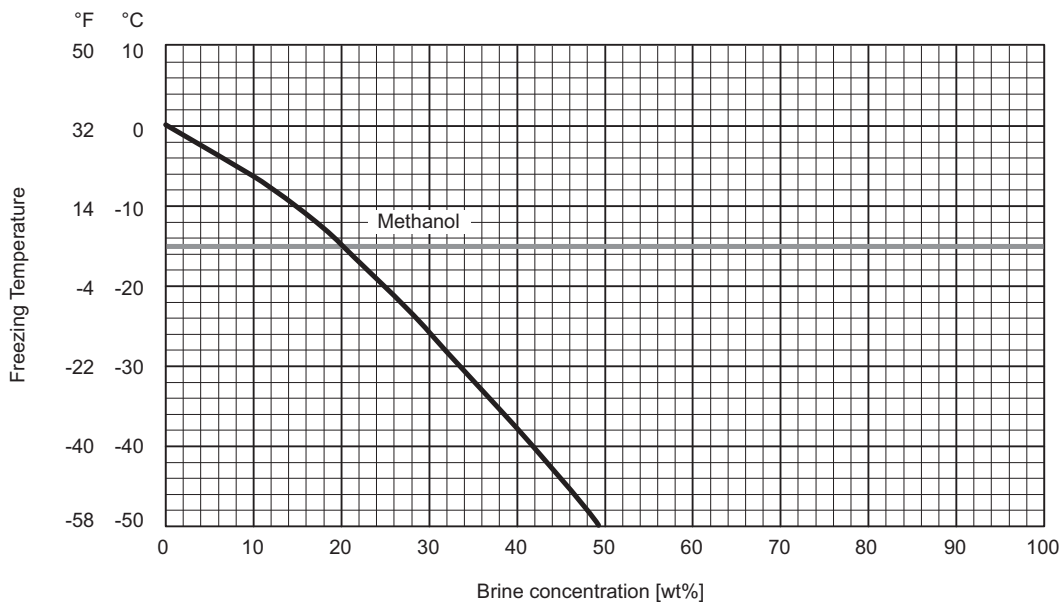
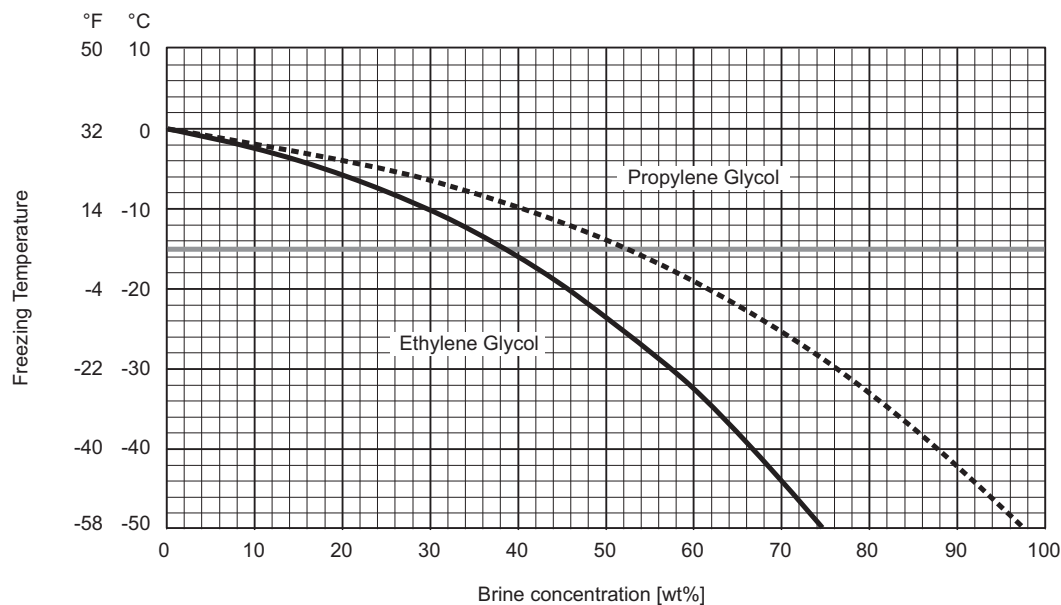
SYSTEM DESIGN

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BRINE INFORMATION

Brine freezing temperature

Brine concentration is decided by the freezing temperature. First, it is necessary to decide the freezing temperature and find out brine concentration which will correspond to the freezing temperature.



Note

The graph was referred from chemical company data.

But Freezing Temperature condition will be slightly different based on each company.

Please confirm detail data to the chemical company directly.

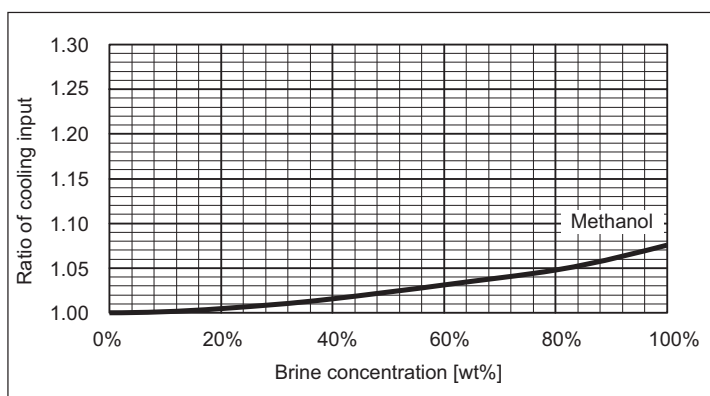
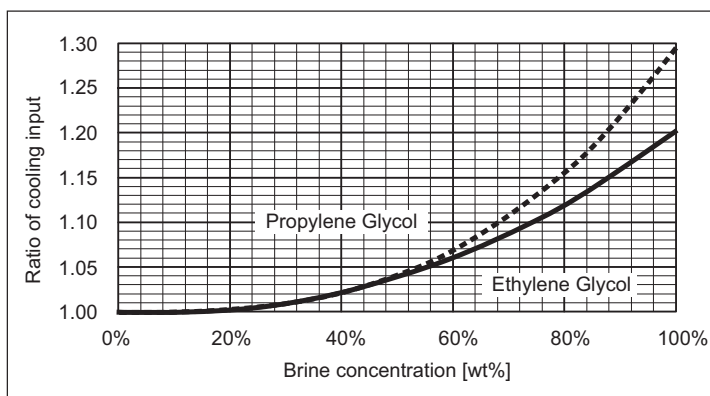
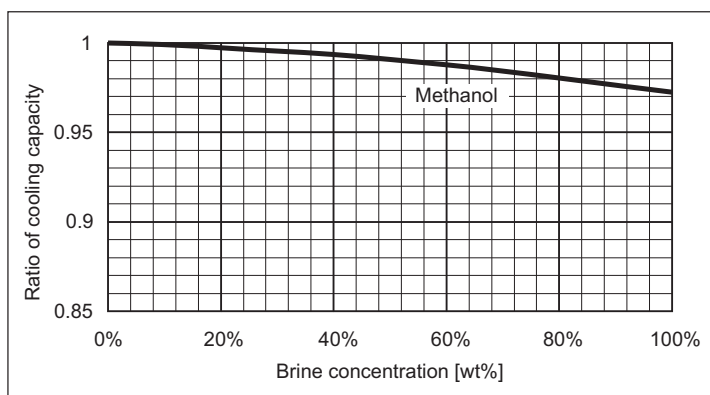
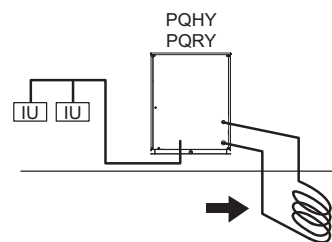
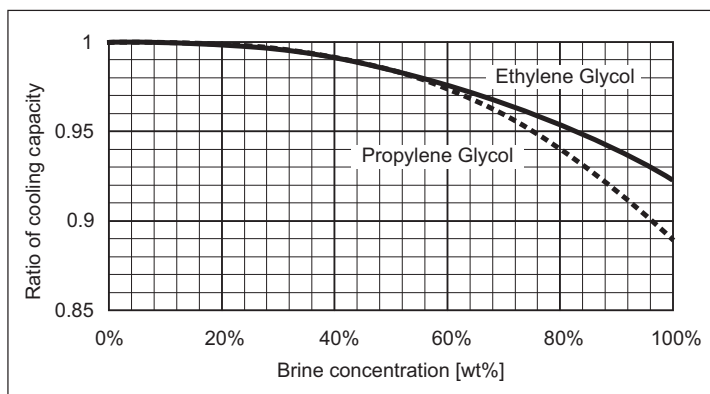
It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.

BRINE INFORMATION

Capacity correction by brine concentration (For heat source unit)

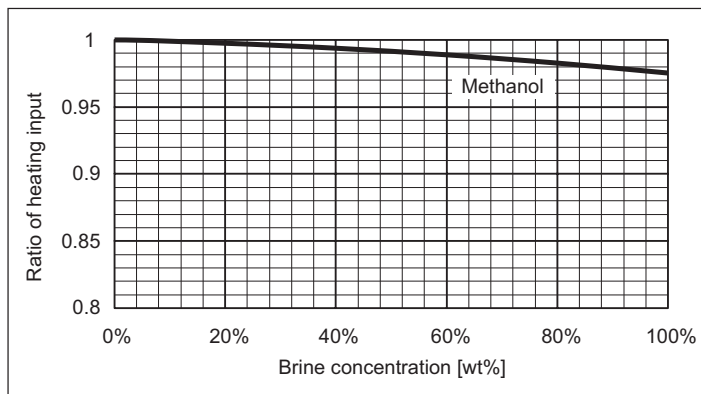
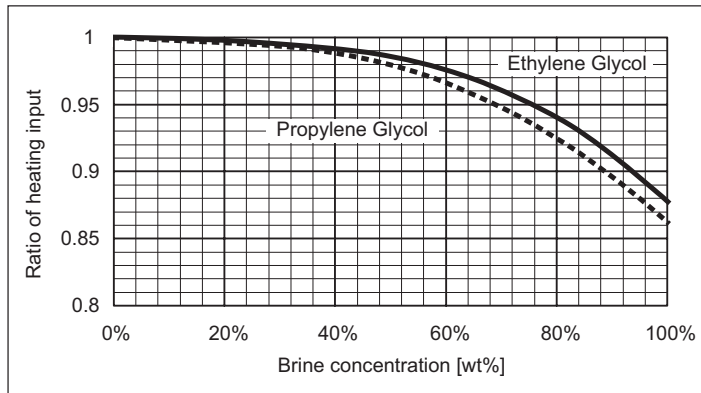
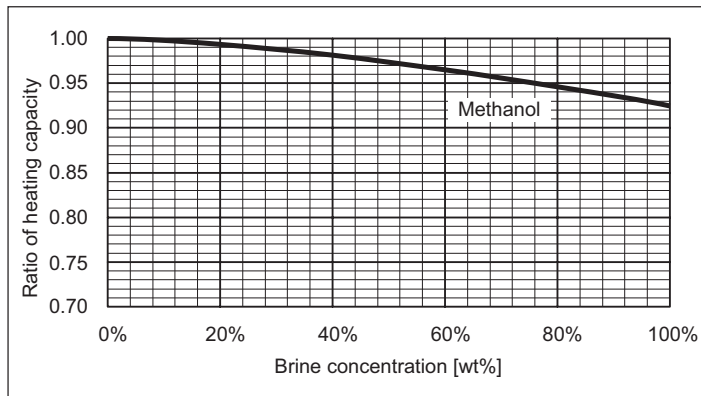
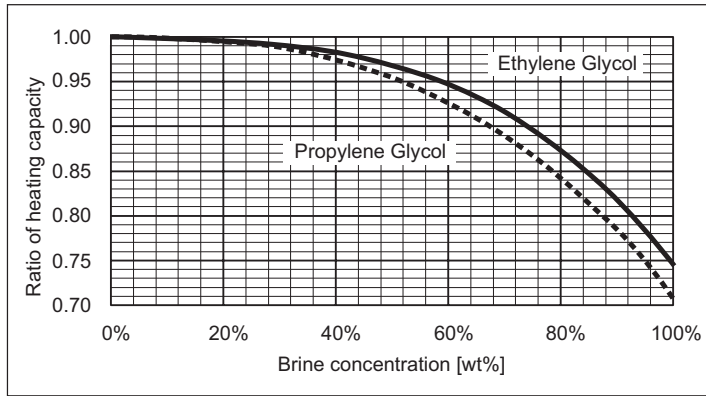
Depending on the freezing temperature and brine concentration, the ratio of unit capacity will change.
As shown in the line diagram, higher the brine concentration, the lower the ratio of capacity becomes.

Cooling



BRINE INFORMATION

Heating

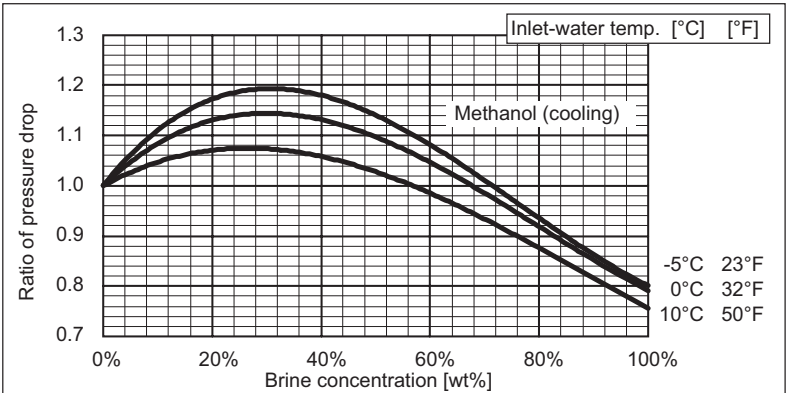
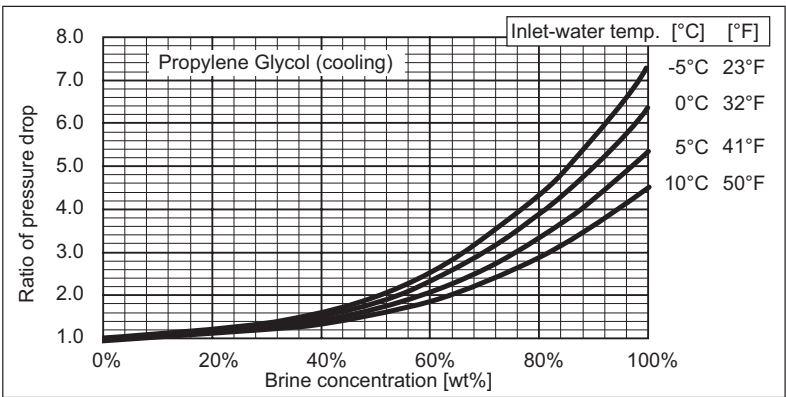
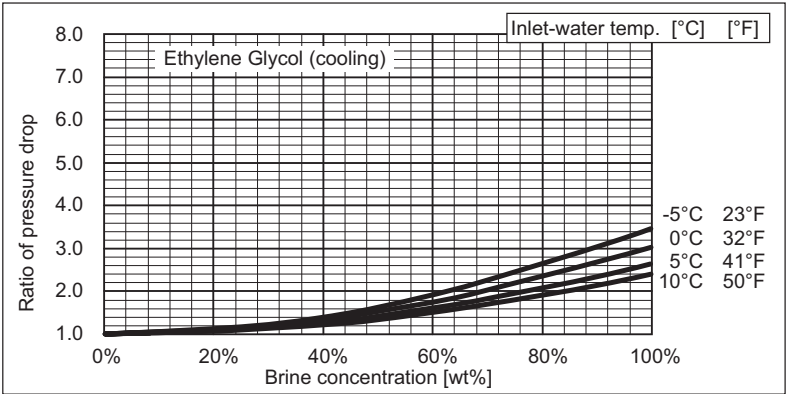


BRINE INFORMATION

Pressure drop correction by brine concentration (For heat source unit)

Also, water pump is selected by the ratio of pressure drop of depending on the brine concentration.

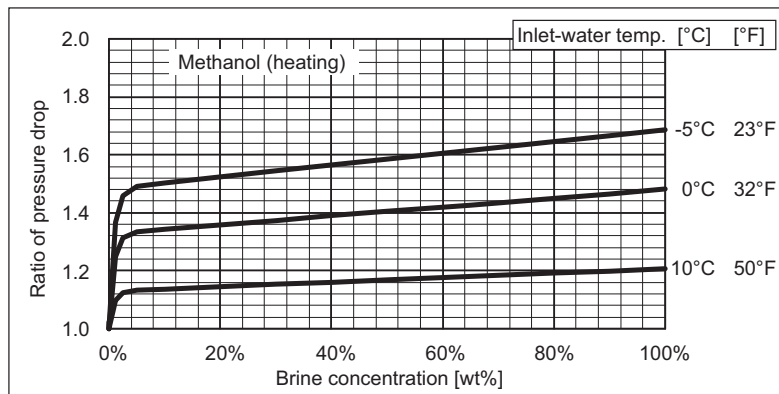
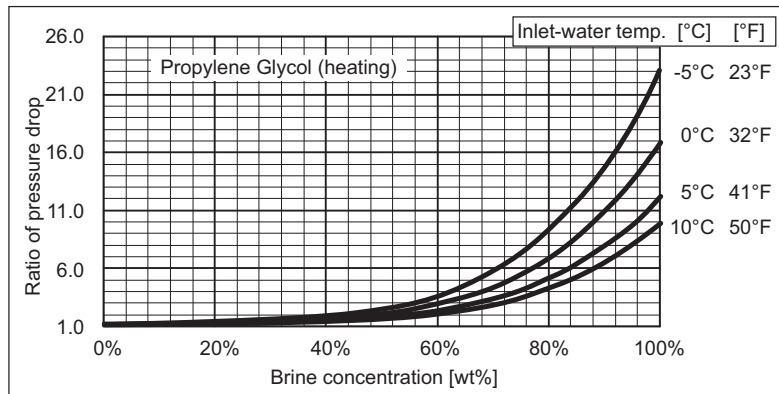
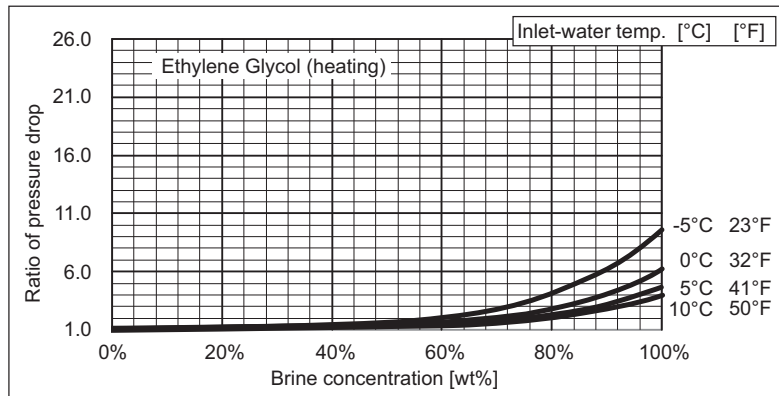
Cooling



* Please supply strainer on site.

BRINE INFORMATION

Heating



* Please supply strainer on site.

GENERAL LINE-UP

Water Cooled WY Series - 208-230V



Type(BTU/h)	72K	96K	120K
Model Name	PQHY-P72TLMU-A1	PQHY-P96TLMU-A1	PQHY-P120TLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144TLMU-A1	PQHY-P168TLMU-A1	PQHY-P192TLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQHY-P216TLMU-A1	PQHY-P240TLMU-A1	



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144TSLMU-A1	PQHY-P168TSLMU-A1	PQHY-P192TSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQHY-P216TSLMU-A1	PQHY-P240TSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQHY-P288TSLMU-A1	PQHY-P312TSLMU-A1	PQHY-P336TSLMU-A1
Type(BTU/h)	360K		
Model Name	PQHY-P360TSLMU-A1		

Water Cooled WY Series - 460V



Type(BTU/h)	72K	96K	120K
Model Name	PQHY-P72YLMU-A1	PQHY-P96YLMU-A1	PQHY-P120YLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144YLMU-A1	PQHY-P168YLMU-A1	PQHY-P192YLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQHY-P216YLMU-A1	PQHY-P240YLMU-A1	



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144YSLMU-A1	PQHY-P168YSLMU-A1	PQHY-P192YSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQHY-P216YSLMU-A1	PQHY-P240YSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQHY-P288YSLMU-A1	PQHY-P312YSLMU-A1	PQHY-P336YSLMU-A1
Type(BTU/h)	360K		
Model Name	PQHY-P360YSLMU-A1		

GENERAL LINE-UP

Water Cooled WY Series - 575V



Type(BTU/h)	72K	96K	120K
Model Name	PQHY-P72ZLMU-A1	PQHY-P96ZLMU-A1	PQHY-P120ZLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144ZLMU-A1	PQHY-P168ZLMU-A1	PQHY-P192ZLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQHY-P144ZSLMU-A1	PQHY-P168ZSLMU-A1	PQHY-P192ZSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQHY-P216ZSLMU-A1	PQHY-P240ZSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQHY-P288ZSLMU-A1	PQHY-P312ZSLMU-A1	PQHY-P336ZSLMU-A1
Type(BTU/h)	360K		
Model Name	PQHY-P360ZSLMU-A1		

Water Cooled WR2 Series - 208-230V



Type(BTU/h)	72K	96K	120K
Model Name	PQRYP72TLMU-A1	PQRYP96TLMU-A1	PQRYP120TLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQRYP144TLMU-A1	PQRYP168TLMU-A1	PQRYP192TLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRYP216TLMU-A1	PQRYP240TLMU-A1	



Type(BTU/h)	144K	168K	192K
Model Name	PQRYP144TSLMU-A1	PQRYP168TSLMU-A1	PQRYP192TSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRYP216TSLMU-A1	PQRYP240TSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQRYP288TSLMU-A1	PQRYP312TSLMU-A1	PQRYP336TSLMU-A1

GENERAL LINE-UP

Water Cooled WR2 Series - 460V



Type(BTU/h)	72K	96K	120K
Model Name	PQRY-P72YLMU-A1	PQRY-P96YLMU-A1	PQRY-P120YLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1	PQRY-P192YLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRY-P216YLMU-A1	PQRY-P240YLMU-A1	



Type(BTU/h)	144K	168K	192K
Model Name	PQRY-P144YSLMU-A1	PQRY-P168YSLMU-A1	PQRY-P192YSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRY-P216YSLMU-A1	PQRY-P240YSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQRY-P288YSLMU-A1	PQRY-P312YSLMU-A1	PQRY-P336YSLMU-A1

Water Cooled WR2 Series - 575V



Type(BTU/h)	72K	96K	120K
Model Name	PQRY-P72ZLMU-A1	PQRY-P96ZLMU-A1	PQRY-P120ZLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQRY-P144ZLMU-A1	PQRY-P168ZLMU-A1	PQRY-P192ZLMU-A1



Type(BTU/h)	144K	168K	192K
Model Name	PQRY-P144ZSLMU-A1	PQRY-P168ZSLMU-A1	PQRY-P192ZSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRY-P216ZSLMU-A1	PQRY-P240ZSLMU-A1	



Type(BTU/h)	288K	312K	336K
Model Name	PQRY-P288ZSLMU-A1	PQRY-P312ZSLMU-A1	PQRY-P336ZSLMU-A1

PQHY-P-T(S)LMU-A1, PQHY-P-Y(S)LMU-A1

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1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model				PQHY-P72TLMU-A1 < For Ground source >			
Indoor Model				Non-Ducted		Ducted	
Power source				3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2		BTU/h		72,000	
				kW		21.1	
(208-230)		Power input		kW		3.23	
		Current input		A		9.9-9.0	
		(Rated)		BTU/h		69,000	
				kW		20.2	
		(208-230)		Power input		2.96	
				Current input		9.1-8.2	
Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
		Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4		BTU/h		80,000	
				kW		23.4	
(208-230)		Power input		kW		3.63	
		Current input		A		11.1-10.1	
		(Rated)		BTU/h		76,000	
				kW		22.3	
		(208-230)		Power input		3.34	
				Current input		10.3-9.3	
Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
		Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity			
		Model/Quantity		P06~P96/1~15			
Sound pressure level (measured in anechoic room)				dB <A>			
				46.0			
Refrigerant piping diameter		Liquid pipe		in. (mm)		3/8 (9.52) Brazed	
		Gas pipe		in. (mm)		3/4 (19.05) Brazed	
Minimum Circuit Ampacity				A			
				13-12			
Maximum Overcurrent Protection				A			
				20-20			
Circulating water		Water flow rate		G/h		1,522	
				G/min (gpm)		25.4	
				m³/h		5.76	
				L/min		96	
				cfm		3.4	
		Pressure drop		psi		3.48	
				kPa		24	
		Operating volume range		G/h		793 ~ 1,902	
				G/min (gpm)		13.2 ~ 31.7	
				m³/h		3.0 ~ 7.2	
		Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1	
Manufacture				AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
Starting method				Inverter			
Motor output				kW		4.3	
Case heater				kW		-	
Lubricant						MEL32	
External finish				Galvanized steel sheets			
External dimension H x W x D		in.		43-5/16 x 34-11/16 x 21-11/16			
		mm		1,100 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
		Control		LEV and HIC circuit			
Net weight		lbs (kg)		375 (170)			
Heat exchanger		Water volume in plate		G		plate type	
				l		1.32	
		Water pressure Max.		psi		5.0	
				MPa		290	
						2.0	
HIC circuit (HIC: Heat Inter-Changer)				Copper pipe, tube-in-tube structure			
Drawing		External		KL94C229			
		Wiring		KE94G422			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts				joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010C-G			
Remarks				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.6 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P96TLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h		96,000		
			kW		28.1		
		(208-230)	Power input	kW		4.65	
			Current input	A		14.3-12.9	
		(Rated)		BTU/h		92,000	
				kW		27.0	
		(208-230)	Power input	kW		4.26	
			Current input	A		13.1-11.8	
		Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)
				Circulating water	°F		23~113°F (-5~45°C)
Heating capacity (Nominal)		*3, 4	BTU/h		108,000		
			kW		31.7		
		(208-230)	Power input	kW		5.05	
			Current input	A		15.5-14.0	
		(Rated)		BTU/h		103,000	
				kW		30.2	
		(208-230)	Power input	kW		4.65	
			Current input	A		14.3-12.9	
		Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)
				Circulating water	°F		23~113°F (-5~45°C)
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity				
		Model/Quantity	P06~P96/1~20				
Sound pressure level (measured in anechoic room)			dB <A>		48.0		
Refrigerant piping diameter		Liquid pipe	in. (mm)		3/8 (9.52) Brazed (1/2 (12.7) Brazed, total length >= 90 m)		
		Gas pipe	in. (mm)		7/8 (22.2) Brazed		
Minimum Circuit Ampacity			A		19-17		
Maximum Overcurrent Protection			A		30-25		
Circulating water		Water flow rate	G/h		1,522		
			G/min (gpm)		25.4		
			m³/h		5.76		
			L/min		96		
			cfm		3.4		
			Pressure drop	psi		3.48	
		kPa		24			
		Operating volume range	G/h		793 ~ 1,902		
			G/min (gpm)		13.2 ~ 31.7		
				m³/h		3.0 ~ 7.2	
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter			
		Motor output	kW		6.0		
		Case heater	kW		-		
		Lubricant		MEL32			
External finish			Galvanized steel sheets				
External dimension H x W x D		in.		43-5/16 x 34-11/16 x 21-11/16			
		mm		1,100 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
		Control		LEV and HIC circuit			
Net weight		lbs (kg)		375 (170)			
Heat exchanger			plate type				
			Water volume in plate	G		1.32	
				l		5.0	
			Water pressure Max.	psi		290	
				MPa		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure				
Drawing		External		KL94C229			
		Wiring		KE94G422			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010C-G				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
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2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P120TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	120,000		
		kW	35.2		
	(208-230)	Power input	7.24		
		Current input	22.3-20.1		
	(Rated)	BTU/h	114,000		
		kW	33.4		
	(208-230)	Power input	6.66	7.35	
		Current input	20.5-18.5	22.6-20.5	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	135,000		
		kW	39.6		
	(208-230)	Power input	6.83		
		Current input	21.0-19.0		
	(Rated)	BTU/h	129,000		
		kW	37.8		
	(208-230)	Power input	6.29	5.92	
		Current input	19.3-17.5	18.2-16.5	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/1~26			
Sound pressure level (measured in anechoic room)		54.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/8 (9.52) Brazed (1/2 (12.7) Brazed, total length >= 40 m)		
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	29-26		
Maximum Overcurrent Protection		A	50-45		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
		psi	3.48		
	Pressure drop	kPa	24		
		Operating volume range	G/h	793 ~ 1,902	
	G/min (gpm)		13.2 ~ 31.7		
	m³/h	3.0 ~ 7.2			
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter			
	Motor output	kW	7.7		
	Case heater	kW	-		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16			
	mm	1,100 x 880 x 550			
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection			
	Compressor	Over-heat protection			
Refrigerant	Type x original charge	R410A x 11 lbs + 1 oz (5.0 kg)			
	Control	LEV and HIC circuit			
Net weight	lbs (kg)	375 (170)			
Heat exchanger	Water volume in plate	G	plate type		
		l	1.32		
			5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure			
Drawing	External	KL94C229			
	Wiring	KE94G422			
Standard attachment	Document	Installation Manual			
	Accessory	Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P144TLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h		144,000		
			kW		42.2		
		(208-230)	Power input	kW		8.78	
			Current input	A		27.0-24.4	
		(Rated)		BTU/h		137,000	
				kW		40.2	
		(208-230)	Power input	kW		8.07	
			Current input	A		24.8-22.5	
		Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)
				Circulating water	°F		23~113°F (-5~45°C)
Heating capacity (Nominal)		*3, 4	BTU/h		160,000		
			kW		46.9		
		(208-230)	Power input	kW		8.11	
			Current input	A		25.0-22.6	
		(Rated)		BTU/h		152,000	
				kW		44.5	
		(208-230)	Power input	kW		7.47	
			Current input	A		23.0-20.8	
		Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)
				Circulating water	°F		23~113°F (-5~45°C)
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity			
		Model/Quantity		P06~P96/L1-31			
Sound pressure level (measured in anechoic room)		dB <A>		54.0			
Refrigerant piping diameter		Liquid pipe	in. (mm)		1/2 (12.7) Braze		
		Gas pipe	in. (mm)		1-1/8 (28.58) Braze		
Minimum Circuit Ampacity		A		35-32			
Maximum Overcurrent Protection		A		60-50			
Circulating water		Water flow rate	G/h		1,902		
			G/min (gpm)		31.7		
			m³/h		7.20		
			L/min		120		
			cfm		4.2		
			psi		6.38		
		Pressure drop	kPa		44		
			Operating volume range	G/h		1,189 ~ 3,054	
		G/min (gpm)		19.8 ~ 50.9			
				m³/h		4.5 ~ 11.6	
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter			
		Motor output	kW		9.5		
		Case heater	kW		-		
		Lubricant		MEL32			
External finish		Galvanized steel sheets					
External dimension H x W x D		in.		57-1/8 x 34-11/16 x 21-11/16			
		mm		1,450 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
		Control		LEV and HIC circuit			
Net weight		lbs (kg)		474 (215)			
Heat exchanger				plate type			
		Water volume in plate	G		1.32		
			l		5.0		
		Water pressure Max.	psi		290		
			MPa		2.0		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure					
Drawing		External		KL94C230			
		Wiring		KE94G423			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts				joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/L08/L010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C) D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P168TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		168,000		
			49.2		
			12.05		
	(208-230)	Power input	kW		
		Current input	A		
	(Rated)			37.1-33.6	
				161,000	
			47.2		
	(208-230)	Power input	kW		
		Current input	A		
Temp. range of cooling	Indoor	W.B.			
	Circulating water	°F			
		°C			
Heating capacity (Nominal)	*3, 4		188,000		
			55.1		
			9.86		
	(208-230)	Power input	kW		
		Current input	A		
	(Rated)			30.4-27.5	
				179,000	
			52.5		
	(208-230)	Power input	kW		
		Current input	A		
Temp. range of heating	Indoor	D.B.			
	Circulating water	°F			
		°C			
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity		
	Model/Quantity		P06~P96/1~36		
Sound pressure level (measured in anechoic room)		dB <A>			
Refrigerant piping diameter	Liquid pipe	in. (mm)			
	Gas pipe	in. (mm)			
Minimum Circuit Ampacity		A			
Maximum Overcurrent Protection		A			
Circulating water	Water flow rate	G/h			
		G/min (gpm)			
		m³/h			
		L/min			
		cfm			
		psi			
	Pressure drop	kPa			
		44			
	Operating volume range	G/h			
		G/min (gpm)			
m³/h					
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	11.0		
	Case heater	kW	-		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D	in.		57-1/8 x 34-11/16 x 21-11/16		
	mm		1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		LEV and HIC circuit		
Net weight		lbs (kg)	474 (215)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
		psi	290		
	Water pressure Max.	MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		
Drawing	External		KL94C230		
	Wiring		KE94G423		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P192TLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)	*1, 2		BTU/h		192,000		
			kW		56.3		
	(208-230)	Power input	kW		15.05		
		Current input	A		46.4-41.9		
	(Rated)			BTU/h	183,000		
				kW	53.6		
	(208-230)	Power input	kW		13.87	14.19	
		Current input	A		42.7-38.6	43.7-39.5	
Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)			
	Circulating water	°F		23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4		BTU/h		215,000		
			kW		63.0		
	(208-230)	Power input	kW		11.90		
		Current input	A		36.7-33.1		
	(Rated)			BTU/h	205,000		
				kW	60.1		
	(208-230)	Power input	kW		10.97	11.56	
		Current input	A		33.8-30.5	35.6-32.2	
Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)			
	Circulating water	°F		23~113°F (-5~45°C)			
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity				
Model/Quantity	P06~P96/1~41						
Sound pressure level (measured in anechoic room)		dB <A>		58.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)		5/8 (15.88) Brazed			
	Gas pipe	in. (mm)		1-1/8 (28.58) Brazed			
Minimum Circuit Ampacity		A		54-49			
Maximum Overcurrent Protection		A		90-80			
Circulating water	Water flow rate	G/h		1,902			
		G/min (gpm)		31.7			
		m³/h		7.20			
		L/min		120			
		cfm		4.2			
	Pressure drop	psi		6.38			
		kPa		44			
	Operating volume range	G/h		1,189 ~ 3,054			
		G/min (gpm)		19.8 ~ 50.9			
		m³/h		4.5 ~ 11.6			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1				
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION				
	Starting method		Inverter				
	Motor output	kW		12.4			
	Case heater	kW		-			
	Lubricant		MEL32				
External finish		Galvanized steel sheets					
External dimension H x W x D		in.		57-1/8 x 34-11/16 x 21-11/16			
		mm		1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
	Inverter circuit		Over-heat protection, Over-current protection				
	Compressor		Over-heat protection				
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)				
	Control		LEV and HIC circuit				
Net weight		lbs (kg)		474 (215)			
Heat exchanger			plate type				
			Water volume in plate	G		1.32	
				l		5.0	
			Water pressure Max.	psi		290	
				MPa		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure				
Drawing	External		KL94C230				
	Wiring		KE94G423				
Standard attachment	Document		Installation Manual				
	Accessory		Details refer to External Drw				
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P216TLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	216,000	
		kW	63.3	
	(208-230)	Power input	19.23	
		kW	59.3-53.6	
	(Rated)	Current input	A	
		BTU/h	206,000	
	(208-230)	Power input	60.4	
		kW	17.72	
	(208-230)	Current input	A	
		BTU/h	54.6-49.4	
Heating capacity (Nominal)	*3, 4	BTU/h	243,000	
		kW	71.2	
	(208-230)	Power input	13.04	
		kW	40.2-36.3	
	(Rated)	Current input	A	
		BTU/h	232,000	
	(208-230)	Power input	68.0	
		kW	12.01	
	(208-230)	Current input	A	
		BTU/h	37.0-33.4	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~46	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant	Liquid pipe	in. (mm)	5/8 (15.88) Brazed	
piping diameter	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	
Minimum Circuit Ampacity		A	69-63	
Maximum Overcurrent Protection		A	110-110	
Circulating water	Water flow rate	G/h	3,044	
		G/min (gpm)	50.7	
		m³/h	11.52	
		L/min	192	
		cfm	6.8	
		psi	6.53	
	Pressure drop	kPa	45	
		G/h	1,585 ~ 3,804	
		G/min (gpm)	26.4 ~ 63.4	
		m³/h	6.0 ~ 14.4	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	14.5	
	Case heater	kW	0.045 (240 V)	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 25 lbs + 13 oz (11.7 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	552 (250)	
Heat exchanger	Water volume in plate		plate type	
		G	2.64	
		l	10.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Drawing	External		KL94C231	
	Wiring		KE94G426	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P240TLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		240,000	
			kW		70.3	
	(208-230)	Power input	kW		21.14	
		Current input	A		65.1-58.9	
	(Rated)			BTU/h		228,000
				kW		66.8
	(208-230)	Power input	kW		19.49	18.74
		Current input	A		60.1-54.3	57.7-52.2
Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h		270,000	
			kW		79.1	
	(208-230)	Power input	kW		15.12	
		Current input	A		46.6-42.1	
	(Rated)			BTU/h		258,000
				kW		75.6
	(208-230)	Power input	kW		13.93	14.62
		Current input	A		42.9-38.8	45.0-40.7
Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/2~50			
Sound pressure level (measured in anechoic room)			dB <A>		58.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)		5/8 (15.88) Brazed		
	Gas pipe	in. (mm)		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity			A		79-71	
Maximum Overcurrent Protection			A		125-125	
Circulating water	Water flow rate	G/h	3,044			
		G/min (gpm)	50.7			
		m³/h	11.52			
		L/min	192			
		cfm	6.8			
	Pressure drop	psi	6.53			
		kPa	45			
	Operating volume range	G/h	1,585 ~ 3,804			
		G/min (gpm)	26.4 ~ 63.4			
		m³/h	6.0 ~ 14.4			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	16.1			
	Case heater	kW	0.045 (240 V)			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 25 lbs + 13 oz (11.7 kg)			
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	552 (250)			
Heat exchanger			plate type			
			Water volume in plate	G	2.64	
				l	10.0	
			Water pressure Max.	psi	290	
				MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure			
Drawing	External	KL94C231				
	Wiring	KE94G426				
Standard attachment	Document	Installation Manual				
	Accessory	Details refer to External Drw				
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C) D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P144TSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2	BTU/h	144,000		
			kW	42.2		
		(208-230)	Power input	kW	7.11	
			Current input	A	21.9-19.8	
		(Rated)		BTU/h	137,000	
				kW	40.2	
		(208-230)	Power input	kW	6.53	7.72
			Current input	A	20.1-18.2	23.8-21.5
		Temp. range of cooling		Indoor	W.B.	
					59~75°F (15~24°C)	
Circulating water	°F					
			23~113°F (-5~45°C)			
Heating capacity (Nominal)		*3, 4	BTU/h	160,000		
			kW	46.9		
		(208-230)	Power input	kW	7.45	
			Current input	A	22.9-20.7	
		(Rated)		BTU/h	152,000	
				kW	44.5	
		(208-230)	Power input	kW	6.86	7.22
			Current input	A	21.1-19.1	22.2-20.1
		Temp. range of heating		Indoor	D.B.	
					59~81°F (15~27°C)	
		Circulating water	°F			
			23~113°F (-5~45°C)			
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity			
		Model/Quantity	P06~P96/1~31			
Sound pressure level (measured in anechoic room)		dB <A>	49.0			
Refrigerant piping diameter		Liquid pipe	in. (mm)	1/2 (12.7) Brazed		
		Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		

Set Model			PQHY-P72TLMU-A1 < For Ground source >		PQHY-P72TLMU-A1 < For Ground source >	
Model			13-12		13-12	
Minimum Circuit Ampacity		A				
Maximum Overcurrent Protection		A	20-20		20-20	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		
	mm	1,100 x 880 x 550		1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	375 (170)		375 (170)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		I	1.32		1.32	
			5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
Drawing	External		KL94C235		KL94C235	
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual		Installation Manual	
	Accessory		Details refer to External Dnw		Details refer to External Dnw	
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(D.B. (40°C)D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h =kW x 3.412	
Indoor: 81°F (27°C), Water temperature: 86°F (30°C), Brine concentration 0%			cfm =m³/min x 35.31	
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs =kg/0.4536	
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F (20°C), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

Heat Source Model			PQHY-P168TSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2		BTU/h	
			168,000	
			kW	
			49.2	
	(208-230)	Power input	kW	
		Current input	A	
	(Rated)		BTU/h	
			161,000	
	(208-230)	Power input	kW	
		Current input	A	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h	
			188,000	
			kW	
			55.1	
	(208-230)	Power input	kW	
		Current input	A	
	(Rated)		BTU/h	
			179,000	
	(208-230)	Power input	kW	
		Current input	A	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
Sound pressure level (measured in anechoic room)	Model/Quantity		P06~P96/1~36	
Refrigerant	Liquid pipe		5/8 (15.88) Brazed	
piping diameter	Gas pipe		1-1/8 (28.58) Brazed	
Set Model				
Model			PQHY-P96TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			19-17	
Maximum Overcurrent Protection			30-25	
Circulating water	Water flow rate	G/h	1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4	
		m³/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	psi	3.48	
		kPa	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902	
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7	
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	6.0	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D	in.		43-5/16 x 34-11/16 x 21-11/16	
	mm		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit	
Net weight	lbs (kg)		375 (170)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		l	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed	
Drawing	External		KL94C235	
	Wiring		KE94G422	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts	Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G			
Remarks	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			
Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h =kW x 3.412	
Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			cfm =m³/min x 35.31	
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs =kg/0.4536	
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P192TSLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h	192,000			
			kW	56.3			
		(208-230) (Rated)	Power input	kW	11.30		
			Current input	A	34.8-31.5		
				BTU/h	183,000		
				kW	53.6		
		(208-230)	Power input	kW	10.40	10.98	
			Current input	A	32.0-29.0	33.8-30.6	
		Temp. range of cooling		Indoor	W.B. 59~75°F (15~24°C)		
				Circulating water	°F 23~113°F (-5~45°C)		
Heating capacity (Nominal)		*3, 4	BTU/h	215,000			
			kW	63.0			
		(208-230) (Rated)	Power input	kW	11.02		
			Current input	A	33.9-30.7		
				BTU/h	205,000		
				kW	60.1		
		(208-230)	Power input	kW	10.16	8.90	
			Current input	A	31.3-28.3	27.4-24.8	
		Temp. range of heating		Indoor	D.B. 59~81°F (15~27°C)		
				Circulating water	°F 23~113°F (-5~45°C)		
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity				
		Model/Quantity	P06~P96/1~41				
Sound pressure level (measured in anechoic room)		dB <A>	51.0				
Refrigerant piping diameter		Liquid pipe	in. (mm)	5/8 (15.88) Brazed			
		Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			

Model			PQHY-P96TLMU-A1 < For Ground source >		PQHY-P96TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	19-17		19-17	
Maximum Overcurrent Protection		A	30-25		30-25	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48	793 + 793 ~ 1,902 + 1,902		3.48
		kPa	24	13.2 + 13.2 ~ 31.7 + 31.7		24
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	375 (170)		375 (170)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
			5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External		KL94C235			
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual			
Optional parts	Accessory		Details refer to External Dnw			
			Heat Source Twinning kit: CMY-Y100CBK3			
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2			
			Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P216TSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		216,000	
			kW		63.3	
	(208-230)	Power input	kW		14.03	
		Current input	A		43.2-39.1	
	(Rated)			BTU/h		206,000
				kW		60.4
	(208-230)	Power input	kW		12.93	13.24
		Current input	A		39.8-36.0	40.8-36.9
Temp. range of cooling	Indoor		W.B.		59~75°F (15~24°C)	
	Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h		243,000	
			kW		71.2	
	(208-230)	Power input	kW		12.88	
		Current input	A		39.7-35.9	
	(Rated)			BTU/h		232,000
				kW		68.0
	(208-230)	Power input	kW		11.88	10.35
		Current input	A		36.6-33.1	31.9-28.8
Temp. range of heating	Indoor		D.B.		59~81°F (15~27°C)	
	Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/2~46			
Sound pressure level (measured in anechoic room)			dB <A>		55.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			

Model			PQHY-P120TLMU-A1 < For Ground source >		PQHY-P96TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			29-26		19-17	
Maximum Overcurrent Protection			50-45		30-25	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D			in.		43-5/16 x 34-11/16 x 21-11/16	
			mm		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	375 (170)		375 (170)	
Heat exchanger	Water volume in plate	plate type		plate type		
		G	1.32			
		l	5.0			
	Water pressure Max.	psi	290			
		MPa	2.0			
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		1/2 (12.7) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External		KL94C235			
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P240TSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h	240,000		
			kW	70.3		
	(208-230)	Power input	kW	16.89		
		Current input	A	52.0-47.1		
		(Rated)		BTU/h	228,000	
				kW	66.8	
	(208-230)	Power input	kW	15.57	16.15	
		Current input	A	48.0-43.4	49.8-45.0	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h	270,000		
			kW	79.1		
	(208-230)	Power input	kW	14.58		
		Current input	A	44.9-40.6		
		(Rated)		BTU/h	258,000	
				kW	75.6	
	(208-230)	Power input	kW	13.45	12.02	
		Current input	A	41.4-37.5	37.0-33.5	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
		Model/Quantity	P06~P96/2~50			
Sound pressure level (measured in anechoic room)		dB <A>	57.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			

Model			PQHY-P120TLMU-A1 < For Ground source >		PQHY-P120TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	29-26		29-26	
Maximum Overcurrent Protection		A	50-45		50-45	
Circulating water	Water flow rate	G/h			1,522 + 1,522	
		G/min (gpm)			25.4 + 25.4	
		m³/h			5.76 + 5.76	
		L/min			96 + 96	
		cfm			3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		7.7	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	375 (170)		375 (170)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
			5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		1/2 (12.7) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External		KL94C235			
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual			
Optional parts	Accessory		Details refer to External Dnw			
			Heat Source Twinning kit: CMY-Y100CBK3			
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2			
			Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F DB. (40°C DB.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h =kW x 3.412
Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm =m³/min x 35.31
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs =kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.,		
Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)		
Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.,		
Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P28TSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)		*1, 2	BTU/h		
		288,000			
(208-230) (Rated)	Power input	kW	84.4		
		kW	20.42		
	Current input	A	62.9-56.9		
		BTU/h	275,000		
	Power input	kW	80.6		
		kW	18.82	21.43	
	Current input	A	58.0-52.4	66.1-59.7	
Temp. range of cooling		Indoor	W.B.		
		Circulating water	59~75°F (15~24°C)		
Heating capacity (Nominal)		*3, 4	BTU/h		
		323,000			
(208-230) (Rated)	Power input	kW	94.7		
		kW	17.50		
	Current input	A	53.9-48.8		
		BTU/h	308,000		
	Power input	kW	90.3		
		kW	16.13	16.05	
	Current input	A	49.7-44.9	49.5-44.7	
Temp. range of heating		Indoor	D.B.		
		Circulating water	59~81°F (15~27°C)		
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity		
		Model/Quantity	P06~P96/2~50		
Sound pressure level (measured in anechoic room)		dB <A>	57.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/4 (19.05) Brazed		
	Gas pipe	in. (mm)	1-3/8 (34.93) Brazed		

Set Model				
Model			PQHY-P144TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	35-32	
Maximum Overcurrent Protection		A	60-50	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
m³/h		4.5 + 4.5 ~ 11.6 + 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	9.5	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	474 (215)	
Heat exchanger	Water volume in plate	G	plate type	
		I	1.32	
			5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Braze	
	Gas pipe	in. (mm)	1-1/8 (28.58) Braze	
Drawing	External		KL94C236	
	Wiring		KE94G423	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts		Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F (27.8°C), 66°F (19.4°C), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F (20°C), 20°F (-7°C), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P312TSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	312,000	
		kW	91.4	
		kW	23.41	
		A	72.1-65.2	
	(208-230) (Rated)	BTU/h	297,000	
		kW	87.0	
		kW	21.59	23.67
		A	66.5-60.2	73.0-66.0
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		°F	23~113°F (-5~45°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
		°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	350,000	
		kW	102.6	
		kW	19.11	
		A	58.9-53.3	
	(208-230) (Rated)	BTU/h	334,000	
		kW	97.9	
		kW	17.62	17.96
		A	54.3-49.1	55.3-50.0
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant		Liquid pipe	3/4 (19.05) Brazed	
piping diameter		Gas pipe	1-3/8 (34.93) Brazed	

Set Model			PQHY-P168TLMU-A1 < For Ground source >		PQHY-P144TLMU-A1 < For Ground source >	
Model						
Minimum Circuit Ampacity		A	44-39		35-32	
Maximum Overcurrent Protection		A	70-70		60-50	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9			
m³/h		4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	11.0		9.5	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	474 (215)		474 (215)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
			1.32		1.32	
		I	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Drawing	External		KL94C236			
	Wiring		KE94G423		KE94G423	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h =kW x 3.412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm =m³/min x 35.31
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs =kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.		
Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)		
Indoor: 68°F D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.		
Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P336TSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2		BTU/h	
			336,000	
			kW	
			98.5	
	(208-230)	Power input	kW	
		Current input	A	
	(Rated)		BTU/h	
			320,000	
	(208-230)		kW	
			93.8	
(208-230)	Power input	kW		
	Current input	A		
		24.76		
		76.3-69.0		
		25.85		
		79.7-72.0		
Temp. range of cooling	Indoor	W.B.		
	Circulating water	°F		
		59~75°F (15~24°C)		
		23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h	
			378,000	
			kW	
			110.8	
	(208-230)	Power input	kW	
		Current input	A	
	(Rated)		BTU/h	
			64.0-57.9	
	(208-230)		kW	
			361,000	
(208-230)		105.8		
	Power input	kW		
Current input	A			
		19.16		
		59.0-53.4		
		20.05		
		61.8-55.9		
Temp. range of heating	Indoor	D.B.		
	Circulating water	°F		
		59~81°F (15~27°C)		
		23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)			dB <A>	
			59.0	
Refrigerant	Liquid pipe	in. (mm)		
	piping diameter	3/4 (19.05) Brazed		
piping diameter	Gas pipe	in. (mm)		
		1-5/8 (41.28) Brazed		
Set Model				
Model			PQHY-P168TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			44-39	
Maximum Overcurrent Protection			70-70	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	11.0	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D			57-1/8 x 34-11/16 x 21-11/16	
			1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	474 (215)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		l	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Change)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	
Drawing	External		KL94C236	
	Wiring		KE94G423	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	
Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			BTU/h =kW x 3.412	
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%			cfm =m³/min x 35.31	
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%			lbs =kg/0.4536	
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%			*Above specification data is subject to rounding variation.	

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model				PQHY-P360TSLMU-A1 < For Ground source >					
Indoor Model				Non-Ducted		Ducted			
Power source				3-phase 3-wire 208-230 V ±10% 60 Hz					
Cooling capacity (Nominal)		*1, 2		BTU/h		360,000			
				kW		105.5			
		(208-230)		Power input		kW		29.43	
				Current input		A		90.7-82.0	
		(Rated)		BTU/h		342,000			
				kW		100.2			
		(208-230)		Power input		kW		27.17	
				Current input		A		83.7-75.7	
		Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
				Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4		BTU/h		405,000			
				kW		118.7			
		(208-230)		Power input		kW		22.85	
				Current input		A		70.4-63.7	
		(Rated)		BTU/h		387,000			
				kW		113.4			
		(208-230)		Power input		kW		21.09	
				Current input		A		65.0-58.8	
		Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
				Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity					
		Model/Quantity		P06~P96/2~50					
Sound pressure level (measured in anechoic room)				dB <A>		60.0			
Refrigerant piping diameter		Liquid pipe		in. (mm)		3/4 (19.05) Brazed			
		Gas pipe		in. (mm)		1-5/8 (41.28) Brazed			
Set Model									
Model				PQHY-P192TLMU-A1 < For Ground source >		PQHY-P168TLMU-A1 < For Ground source >			
Minimum Circuit Ampacity				A		54-49			
Maximum Overcurrent Protection				A		90-80			
Circulating water		Water flow rate		G/h		1,902 + 1,902			
				G/min (gpm)		31.7 + 31.7			
				m³/h		7.20 + 7.20			
				L/min		120 + 120			
				cfm		4.2 + 4.2			
		Pressure drop		psi		6.38			
				kPa		44			
				G/h		1,189 + 1,189 ~ 3,054 + 3,054			
				G/min (gpm)		19.8 + 19.8 ~ 50.9 + 50.9			
				m³/h		4.5 + 4.5 ~ 11.6 + 11.6			
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter		Inverter			
		Motor output		kW		12.4			
		Case heater		kW		-			
		Lubricant		MEL32		MEL32			
External finish				Galvanized steel sheets		Galvanized steel sheets			
External dimension H x W x D		in.		57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16			
		mm		1,450 x 880 x 550		1,450 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection		Over-heat protection			
Refrigerant		Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)			
		Control		LEV and HIC circuit					
Net weight		lbs (kg)		474 (215)		474 (215)			
Heat exchanger		Water volume in plate		plate type		plate type			
				G		1.32			
		I		5.0					
		Water pressure Max.		psi		290			
				MPa		2.0			
HIC circuit (HIC: Heat Inter-Changer)				Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure			
Pipe between unit and distributor		Liquid pipe		in. (mm)		5/8 (15.88) Brazed			
		Gas pipe		in. (mm)		1-1/8 (28.58) Brazed			
Drawing		External		KL94C236					
		Wiring		KE94G423		KE94G423			
Standard attachment		Document		Installation Manual					
		Accessory		Details refer to External Drw					
Optional parts				Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G					
Remarks				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					
Notes:						Unit converter			
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%						BTU/h =kW x 3.412			
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%						cfm =m³/min x 35.31			
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%						lbs =kg/0.4536			
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%									
						*Above specification data is subject to rounding variation.			

1. SPECIFICATIONS

Heat Source Model			PQHY-P72YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		72,000	
			kW		21.1	
	(460)	Power input	kW		3.23	
		Current input	A		4.5	
	(Rated)			BTU/h	69,000	
				kW	20.2	
	(460)	Power input	kW		2.96	3.12
		Current input	A		4.1	4.3
Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h		80,000	
			kW		23.4	
	(460)	Power input	kW		3.63	
		Current input	A		5.0	
	(Rated)			BTU/h	76,000	
				kW	22.3	
	(460)	Power input	kW		3.34	3.36
		Current input	A		4.6	4.6
Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity				50~130% of heatsource unit capacity	
	Model/Quantity					
Sound pressure level (measured in anechoic room)			dB <A>		46.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)		3/8 (9.52) Brazed		
	Gas pipe	in. (mm)		3/4 (19.05) Brazed		
Minimum Circuit Ampacity			A		6	
Maximum Overcurrent Protection			A		15	
Circulating water	Water flow rate	G/h	1,522			
		G/min (gpm)	25.4			
		m³/h	5.76			
		L/min	96			
		cfm	3.4			
		psi	3.48			
	Pressure drop	kPa	24			
		Operating volume range	G/h	793 ~ 1,902		
		G/min (gpm)	13.2 ~ 31.7			
		m³/h	3.0 ~ 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	4.3			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16			
		mm	1,100 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	400 (181)			
Heat exchanger			plate type			
			Water volume in plate	G	1.32	
				l	5.0	
				Water pressure Max.	psi	290
			MPa		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure			
Drawing	External		KL94C232			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h =kW x 3.412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm =m³/min x 35.31
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs =kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>,		
Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)		
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>,		
Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P96YLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	96,000		
		kW	28.1		
	(460)	Power input	4.65		
		Current input	6.4		
	(Rated)	BTU/h	92,000		
		kW	27.0		
	(460)	Power input	4.26	5.19	
		Current input	5.9	7.2	
	Temp. range of cooling	Indoor	W.B. 59~75°F (15~24°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4	BTU/h	108,000		
		kW	31.7		
	(460)	Power input	5.05		
		Current input	7.0		
	(Rated)	BTU/h	103,000		
		kW	30.2		
	(460)	Power input	4.65	4.48	
		Current input	6.4	6.2	
	Temp. range of heating	Indoor	D.B. 59~81°F (15~27°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/1~20			
Sound pressure level (measured in anechoic room)		dB <A>	48.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/8 (9.52) Brazed 1/2 (12.7) Brazed, total length >= 90 m)		
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	9		
Maximum Overcurrent Protection		A	15		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
		psi	3.48		
	Pressure drop	kPa	24		
		Operating volume range	G/h	793 ~ 1,902	
	G/min (gpm)		13.2 ~ 31.7		
	m³/h	3.0 ~ 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	6.0		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16			
	mm	1,100 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		LEV and HIC circuit		
Net weight		lbs (kg)	400 (181)		
Heat exchanger	Water volume in plate	G	plate type		
		l	1.32		
			5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		
Drawing	External		KL94C232		
	Wiring		KE94G419		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104/108/1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h = kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm = m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs = kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P120YLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 460 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h		120,000		
			kW		35.2		
		(460)	Power input	kW		7.24	
			Current input	A		10.0	
		(Rated)		BTU/h		114,000	
				kW		33.4	
		(460)	Power input	kW		6.66	7.35
			Current input	A		9.2	10.2
Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)		
		Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)		*3, 4	BTU/h		135,000		
			kW		39.6		
		(460)	Power input	kW		6.83	
			Current input	A		9.5	
		(Rated)		BTU/h		129,000	
				kW		37.8	
		(460)	Power input	kW		6.29	5.92
			Current input	A		8.7	8.2
Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)		
		Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity			
		Model/Quantity		P06~P96/1~26			
Sound pressure level (measured in anechoic room)			dB <A>		54.0		
Refrigerant piping diameter		Liquid pipe	in. (mm)		3/8 (9.52) Brazed (1/2 (12.7) Brazed, total length >= 40 m)		
		Gas pipe	in. (mm)		7/8 (22.2) Brazed		
Minimum Circuit Ampacity			A		13		
Maximum Overcurrent Protection			A		20		
Circulating water		Water flow rate	G/h		1,522		
			G/min (gpm)		25.4		
			m³/h		5.76		
			L/min		96		
			cfm		3.4		
					3.48		
		Pressure drop	psi		24		
			kPa				
		Operating volume range	G/h		793 ~ 1,902		
			G/min (gpm)		13.2 ~ 31.7		
		m³/h		3.0 ~ 7.2			
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter			
		Motor output	kW		7.7		
		Case heater	kW		-		
		Lubricant		MEL32			
External finish			Galvanized steel sheets				
External dimension H x W x D		in.		43-5/16 x 34-11/16 x 21-11/16			
		mm		1,100 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
		Control		LEV and HIC circuit			
Net weight		lbs (kg)		400 (181)			
Heat exchanger					plate type		
			Water volume in plate		G	1.32	
					I	5.0	
			Water pressure Max.		psi	290	
					MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure				
Drawing		External		KL94C232			
		Wiring		KE94G419			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P144YLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	
Power source			Ducted	
			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2		BTU/h	
			144,000	
			kW	
			42.2	
	(460)	Power input	kW	
			8.78	
	(Rated)	Current input	A	
			12.2	
	(460)		BTU/h	
			137,000	
Heating capacity (Nominal)	*3, 4		BTU/h	
			160,000	
			kW	
			46.9	
	(460)	Power input	kW	
			8.11	
	(Rated)	Current input	A	
			11.3	
	(460)		BTU/h	
			152,000	
Temp. range of cooling			kW	
			40.2	
	(460)	Power input	kW	
			8.07	
	(Rated)	Current input	A	
			11.2	
	(460)		BTU/h	
			137,000	
	(Rated)	Power input	kW	
			8.11	
(460)	Current input	A		
		11.3		
Temp. range of heating			kW	
			44.5	
	(460)	Power input	kW	
			7.47	
	(Rated)	Current input	A	
			10.4	
	(460)		BTU/h	
			152,000	
	(Rated)	Power input	kW	
			8.11	
(460)	Current input	A		
		11.3		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/1~31	
	Sound pressure level (measured in anechoic room)		dB <A>	
			54.0	
	Refrigerant piping diameter	Liquid pipe	in. (mm)	
			1/2 (12.7) Brazed	
	Gas pipe		in. (mm)	
			1-1/8 (28.58) Brazed	
	Minimum Circuit Ampacity		A	
			16	
Maximum Overcurrent Protection		A		
		25		
Circulating water	Water flow rate	G/h		
		1,902		
		G/min (gpm)		
		31.7		
		m³/h		
		7.20		
	Pressure drop	L/min		
		120		
		cfm		
		4.2		
psi				
6.38				
Operating volume range	kPa			
	44			
	G/h			
	1,189 ~ 3,054			
	G/min (gpm)			
	19.8 ~ 50.9			
Compressor	m³/h			
	4.5 ~ 11.6			
	Type x Quantity			
	Inverter scroll hermetic compressor x 1			
	Manufacture			
	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method			
	Inverter			
	Motor output			
	kW			
9.5				
Case heater				
kW				
-				
Lubricant				
MEL32				
External finish			Galvanized steel sheets	
External dimension H x W x D			in.	
			57-1/8 x 34-11/16 x 21-11/16	
			mm	
			1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)		
		501 (227)		
Heat exchanger			plate type	
	Water volume in plate	G		
		1.32		
		l		
	Water pressure Max.	psi		
		5.0		
		290		
		MPa		
		2.0		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Drawing	External		KL94C233	
	Wiring		KE94G419	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P168YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2	BTU/h		168,000	
			kW		49.2	
		(460)	Power input	kW		12.05
			Current input	A		16.8
		(Rated)		BTU/h		161,000
				kW		47.2
		(460)	Power input	kW		11.10
			Current input	A		15.4
Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4	BTU/h		188,000	
			kW		55.1	
		(460)	Power input	kW		9.86
			Current input	A		13.7
		(Rated)		BTU/h		179,000
				kW		52.5
		(460)	Power input	kW		9.09
			Current input	A		12.6
Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity		
		Model/Quantity		P06~P96/1~36		
Sound pressure level (measured in anechoic room)		dB <A>		56.0		
Refrigerant piping diameter		Liquid pipe	in. (mm)		5/8 (15.88) Brazed	
		Gas pipe	in. (mm)		1-1/8 (28.58) Brazed	
Minimum Circuit Ampacity		A		20		
Maximum Overcurrent Protection		A		35		
Circulating water		Water flow rate	G/h	1,902		
			G/min (gpm)	31.7		
			m³/h	7.20		
			L/min	120		
			cfm	4.2		
			psi	6.38		
		Pressure drop	kPa	44		
			Operating volume range	G/h	1,189 ~ 3,054	
			G/min (gpm)	19.8 ~ 50.9		
			m³/h	4.5 ~ 11.6		
		Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1
Manufacture				AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
Starting method				Inverter		
Motor output	kW			11.0		
Case heater	kW			-		
Lubricant				MEL32		
External finish		Galvanized steel sheets				
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices		High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
		Inverter circuit			Over-heat protection, Over-current protection	
		Compressor			Over-heat protection	
Refrigerant		Type x original charge			R410A x 13 lbs + 4 oz (6.0 kg)	
		Control			LEV and HIC circuit	
Net weight		lbs (kg)	501 (227)			
Heat exchanger		plate type				
		Water volume in plate	G	1.32		
			l	5.0		
		Water pressure Max.	psi	290		
MPa	2.0					
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure				
Drawing		External			KL94C233	
		Wiring			KE94G419	
Standard attachment		Document			Installation Manual	
		Accessory			Details refer to External Drw	
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P192YLMU-A1 < For Ground source >					
Indoor Model			Non-Ducted	Ducted				
Power source			3-phase 3-wire 460 V ±10% 60 Hz					
Cooling capacity (Nominal)	*1, 2		BTU/h		192,000			
			kW		56.3			
			Power input		kW	15.05		
	(460)		Current input		A	20.9		
	(Rated)				BTU/h		183,000	
					kW		53.6	
	(460)		Power input		kW	13.87	14.19	
			Current input		A	19.3	19.7	
	Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
			Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h		215,000			
			kW		63.0			
			Power input		kW		11.90	
	(460)		Current input		A	16.5		
	(Rated)				BTU/h		205,000	
					kW		60.1	
	(460)		Power input		kW	10.97	11.56	
			Current input		A	15.2	16.1	
	Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
			Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity				
		Model/Quantity		P06~P96/1~41				
Sound pressure level (measured in anechoic room)				dB <A>		58.0		
Refrigerant piping diameter		Liquid pipe		in. (mm)		5/8 (15.88) Brazed		
		Gas pipe		in. (mm)		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A		25				
Maximum Overcurrent Protection		A		40				
Circulating water		Water flow rate		G/h		1,902		
				G/min (gpm)		31.7		
				m³/h		7.20		
				L/min		120		
				cfm		4.2		
				psi		6.38		
		Pressure drop		kPa		44		
				Operating volume range		G/h		1,189 ~ 3,054
		G/min (gpm)				19.8 ~ 50.9		
		m³/h				4.5 ~ 11.6		
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1				
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION				
		Starting method		Inverter				
		Motor output		kW		12.4		
		Case heater		kW		-		
		Lubricant		MEL32				
External finish		Galvanized steel sheets						
External dimension H x W x D		in.		57-1/8 x 34-11/16 x 21-11/16				
		mm		1,450 x 880 x 550				
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
		Inverter circuit		Over-heat protection, Over-current protection				
		Compressor		Over-heat protection				
Refrigerant		Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)				
		Control		LEV and HIC circuit				
Net weight		lbs (kg)		501 (227)				
Heat exchanger		Water volume in plate		plate type				
				G		1.32		
				I		5.0		
		Water pressure Max.		psi		290		
				MPa		2.0		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure						
Drawing		External		KL94C233				
		Wiring		KE94G419				
Standard attachment		Document		Installation Manual				
		Accessory		Details refer to External Drw				
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G						
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F FD.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.						

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P216YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		216,000	
			kW		63.3	
	(460)	Power input	kW		19.23	
		Current input	A		26.8	
	(Rated)			BTU/h	206,000	
				kW	60.4	
	(460)	Power input	kW		17.72	16.10
		Current input	A		24.7	22.4
Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h		243,000	
			kW		71.2	
	(460)	Power input	kW		13.04	
		Current input	A		18.1	
	(Rated)			BTU/h	232,000	
				kW	68.0	
	(460)	Power input	kW		12.01	12.34
		Current input	A		16.7	17.2
Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/2~46			
Sound pressure level (measured in anechoic room)			dB <A>		58.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)		5/8 (15.88) Brazed		
	Gas pipe	in. (mm)		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity			A		31	
Maximum Overcurrent Protection			A		50	
Circulating water	Water flow rate	G/h	3,044			
		G/min (gpm)	50.7			
		m³/h	11.52			
		L/min	192			
		cfm	6.8			
		Pressure drop	psi	6.53		
	Operating volume range	kPa	45			
		G/h	1,585 ~ 3,804			
		G/min (gpm)	26.4 ~ 63.4			
		m³/h	6.0 ~ 14.4			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	14.5			
	Case heater	kW	0.045 (240 V)			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D			in.	57-1/8 x 34-11/16 x 21-11/16		
			mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 25 lbs + 13 oz (11.7 kg)			
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	567 (257)			
Heat exchanger			plate type			
			Water volume in plate	G	2.64	
				l	10.0	
				Water pressure Max.	psi	290
			MPa		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure			
Drawing	External		KL94C234			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C) D.B. The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:

- <Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal cooling conditions
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>,
Brine concentration 0%
- <Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal heating conditions
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>,
Brine concentration 0%

Unit converter	
BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P240YLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	240,000		
		kW	70.3		
	(460)	Power input	21.14		
		Current input	29.4		
	(Rated)	BTU/h	228,000		
		kW	66.8		
	(460)	Power input	19.49	18.74	
		Current input	27.1	26.1	
	Temp. range of cooling	Indoor	W.B. 59~75°F (15~24°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4	BTU/h	270,000		
		kW	79.1		
	(460)	Power input	15.12		
		Current input	21.0		
	(Rated)	BTU/h	258,000		
		kW	75.6		
	(460)	Power input	13.93	14.62	
		Current input	19.4	20.3	
	Temp. range of heating	Indoor	D.B. 59~81°F (15~27°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/2~50			
Sound pressure level (measured in anechoic room)		dB <A>	58.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	36		
Maximum Overcurrent Protection		A	60		
Circulating water	Water flow rate	G/h	3,044		
		G/min (gpm)	50.7		
		m³/h	11.52		
		L/min	192		
		cfm	6.8		
		psi	6.53		
	Pressure drop	kPa	45		
		Operating volume range	G/h	1,585 ~ 3,804	
	G/min (gpm)		26.4 ~ 63.4		
	m³/h	6.0 ~ 14.4			
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter			
	Motor output	kW	16.1		
	Case heater	kW	0.045 (240 V)		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D	in.	57-1/8 x 34-11/16 x 21-11/16			
	mm	1,450 x 880 x 550			
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection			
	Compressor	Over-heat protection			
Refrigerant	Type x original charge	R410A x 25 lbs + 13 oz (11.7 kg)			
	Control	LEV and HIC circuit			
Net weight	lbs (kg)	567 (257)			
Heat exchanger	Water volume in plate	G	plate type		
		l	2.64		
		10.0			
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		
Drawing	External	KL94C234			
	Wiring	KE94G419			
Standard attachment	Document	Installation Manual			
	Accessory	Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P144YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	144,000	
		kW	42.2	
		kW	7.11	
		A	9.9	
	(Rated)	BTU/h	137,000	
		kW	40.2	
		kW	6.53	7.72
		A	9.1	10.7
Temp. range of cooling	Indoor		59~75°F (15~24°C)	
	Circulating water		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	160,000	
		kW	46.9	
		kW	7.45	
		A	10.3	
	(Rated)	BTU/h	152,000	
		kW	44.5	
		kW	6.86	7.22
		A	9.5	10.0
Temp. range of heating	Indoor		59~81°F (15~27°C)	
	Circulating water		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/1~31	
Sound pressure level (measured in anechoic room)		dB <A>	49.0	
Refrigerant piping diameter	Liquid pipe		1/2 (12.7) Brazed	
	Gas pipe		1-1/8 (28.58) Brazed	

Set Model			PQHY-P72YLMU-A1 < For Ground source >		PQHY-P72YLMU-A1 < For Ground source >	
Model			6		6	
Minimum Circuit Ampacity		A	15		15	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	400 (181)		400 (181)	
Heat exchanger	Water volume in plate		plate type		plate type	
		G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
Drawing	External		KL94C237			
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P168YSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2	BTU/h	168,000			
		kW	49.2			
	(460)	Power input	9.33			
		Current input	13.0			
	(Rated)	BTU/h	161,000			
		kW	47.2			
	(460)	Power input	8.58	9.22		
		Current input	A	11.9	12.8	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4	BTU/h	188,000			
		kW	55.1			
	(460)	Power input	9.34			
		Current input	13.0			
	(Rated)	BTU/h	179,000			
		kW	52.5			
	(460)	Power input	8.60	8.03		
		Current input	A	11.9	11.1	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity				
	Model/Quantity	P06~P96/1~36				
Sound pressure level (measured in anechoic room)		dB <A>	50.0			
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			

Model			PQHY-P96YLMU-A1 < For Ground source >		PQHY-P72YLMU-A1 < For Ground source >		
Minimum Circuit Ampacity			9		6		
Maximum Overcurrent Protection			15		15		
Circulating water	Water flow rate	G/h	1,522 + 1,522				
		G/min (gpm)	25.4 + 25.4				
		m³/h	5.76 + 5.76				
		L/min	96 + 96				
		cfm	3.4 + 3.4				
	Pressure drop	psi	3.48		3.48		
		kPa	24		24		
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902				
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7				
m³/h		3.0 + 3.0 ~ 7.2 + 7.2					
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		Inverter		
	Motor output	kW	6.0		4.3		
	Case heater	kW	-		-		
	Lubricant		MEL32		MEL32		
External finish			Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D			in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
			mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		LEV and HIC circuit				
Net weight			400 (181)		400 (181)		
Heat exchanger	Water volume in plate	G	plate type		plate type		
		l	1.32		1.32		
		psi	5.0		5.0		
	Water pressure Max.	psi	290		290		
		MPa	2.0		2.0		
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed		
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		
Drawing	External		KL94C237				
	Wiring		KE94G419		KE94G419		
Standard attachment	Document		Installation Manual				
	Accessory		Details refer to External Dnw				
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010C-G				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P192YSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		192,000	
			kW		56.3	
	(460)	Power input	kW		11.30	
		Current input	A		15.7	
	(Rated)		BTU/h		183,000	
			kW		53.6	
	(460)	Power input	kW		10.40	10.98
		Current input	A		14.5	15.3
Temp. range of cooling	Indoor		W.B.		59~75°F (15~24°C)	
	Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h		215,000	
			kW		63.0	
	(460)	Power input	kW		11.02	
		Current input	A		15.3	
	(Rated)		BTU/h		205,000	
			kW		60.1	
	(460)	Power input	kW		10.16	8.90
		Current input	A		14.1	12.4
Temp. range of heating	Indoor		D.B.		59~81°F (15~27°C)	
	Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/1~41			
Sound pressure level (measured in anechoic room)			dB <A>		51.0	
Refrigerant piping diameter	Liquid pipe		in. (mm)		5/8 (15.88) Brazed	
	Gas pipe		in. (mm)		1-1/8 (28.58) Brazed	

Model			PQHY-P96YLMU-A1 < For Ground source >		PQHY-P96YLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	9		9	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h			1,522 + 1,522	
		G/min (gpm)			25.4 + 25.4	
		m³/h			5.76 + 5.76	
		L/min			96 + 96	
		cfm			3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	400 (181)		400 (181)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External		KL94C237			
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			
Notes:					Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%					BTU/h =kW x 3.412	
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%					cfm =m³/min x 35.31	
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%					lbs =kg/0.4536	
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%						
					*Above specification data is subject to rounding variation.	

Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h =kW x 3.412	
Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			cfm =m³/min x 35.31	
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs =kg/0.4536	
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 86°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P216VSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	216,000		
		kW	63.3		
	(460)	Power input	14.03		
		kW	14.03		
	(Rated)	Current input	19.5		
		A	19.5		
	(460)	BTU/h	206,000		
		kW	60.4		
	(460)	Power input	12.93	13.24	
		kW	12.93	13.24	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4	BTU/h	243,000		
		kW	71.2		
	(460)	Power input	12.88		
		kW	12.88		
	(Rated)	Current input	17.9		
		A	17.9		
	(460)	BTU/h	232,000		
		kW	68.0		
	(460)	Power input	11.88	10.35	
		kW	11.88	10.35	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/2~46			
Sound pressure level (measured in anechoic room)		dB <A>	55.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		

Set Model			PQHY-P120YLMU-A1 < For Ground source >		PQHY-P96YLMU-A1 < For Ground source >	
Model						
Minimum Circuit Ampacity		A	13		9	
Maximum Overcurrent Protection		A	20		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	400 (181)		400 (181)	
Heat exchanger			plate type		plate type	
			Water volume in plate	G	1.32	
				l	5.0	
				psi	290	
			Water pressure Max.	MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Braze		1/2 (12.7) Braze	
	Gas pipe	in. (mm)	7/8 (22.2) Braze		7/8 (22.2) Braze	
Drawing	External		KL94C237			
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Dnw			
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h =kW x 3.412	
Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			cfm =m³/min x 35.31	
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs =kg/0.4536	
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

Heat Source Model			PQHY-P240YSLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz				
Cooling capacity (Nominal)	*1, 2		BTU/h			240,000	
			kW			70.3	
	(460)	Power input	kW			16.89	
		Current input	A			23.5	
	(Rated)	BTU/h			228,000		
		kW			66.8		
	(460)	Power input	kW			15.57	16.15
		Current input	A			21.7	22.5
Temp. range of cooling	Indoor		W.B.			59~75°F (15~24°C)	
	Circulating water		°F			23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h			270,000	
			kW			79.1	
	(460)	Power input	kW			14.58	
		Current input	A			20.3	
	(Rated)	BTU/h			258,000		
		kW			75.6		
	(460)	Power input	kW			13.45	12.02
		Current input	A			18.7	16.7
Temp. range of heating	Indoor		D.B.			59~81°F (15~27°C)	
	Circulating water		°F			23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity				
	Model/Quantity		P06~P96/2~50				
Sound pressure level (measured in anechoic room)			dB <A>			57.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)			5/8 (15.88) Brazed		
	Gas pipe	in. (mm)			1-1/8 (28.58) Brazed		

Set Model			PQHY-P120YLMU-A1 < For Ground source >		PQHY-P120YLMU-A1 < For Ground source >	
Model			13		13	
Minimum Circuit Ampacity		A	20		20	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h			1,522 + 1,522	
		G/min (gpm)			25.4 + 25.4	
		m³/h			5.76 + 5.76	
		L/min			96 + 96	
		cfm			3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		7.7	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	400 (181)		400 (181)	
Heat exchanger			plate type		plate type	
	Water volume in plate	G	1.32		1.32	
		I	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		1/2 (12.7) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External	KL94C237				
	Wiring	KE94G419		KE94G419		
Standard attachment	Document	Installation Manual				
	Accessory	Details refer to External Drw				
Optional parts		Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P288YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	288,000	
		kW	84.4	
		kW	20.42	
		A	28.4	
	(460)	BTU/h	275,000	
		kW	80.6	
		kW	18.82	21.43
		A	26.2	29.8
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	323,000	
		kW	94.7	
		kW	17.50	
		A	24.4	
	(460)	BTU/h	308,000	
		kW	90.3	
		kW	16.13	16.05
		A	22.4	22.3
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)	dB <A>		57.0	
Refrigerant	Liquid pipe		3/4 (19.05) Brazed	
pipng diameter	Gas pipe		1-3/8 (34.93) Brazed	

Set Model			PQHY-P144YLMU-A1 < For Ground source >		PQHY-P144YLMU-A1 < For Ground source >		
Model			16		16		
Minimum Circuit Ampacity		A	25		25		
Maximum Overcurrent Protection		A					
Circulating water	Water flow rate	G/h	1,902 + 1,902				
		G/min (gpm)	31.7 + 31.7				
		m³/h	7.20 + 7.20				
		L/min	120 + 120				
		cfm	4.2 + 4.2				
	Pressure drop	psi	6.38		6.38		
		kPa	44		44		
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054				
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9				
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter		Inverter			
	Motor output	kW	9.5		9.5		
	Case heater	kW	-		-		
	Lubricant	MEL32		MEL32			
External finish		Galvanized steel sheets		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		LEV and HIC circuit				
Net weight		lbs (kg)	501 (227)		501 (227)		
Heat exchanger		plate type		plate type			
		Water volume in plate	G	1.32		1.32	
			l	5.0		5.0	
		Water pressure Max.	psi	290		290	
			MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure			
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		1/2 (12.7) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed		
Drawing	External		KL94C238				
	Wiring		KE94G419		KE94G419		
Standard attachment	Document		Installation Manual				
	Accessory		Details refer to External Drw				
Optional parts		Heat Source Twinning kit: CMY-Y200CBK2					
		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2					
		Header: CMY-Y104/108/1010C-G					
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					

Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h	=kW x 3.412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			cfm	=m³/min x 35.31
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs	=kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

Heat Source Model			PQHY-P312YSLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h			312,000	
			kW			91.4	
(Rated)	(460)	Power input	kW			23.41	
		Current input	A			32.6	
	(460)		BTU/h			297,000	
			kW			87.0	
	(460)	Power input	kW			21.59	23.67
		Current input	A			30.1	33.0
Temp. range of cooling		Indoor	W.B.			59~75°F (15~24°C)	
		Circulating water	°F			23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4	BTU/h			350,000	
			kW			102.6	
(Rated)	(460)	Power input	kW			19.11	
		Current input	A			26.6	
	(460)		BTU/h			334,000	
			kW			97.9	
	(460)	Power input	kW			17.62	17.96
		Current input	A			24.5	25.0
Temp. range of heating		Indoor	D.B.			59~81°F (15~27°C)	
		Circulating water	°F			23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity				50~130% of heatsource unit capacity	
		Model/Quantity				P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>				58.0	
Refrigerant piping diameter		Liquid pipe	in. (mm)			3/4 (19.05) Brazed	
		Gas pipe	in. (mm)			1-3/8 (34.93) Brazed	

Set Model				
Model			PQHY-P168YLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	20	
Maximum Overcurrent Protection		A	35	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	11.0	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	501 (227)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		I	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	
Drawing	External		KL94C238	
	Wiring		KE94G419	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C D.B.). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B./20°C W.B., Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQHY-P336YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	336,000	
		kW	98.5	
		kW	26.84	
		A	37.4	
	(460)	BTU/h	320,000	
		kW	93.8	
		kW	24.76	25.85
		A	34.5	36.0
Temp. range of cooling	Indoor		59~75°F (15~24°C)	
	Circulating water		23~113°F (-5~45°C)	
	*3, 4		378,000	
Heating capacity (Nominal)	*1, 2	BTU/h	378,000	
		kW	110.8	
		kW	20.77	
		A	28.9	
	(460)	BTU/h	361,000	
		kW	105.8	
		kW	19.16	20.05
		A	26.7	27.9
Temp. range of heating	Indoor		59~81°F (15~27°C)	
	Circulating water		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	59.0	
Refrigerant		Liquid pipe	3/4 (19.05) Brazed	
piping diameter		Gas pipe	1-5/8 (41.28) Brazed	

Set Model			PQHY-P168YLMU-A1 < For Ground source >		PQHY-P168YLMU-A1 < For Ground source >	
Model			20		20	
Minimum Circuit Ampacity		A	35		35	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h	1,902 + 1,902		1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7		31.7 + 31.7	
		m³/h	7.20 + 7.20		7.20 + 7.20	
		L/min	120 + 120		120 + 120	
		cfm	4.2 + 4.2		4.2 + 4.2	
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054		1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9		19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6		4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output		11.0		11.0	
	Case heater		-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit		LEV and HIC circuit	
Net weight		lbs (kg)	501 (227)		501 (227)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		I	1.32		1.32	
		I	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Drawing	External		KL94C238		KL94C238	
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual		Installation Manual	
	Accessory		Details refer to External Drw		Details refer to External Drw	
Optional parts		Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:			Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)			BTU/h	=kW x 3.412
Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%			cfm	=m³/min x 35.31
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions			lbs	=kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.				
Brine concentration 0%				
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)				
Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions				
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),				
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.				
Brine concentration 0%				
			*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

Heat Source Model			PQHY-P360YSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	360,000		
		kW	105.5		
	(460)	Power input	kW	29.43	
		Current input	A	41.0	
	(Rated)	BTU/h	342,000		
		kW	100.2		
	(460)	Power input	kW	27.17	27.41
		Current input	A	37.8	38.2
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4	BTU/h	405,000		
		kW	118.7		
	(460)	Power input	kW	22.85	
		Current input	A	31.8	
	(Rated)	BTU/h	387,000		
		kW	113.4		
	(460)	Power input	kW	21.09	21.70
		Current input	A	29.4	30.2
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/2~50			
Sound pressure level (measured in anechoic room)		dB <A>	60.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	3/4 (19.05) Brazed		
	Gas pipe	in. (mm)	1-5/8 (41.28) Brazed		

Set Model				
Model			PQHY-P192YLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	25	
Maximum Overcurrent Protection		A	40	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	12.4	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	501 (227)	
Heat exchanger	Water volume in plate	G	plate type	
		I	1.32	
			5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Braze	
	Gas pipe	in. (mm)	1-1/8 (28.58) Braze	
Drawing	External		KL94C238	
	Wiring		KE94G419	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104/108/1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B.(20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 86°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

2. EXTERNAL DIMENSIONS

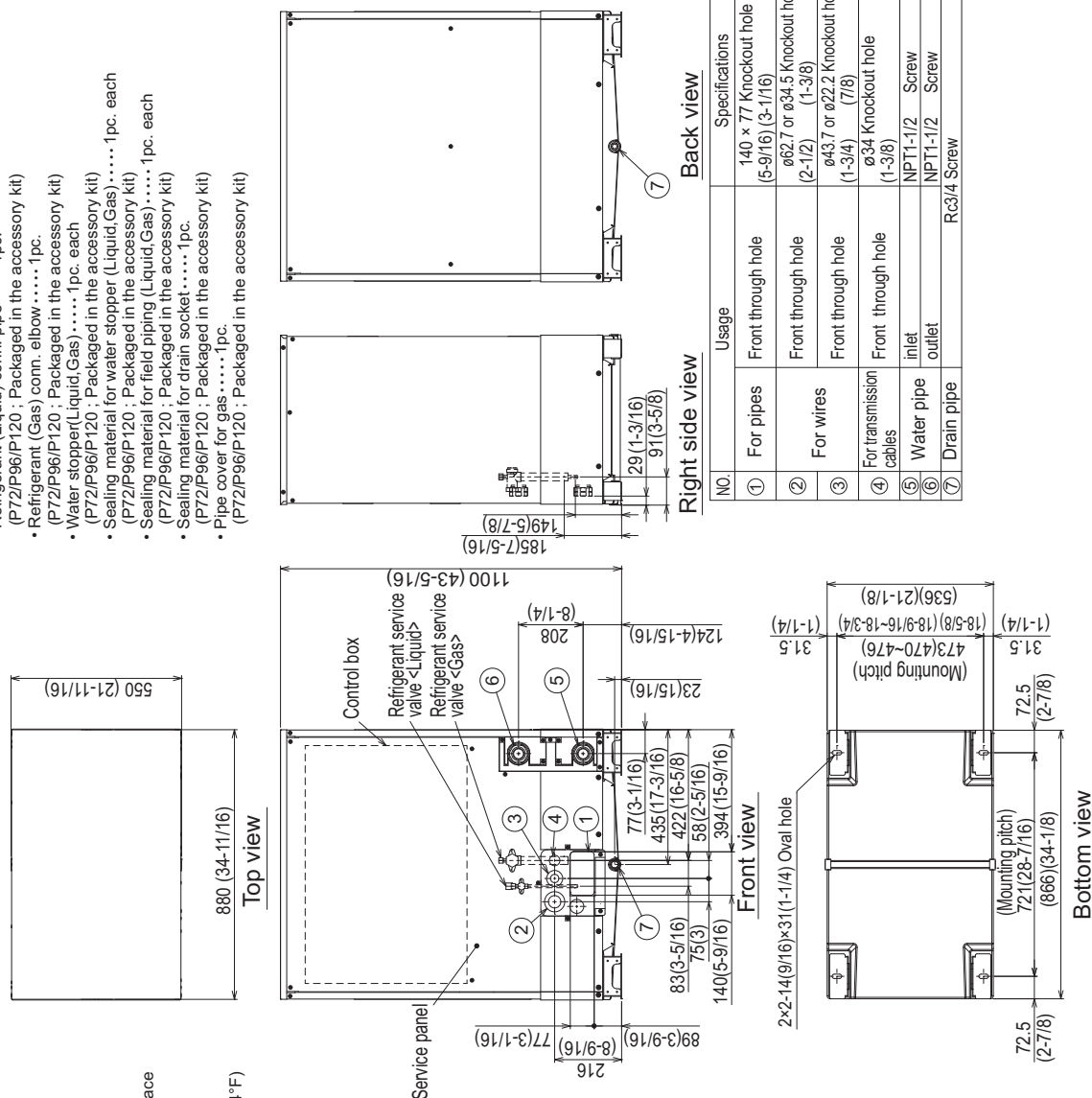
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-P72, 96, 120TLMU-A1

Unit: mm(in)

<Accessories>

- Refrigerant (Liquid) conn. pipe 1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Refrigerant (Gas) conn. elbow 1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Water stopper(Liquid Gas) 1pc. each
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for water stopper (Liquid Gas) 1pc. each
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for field piping (Liquid Gas) 1pc. each
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for drain socket 1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Pipe cover for gas 1pc.
(P72/P96/P120 : Packaged in the accessory kit)



Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc. (field erection work)

Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection.

When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.

Note3: Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)

Note 4. If water pipes or rebar/pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig. B.

Note 5. Environmental condition for installation; -20~40°C(DB) (-4~104°F) as indoor installation

Note 6. In case the temperature around the heat source unit has possibility to drop under 0°C (32°F) or the inlet-water temp. as indoor installation.

possibility to drop under 0°C (32°F) or the inlet-water temp.: drops under 10°C (50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.

- Add brine to water circuit.
- Circulate the water all the time even if the heat source point to prevent the pipe burst by the water pipe freeze-up.

- Drain the water from inside of the heat source unit when unit is not in operation.

Note 7. Ensure that the drain piping is downward with a pitch of the heat source unit will not operate for a long term.

Note 8. At brazing of pipes, wrap the refrigerant service valve more than 1/100.

with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

The space for
the refrigerant service valve under 120 C (248 F).

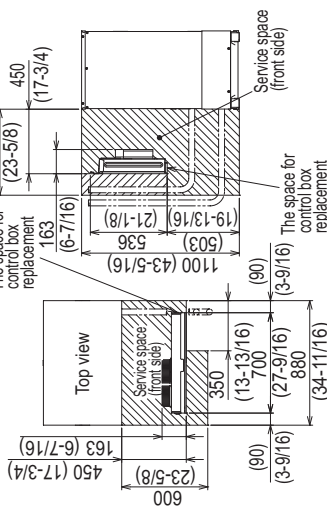


Fig. B

Fig. A

Connecting pipe specifications				
Model	Diameter			
	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
QCH-P27T1UM-A1	ø5.2 Braze (3/8)" 1	ø19.05 Braze (3/4)" 1	ø5.2 (3/8)	ø25.4 (1)
QCH-P36T1UM-A1	ø5.2 Braze (3/8)" 1	ø2.2 Braze (7/8)" 1		
QCH-P20T1UM-A1	ø5.2 Braze (3/8)" 1	ø12.7 Braze (1/2)" 1		

	(1/2)	3/4	
1. Connect by using the connecting pipes and elbow that are supplied.			

1. Connect by using the connecting pipes and elbow that are supplied.
2. Total length $\geq 90\text{m}(295\text{ft})$

3. Total length $\geq 40\text{m}(131\text{ft})$

4. Use the pipe joint (field supply) and connect to the refrigerant service valve piping.

PQHY-P144, 168, 192TLMU-A1

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

- 1.Connect by using the connecting pipes and elbow that are supplied.
- 2.Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

NO.	Usage	Specifications
①	For pipes	Front through hole 140 × 77 Knockout hole (5-9/16) (3-1/16)
②		Front through hole ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
③	For wires	Front through hole ø43.7 or ø22.3 Knockout hole (1-3/4) (7/8)
④	For transmission cables	Front through hole ø34 Knockout hole (1-3/8)
⑤	Water pipe	inlet NPT1-1/2 Screw
⑥		outlet NPT1-1/2 Screw
⑦	Drain pipe	Rc-3/4 Screw

Bottom view

37

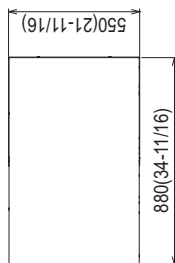
2. EXTERNAL DIMENSIONS

PQHY-P216, 240TLMU-A1

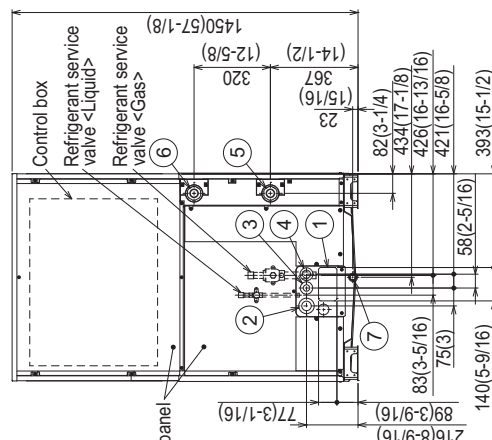
Unit: mm(in)

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

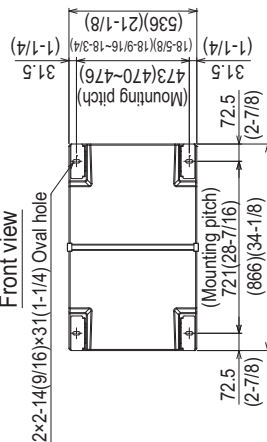
- <Accessories>
- Refrigerant (Liquid) conn. pipe 1pc.
 - (P216/P240 : Packaged in the accessory kit)
 - Refrigerant (Gas) conn. elbow 1pc.
 - (P216/P240 : Packaged in the accessory kit)
 - Water stopper (Liquid Gas) 1pc. each
 - (P216/P240 : Packaged in the accessory kit)
 - Sealing material for water stopper (Liquid Gas) 1pc. each
 - (P216/P240 : Packaged in the accessory kit)
 - Sealing material for field piping (Liquid Gas) 1pc. each
 - (P216/P240 : Packaged in the accessory kit)
 - Sealing material for drain socket 1pc.
 - (P216/P240 : Packaged in the accessory kit)
 - Pipe cover for gas 1pc.
 - (P216/P240 : Packaged in the accessory kit)
 - Sealing material for base leg (two types) 4pc. each
 - (P216/P240 : Packaged in the accessory kit)
 - Sealing material for panel 1pc.
 - (P216/P240 : Packaged in the accessory kit)



Top view

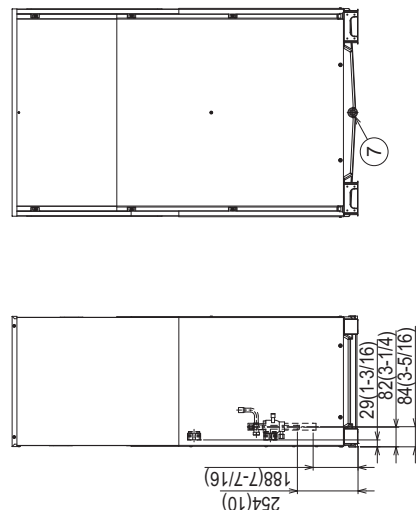


Front view



Bottom view

Right side view



Back view

NO.	Usage	Specifications
①	For pipes	Front through hole 140 × 77 Knockout hole (5-9/16) (3-1/16)
②	For wires	Front through hole ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
③		Front through hole ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
④	For transmission cables	Front through hole ø34 Knockout hole (1-3/8)
⑤	Water pipe inlet	NPT1-1/2 Screw
⑥	Water pipe outlet	NPT1-1/2 Screw
⑦	Drain pipe	Rc3/4 Screw

Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)

Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side.

Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)

Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note5. Environmental condition for installation: -20~40°C(DB) (-4~104°F) as indoor installation.

Note6. In case the temperature around the heat source unit has possibility to drop under 0°C(32°F) or the inlet-water temp. drops under 10°C(50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.

- Add brine to water circuit.
- Circulate the water all the time even if the heat source unit is not in operation.

- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
- Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

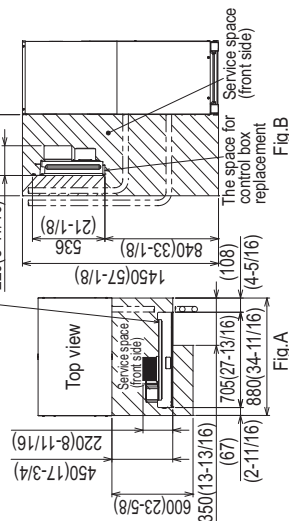


Fig.A

Fig.B

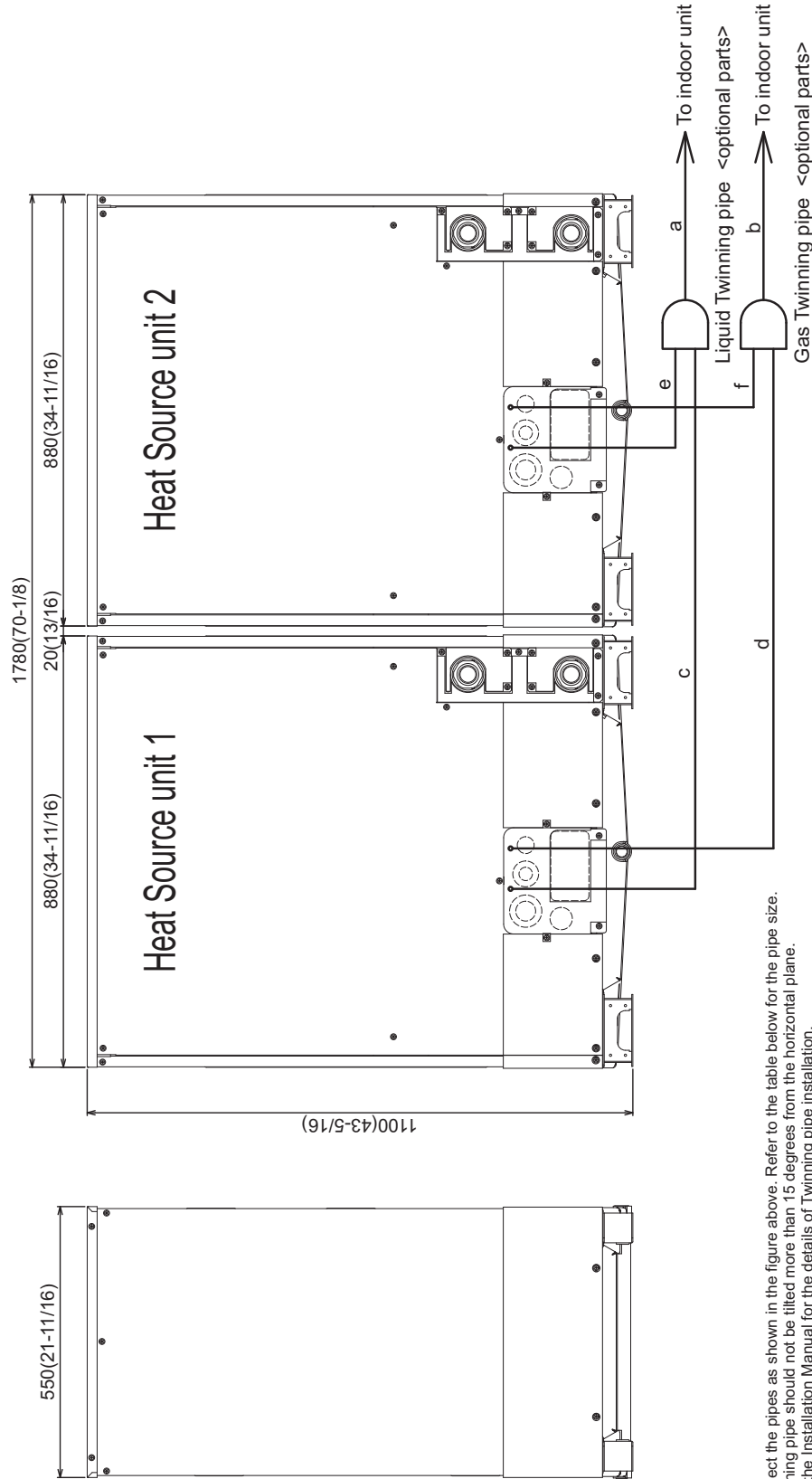
Model	Connecting pipe specifications		
	Refrigerant pipe	Service valve	
	Liquid	Gas	
PQHY-P216TLMU-A1	ø15.88 Braze (5/8) *1	ø28.58 (1-1/8)	
PQHY-P240TLMU-A1	ø15.88 Braze (5/8) *1	ø28.58 (1-1/8)	

*1. Connect by using the connecting pipes and elbow that are supplied.

2. EXTERNAL DIMENSIONS

PQHY-P144, 168, 192, 216, 240TSLMU-A1

Unit: mm(in)



Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.

2. Twinning pipe should not be tilted more than 15 degrees from the horizontal plane.

3. See the Installation Manual for the details of Twinning pipe installation.

4. The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).

5. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQHY-P144TSLMU-A1	PQHY-P168TSLMU-A1	PQHY-P192TSLMU-A1	PQHY-P216TSLMU-A1	PQHY-P240TSLMU-A1
Component unit name	Heat Source unit 1	PQHY-P72TLMU-A1	PQHY-P96TLMU-A1	PQHY-P96TLMU-A1	PQHY-P120TLMU-A1	PQHY-P120TLMU-A1
	Heat Source unit 2	PQHY-P72TLMU-A1	PQHY-P72TLMU-A1	PQHY-P96TLMU-A1	PQHY-P96TLMU-A1	PQHY-P120TLMU-A1
Twinning pipe Kit(optional parts)						
Indoor unit-Twinning pipe	Liquid	a	ø12.7(1/2)	ø15.88(5/8)		
	Gas	b		ø28.58(1-1/8)		
Twinning pipe-Heat Source unit 1	Liquid	c	ø9.52(3/8)			ø12.7(1/2)
	Gas	d	ø19.05(3/4)	ø22.2(7/8)		
Twinning pipe-Heat Source unit 2	Liquid	e	ø9.52(3/8)			ø12.7(1/2)
	Gas	f	ø19.05(3/4)	ø22.2(7/8)		

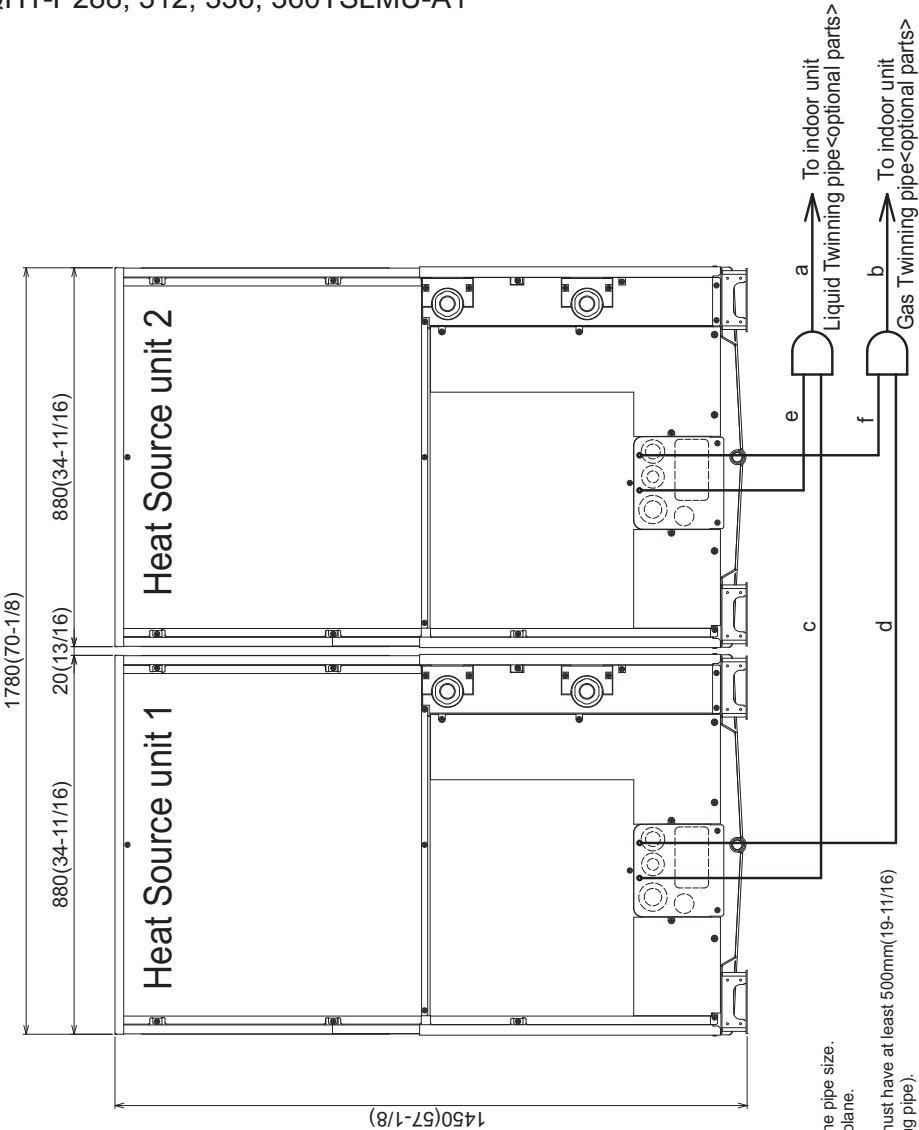
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

2. EXTERNAL DIMENSIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-P288, 312, 336, 360TSLMU-A1

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2. Twinning pipes should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. The pipe section before the twinning pipe (sections "a" and "b" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQHY-P288TSLMU-A1	PQHY-P312TSLMU-A1	PQHY-P336TSLMU-A1	PQHY-P360TSLMU-A1
Component unit name		PQHY-P144TLMU-A1	PQHY-P168TLMU-A1	PQHY-P188TLMU-A1	PQHY-P192TLMU-A1
Twinning Kit(optional parts)		PQHY-P144TLMU-A1	PQHY-P144TLMU-A1	PQHY-P168TLMU-A1	PQHY-P168TLMU-A1
Indoor unit-Twinning pipe	Liquid	CMY-Y200CBK2			
	Gas	ø19.05(3/4)			
Twinning pipe-Heat Source unit 1	Liquid	ø34.93(1-3/8)	ø41.28(1-5/8)		
	Gas	ø12.7(1/2)	ø15.88(5/8)		
Twinning pipe-Heat Source unit 2	Liquid	ø12.7(1/2)	ø15.88(5/8)		
	Gas	ø12.7(1/2)	ø15.88(5/8)		

PQHY-P72, 96, 120YLMU-A1

PQH₂-P-T(S)LMU-A1, Y(S)LMU-A1

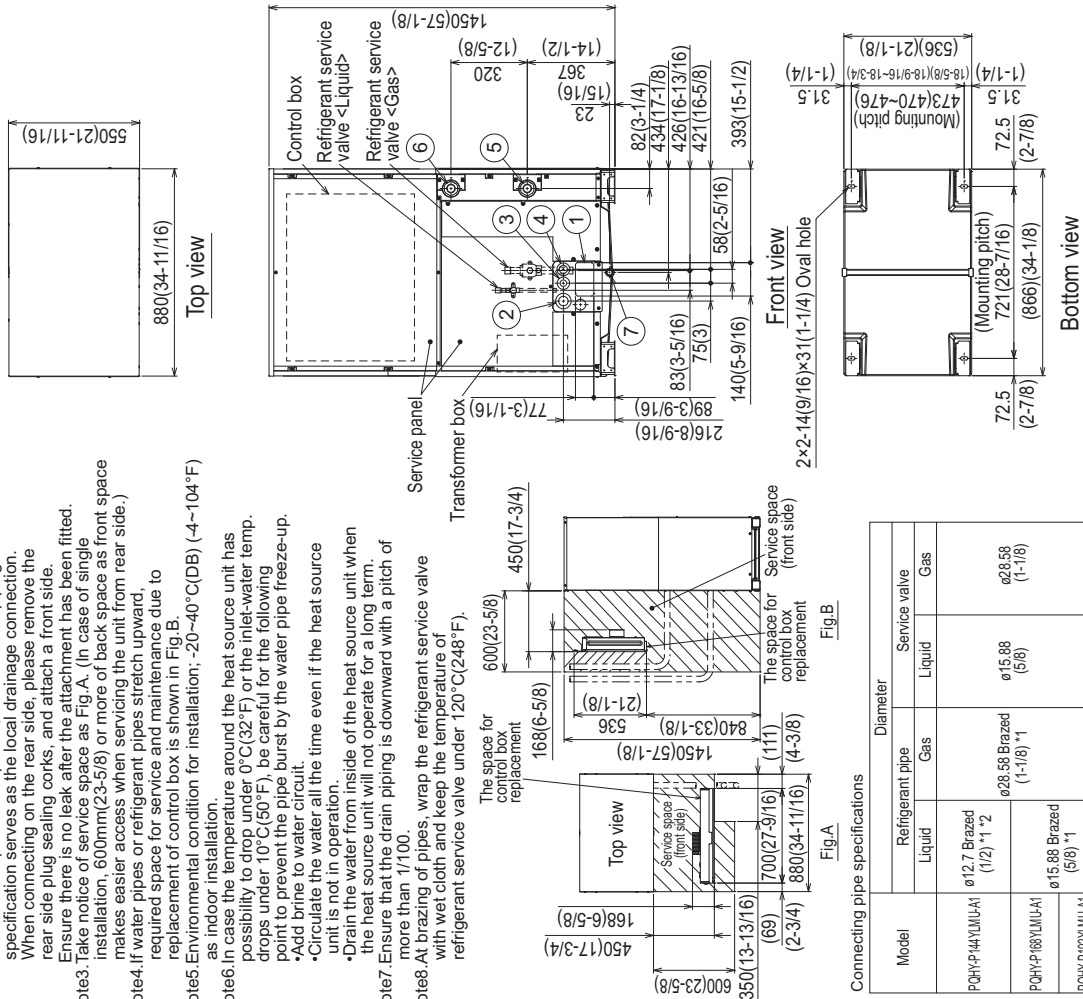
2. EXTERNAL DIMENSIONS

PQHY-P144, 168, 192YLMU-A1

Unit: mm(in)

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

- <Accessories>
- Refrigerant (Liquid) conn. pipe.....1pc.
(P144/P168/P192; Packaged in the accessory kit)
 - Refrigerant (Gas) conn. elbow.....1pc.
(P144/P168/P192; Packaged in the accessory kit)
 - Water stopper(Liquid, Gas).....1pc. each
(P144/P168/P192; Packaged in the accessory kit)
 - Sealing material for water stopper (Liquid Gas).....1pc. each
(P144/P168/P192; Packaged in the accessory kit)
 - Sealing material for field piping (Liquid, Gas).....1pc. each
(P144/P168/P192; Packaged in the accessory kit)
 - Sealing material for drain socket.....1pc.
(P144/P168/P192; Packaged in the accessory kit)
 - Pipe cover for gas.....1pc.
(P144/P168/P192; Packaged in the accessory kit)
 - Sealing material for base leg (two types).....4pc. each
(P144/P168/P192; Packaged in the accessory kit)
 - Sealing material for panel.....1pc.
(P144/P168/P192; Packaged in the accessory kit)



- Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc.(field erection work)
- Note2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side. Ensure there is no leak after the attachment has been fitted.
- Note3. Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)
- Note4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.
- Note5. Environmental condition for installation; -20~40°C(DB) (-4~104°F) as indoor installation.
- Note6. In case the temperature around the heat source unit has possibility to drop under 0°C(32°F) or the inlet-water temp. drops under 10°C(50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.
- Add brine to water circuit.
 - Circulate the water all the time even if the heat source unit is not in operation.
 - Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.
- Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.
- Note8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

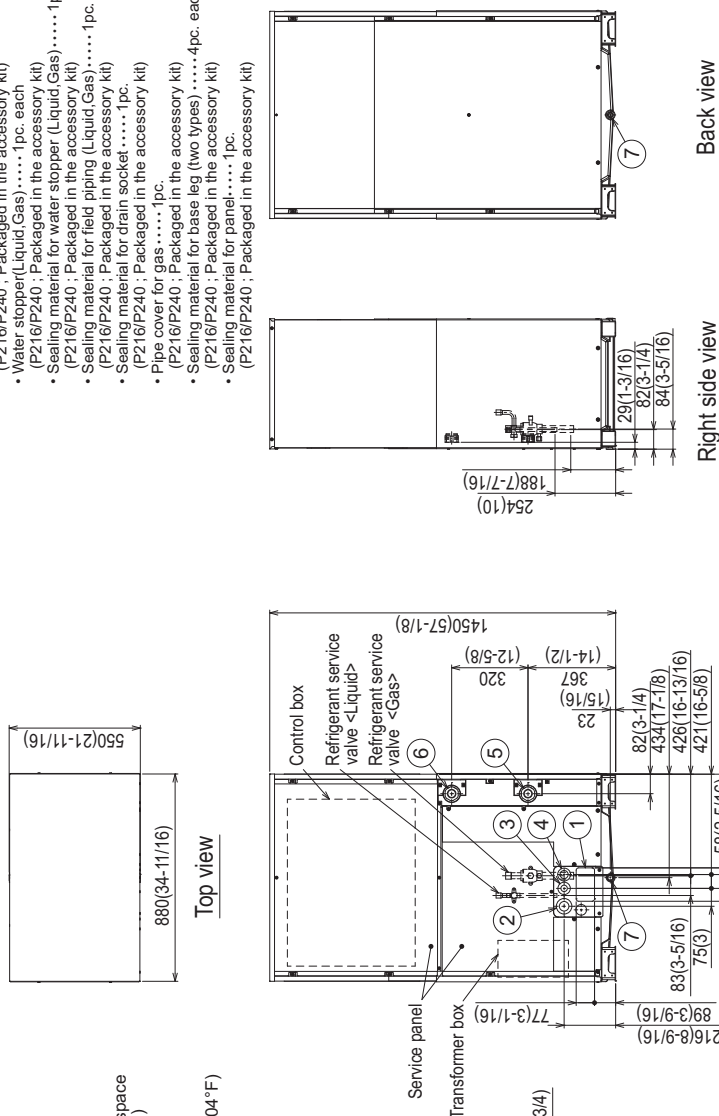
Model	Refrigerant pipe		Service valve	
	Liquid	Gas	Liquid	Gas
PQHY-P144YLMU-A1	ø12.7 Braze (1/2) *1 *2	ø28.58 Braze (1-1/8) *1	ø15.88 (5/8)	ø28.58 (1-1/8)
PQHY-P168YLMU-A1	ø15.88 Braze (5/8) *1			
PQHY-P192YLMU-A1				

*1. Connected by using the connecting pipes and elbow that are supplied.
*2. Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

PQHY-P216, 240YLMU-A1

Unit: mm(in)

- Accessories-
 Refrigerant (Liquid) conn. pipe 1pc.
 Refrigerant (Gas) conn. elbow 1pc.
 Refrigerant (Gas) conn. elbow 1pc.
 Water stopper (Liquid Gas) 1pc. each
 Water stopper (Liquid Gas) 1pc. each
 Sealing material for water stopper (Liquid Gas)
 (P216/P240) : Packaged in the accessory kit
 (P216/P240) : Packaged in the accessory kit
 Sealing material for field piping (Liquid Gas)
 (P216/P240) : Packaged in the accessory kit
 Sealing material for drain socket 1pc.
 (P216/P240) : Packaged in the accessory kit
 Pipe cover for gas 1pc.
 (P216/P240) : Packaged in the accessory kit
 Sealing material for base leg (two types) 4pc. each
 (P216/P240) : Packaged in the accessory kit
 Sealing material for panel 1pc.
 (P216/P240) : Packaged in the accessory kit



Back view

Right side view

NO.	Usage	Specifications
①	For pipes	Front through hole 140 x 77 Knockout hole (5-9/16) (3-1/16)
②		Front through hole ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
③	For wires	Front through hole ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
④	For transmission cables	Front through hole ø34 Knockout hole (1-3/8)
⑤	Water pipe	inlet
⑥		outlet
⑦	Drain pipe	NPT1-1/2 Screw NPT1-1/2 Screw B-3/4" Screw

Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc. (field erection work)

Note2.At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side.

Note3. Take notice of service space as Fig-A. (In case of single installation, 600mm(23-5/8) or more of back space as front side makes easier access when servicing the unit from rear side.

Note 4. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note 5. Environmental condition for installation; -20~40°C(DB) (-4~104°F) as indoor installation.

Note6. In case the temperature around the heat source unit has possibility to drop under 0°C(32°F) or the inlet-water temp. drops under 10°C(50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.

- Add brine to water circuit.

- Circulate the water all the time even if the heat source unit is not in operation.

- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.

Note7. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note 8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C (248°F)

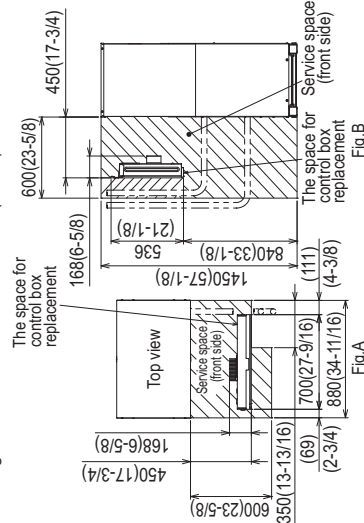


Fig. A

Fig. B

Connecting pipe specifications

Connecting pipe specifications		Diameter			
Model		Refrigerant pipe		Service valve	
		Liquid	Gas	Liquid	Gas
PQHY-Z21(6) MU-A1		ø15.88 (5/8) *	Brazed (1-1/8) *	ø28.58 (1-1/8)	ø28.58 (1-1/8)
PQHY-Z21(6) MU-A1		ø15.88 (5/8) *	Brazed (1-1/8) *	ø28.58 (1-1/8)	ø28.58 (1-1/8)

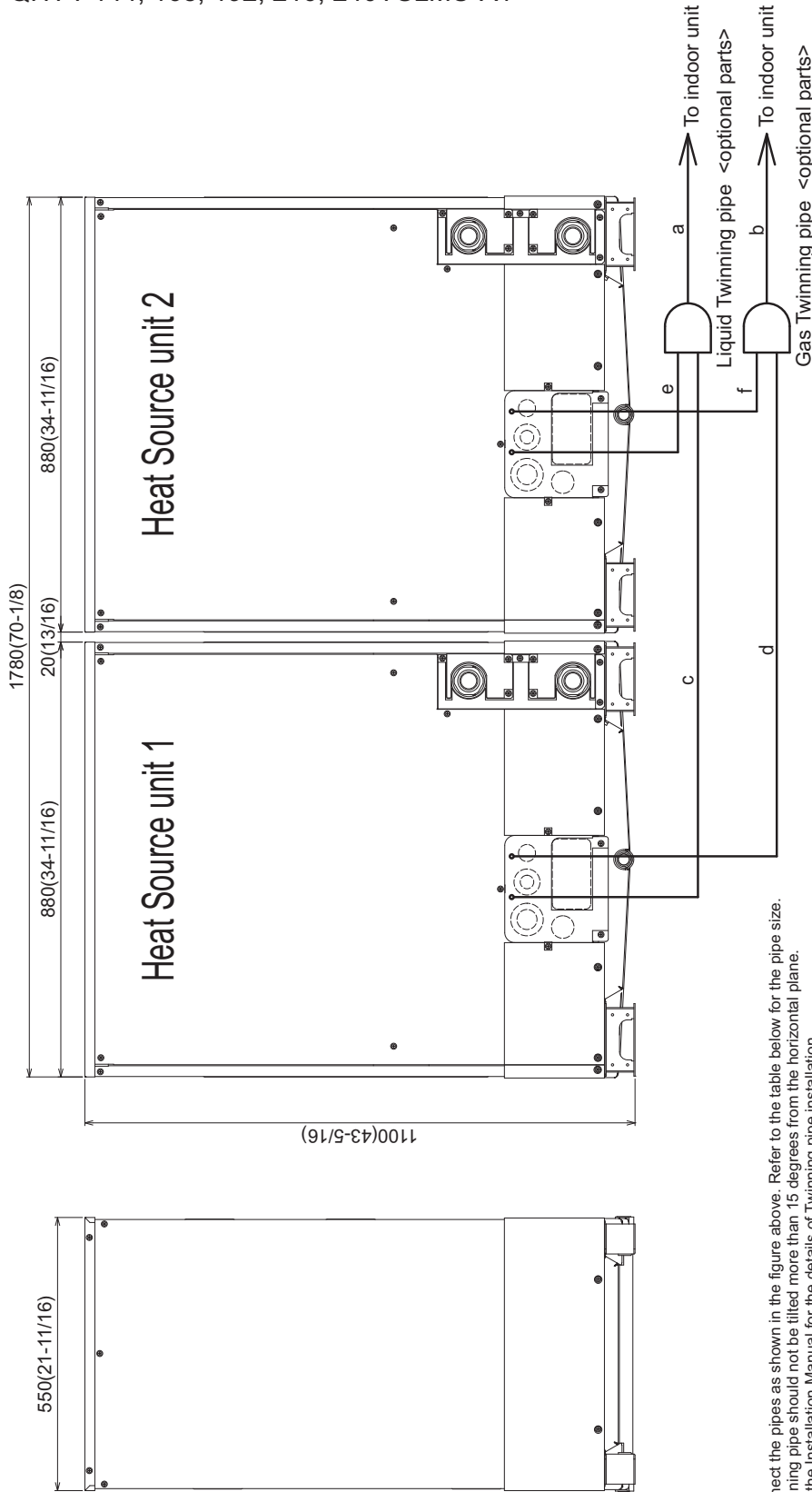
1. Connect by using the connecting pipes and elbow that are supplied.			

2. EXTERNAL DIMENSIONS

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-P144, 168, 192, 216, 240YSLMU-A1

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. The pipe section before the Twinning pipe (sections 'a' and 'b' in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5. Only use the Twinning pipe by Mitsubishi (optional parts).

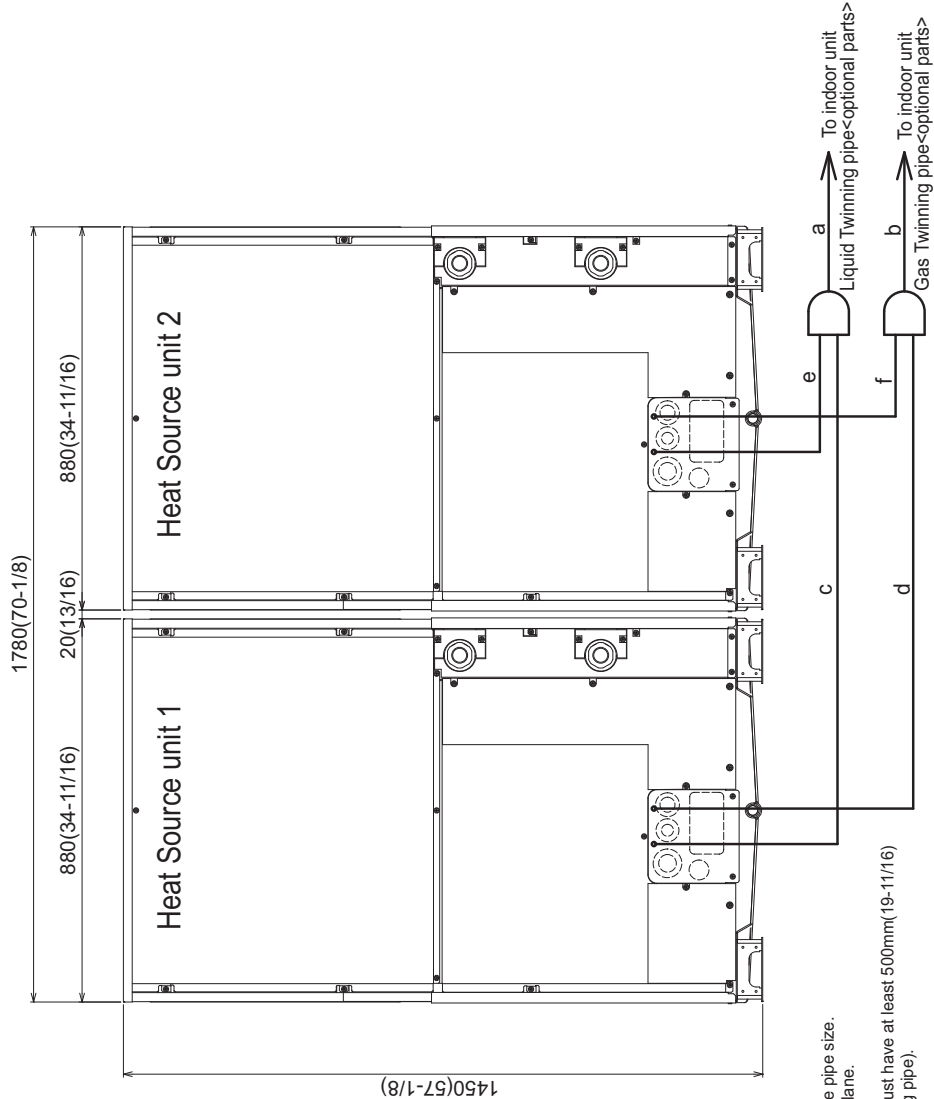
Twining pipe connection size

Package unit name		PQHY-P144YSLMU-A1	PQHY-P168YSLMU-A1	PQHY-P182YSLMU-A1	PQHY-P216YSLMU-A1	PQHY-P240YSLMU-A1
Heat Source unit 1		PQHY-P72YLMU-A1	PQHY-P96YLMU-A1	PQHY-P120YLMU-A1	PQHY-P120YLMU-A1	PQHY-P120YLMU-A1
Heat Source unit 2		PQHY-P72YLMU-A1	PQHY-P96YLMU-A1	PQHY-P120YLMU-A1	PQHY-P120YLMU-A1	PQHY-P120YLMU-A1
Twining pipe Kit(optional parts)		CMY-Y100CBK3				
Indoor unit-Twinning pipe	Liquid	a	ø12.7(1/2)	ø15.88(5/8)		
	Gas	b	ø28.58(1-1/8)			
Twining pipe-Heat Source unit 1	Liquid	c	ø9.52(3/8)	ø12.7(1/2)		
	Gas	d	ø19.05(3/4)	ø22.2(7/8)		
Twining pipe-Heat Source unit 2	Liquid	e	ø9.52(3/8)	ø12.7(1/2)		
	Gas	f	ø19.05(3/4)	ø22.2(7/8)		

2. EXTERNAL DIMENSIONS

PQHY-P288, 312, 336, 360YSLMU-A1

Unit: mm(in)



- Note 1 Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
2 Twinning pipes should not be tilted more than 15 degrees from the horizontal plane.
3 See the Installation Manual for the details of Twinning pipe installation.
4 The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm (19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
5 Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQHY-P288YSLMU-A1	PQHY-P312YSLMU-A1	PQHY-P336YSLMU-A1	PQHY-P360YSLMU-A1
Component unit name		PQHY-P144YLMU-A1	PQHY-P168YLMU-A1	PQHY-P188YLMU-A1	PQHY-P192YLMU-A1
Twinning Kit(optional parts)		PQHY-P144YLMU-A1	PQHY-P144YLMU-A1	PQHY-P168YLMU-A1	PQHY-P168YLMU-A1
Indoor unit-Twinning pipe	Liquid	CMY-Y200CBK2			
	Gas	ø19.05(3/4)			
Twinning pipe-Heat Source unit 1	Liquid	ø34.93(1-3/8)			
	Gas	ø41.28(1-5/8)			
Twinning pipe-Heat Source unit 2	Liquid	ø12.7(1/2)			
	Gas	ø15.88(5/8)			
Twinning pipe-Heat Source unit 2	Liquid	ø28.58(1-1/8)			
	Gas	ø15.88(5/8)			

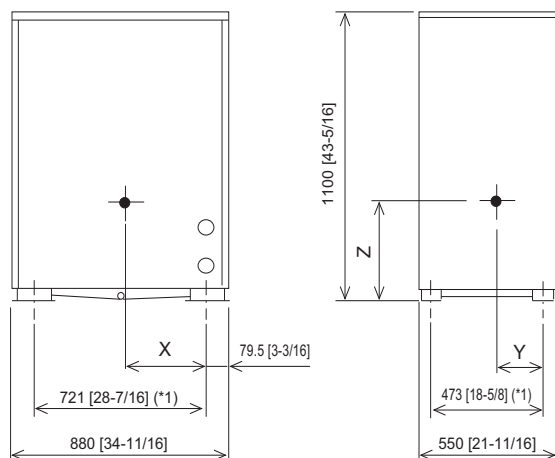
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

3. CENTER OF GRAVITY

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-P72, 96, 120TLMU-A1/YLMU-A1

Unit: mm [in.]

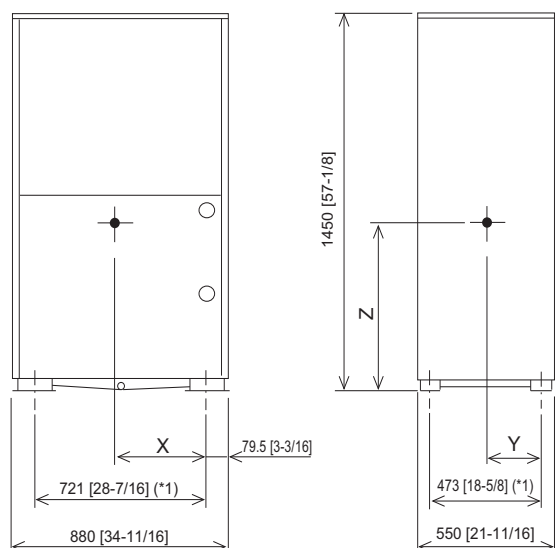


Model	X	Y	Z
PQHY-P72TLMU-A1	359 [14-3/16]	236 [9-5/16]	437 [17-1/4]
PQHY-P96TLMU-A1	359 [14-3/16]	236 [9-5/16]	437 [17-1/4]
PQHY-P120TLMU-A1	359 [14-3/16]	236 [9-5/16]	437 [17-1/4]
PQHY-P72YLMU-A1	385 [15-3/16]	224 [8-7/8]	425 [16-3/4]
PQHY-P96YLMU-A1	385 [15-3/16]	224 [8-7/8]	425 [16-3/4]
PQHY-P120YLMU-A1	385 [15-3/16]	224 [8-7/8]	425 [16-3/4]

*1 Mounting Pitch

PQHY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1

Unit: mm [in.]



Model	X	Y	Z
PQHY-P144TLMU-A1	375 [14-13/16]	237 [9-3/8]	631 [24-7/8]
PQHY-P168TLMU-A1	375 [14-13/16]	237 [9-3/8]	631 [24-7/8]
PQHY-P192TLMU-A1	375 [14-13/16]	237 [9-3/8]	631 [24-7/8]
PQHY-P216TLMU-A1	349 [13-3/4]	231 [9-1/8]	669 [26-3/8]
PQHY-P240TLMU-A1	349 [13-3/4]	231 [9-1/8]	669 [26-3/8]
PQHY-P144YLMU-A1	392 [15-7/16]	227 [8-15/16]	610 [24-1/16]
PQHY-P168YLMU-A1	392 [15-7/16]	227 [8-15/16]	610 [24-1/16]
PQHY-P192YLMU-A1	392 [15-7/16]	227 [8-15/16]	610 [24-1/16]
PQHY-P216YLMU-A1	365 [14-3/8]	221 [8-3/4]	637 [25-1/8]
PQHY-P240YLMU-A1	365 [14-3/8]	221 [8-3/4]	637 [25-1/8]

*1 Mounting Pitch

РQНУ-Р-Т(S)LMU-A1, Y(S)LMU-A1

MEES17K019



Symbol	Explanation	Explanation
21S4a	4-way valve Cooling/heating switching	SV7a/b Syncond valve
6341a	Pressure switch	SV9 Thermal block
33H1S	High pressure	TB1 Terminal block
33H1S	High pressure	TB3
X001	Magnetic relay (inverter main circuit)	
C011~C016	Capacitor (inverter main circuit)	TB7
DC1	Current sensor (AC)	TB8
DC1	DC reactor (for high frequency noise reduction)	TB9
LEV1	Linear expansion valve	TH2
LEV6	Heat exchanger capacity control valve	TH3
LEV1V	Heat exchanger capacity control valve	TH4
LEV1V	Heat exchanger capacity control valve	TH6
MF1	Fan motor (Radiator panel)	TH7
RT1	Resistor	TH8
RT1~RT3	Resistor	TH9
SV1a	Syncond valve	THNV
SV4a,b,d	Syncond valve	THHS

1. Single-dotted lines indicate wiring not supplied with the unit.
2. Dot-dash lines indicate the control box boundaries.
3. Refer to the Data book for connecting input/output signal connectors.
4. Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
6. Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltages between TB-P and TB-N on INV Board has dropped to DC20V or less.
7. Refer to the Data book for wiring terminal block for Pump Interlock. Operation ON signal and DC0-10V signal output.

*8. Difference of appliance.

Model name	Appliance
PQHY	*8 do not exist
PQRY	*8 exist

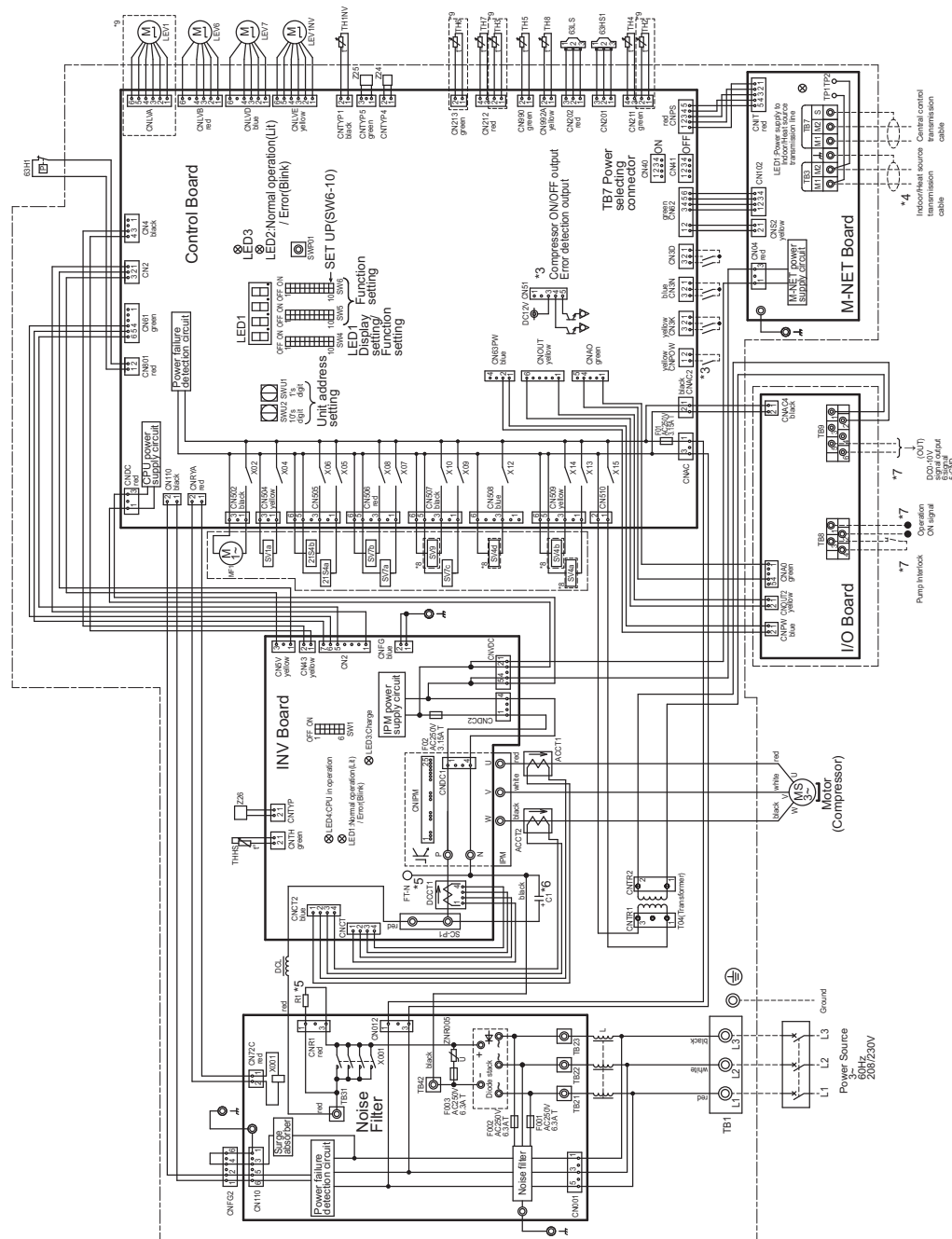
*9. Difference of appliance.

Model name	Appliance
PQHY	*9 exist
PQRY	*9 do not exist

4. ELECTRICAL WIRING DIAGRAMS

PQHY-P144, 168, 192TLMU-A1

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1



- *1. Single-dotted lines indicate wiring not supplied with the unit.
- *2. Dot-dash lines indicate the control box boundaries.
- *3. Refer to the Data book for connecting input/output signal connectors.
- *4. Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
- *5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
- *6. Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage at both ends of the main capacitor (C1) has dropped to DC20V or less.
- *7. Refer to the Databook for wiring terminal block for Pump Interlock, Operation ON signal and DC0-10V signal output.
- *8. Difference of appliance.
- *9. Difference of appliance.

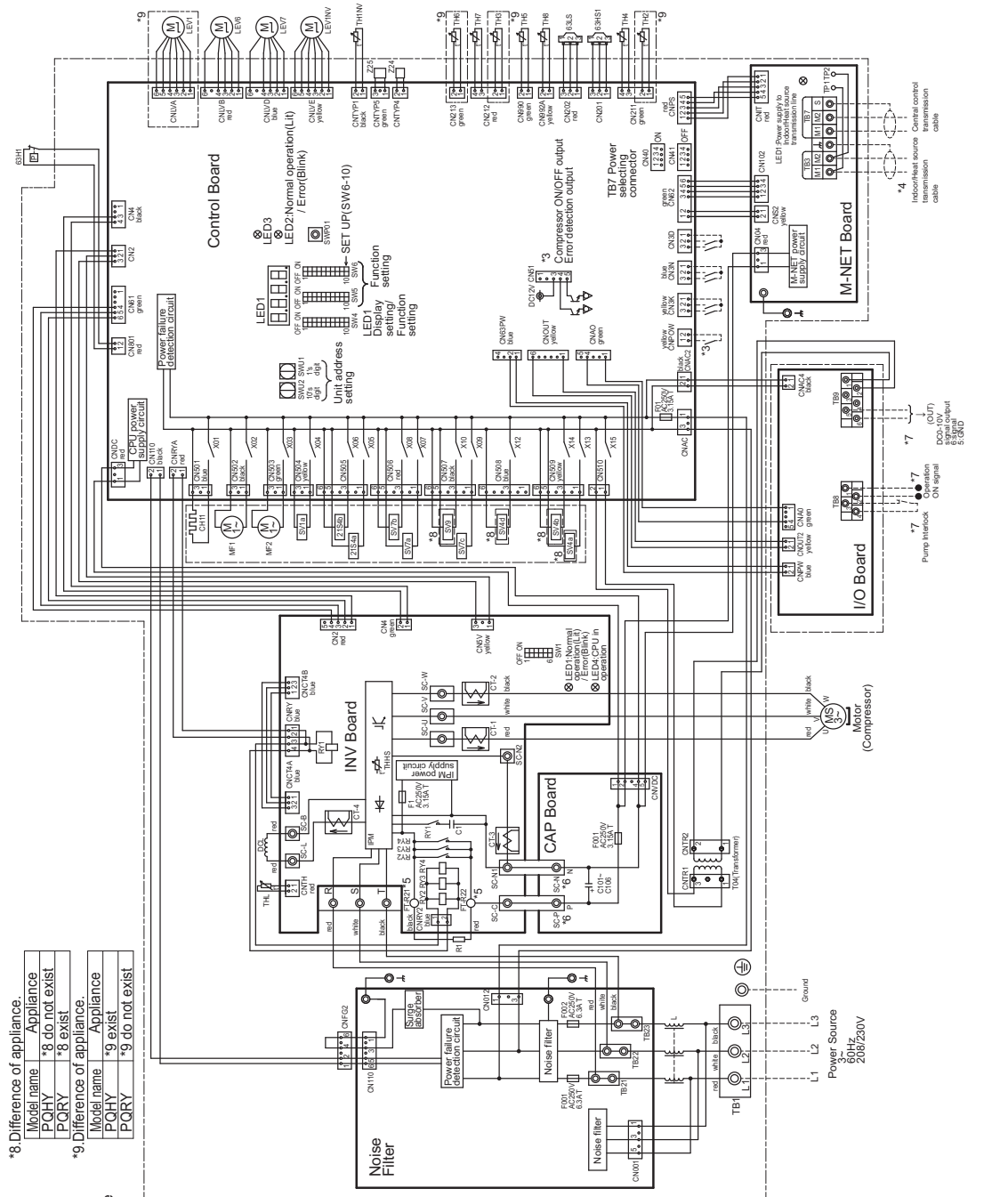
Model name	Appliance
PQHY	*8 do not exist
PQRY	*8 exist
Model name	Appliance
PQHY	*9 exist
PQRY	*9 do not exist

<Symbol explanation>

Symbol	Explanation
21S4a	4-way valve Cooling/Heating switching
21S4b	Heat exchanger capacity control
63H1	Pressure switch
63H51	High pressure protection for the heat source unit
63LS	Low pressure sensor
X001	Magnetic relay (inverter main circuit)
C1	Capacitor (inverter main circuit)
ACC11.2	Current sensor (AC)
DCC11	Current sensor (DC)
DCL	DC reactor
L	Inductor (for high frequency noise reduction)
LEV1	Linear expansion valve
LEV6	HIC bypass Controls refrigerant flow in HIC circuit
LEV7	Heat exchanger capacity control valve
LEV7	Heat exchanger capacity control valve
MF1/NV	Fan motor/Radiator panel
R1	Resistor
SV1a	Solenoid valve
SV4a,b,d	For opening/closing the bypass circuit under the OIS
SV5a,b,c	Heat exchanger capacity control
SV9	For opening/closing the bypass circuit
TB1	Terminal block
TB3	Power supply
TB7	Indoor/Heat source transmission cable
TB8	Central control transmission cable
TB9	Operation ON signal
TB9	Power input and signal output for variable water flow valve
TH2	Subcool bypass outlet temperature
TH3	Discharge pipe temperature
TH4	ACC inlet pipe temperature
TH6	Subcooled liquid refrigerant temperature
TH7	Water inlet temperature
TH8	Water outlet temperature
TH9	Water inlet/outlet temperature of heat exchanger for inverter
THHS	IPM temperature
Z24,Z5,Z6	Function setting connector

4. ELECTRICAL WIRING DIAGRAMS

PQHY-P216, 240TLMU-A1



- *1. Single-dotted lines indicate wiring not supplied with the unit.
- *2. Dot-dash lines indicate the control box boundaries.
- *3. Refer to the Data book for connecting input/output signal connectors.
- *4. Daisy-chain terminals (TBS) on the heat source units in the same refrigerant system together.
- *5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
- *6. Control box houses high-voltage parts. Before inspecting the inside of the control box turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage between SCP and SC-N on CAP Board has dropped to DC20V or less.
- *7. Refer to the Data book for wiring terminal block for Pump Interlock Operation ON signal and DC5-10V signal output.

<Symbol explanation>

Symbol	Explanation
21.S4a	4-way valve
60H1	Cooling/Heating switching
60H1	High pressure protection for the heat source unit
63HS1	High pressure
63LS	Low pressure
C10	Capacitor
C10-C106	Inverter main circuit
C11-C12	Crackcase heater (heating the compressor)
CT-3.C1-4	Current sensor (AC)
DC	DC reactor
L	Choke coil for high frequency noise reduction
LEV1	HIC bypass Controls refrigerant flow in HIC circuit
LEV6	Heat exchanger capacity control
LEV7	Heat exchanger capacity control
LEVNV	Heat exchanger for inverter
MF1-MF2	Fan motor (Radiator panel)
RV1	Master (crackcase) current prevention
RV2.R3.RV4	Inverter main circuit (ZC)
SV1a	Solenoid valve
SV4a.b.d	Heat exchanger capacity control
SV7a.b.c	Heat exchanger capacity control
SV9	Pressure sensor for opening/closing the bypass circuit
TB1	Terminal block
TB7	Indoor/Heat source transmission cable
TB8	Central control transmission
TB9	Operation ON signal
TH2	Power input and signal output for variable water flow valve
TH3	Subcool bypass outlet temperature
TH4	Discharge pipe temperature
TH5	ACG inlet pipe temperature
TH6	Subcooled liquid refrigerant temperature
TH7	Water inlet temperature
TH8	Water outlet temperature
TH9	Outdoor air temperature
TH10	Compressor for inverter
TH11	IPM temperature
TH12	DCU temperature
TH13	Function setting connector

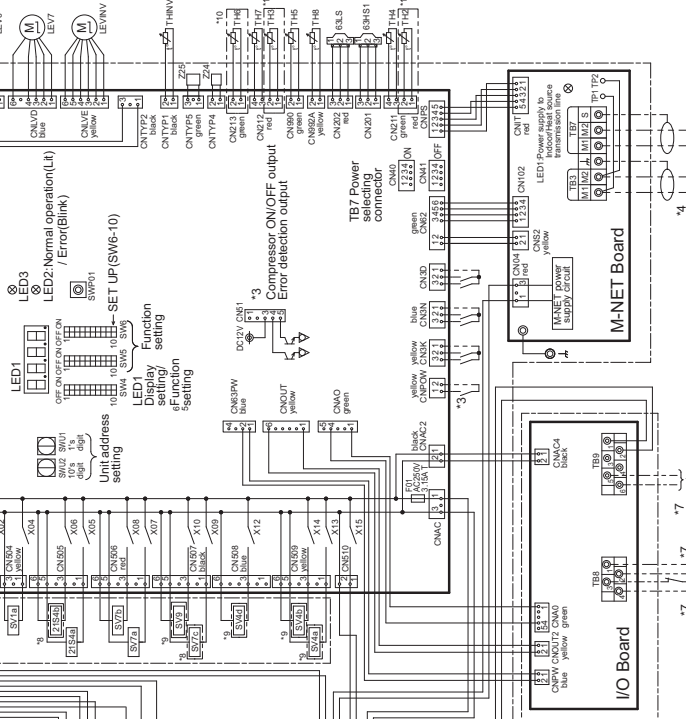
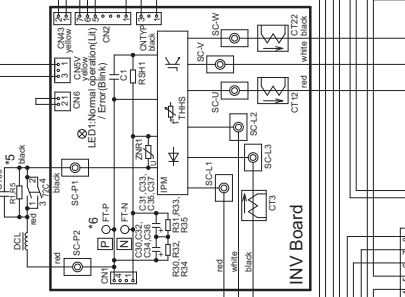
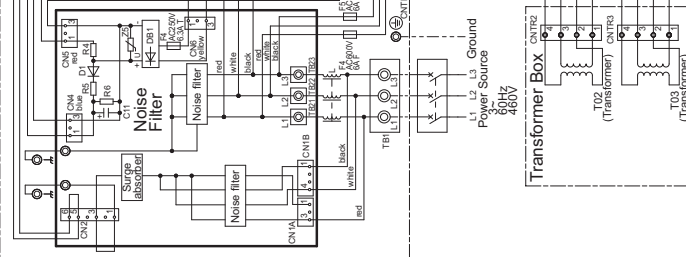
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

4. ELECTRICAL WIRING DIAGRAMS

PQHY-P72, 96, 120, 144, 168, 192, 216, 240YLMU-A1

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

- *1. Single-dotted lines indicate wiring not supplied with the unit.
 *2. Dot-dash lines indicate the control box boundaries.
 *3. Refer to the Data book for connecting input/output signal connectors.
 *4. Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
 *5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to be removed them.
 *6. Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage between F-T-P and F-T-N on INV Board has dropped to DC20V or less.
 *7. Refer to the Data book for wiring terminal block for Pump Interlock Operation ON signal and DC0-10V signal output.
 *8. Difference of appliance.



*11. Difference of appliance.

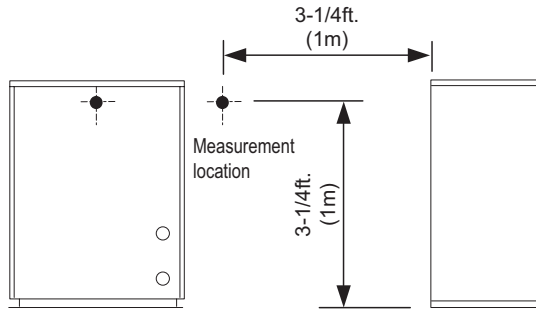
Model name	Appliance
P72/96/120/144/168/192	*11 do not exist
P216/240	*11 exist

<Symbol explanation>

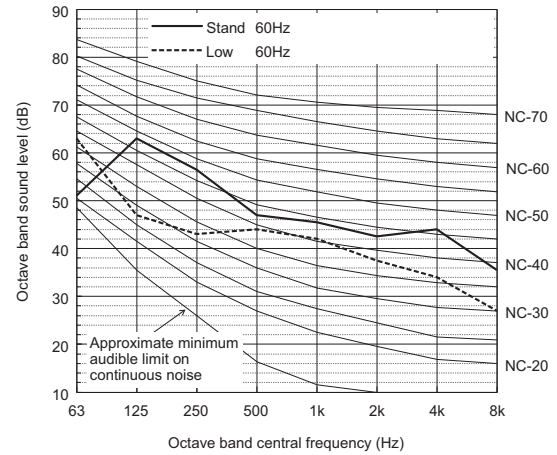
Symbol	Explanation
21S4a	4-way valve
21S4b	Cooling/Heating switching
63H1	Heat exchanger capacity control
63H2	High pressure protection for the heat source unit
63H3	Pressure switch
63H4	High pressure
63H5	Pressure
63H6	Pressure
63H7	Pressure
63H8	Pressure
63H9	Pressure
63H10	Pressure
63H11	Pressure
63H12	Pressure
63H13	Pressure
63H14	Pressure
63H15	Pressure
63H16	Pressure
63H17	Pressure
63H18	Pressure
63H19	Pressure
63H20	Pressure
63H21	Pressure
63H22	Pressure
63H23	Pressure
63H24	Pressure
63H25	Pressure
63H26	Pressure
63H27	Pressure
63H28	Pressure
63H29	Pressure
63H30	Pressure
63H31	Pressure
63H32	Pressure
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63H90	Pressure
63H91	Pressure
63H92	Pressure
63H93	Pressure
63H94	Pressure
63H95	Pressure
63H96	Pressure
63H97	Pressure
63H98	Pressure
63H99	Pressure
63H100	Pressure

5. SOUND LEVELS

Measurement condition PQHY-P72, 96, 120TLMU-A1/YLMU-A1



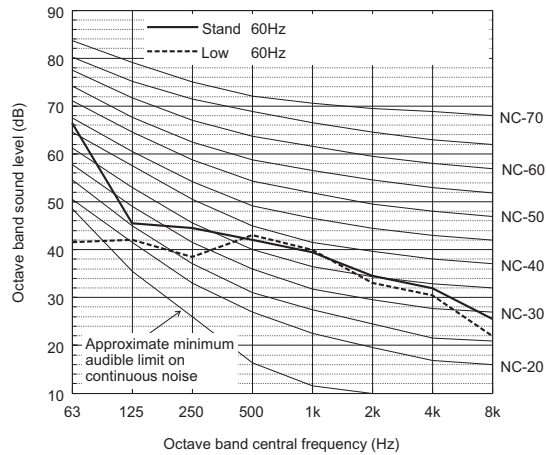
Sound level of PQHY-P120TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

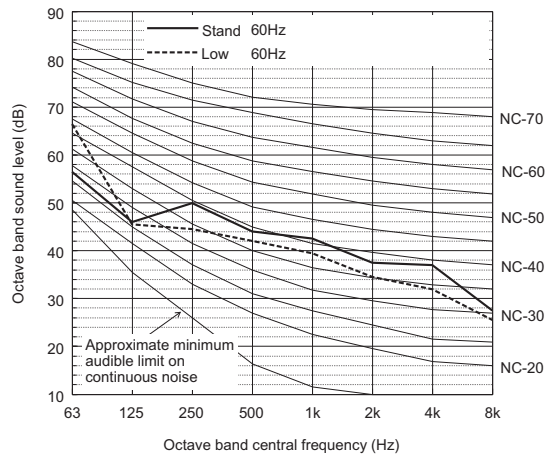
Sound level of PQHY-P72TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P96TLMU-A1/YLMU-A1



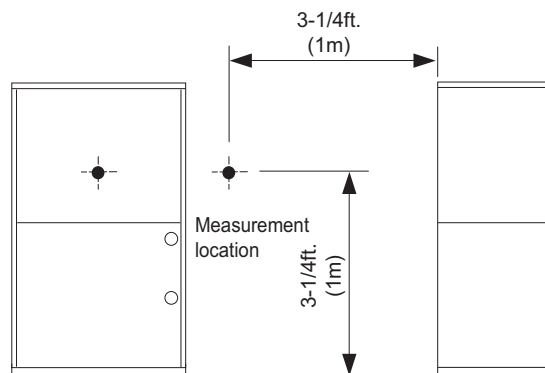
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

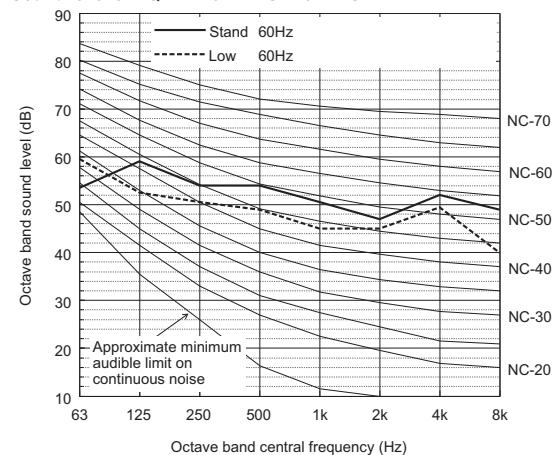
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1



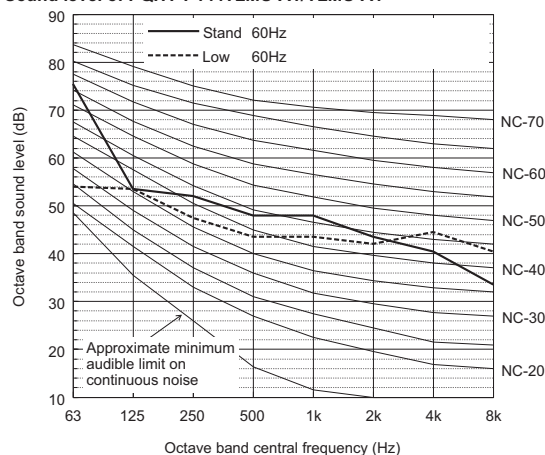
Sound level of PQHY-P192TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	53.5	59.0	54.0	54.0	50.5	47.0	52.0	49.0	58.0
Low noise mode	60Hz	59.5	52.5	50.5	49.0	45.0	45.0	49.5	40.0	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

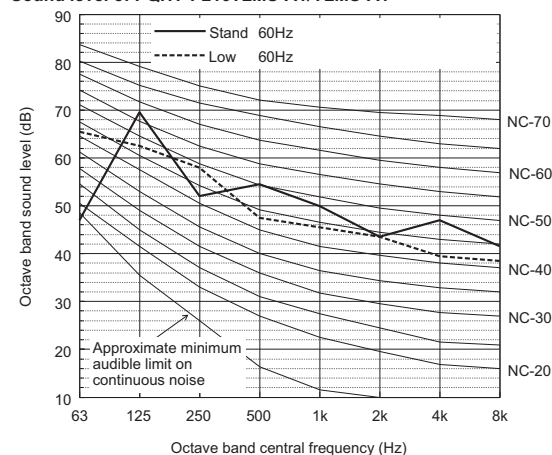
Sound level of PQHY-P144TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	53.5	52.0	48.0	48.0	43.5	40.5	33.5	54.0
Low noise mode	60Hz	54.0	53.5	47.5	43.5	43.5	42.0	44.5	40.5	50.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

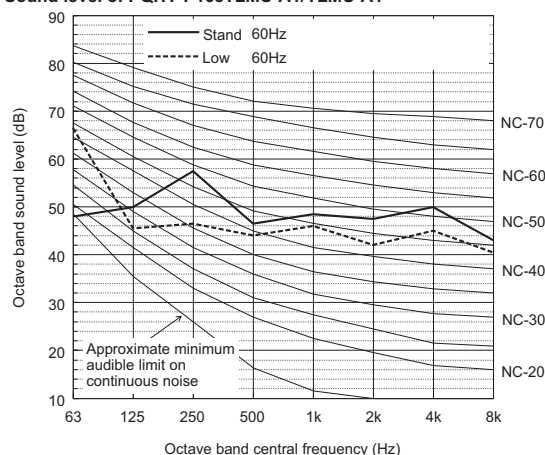
Sound level of PQHY-P216TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	47.0	69.5	52.0	54.5	50.0	43.5	47.0	41.5	58.0
Low noise mode	60Hz	65.5	62.5	58.0	47.5	45.5	43.5	39.5	38.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

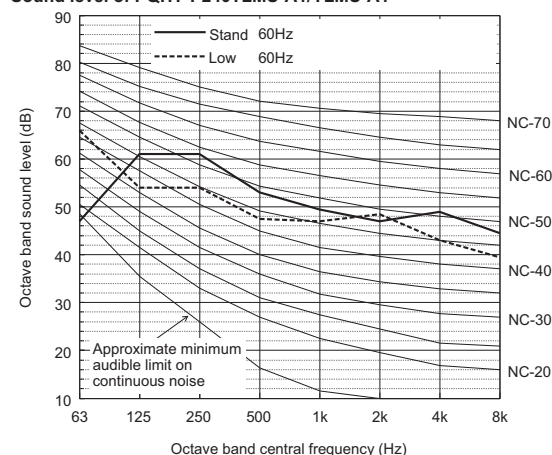
Sound level of PQHY-P168TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	48.0	50.0	57.5	46.5	48.5	47.5	50.0	43.0	56.0
Low noise mode	60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P240TLMU-A1/YLMU-A1



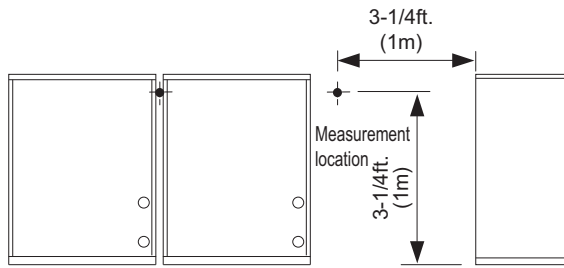
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	47.0	61.0	61.0	53.0	49.5	47.0	49.0	44.5	58.0
Low noise mode	60Hz	66.0	54.0	54.0	47.5	47.0	48.5	43.0	39.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

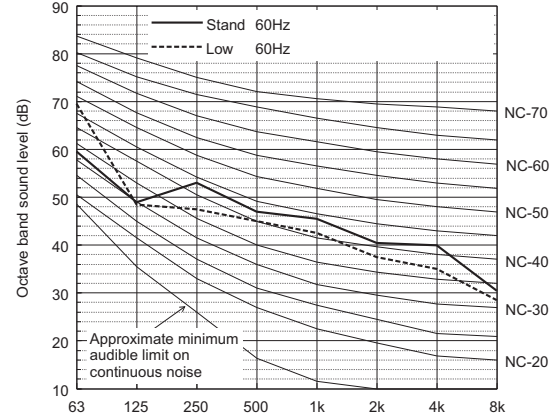
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P144, 168, 192, 216, 240TSLMU-A1/YSLMU-A1



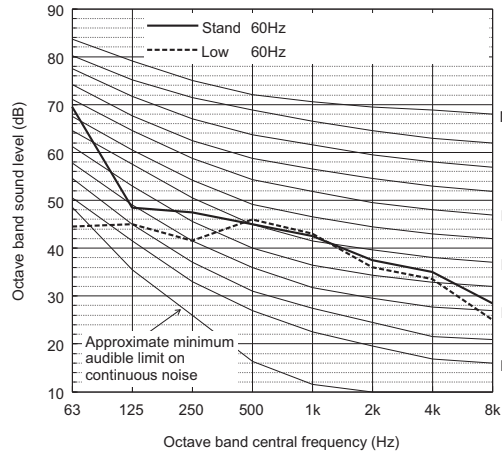
Sound level of PQHY-P192TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	59.5	49.0	53.0	47.0	45.5	40.5	40.0	30.5	51.0
Low noise mode	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

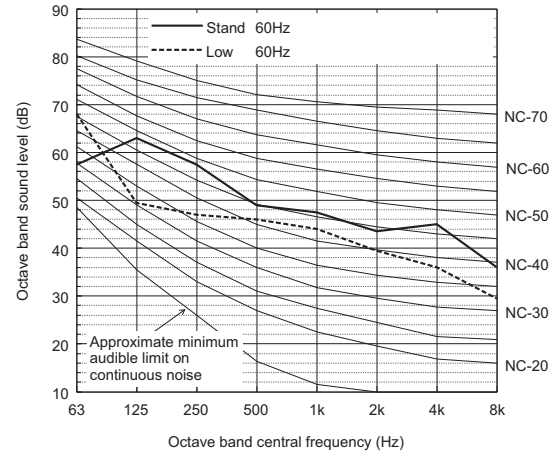
Sound level of PQHY-P144TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

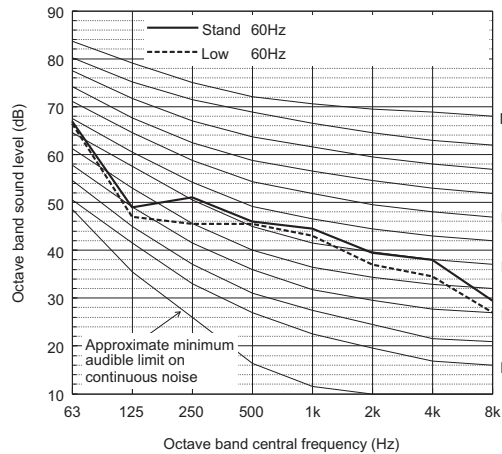
Sound level of PQHY-P216TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	28.5	49.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

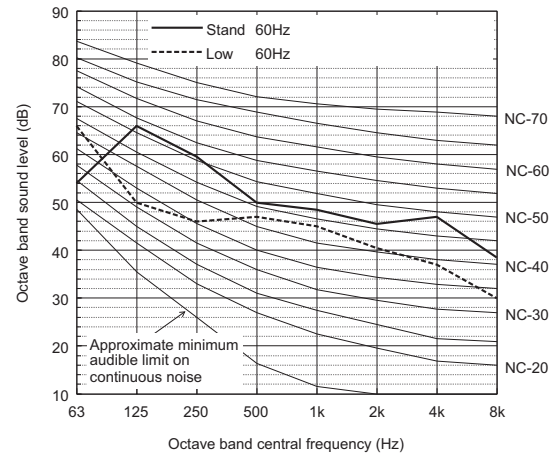
Sound level of PQHY-P168TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P240TSLMU-A1/YSLMU-A1



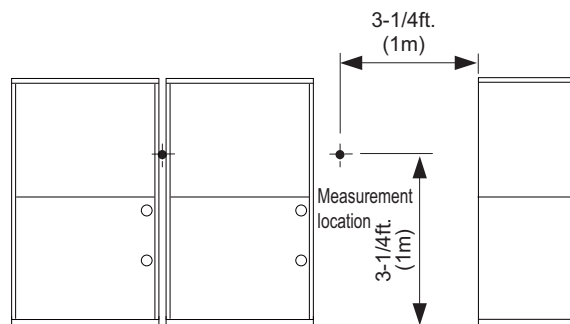
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

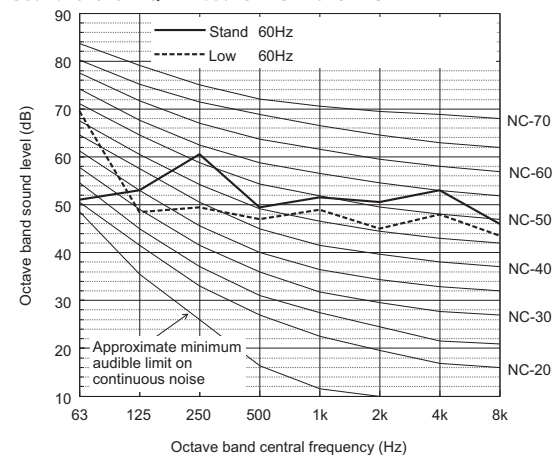
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P288, 312, 336, 360TSLMU-A1/YSLMU-A1



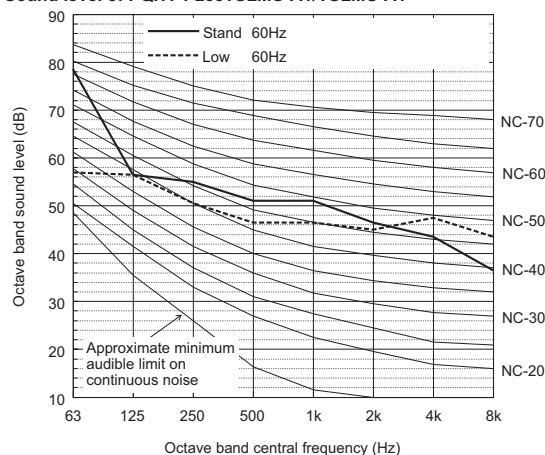
Sound level of PQHY-P336TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	53.0	60.5	49.5	51.5	50.5	53.0	46.0	59.0
Low noise mode	60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

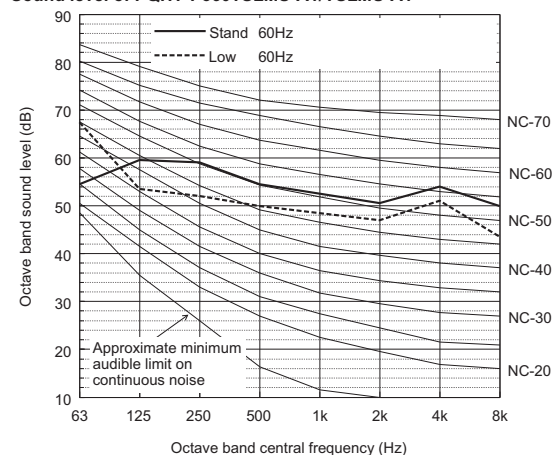
Sound level of PQHY-P288TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	78.5	56.5	55.0	51.0	51.0	46.5	43.5	36.5	57.0
Low noise mode	60Hz	57.0	56.5	50.5	46.5	46.5	45.0	47.5	43.5	53.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

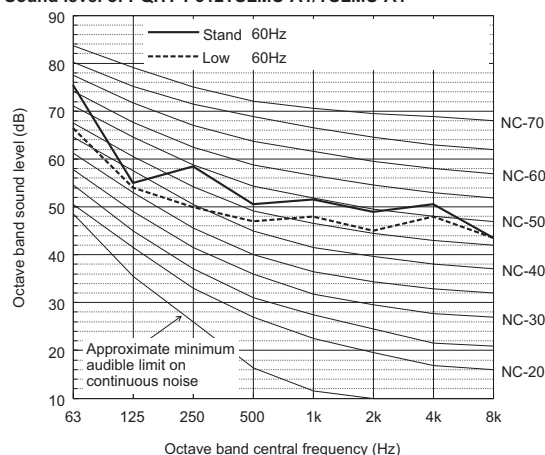
Sound level of PQHY-P360TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.5	59.5	59.0	54.5	52.5	50.5	54.0	50.0	60.0
Low noise mode	60Hz	67.5	53.5	52.0	50.0	48.5	47.0	51.0	43.5	56.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P312TSLMU-A1/YSLMU-A1



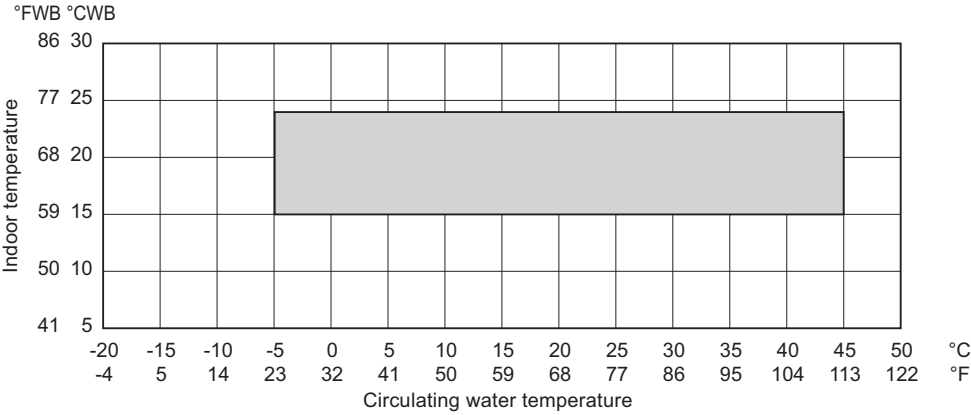
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	55.0	58.5	50.5	51.5	49.0	50.5	43.5	58.0
Low noise mode	60Hz	66.5	54.0	50.0	47.0	48.0	45.0	48.0	43.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

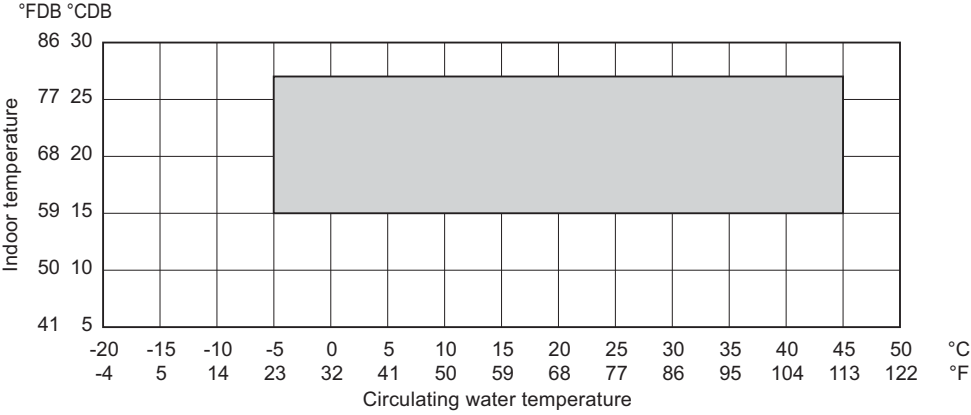
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating



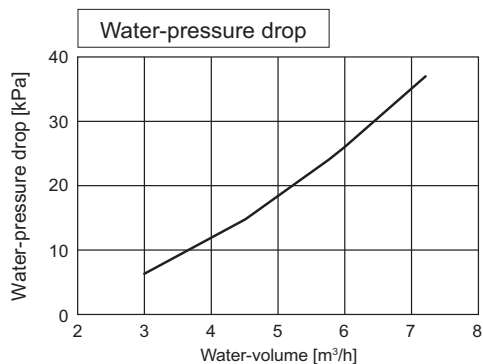
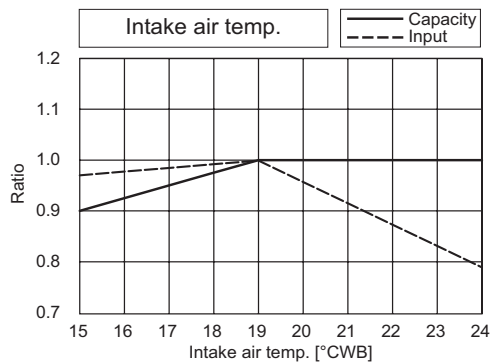
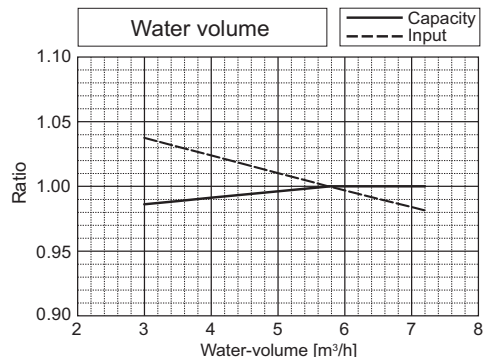
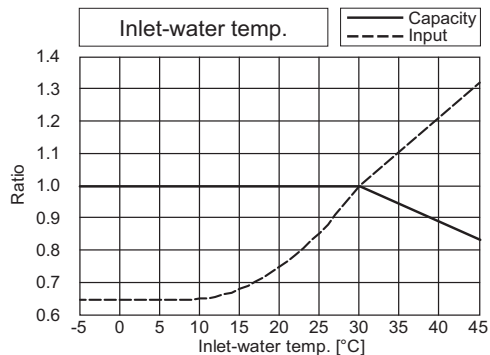
7. CAPACITY TABLES

7-1. Correction by temperature

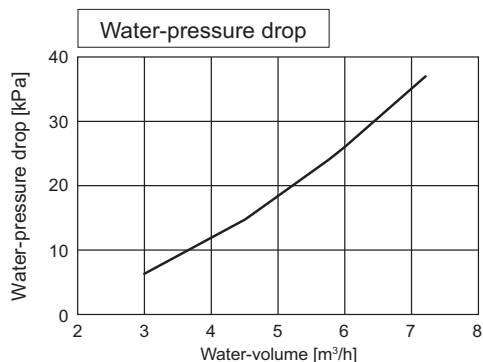
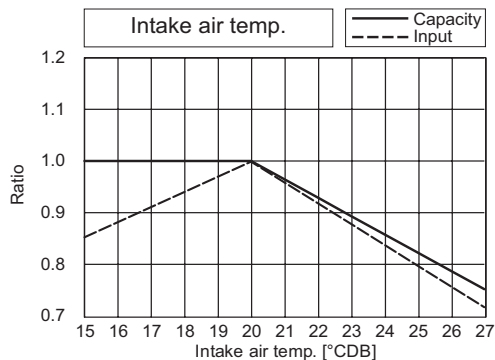
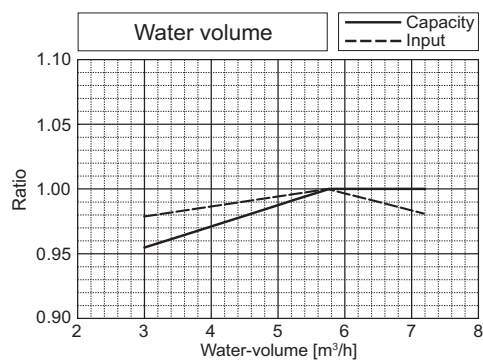
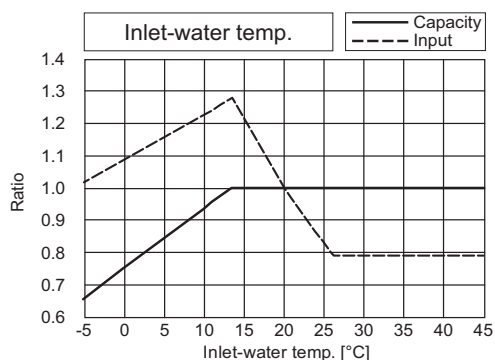
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P72TLMU/YLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12

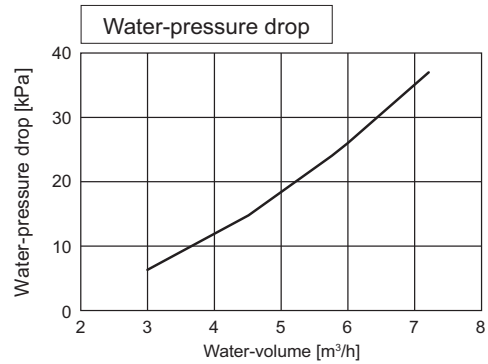
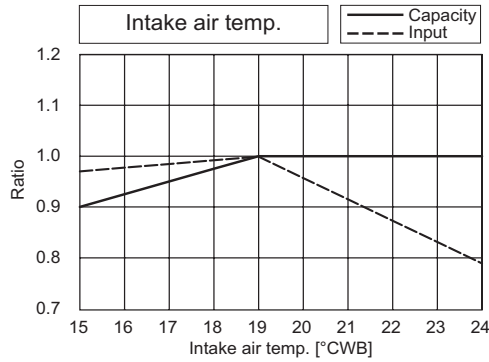
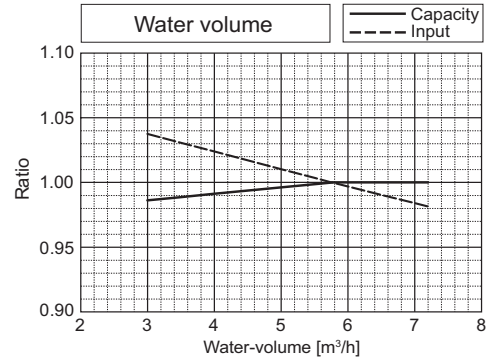
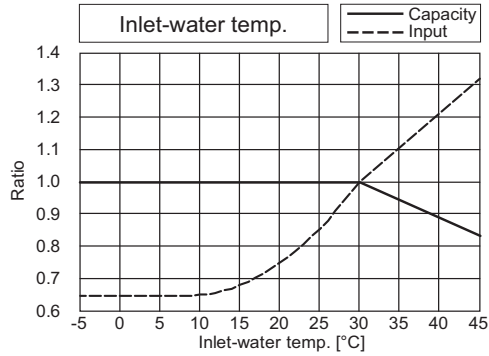


PQHY-			P72TLMU/YLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36

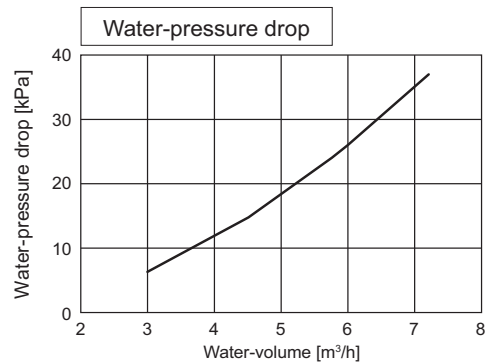
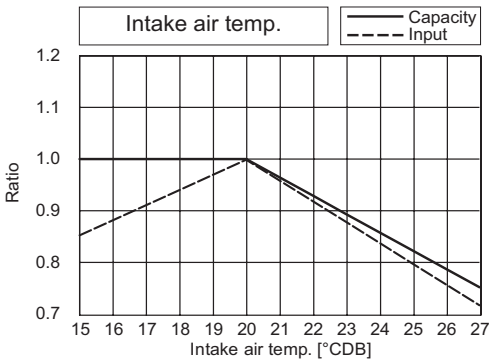
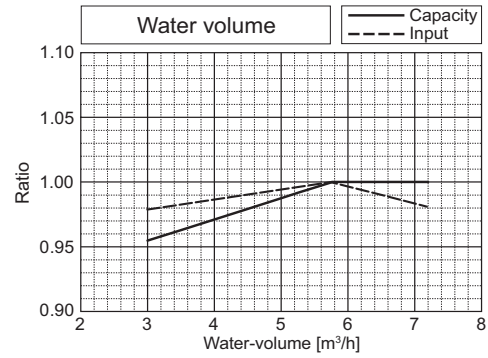
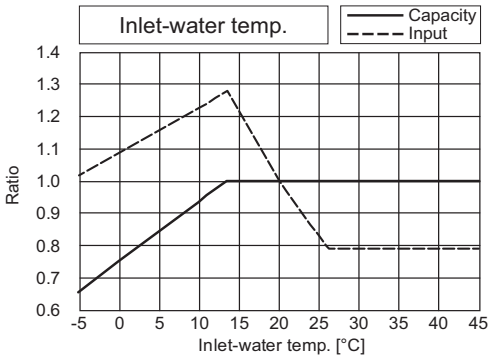


7. CAPACITY TABLES

PQHY-			P96TLMU/YLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19



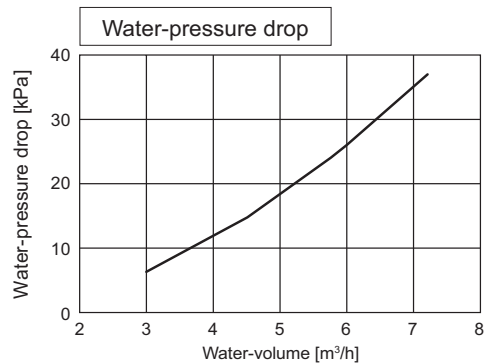
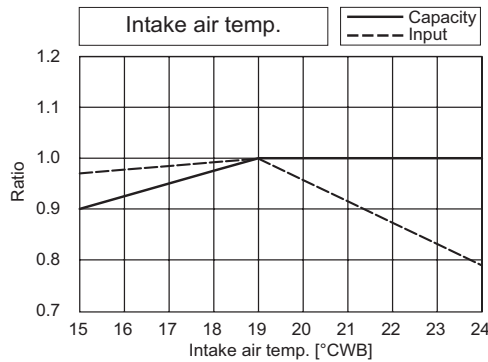
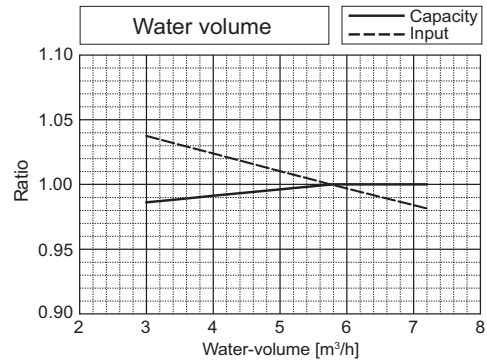
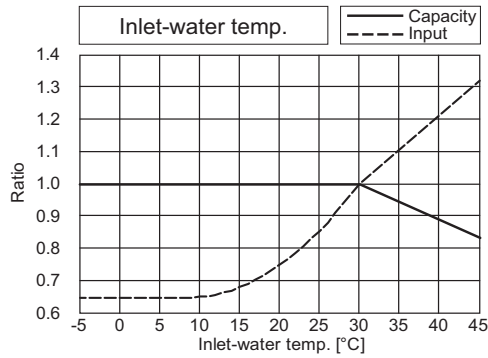
PQHY-			P96TLMU/YLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48



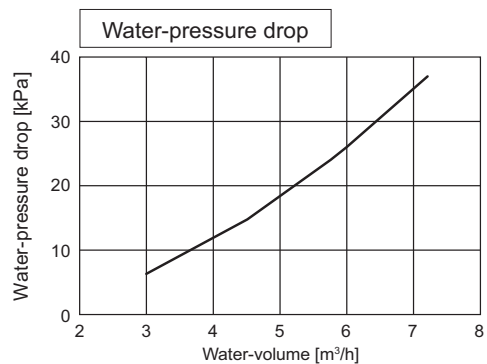
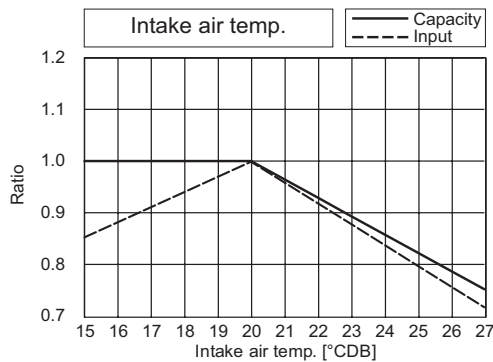
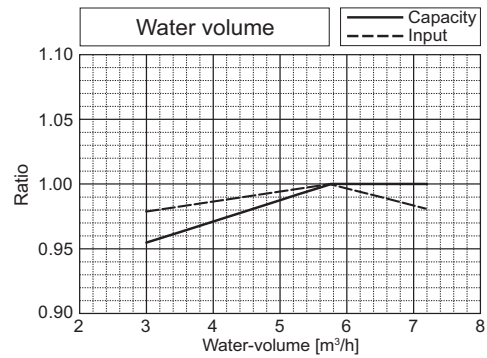
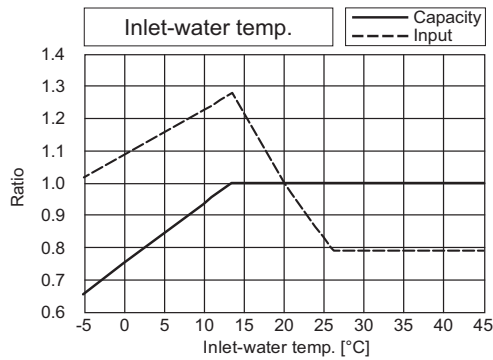
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P120TLMU/YLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

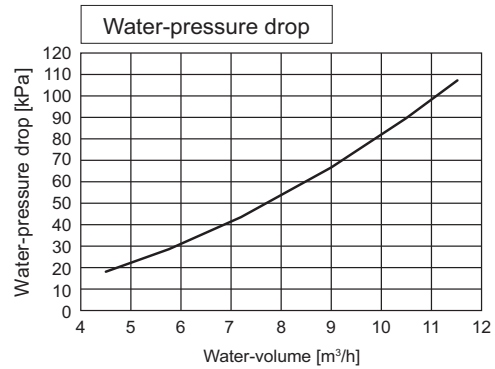
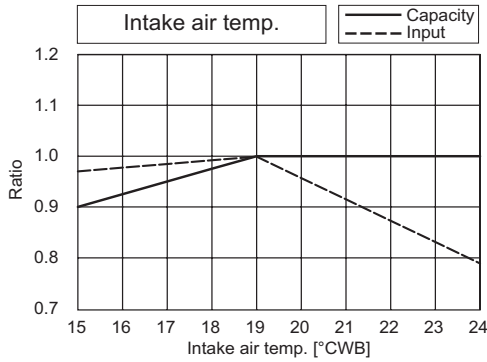
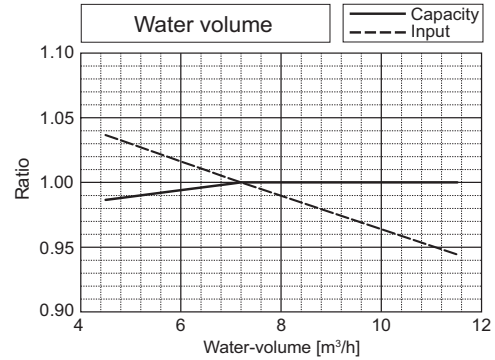
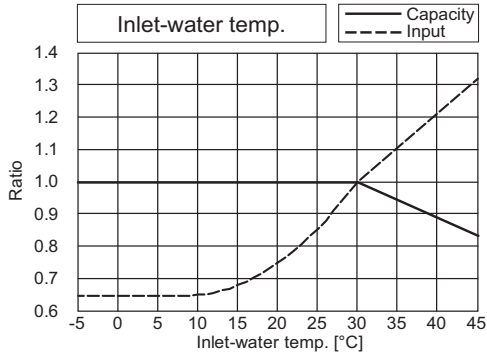


PQHY-			P120TLMU/YLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

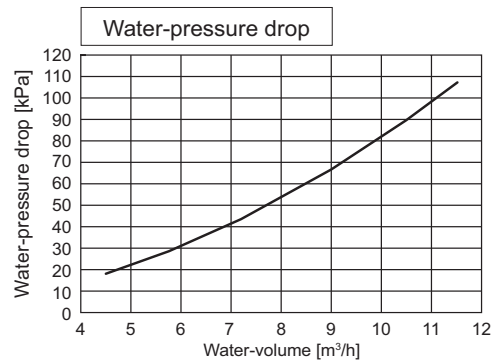
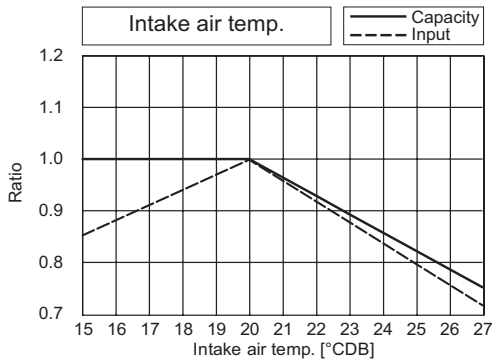
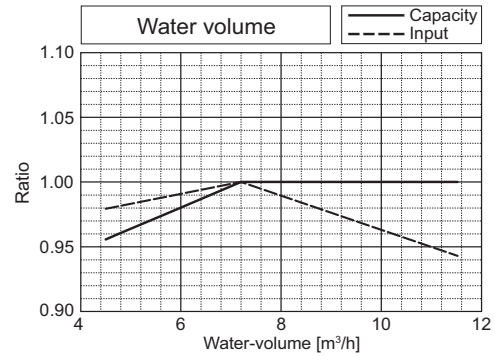
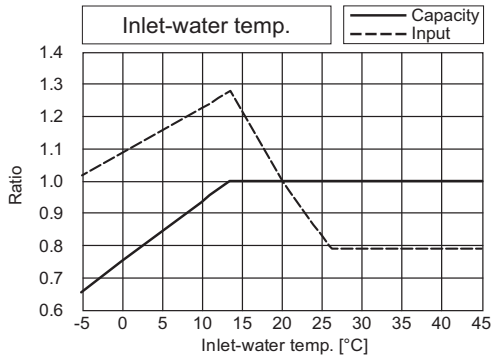


7. CAPACITY TABLES

PQHY-			P144TLMU/YLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98



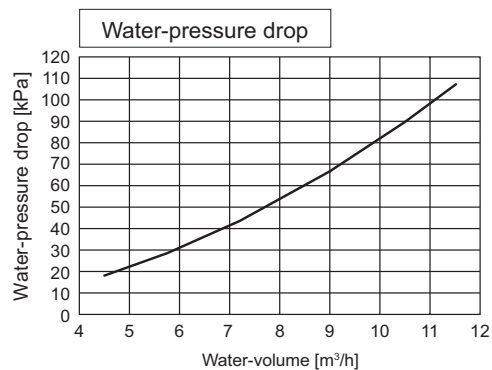
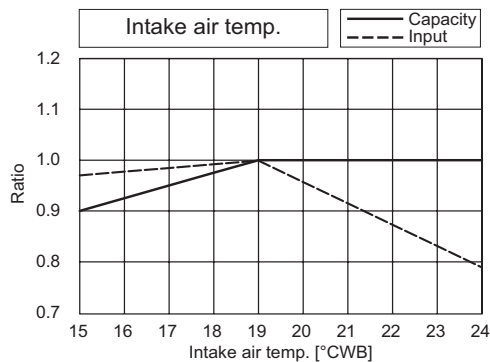
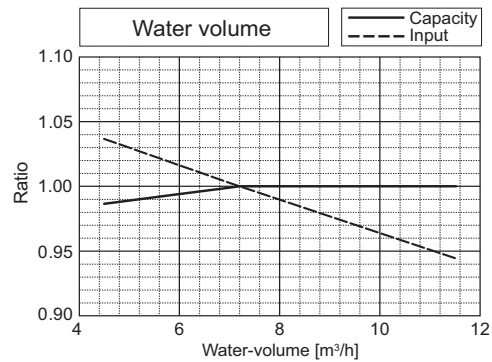
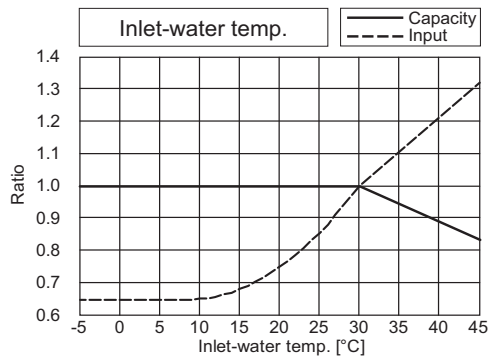
PQHY-			P144TLMU/YLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90



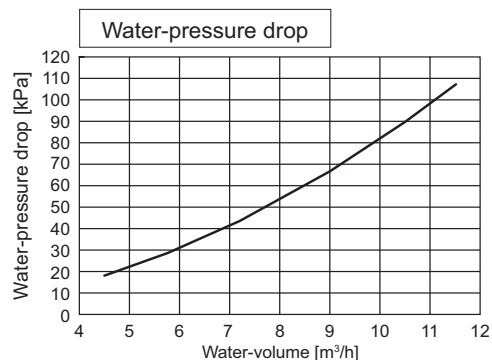
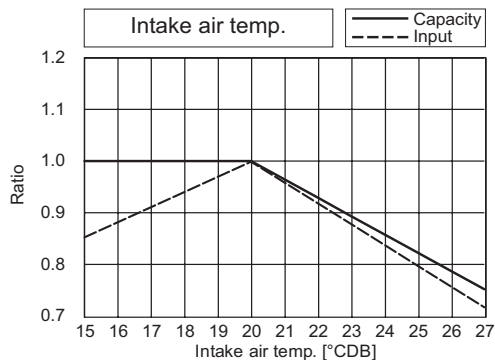
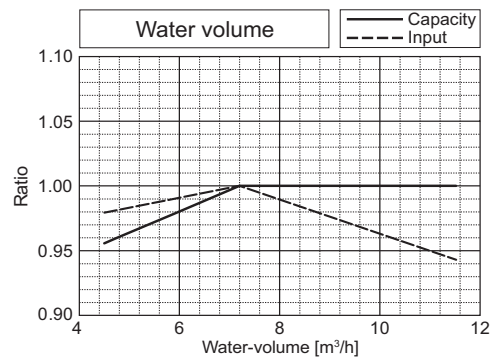
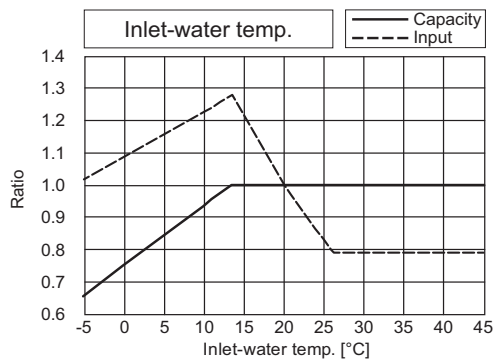
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P168TLMU/YLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88

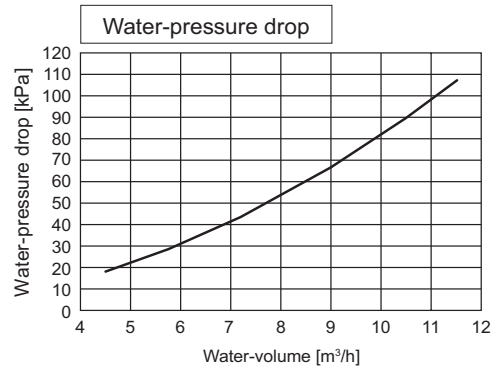
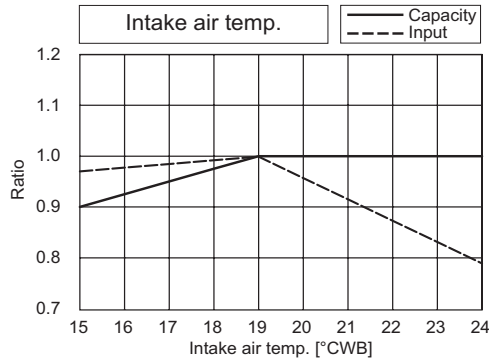
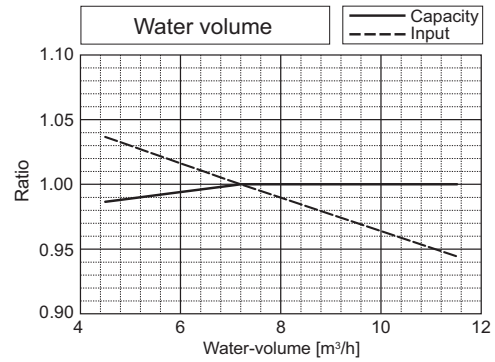
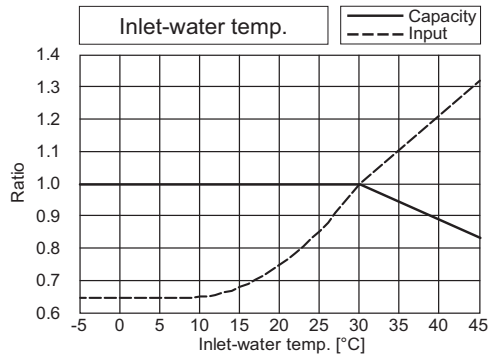


PQHY-			P168TLMU/YLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72

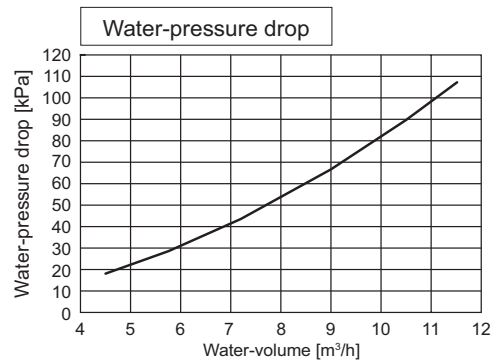
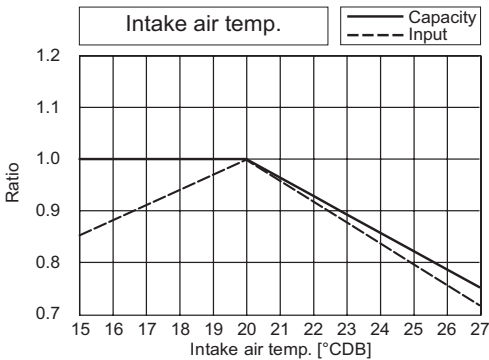
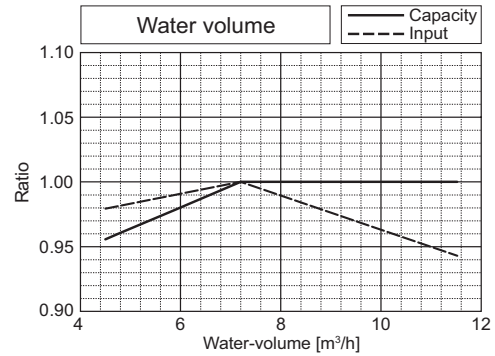
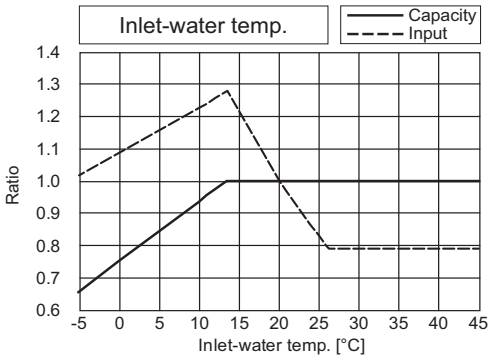


7. CAPACITY TABLES

PQHY-			P192TLMU/YLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19



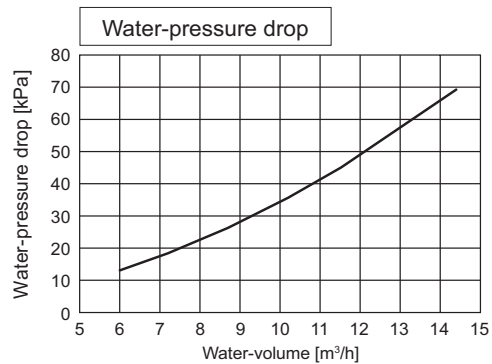
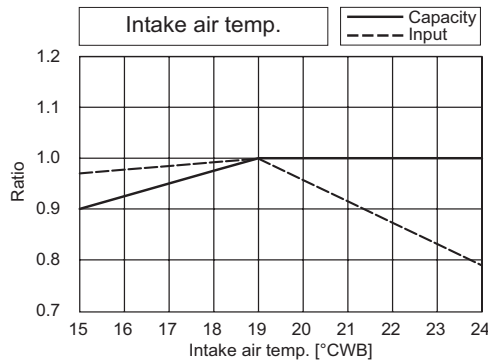
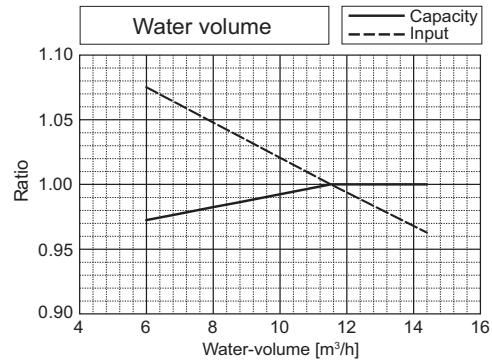
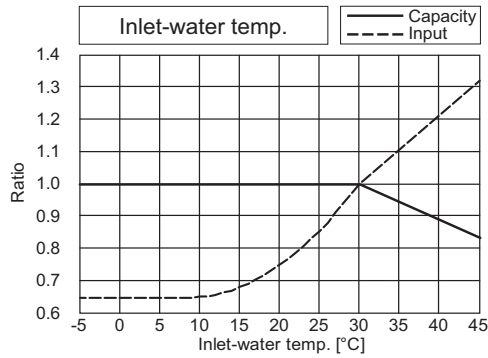
PQHY-			P192TLMU/YLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56



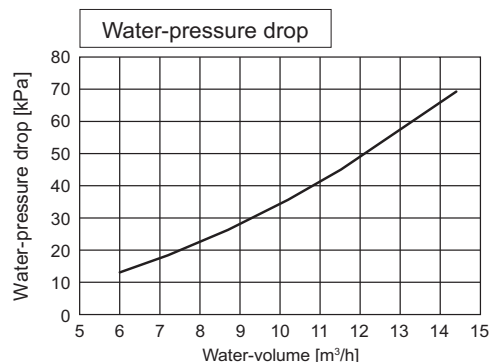
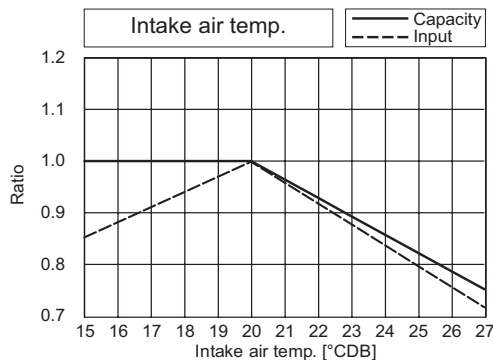
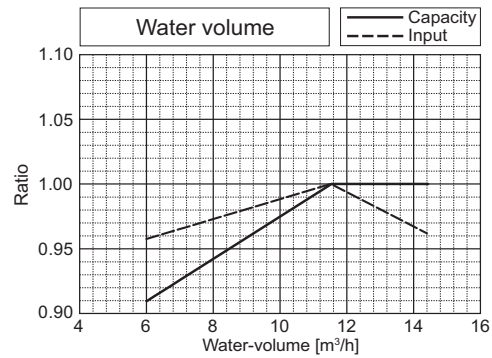
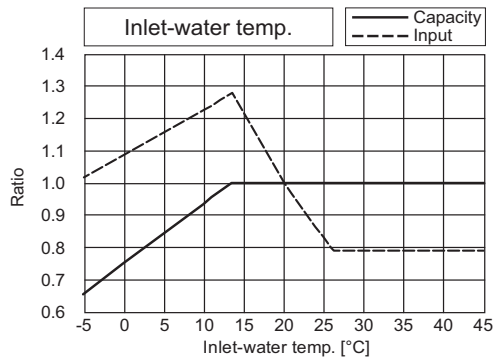
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P216TLMU/YLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	19.23	Input	kW	(Non-Ducted) 17.72 (Ducted) 16.10

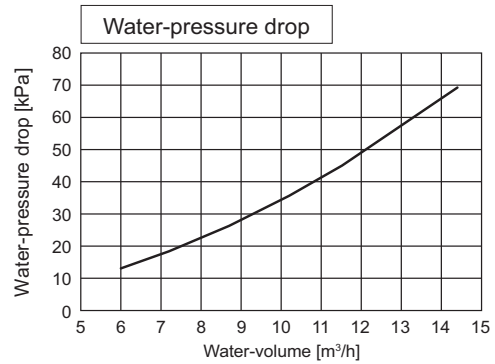
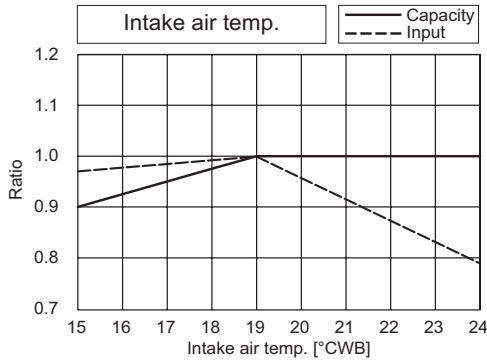
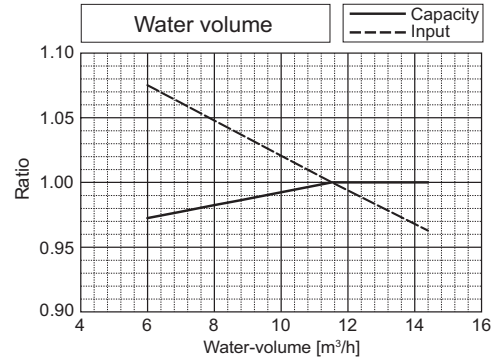
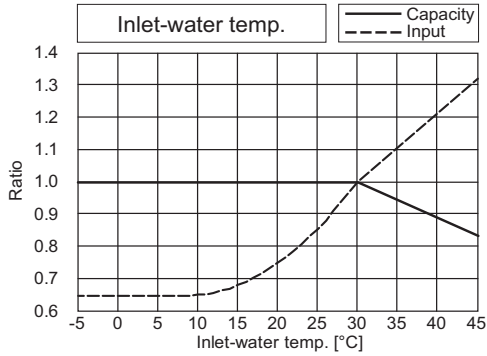


PQHY-			P216TLMU/YLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	13.04	Input	kW	(Non-Ducted) 12.01 (Ducted) 12.34

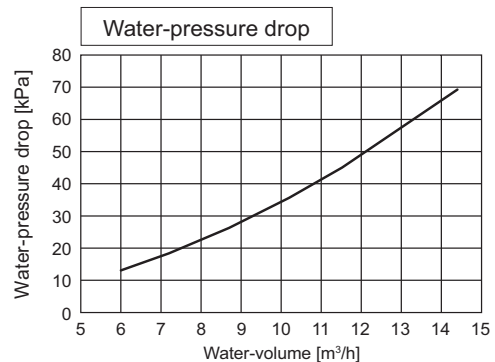
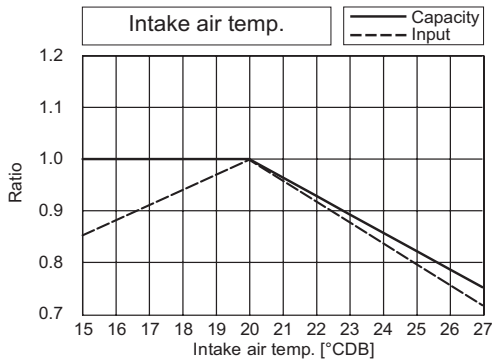
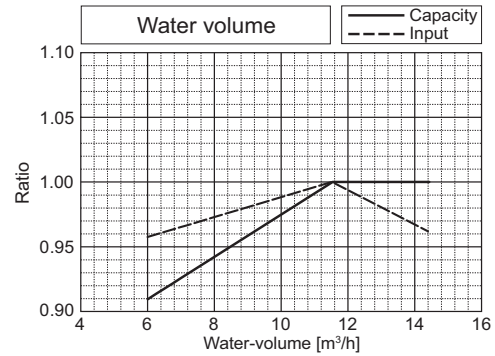
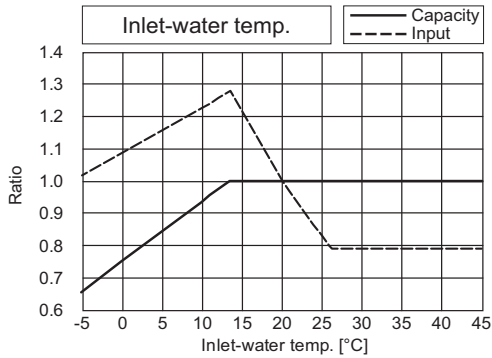


7. CAPACITY TABLES

PQHY-			P240TLMU/YLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	21.14	Input	kW	(Non-Ducted) 19.49 (Ducted) 18.74



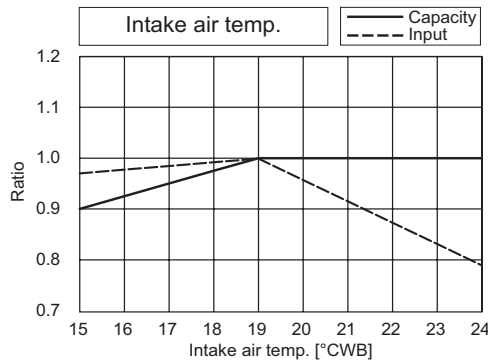
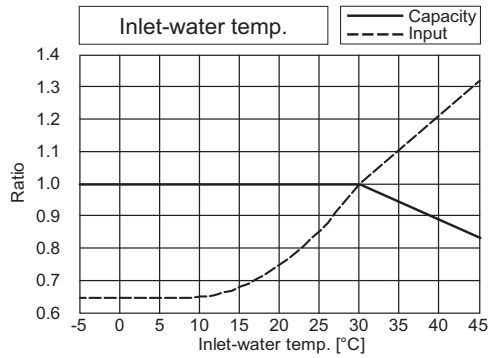
PQHY-			P240TLMU/YLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	15.12	Input	kW	(Non-Ducted) 13.93 (Ducted) 14.62



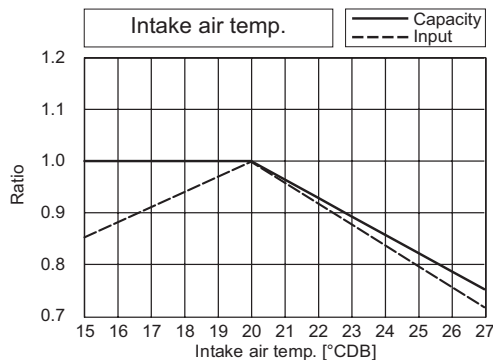
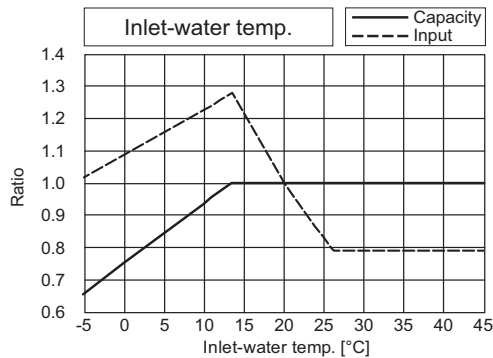
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

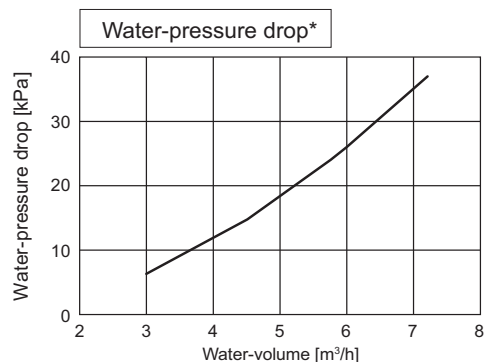
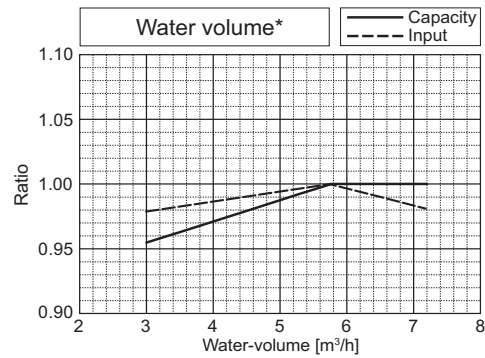
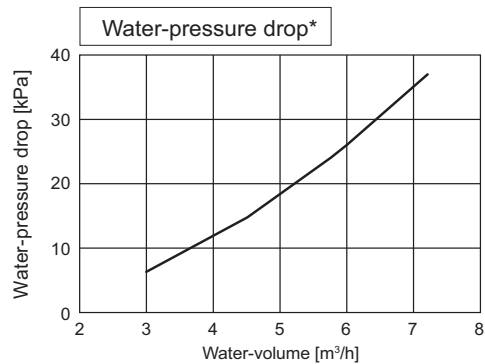
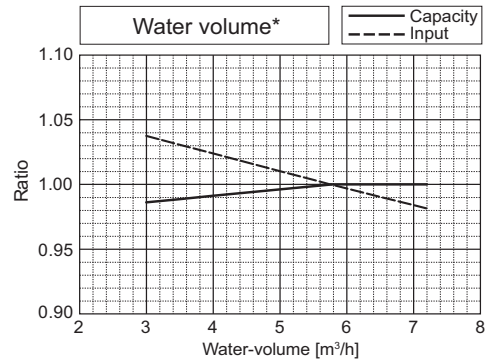
PQHY-			P144TSLMU/YSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72



PQHY-			P144TSLMU/YSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22

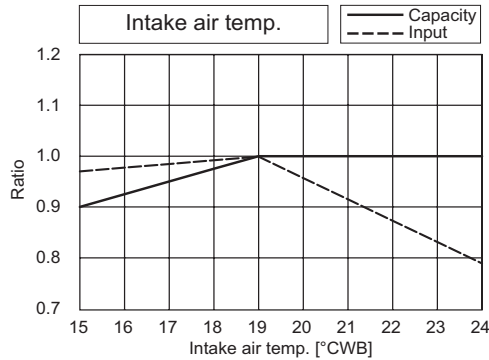
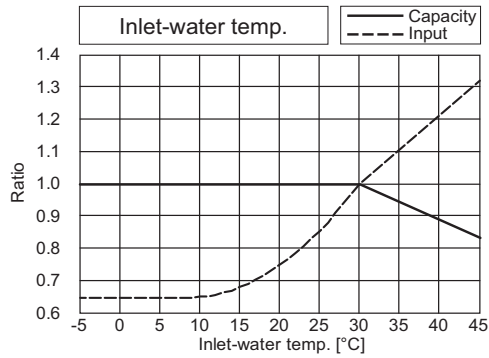


*The drawing indicates characteristic per unit.

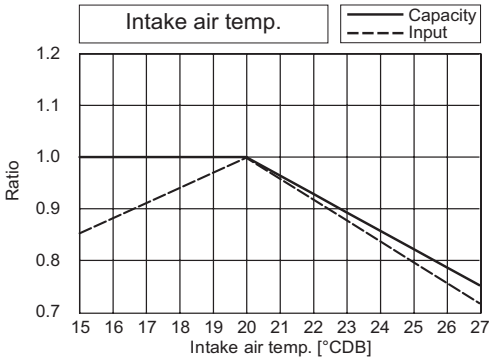
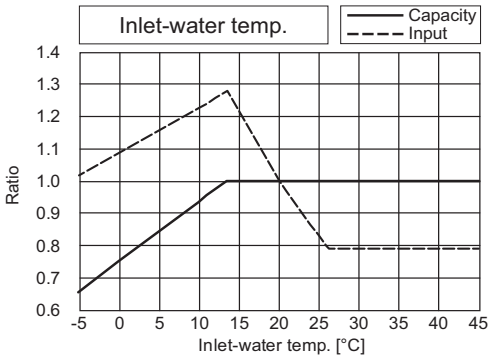


7. CAPACITY TABLES

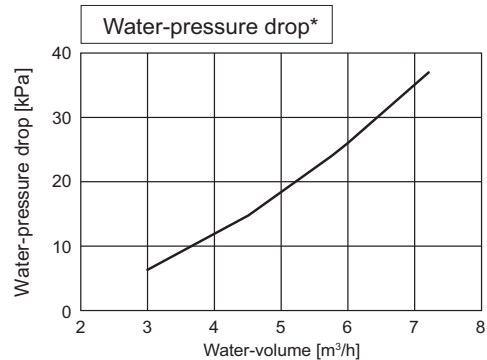
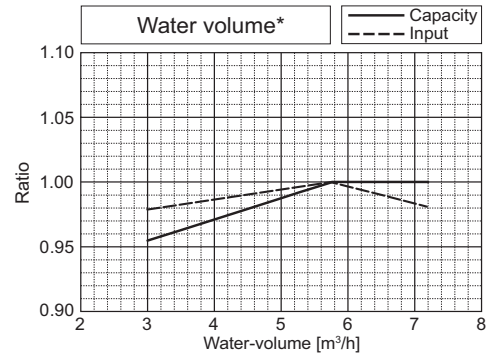
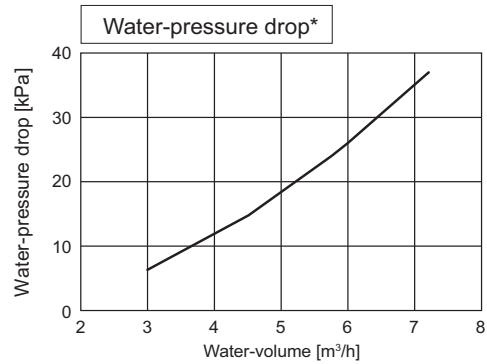
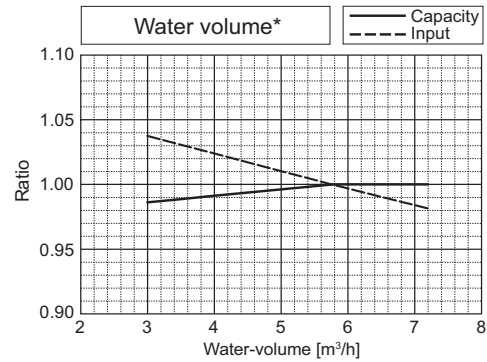
PQHY-			P168TSLMU/YSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22



PQHY-			P168TSLMU/YSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03



*The drawing indicates characteristic per unit.

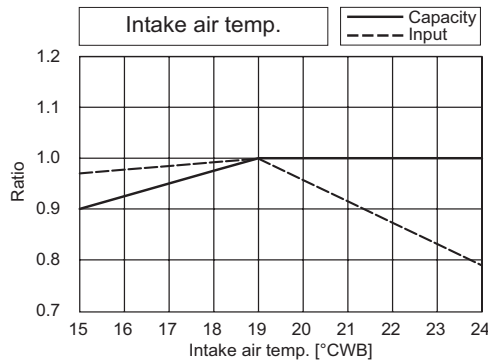
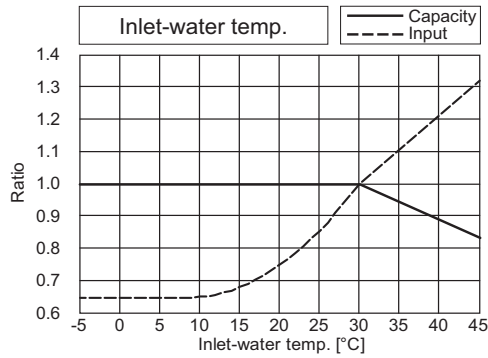


PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

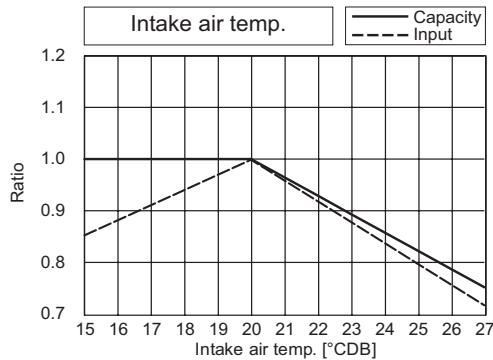
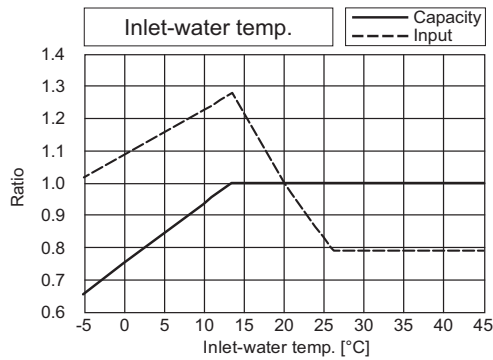
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

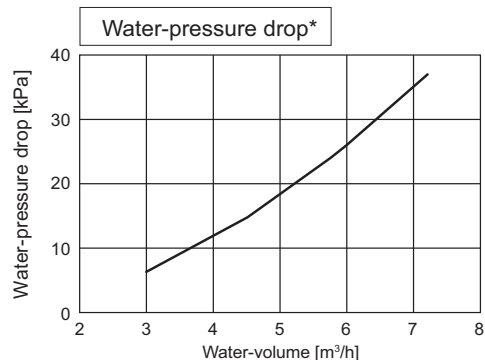
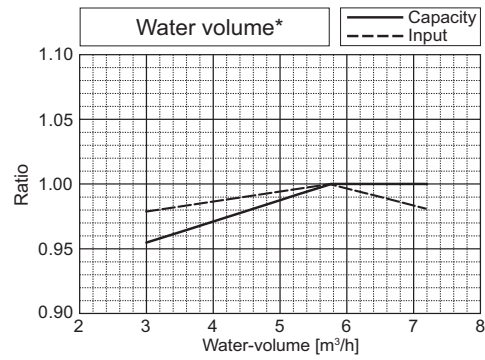
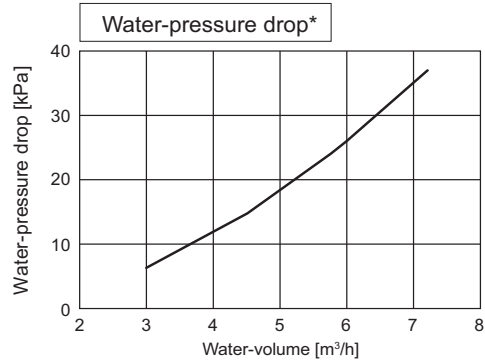
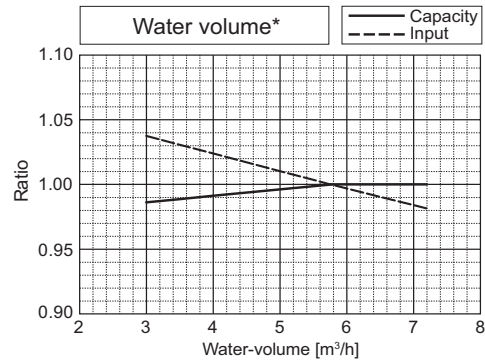
PQHY-			P192TSLMU/YSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98



PQHY-			P192TSLMU/YSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90

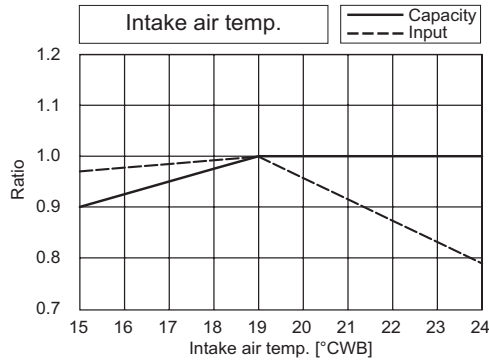
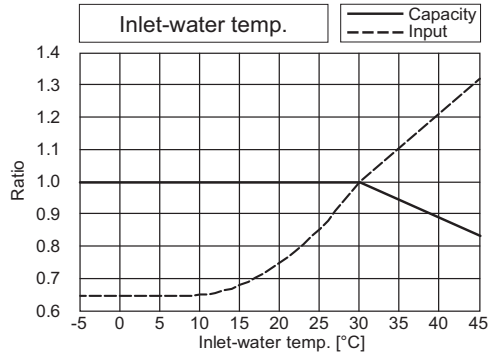


*The drawing indicates characteristic per unit.

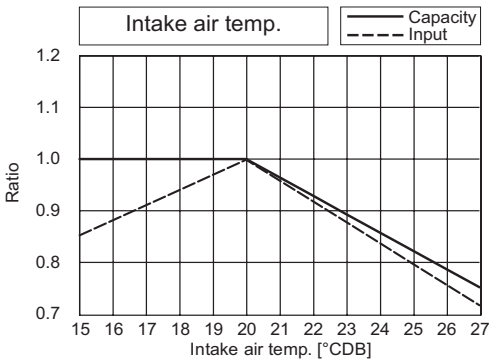
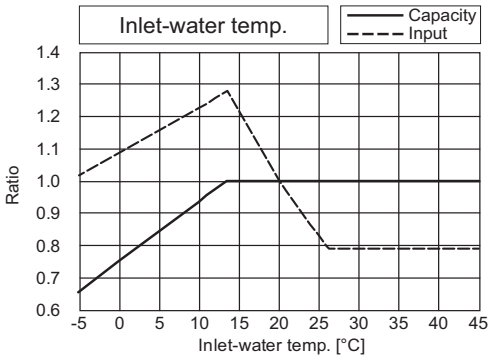


7. CAPACITY TABLES

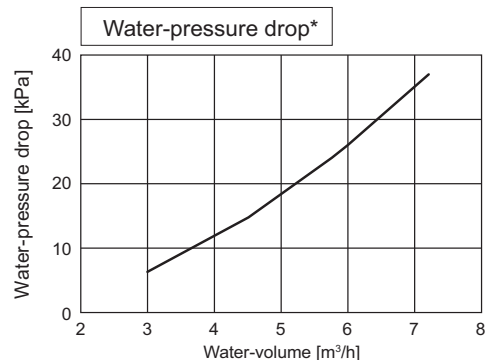
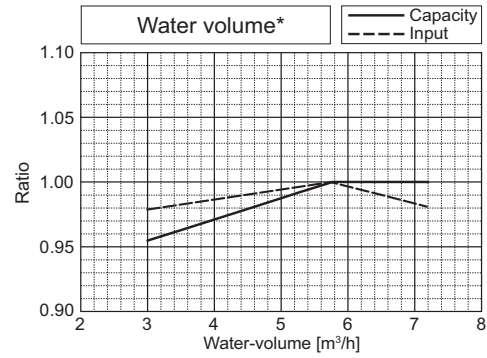
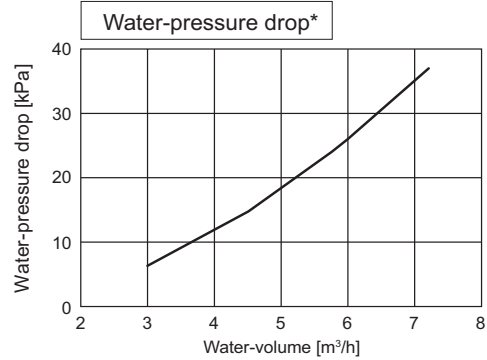
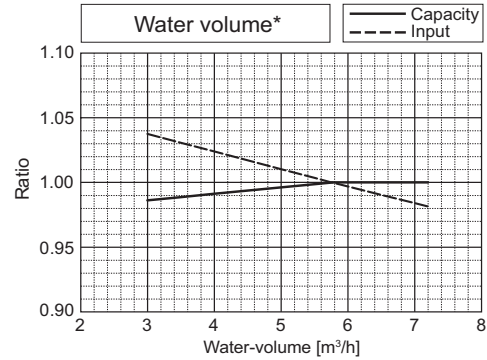
PQHY-			P216TSLMU/YSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24



PQHY-			P216TSLMU/YSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35



*The drawing indicates characteristic per unit.

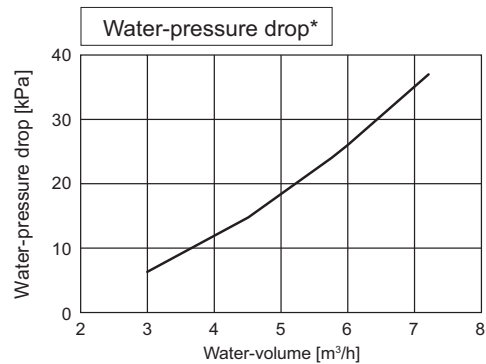
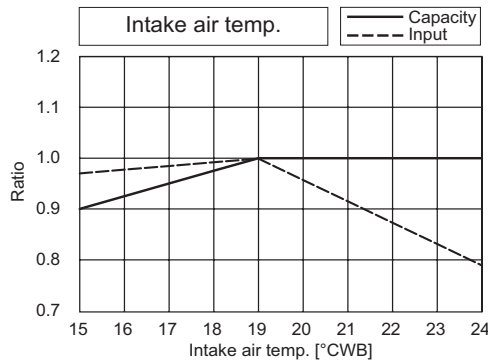
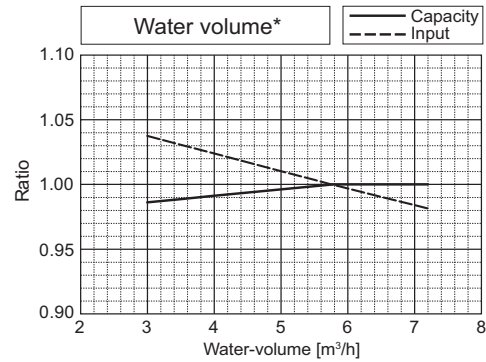
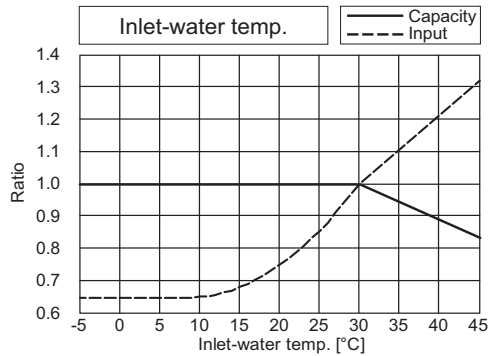


PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

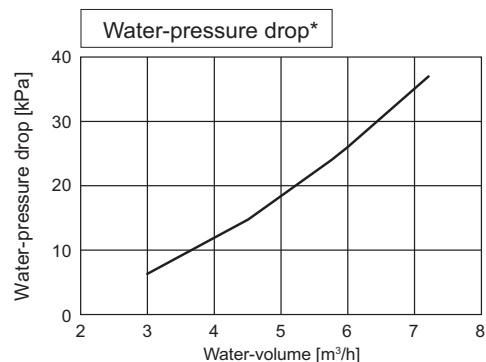
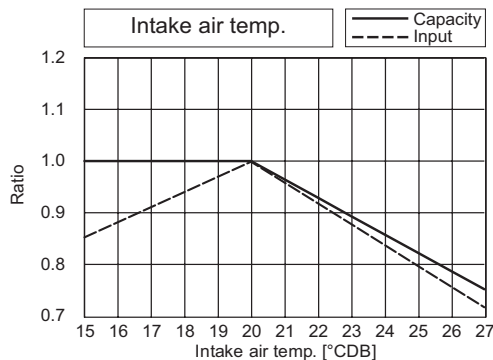
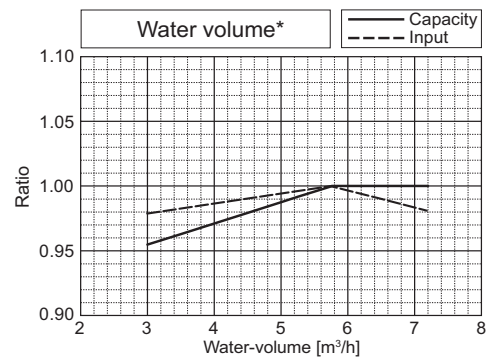
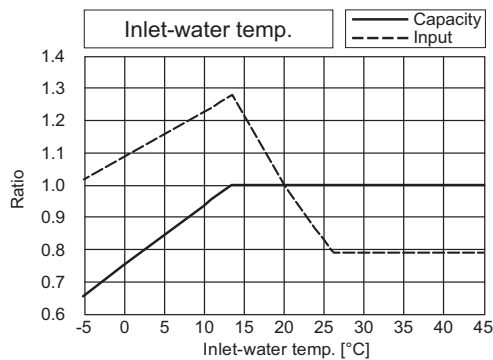
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P240TSLMU/YSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15



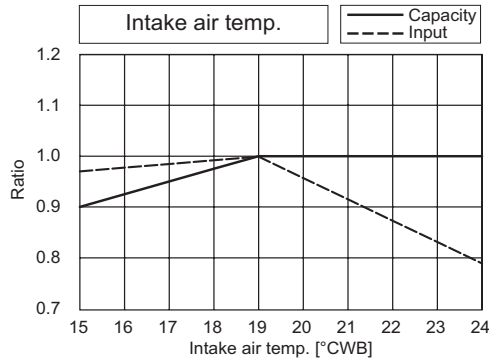
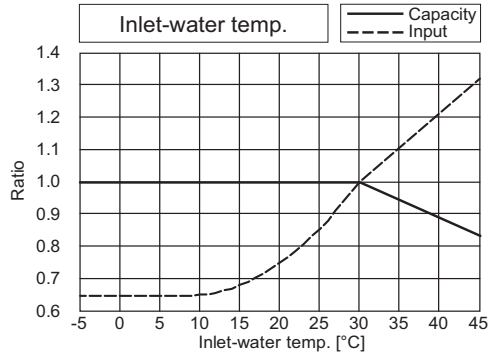
PQHY-			P240TSLMU/YSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02



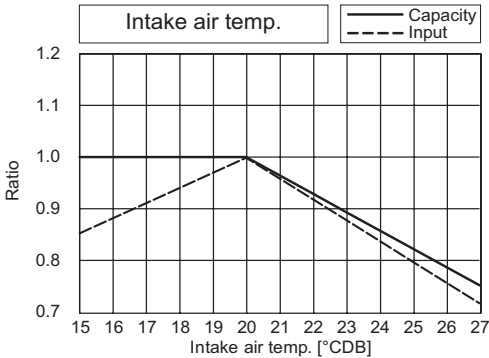
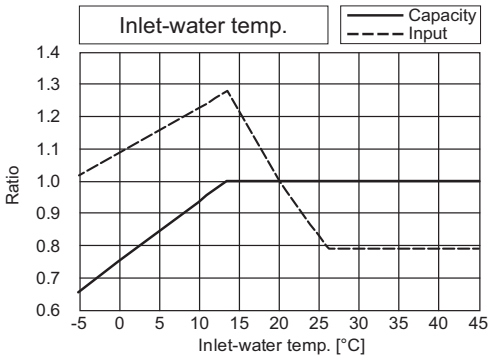
*The drawing indicates characteristic per unit.

7. CAPACITY TABLES

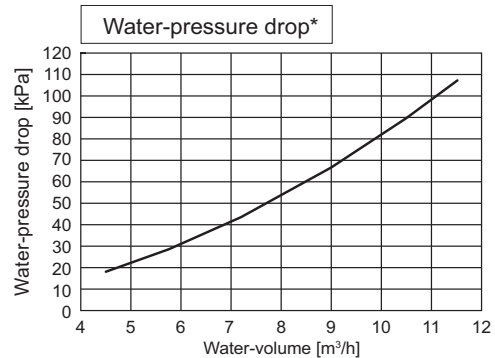
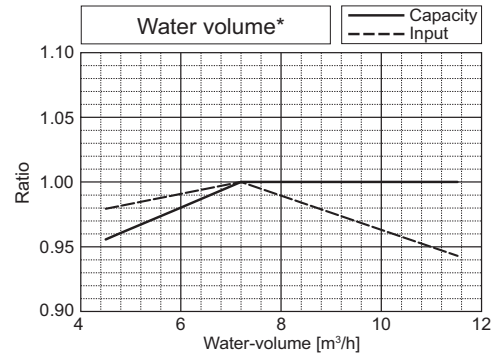
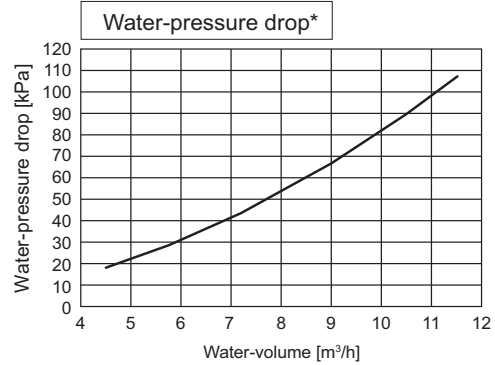
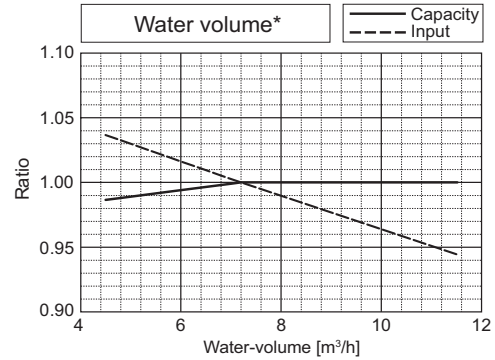
PQHY-			P288TSLMU/YSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43



PQHY-			P288TSLMU/YSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05



*The drawing indicates characteristic per unit.



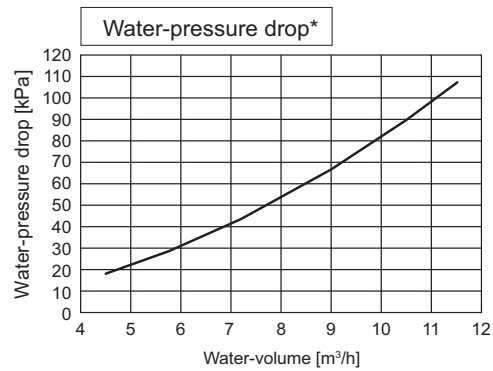
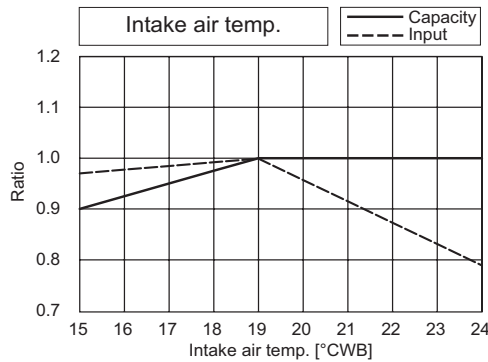
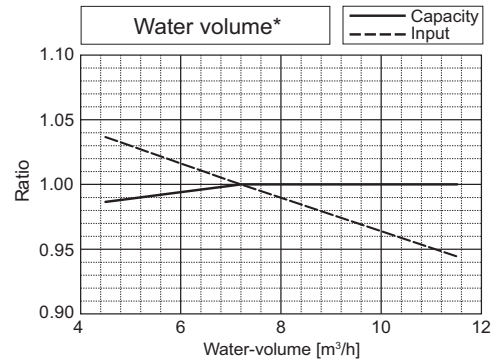
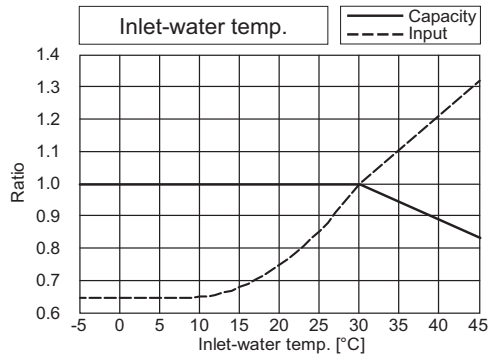
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

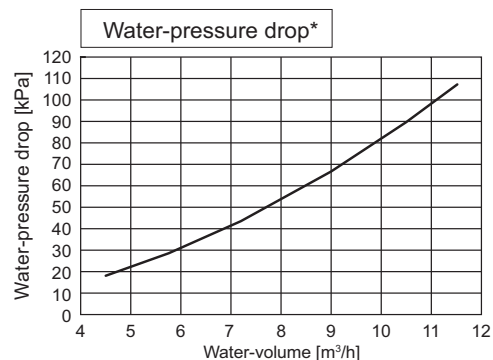
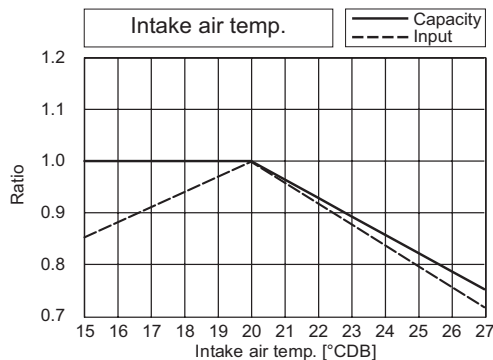
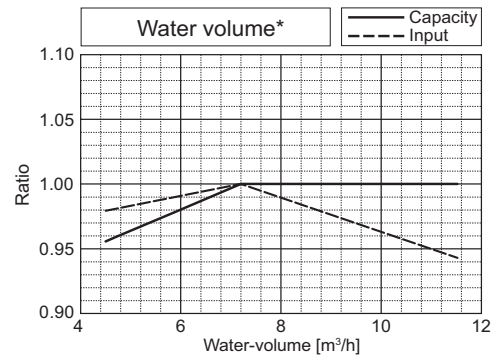
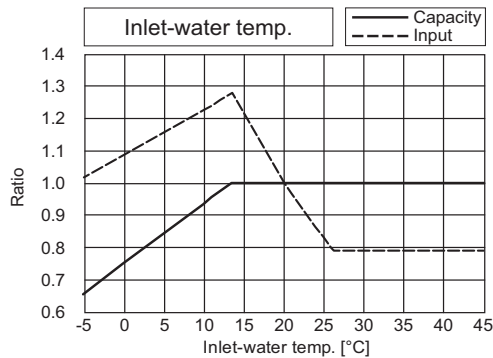
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P312TSLMU/YSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67

*The drawing indicates characteristic per unit.

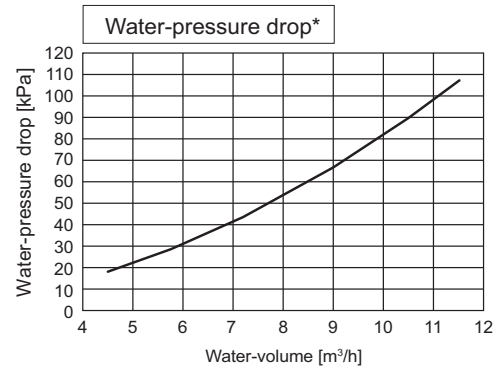
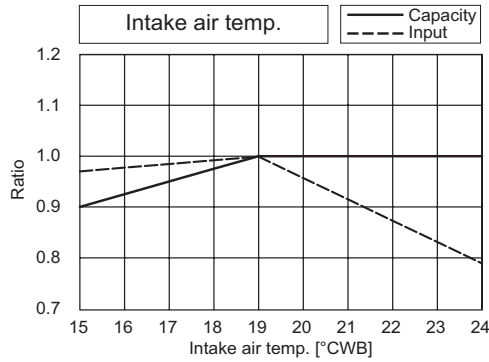
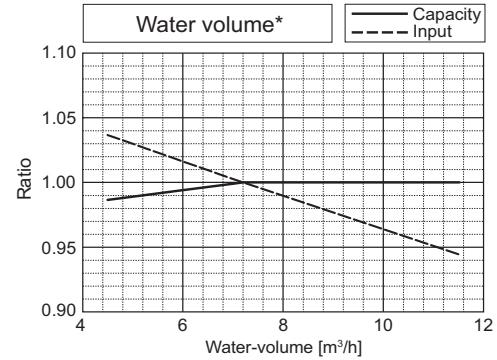
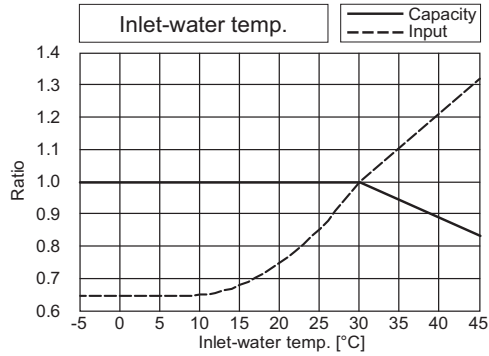


PQHY-			P312TSLMU/YSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96

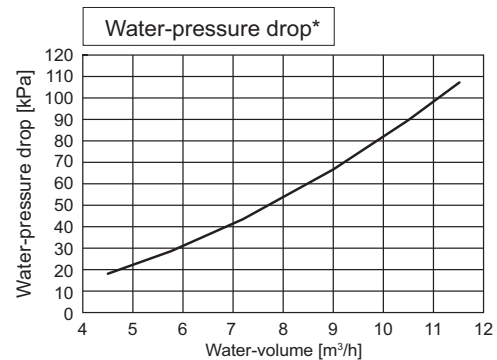
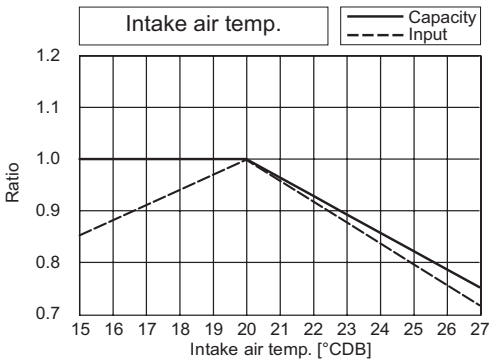
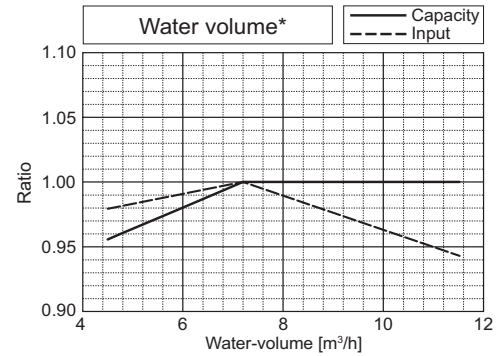
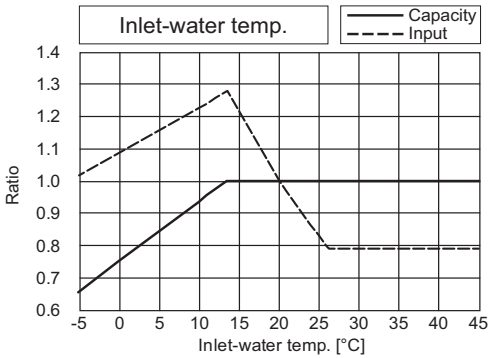


7. CAPACITY TABLES

PQHY-			P336TSLMU/YSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85



PQHY-			P336TSLMU/YSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05



*The drawing indicates characteristic per unit.

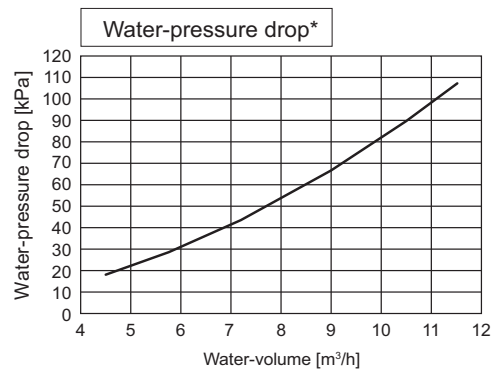
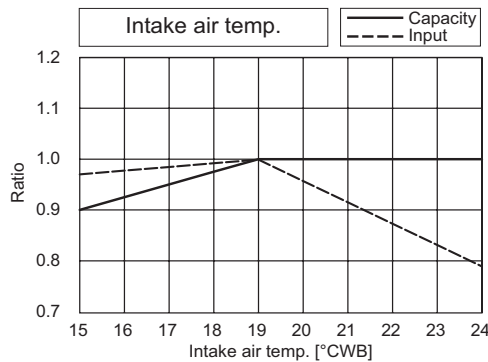
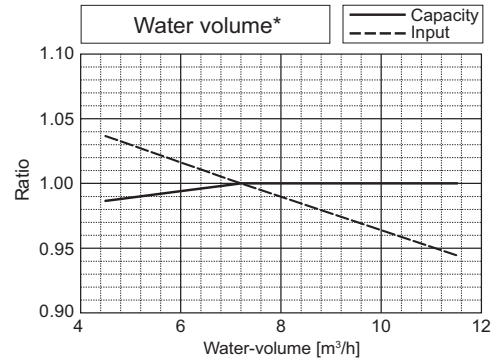
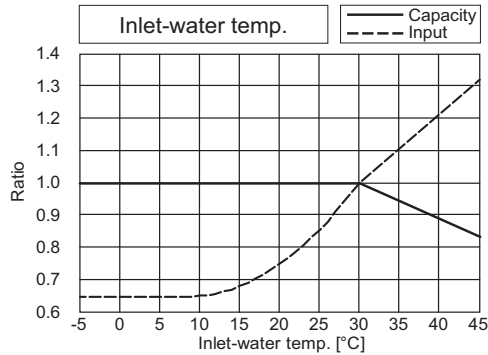
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

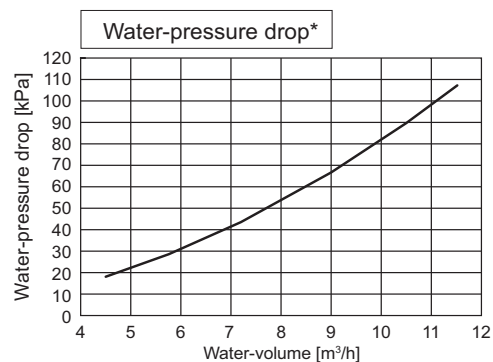
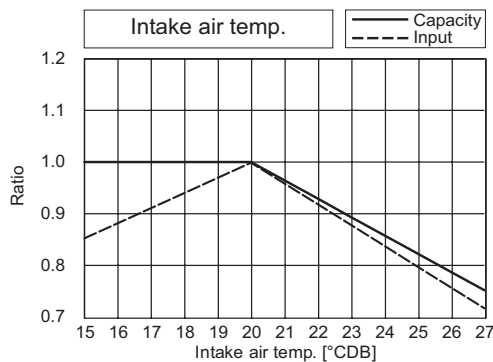
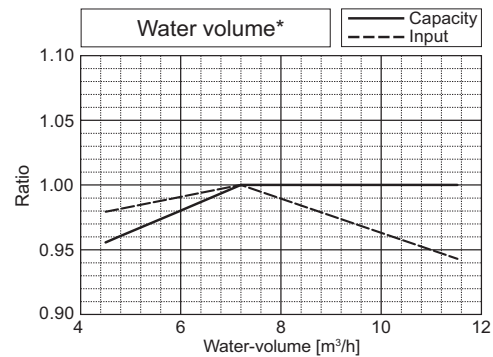
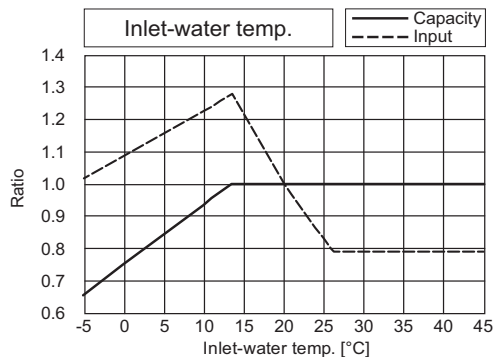
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-		P360TSLMU/YSLMU			
Nominal Cooling Capacity	kW	105.5	Rated Cooling Capacity	kW	100.2
	BTU/h	360,000		BTU/h	342,000
Input	kW	29.43	Input	kW	(Non-Ducted) 27.17 (Ducted) 27.41

*The drawing indicates characteristic per unit.

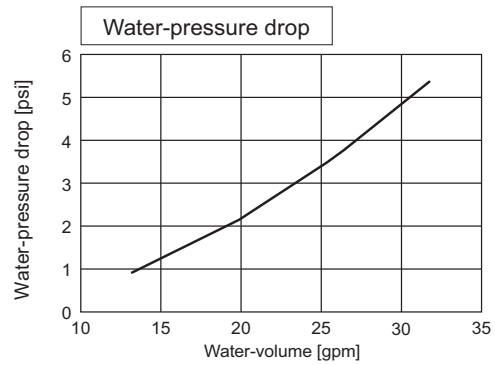
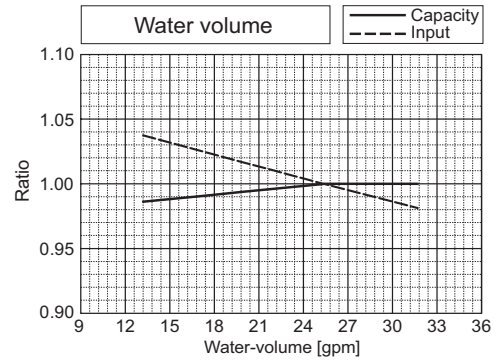
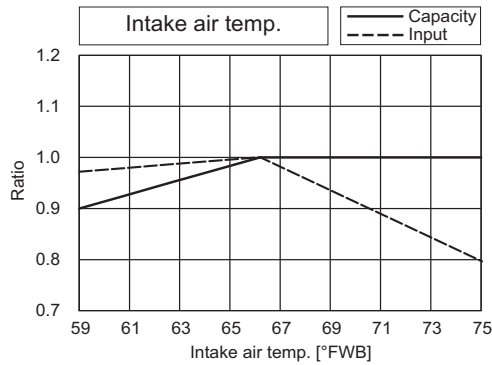
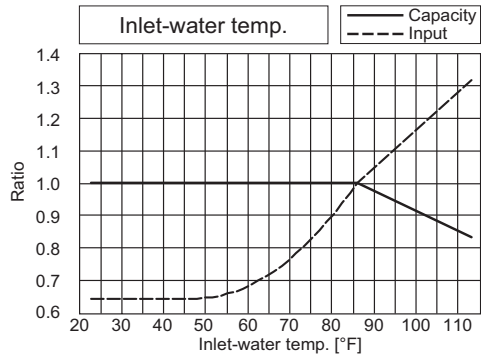


PQHY-		P360TSLMU/YSLMU			
Nominal Heating Capacity	kW	118.7	Rated Heating Capacity	kW	113.4
	BTU/h	405,000		BTU/h	387,000
Input	kW	22.85	Input	kW	(Non-Ducted) 21.09 (Ducted) 21.70

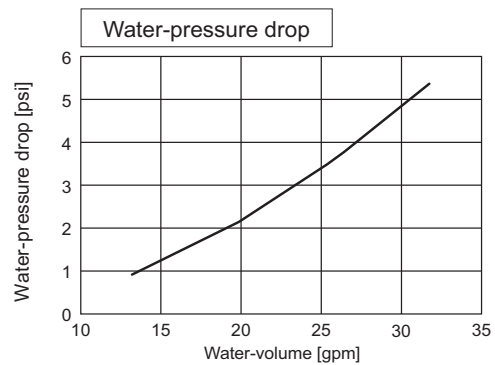
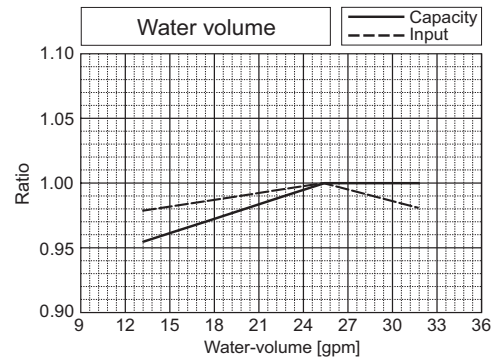
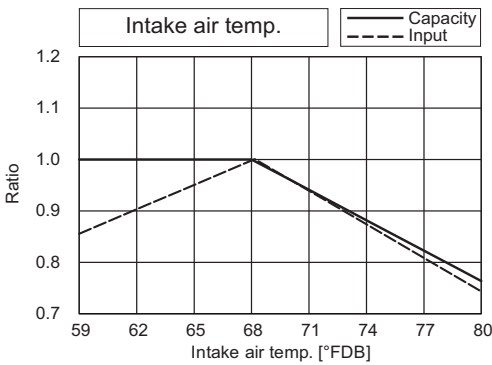
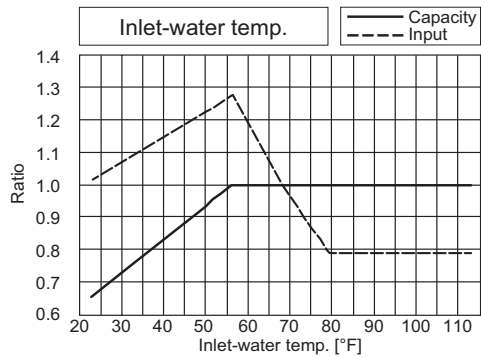


7. CAPACITY TABLES

PQHY-			P72TLMU/YLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12



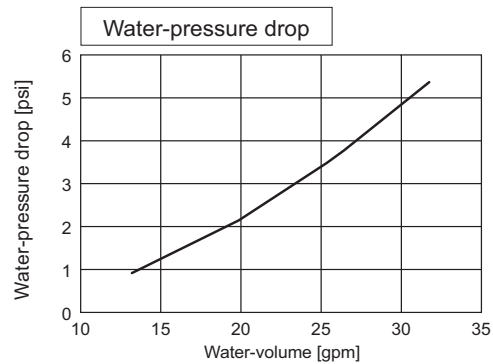
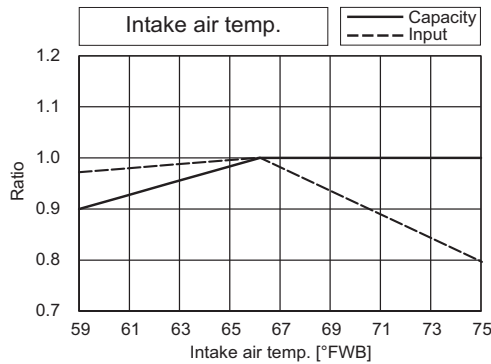
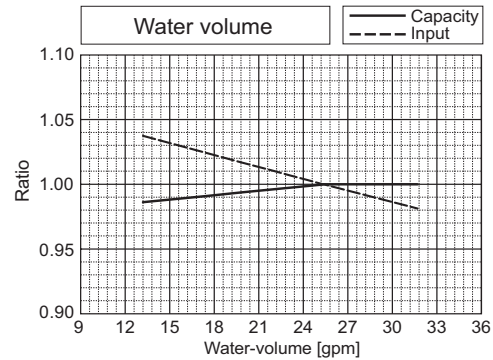
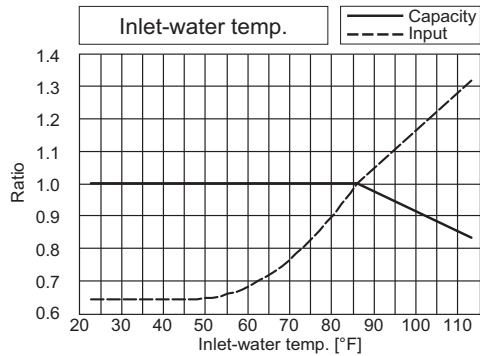
PQHY-			P72TLMU/YLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36



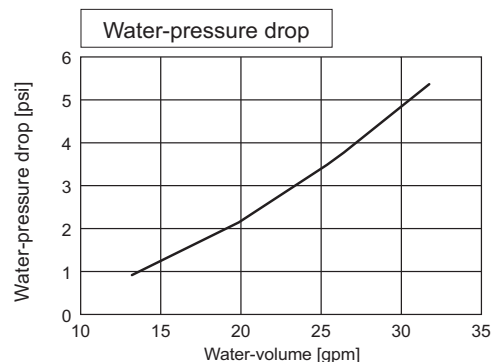
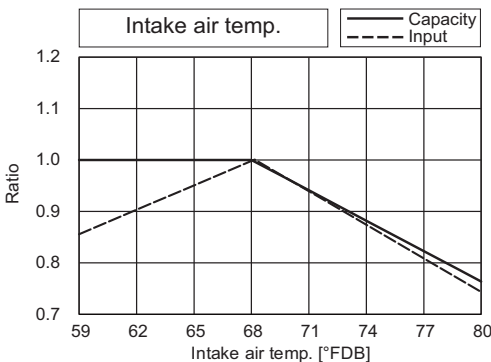
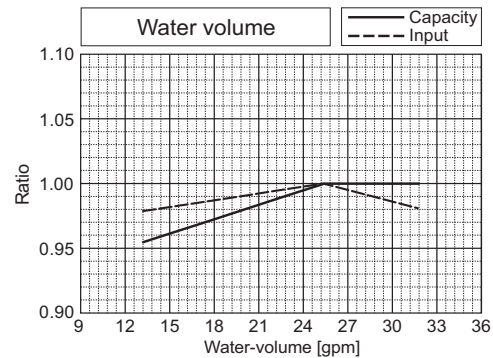
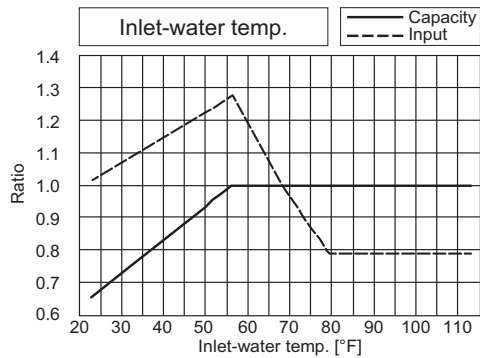
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P96TLMU/YLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19

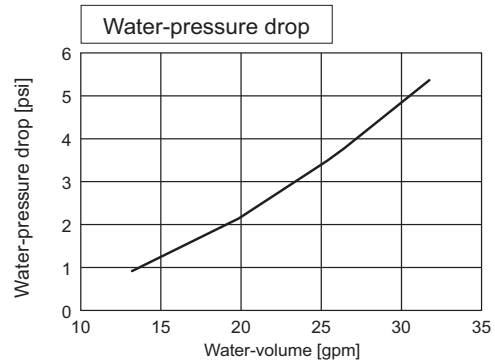
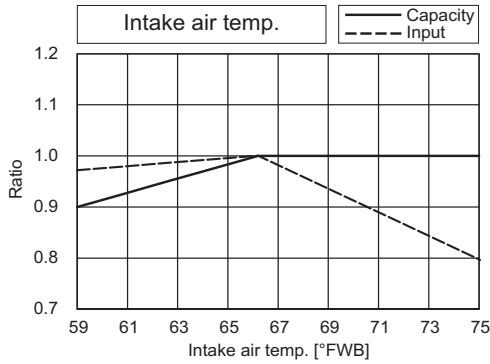
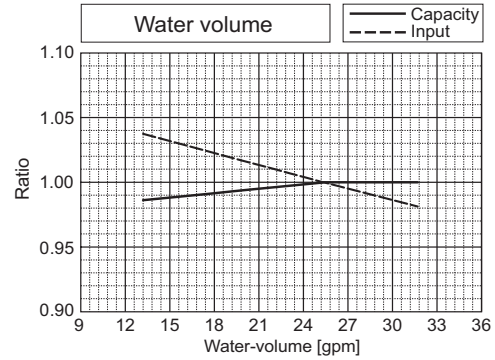
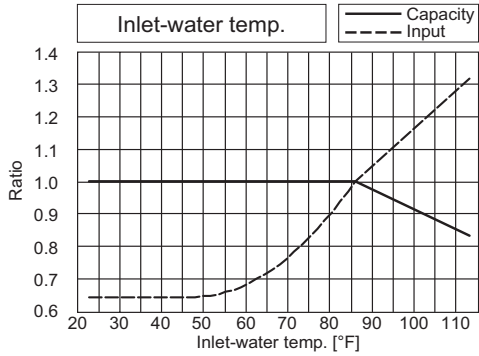


PQHY-			P96TLMU/YLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48

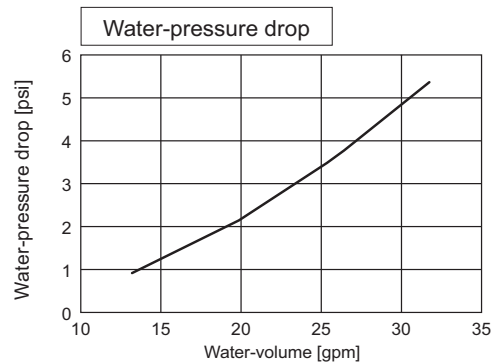
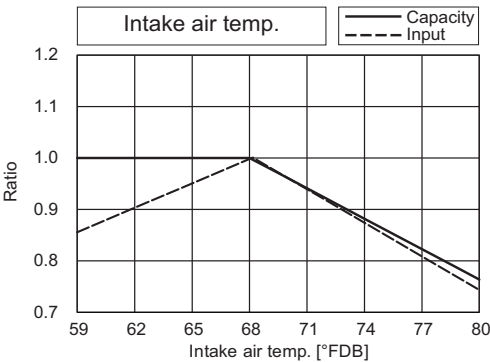
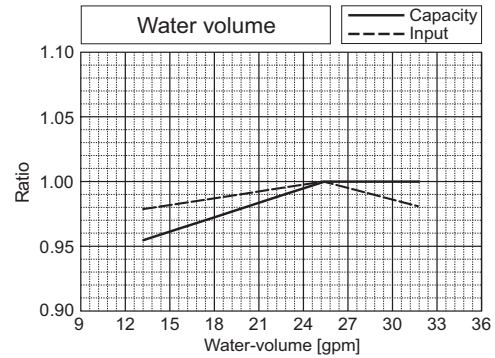
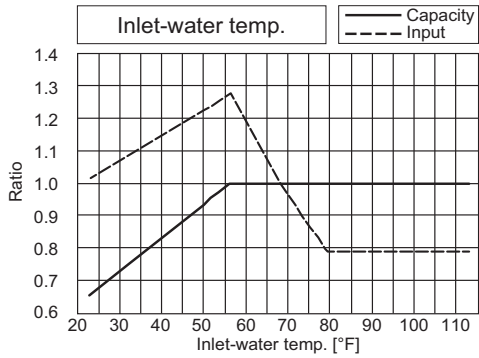


7. CAPACITY TABLES

PQHY-			P120TLMU/YLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35



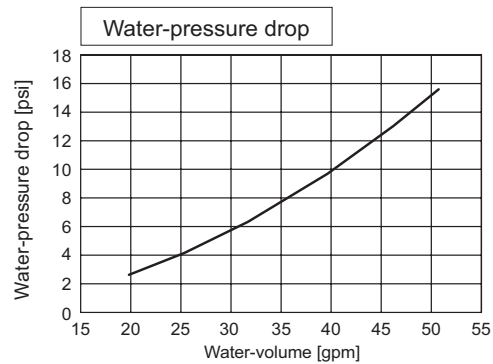
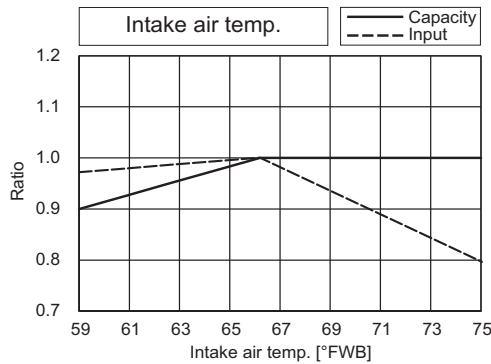
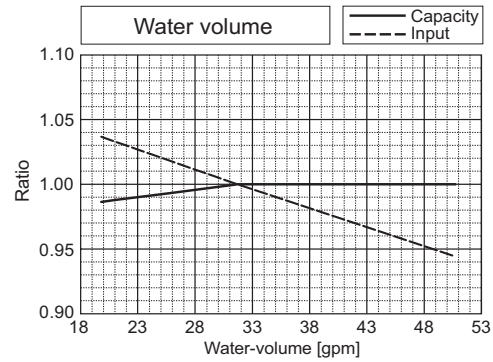
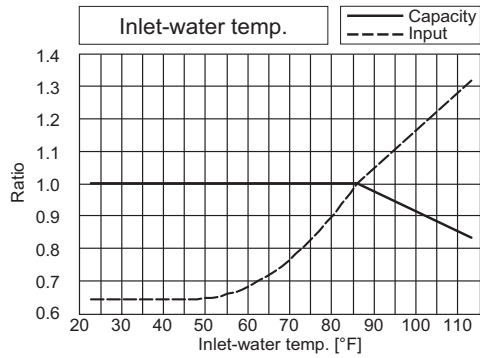
PQHY-			P120TLMU/YLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92



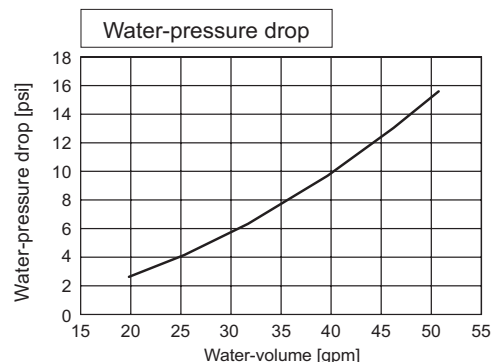
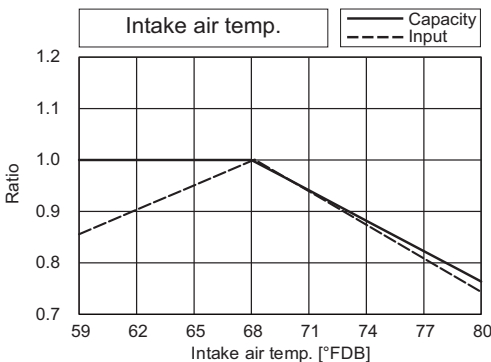
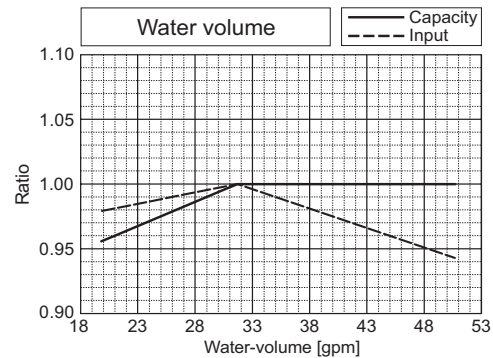
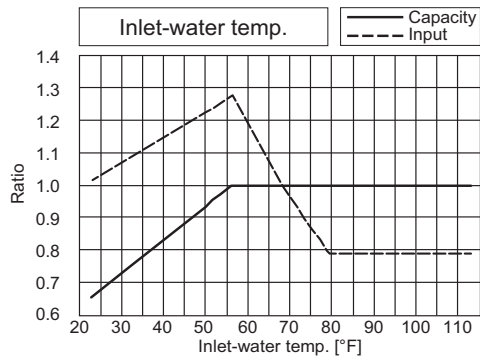
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P144TLMU/YLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98

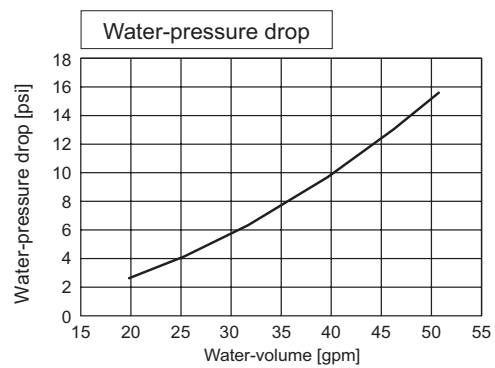
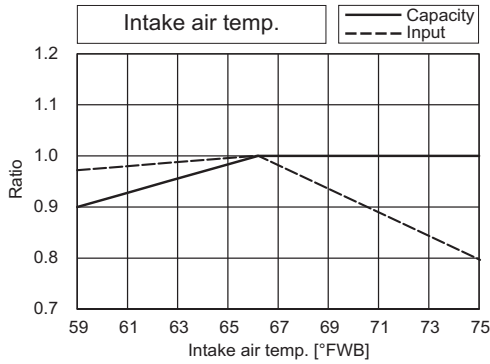
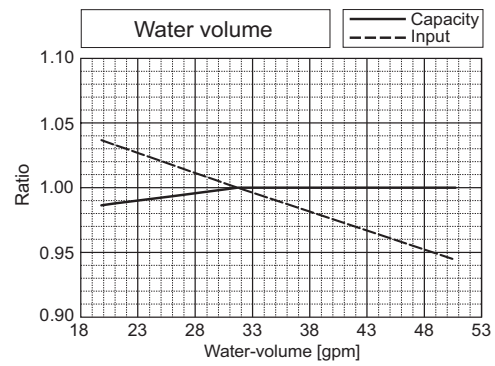
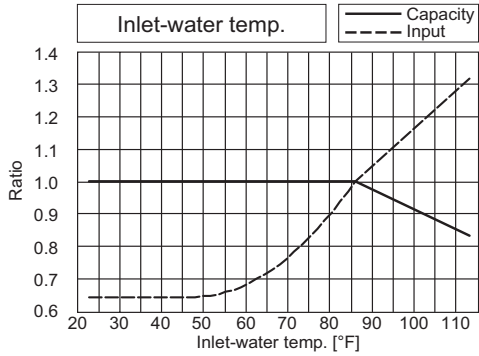


PQHY-			P144TLMU/YLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90

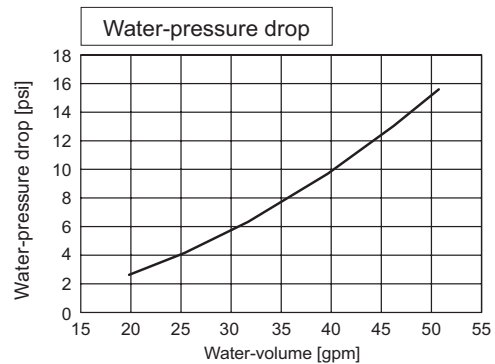
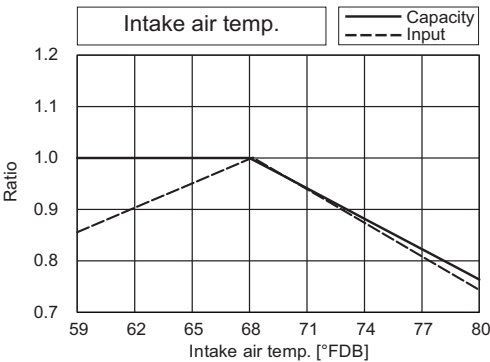
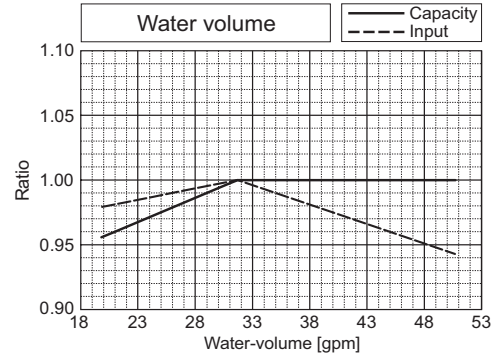
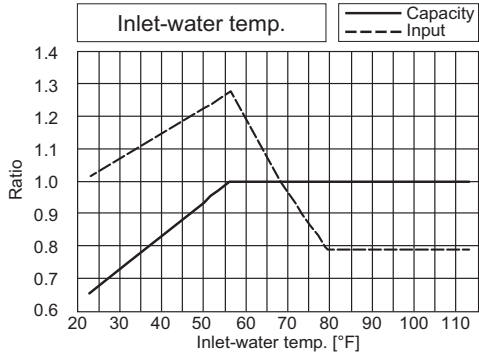


7. CAPACITY TABLES

PQHY-			P168TLMU/YLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88



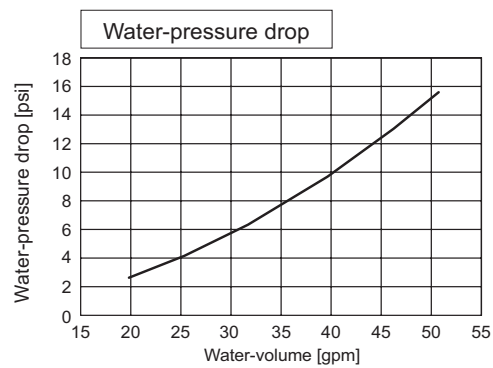
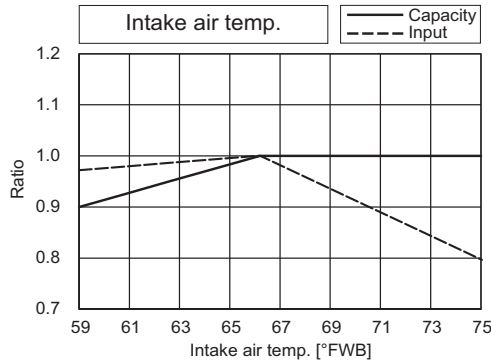
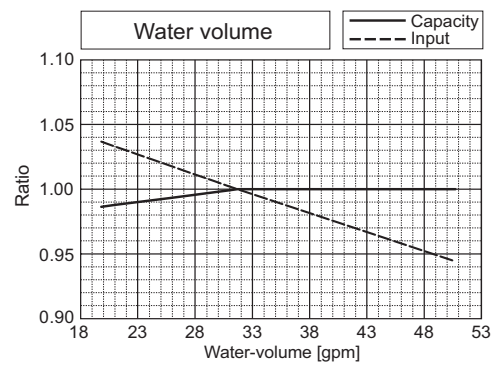
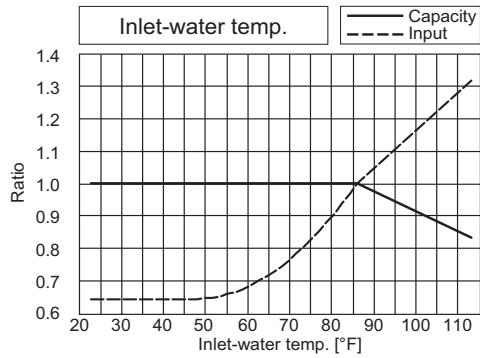
PQHY-			P168TLMU/YLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72



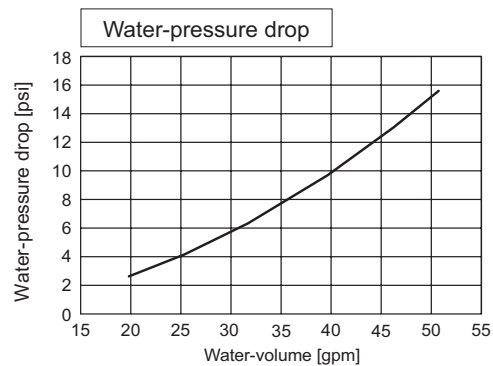
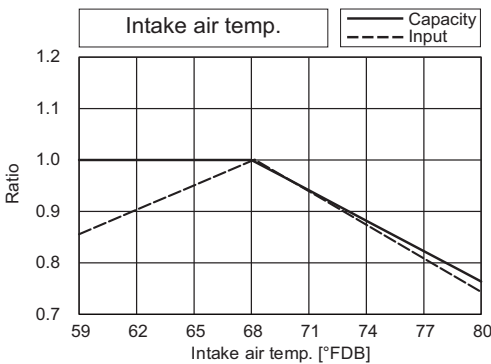
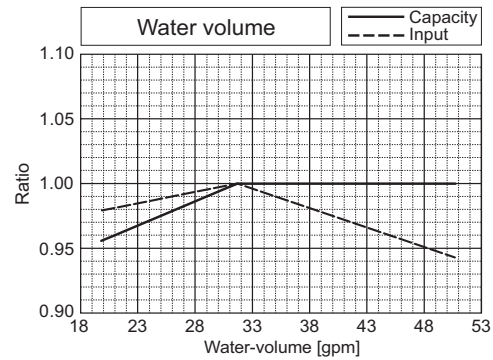
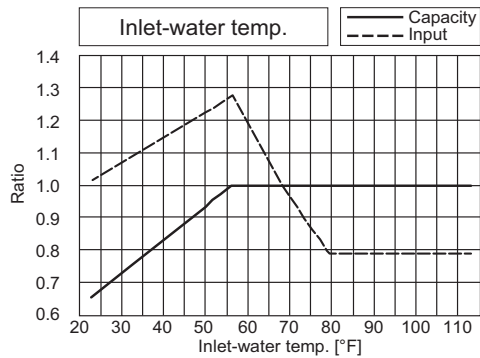
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P192TLMU/YLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19

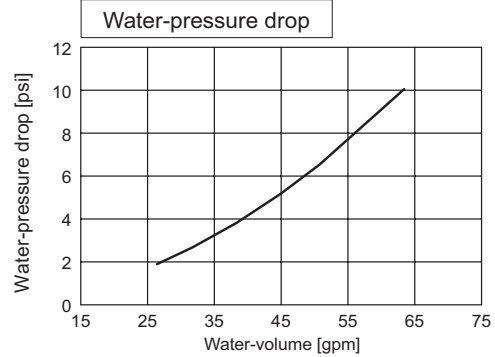
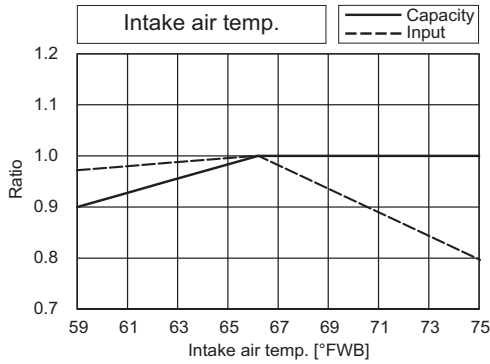
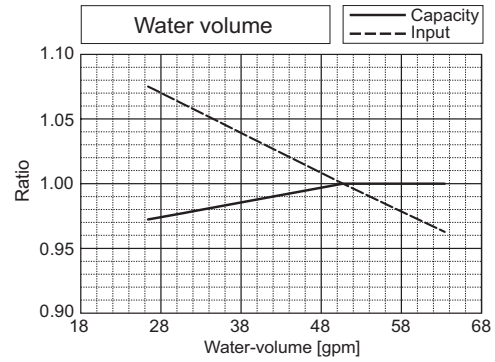
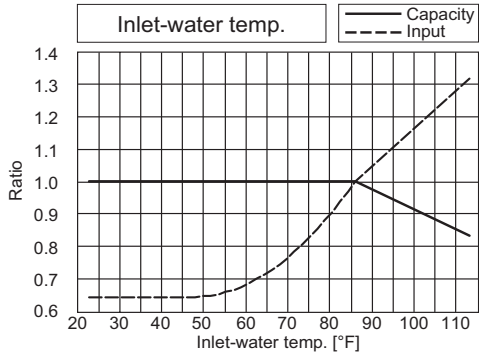


PQHY-			P192TLMU/YLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56

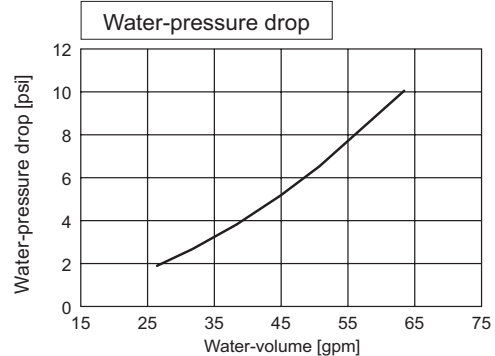
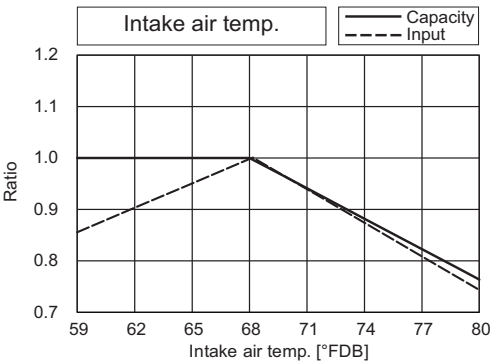
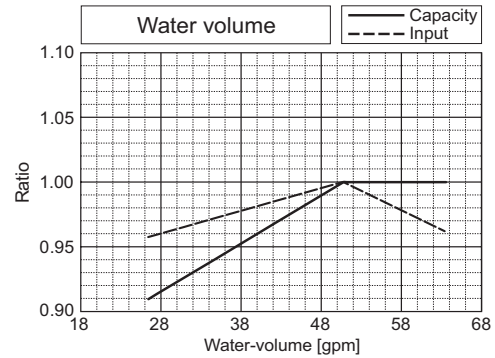
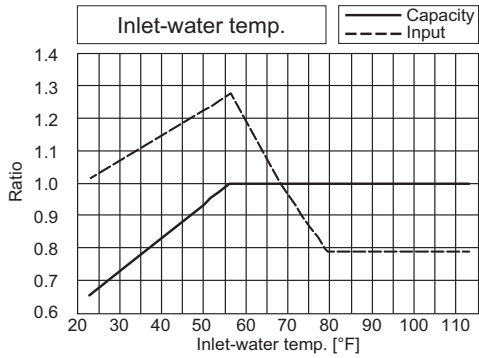


7. CAPACITY TABLES

PQHY-			P216TLMU/YLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	19.23	Input	kW	(Non-Ducted) 17.72 (Ducted) 16.10



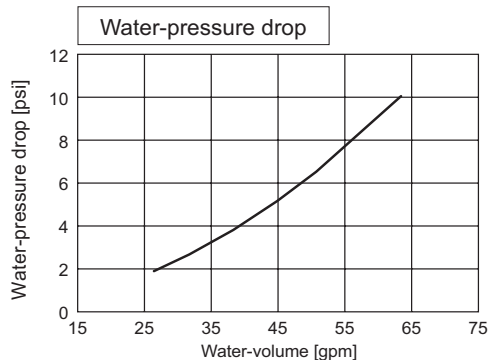
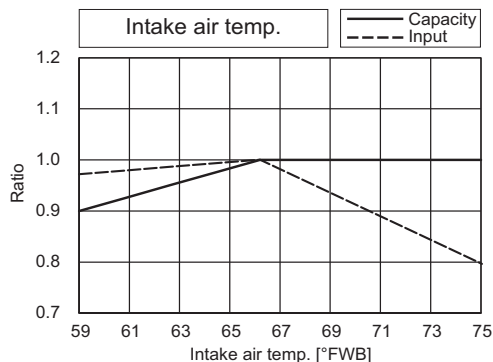
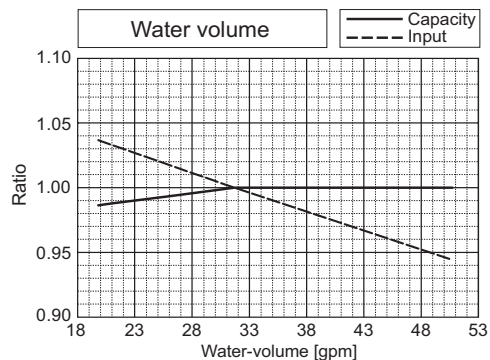
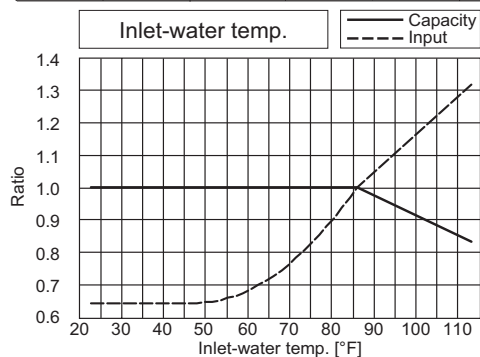
PQHY-			P216TLMU/YLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	13.04	Input	kW	(Non-Ducted) 12.01 (Ducted) 12.34



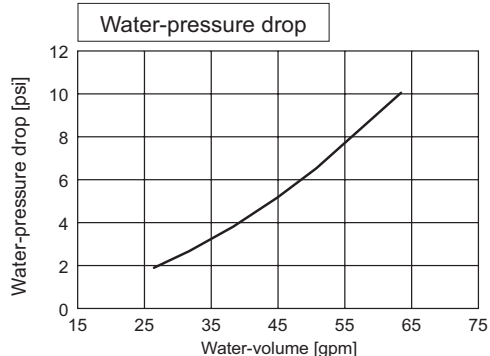
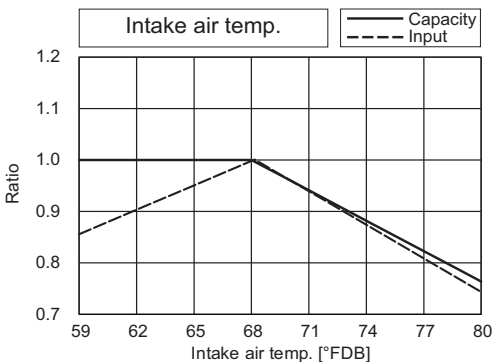
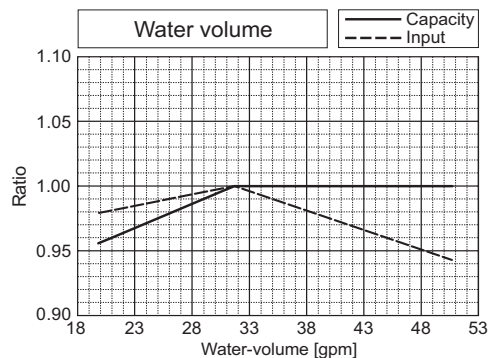
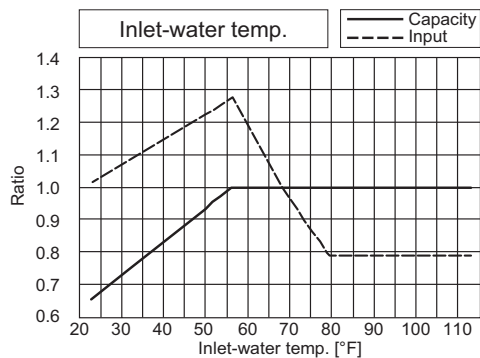
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P240TLMU/YLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	21.14	Input	kW	(Non-Ducted) 19.49 (Ducted) 18.74

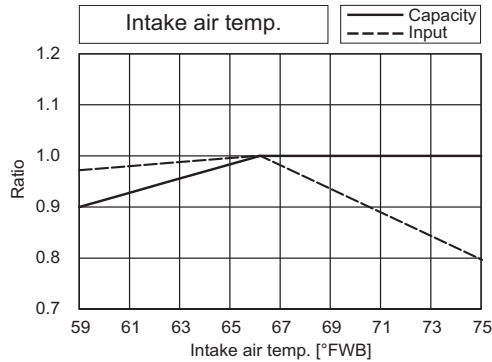
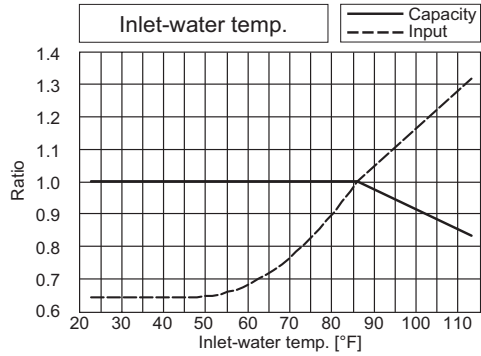


PQHY-			P240TLMU/YLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	15.12	Input	kW	(Non-Ducted) 13.93 (Ducted) 14.62

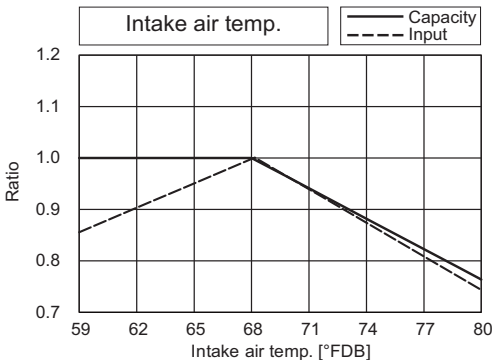
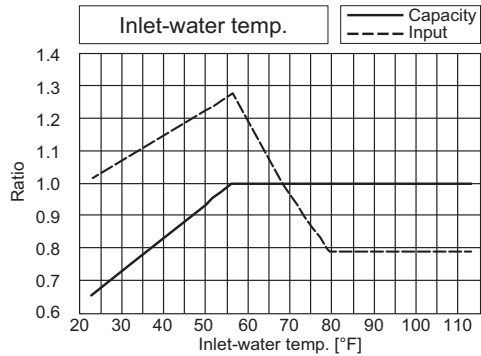


7. CAPACITY TABLES

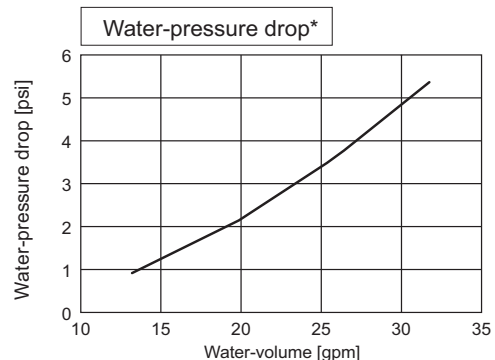
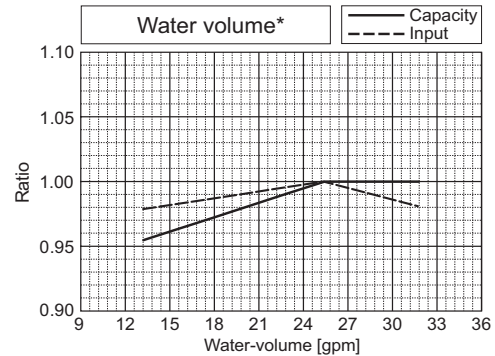
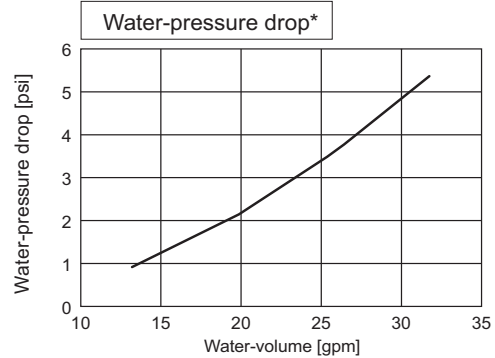
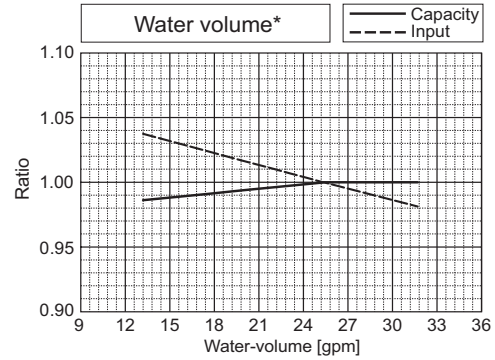
PQHY-			P144TSLMU/YSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72



PQHY-			P144TSLMU/YSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22



*The drawing indicates characteristic per unit.



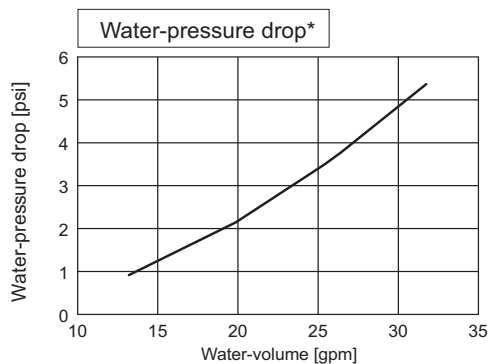
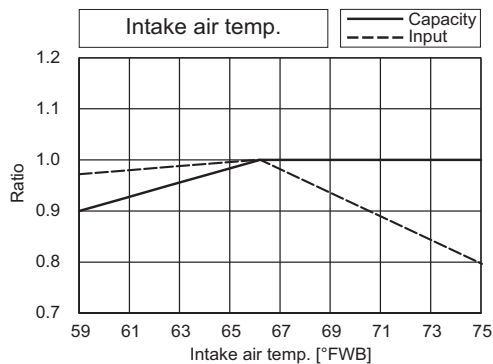
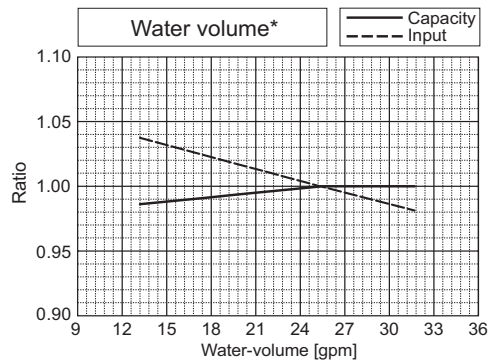
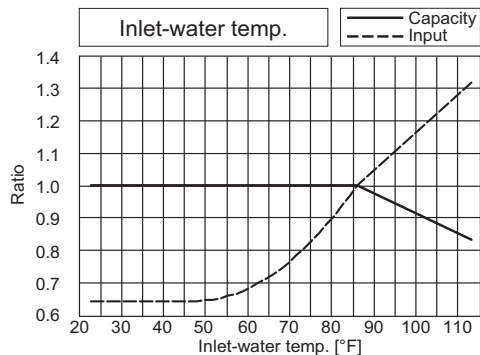
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

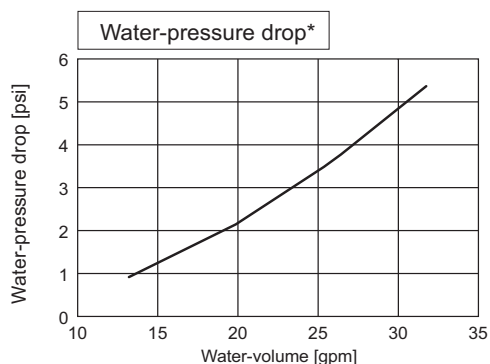
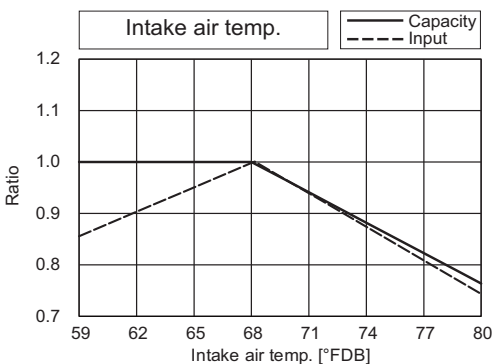
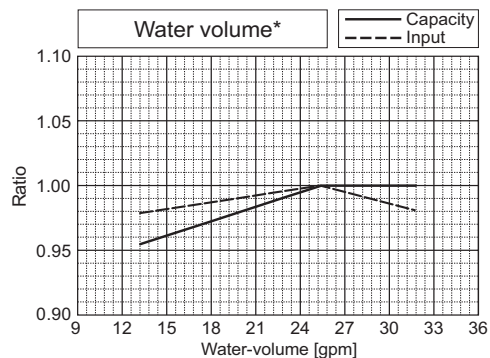
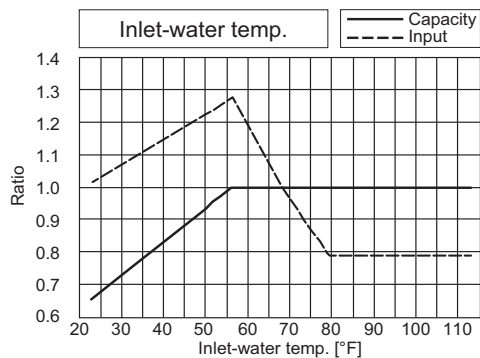
*The drawing indicates characteristic per unit.

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P168TSLMU/YSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22

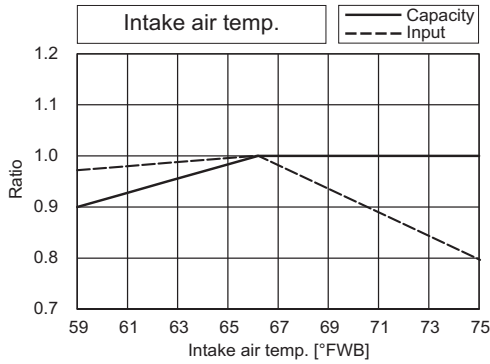
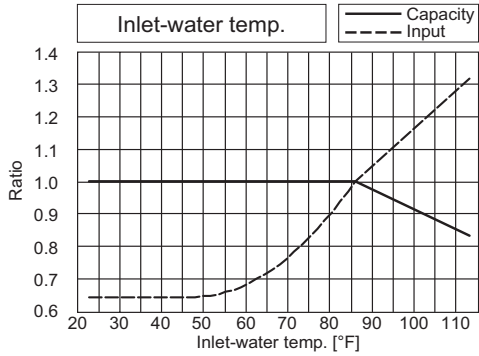


PQHY-			P168TSLMU/YSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03

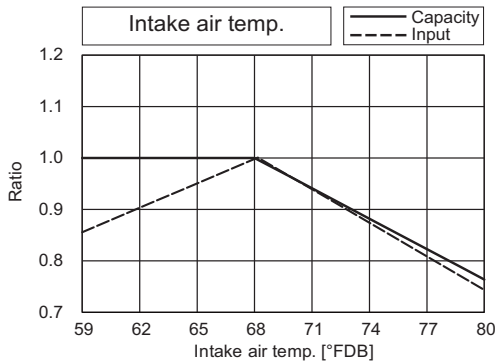
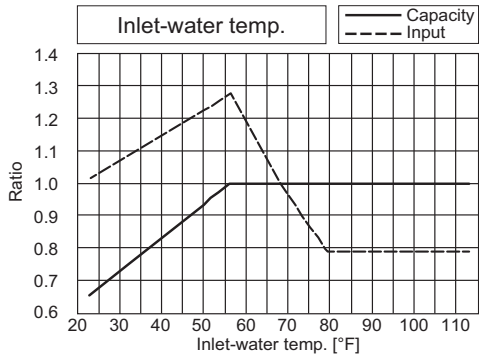


7. CAPACITY TABLES

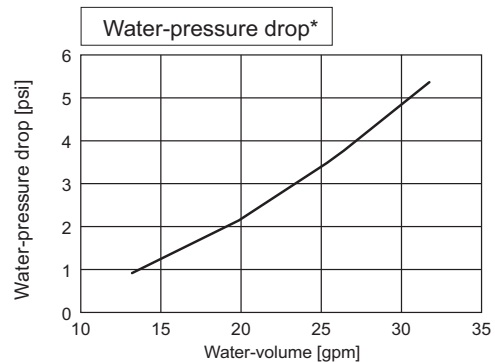
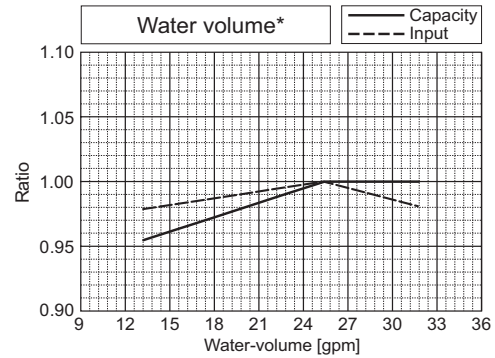
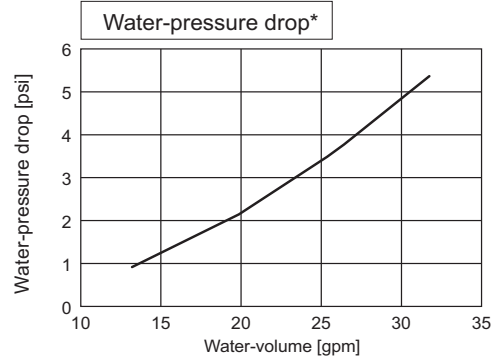
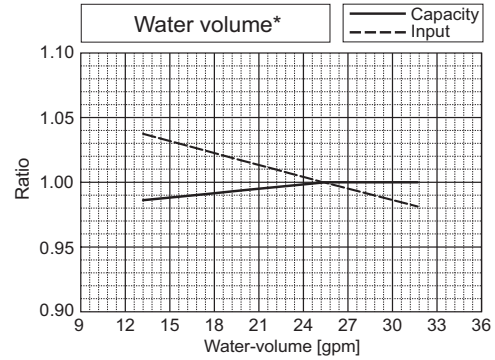
PQHY-			P192TSLMU/YSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98



PQHY-			P192TSLMU/YSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90



*The drawing indicates characteristic per unit.



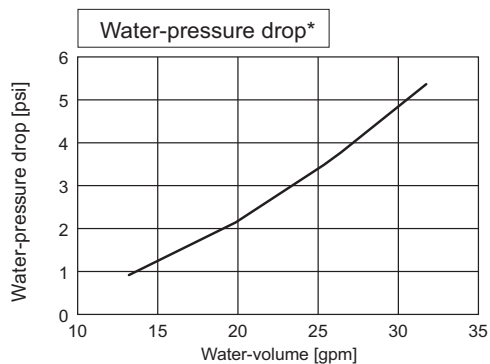
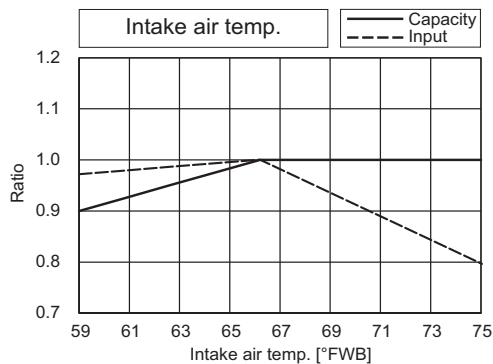
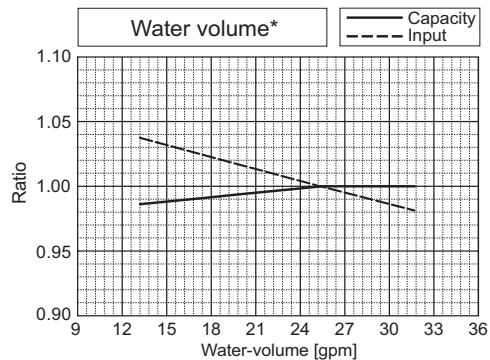
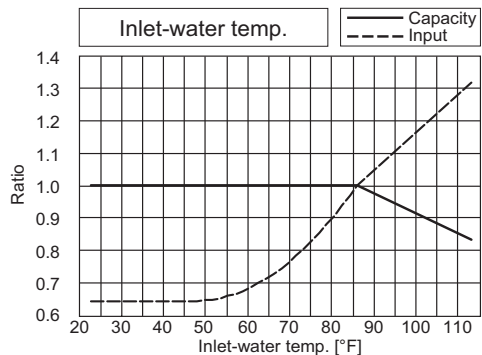
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

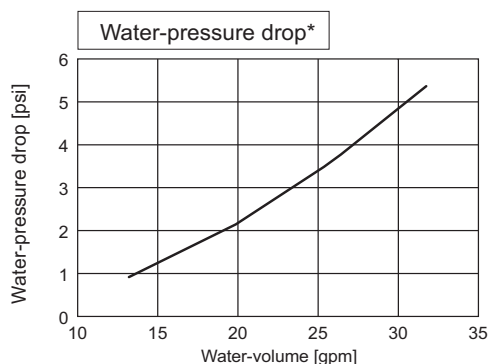
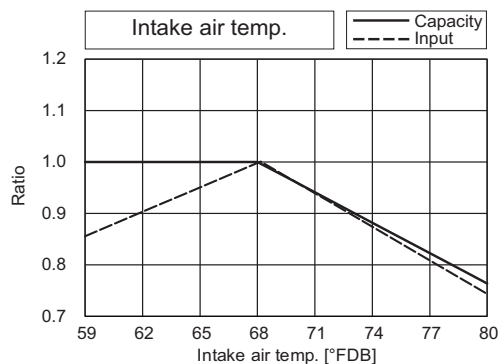
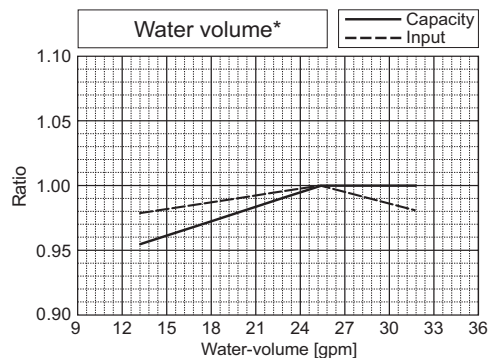
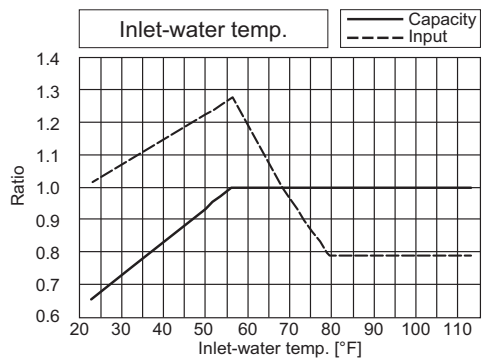
*The drawing indicates characteristic per unit.

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P216TSLMU/YSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24

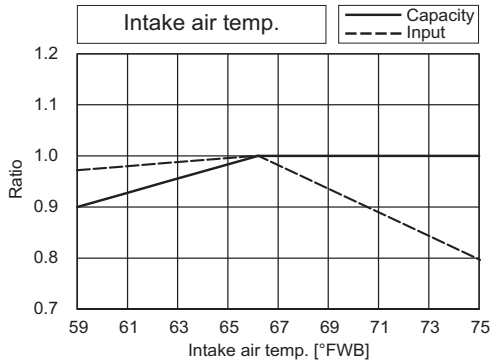
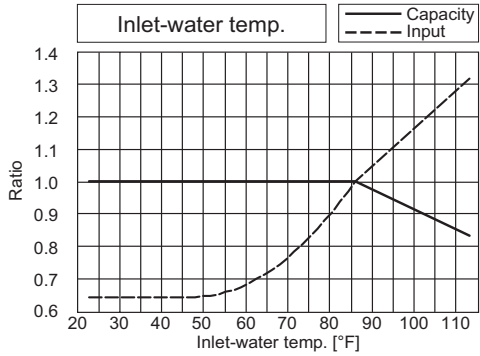


PQHY-			P216TSLMU/YSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35

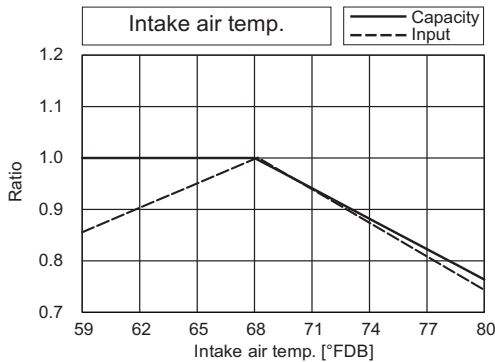
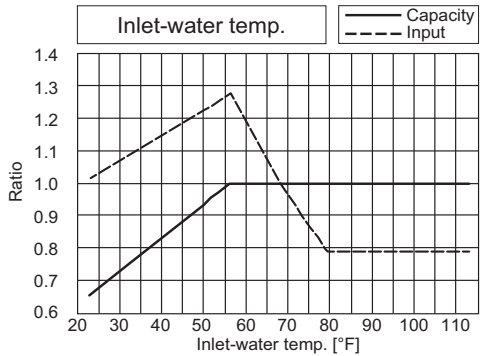


7. CAPACITY TABLES

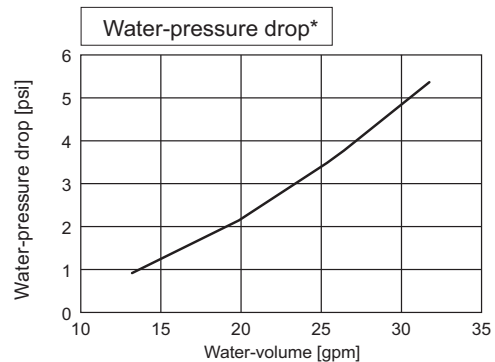
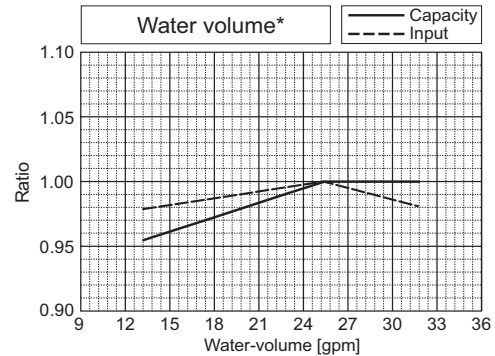
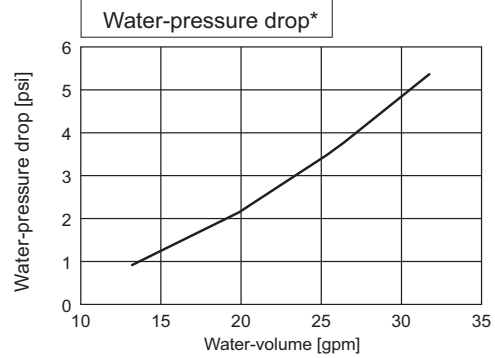
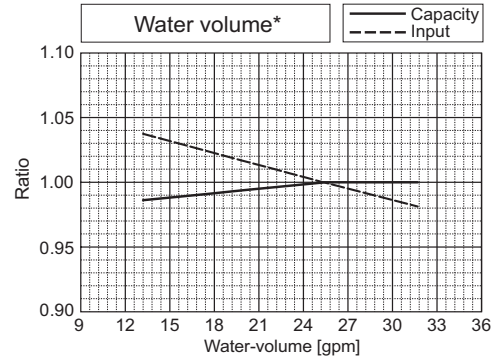
PQHY-			P240TSLMU/YSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15



PQHY-			P240TSLMU/YSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02



*The drawing indicates characteristic per unit.



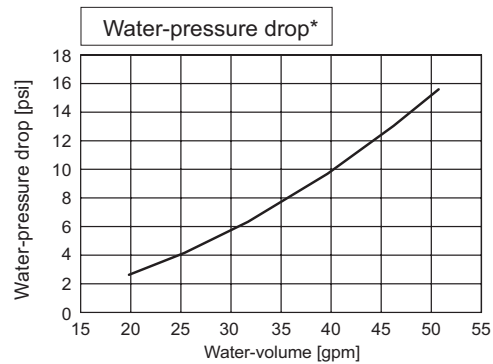
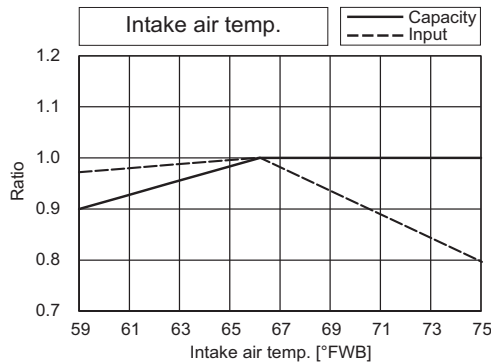
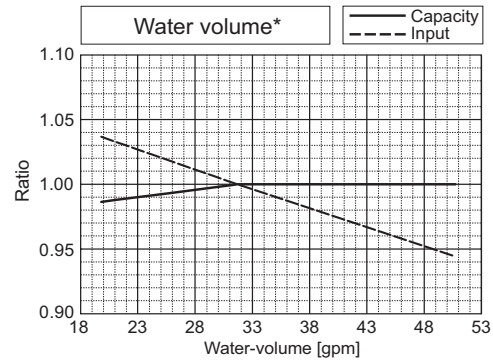
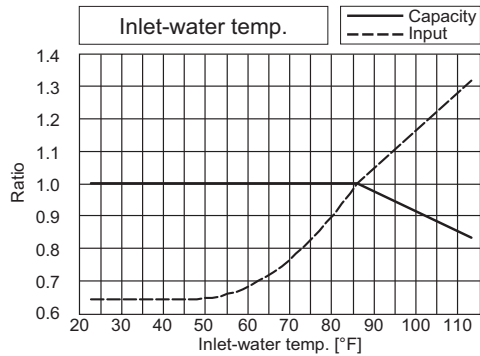
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

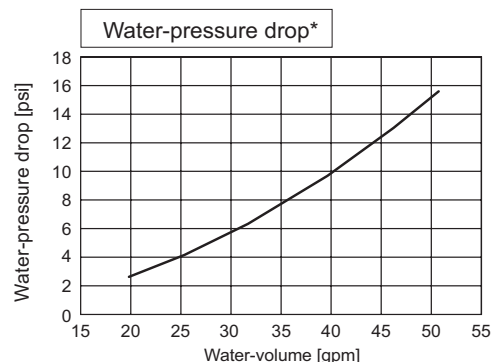
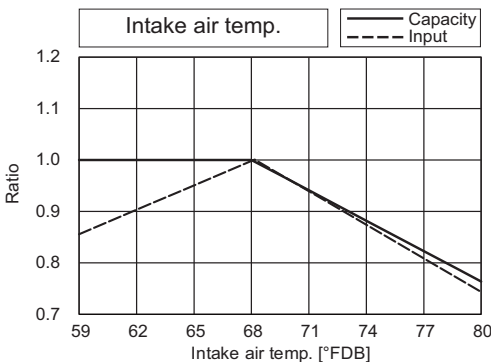
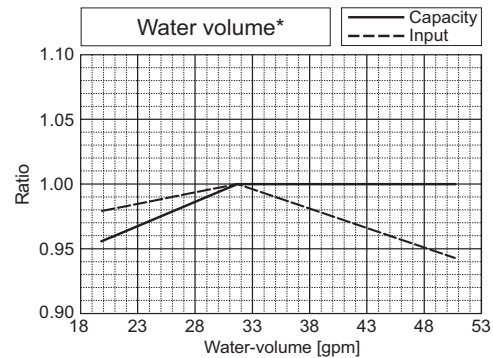
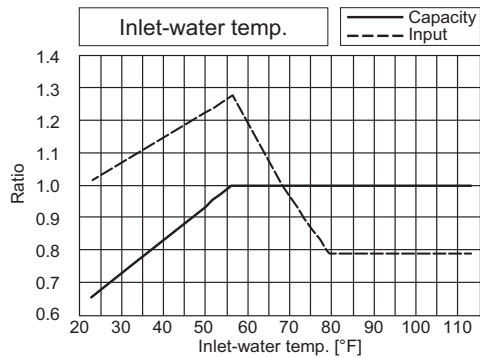
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P288TSLMU/YSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43

*The drawing indicates characteristic per unit.

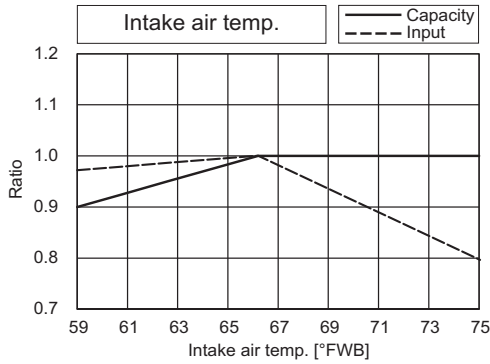
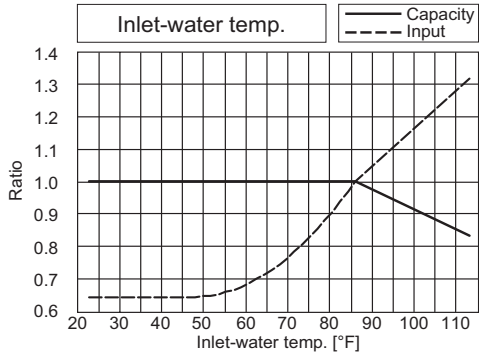


PQHY-			P288TSLMU/YSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05

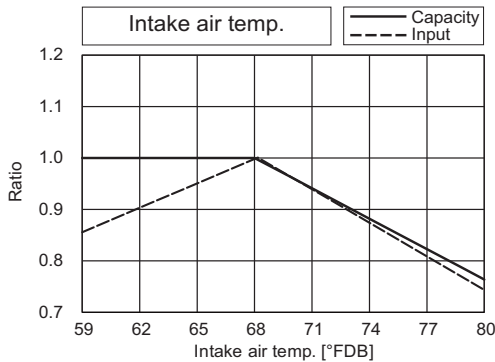
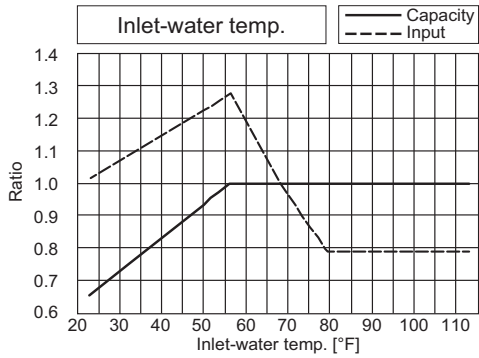


7. CAPACITY TABLES

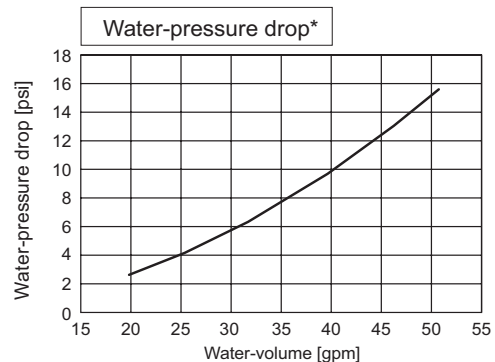
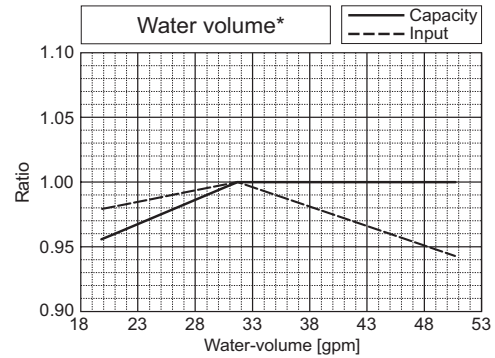
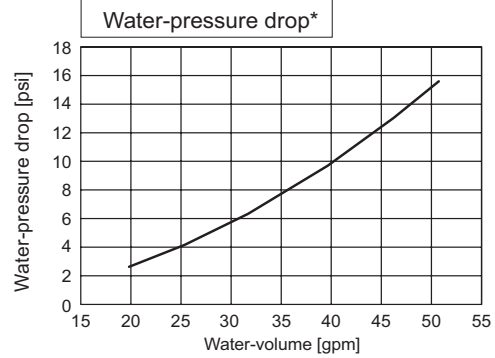
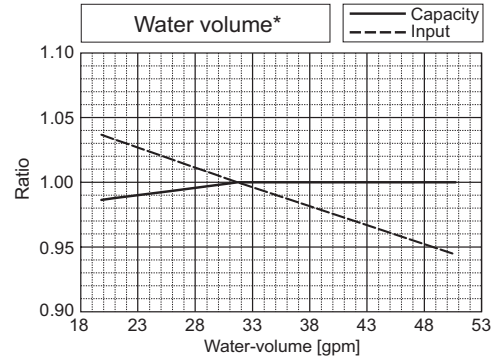
PQHY-			P312TSLMU/YSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67



PQHY-			P312TSLMU/YSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96



*The drawing indicates characteristic per unit.



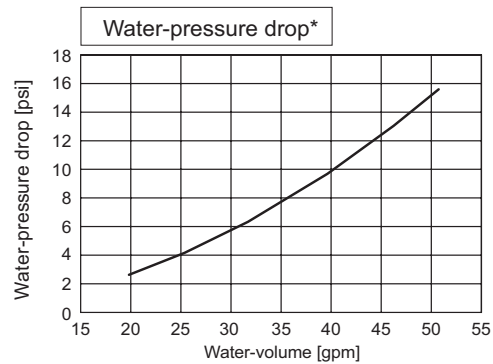
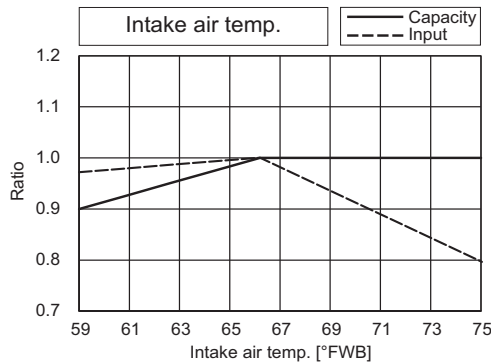
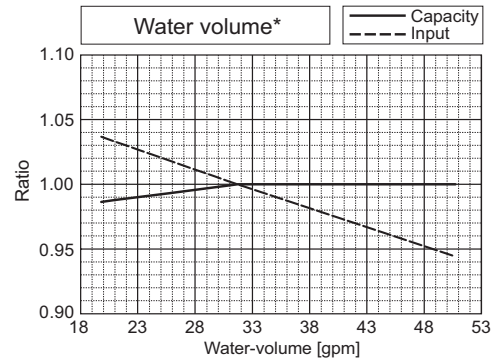
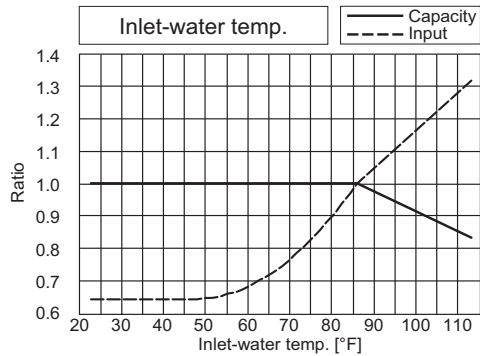
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

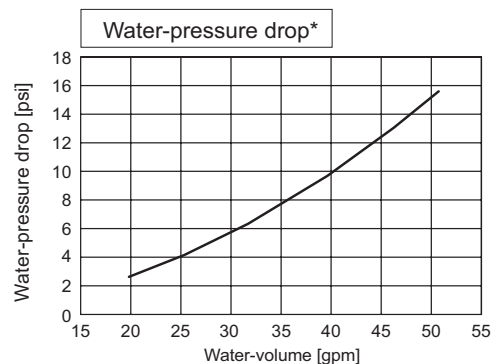
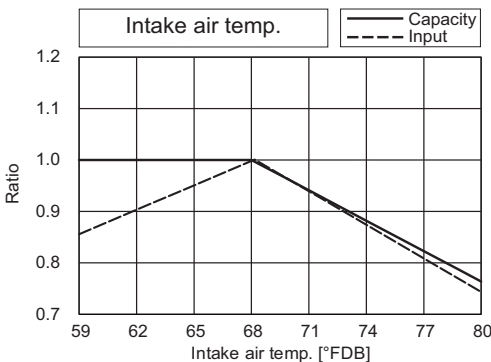
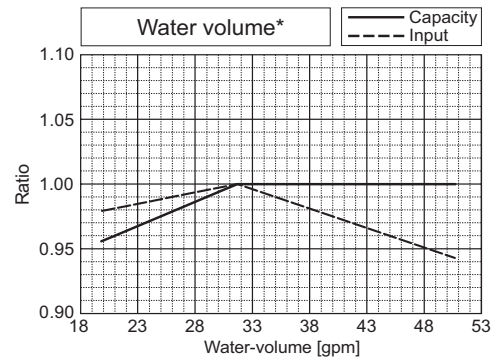
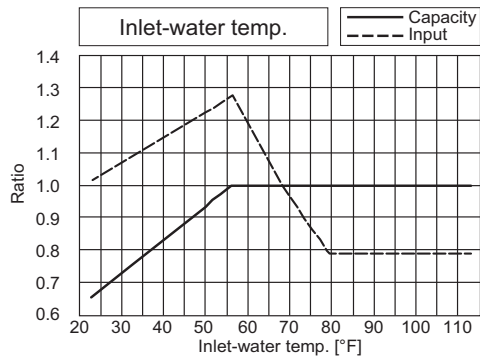
PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-			P336TSLMU/YSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85

*The drawing indicates characteristic per unit.

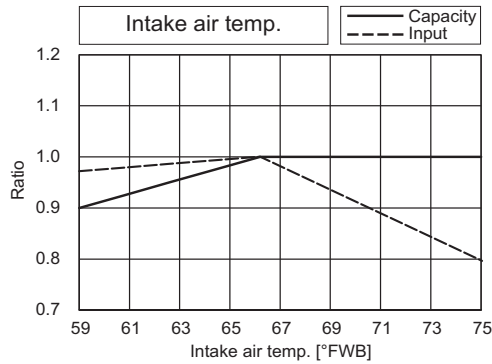
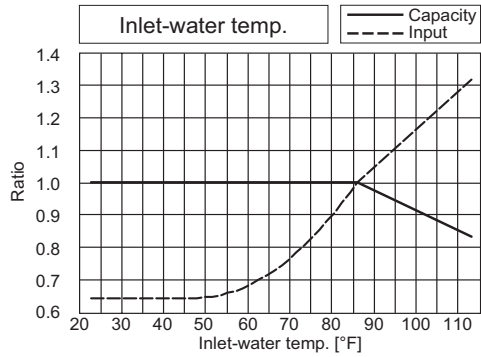


PQHY-			P336TSLMU/YSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05

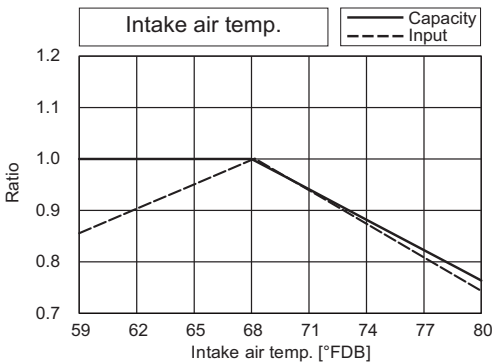
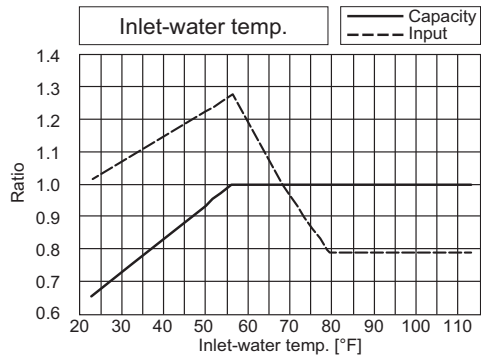


7. CAPACITY TABLES

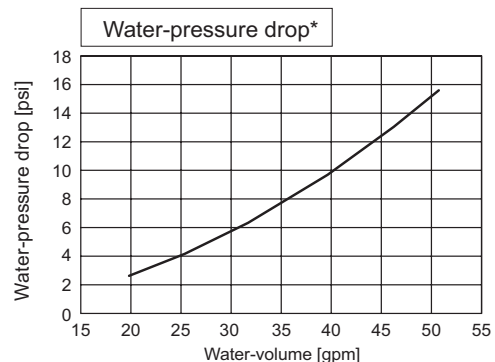
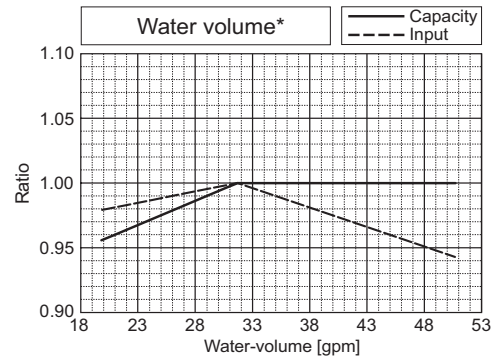
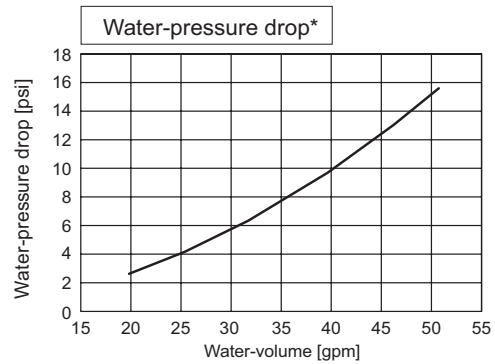
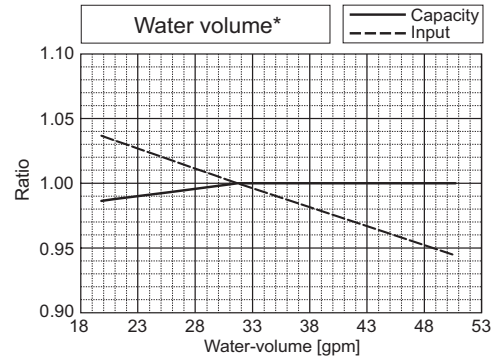
PQHY-			P360TSLMU/YSLMU		
Nominal Cooling Capacity	kW	105.5	Rated Cooling Capacity	kW	100.2
	BTU/h	360,000		BTU/h	342,000
Input	kW	29.43	Input	kW	(Non-Ducted) 27.17 (Ducted) 27.41



PQHY-			P360TSLMU/YSLMU		
Nominal Heating Capacity	kW	118.7	Rated Heating Capacity	kW	113.4
	BTU/h	405,000		BTU/h	387,000
Input	kW	22.85	Input	kW	(Non-Ducted) 21.09 (Ducted) 21.70



*The drawing indicates characteristic per unit.



PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

7-2. Correction by total indoor

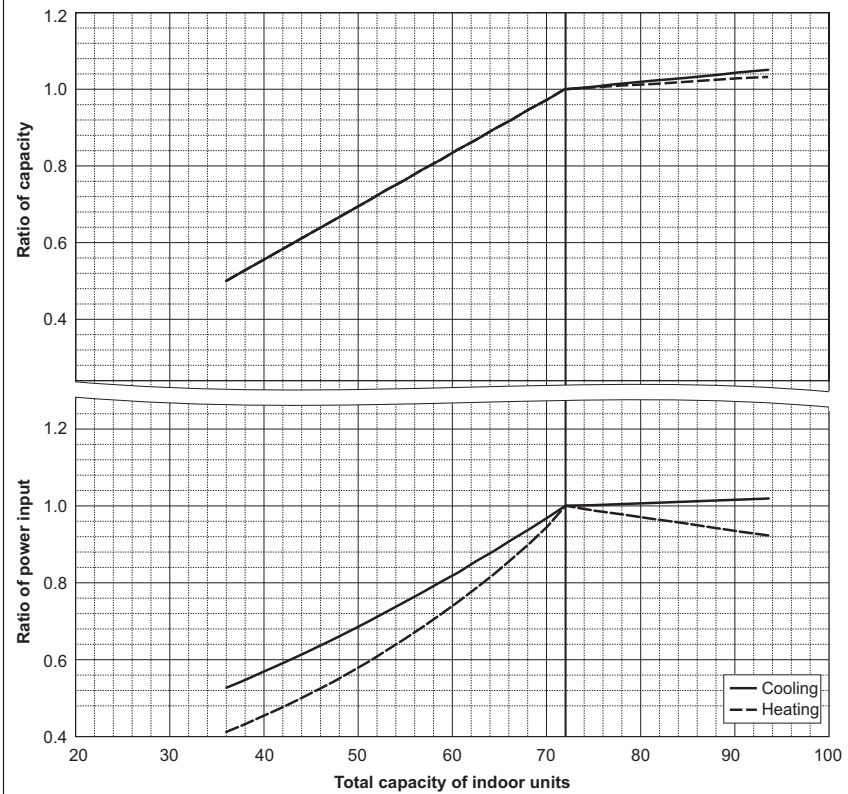
CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-		P72TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	72,000	
	kW	21.1	
	Input kW	3.23	
Rated cooling capacity	BTU/h	69,000	
	kW	20.2	
	Input kW	2.96	3.12

PQHY-		P72TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	80,000	
	kW	23.4	
	Input kW	3.63	
Rated Heating capacity	BTU/h	76,000	
	kW	22.3	
	Input kW	3.34	3.36

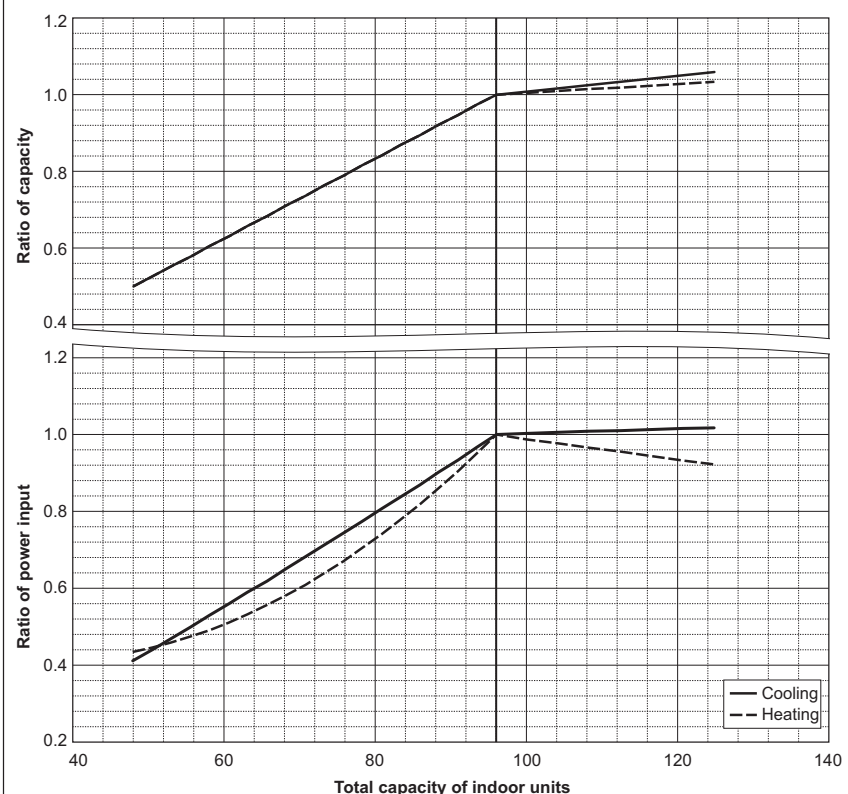
PQHY-P72TLMU/YLMU-A1



PQHY-		P96TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	96,000	
	kW	28.1	
	Input kW	4.65	
Rated cooling capacity	BTU/h	92,000	
	kW	27.0	
	Input kW	4.26	5.19

PQHY-		P96TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	108,000	
	kW	31.7	
	Input kW	5.05	
Rated Heating capacity	BTU/h	103,000	
	kW	30.2	
	Input kW	4.65	4.48

PQHY-P96TLMU/YLMU-A1

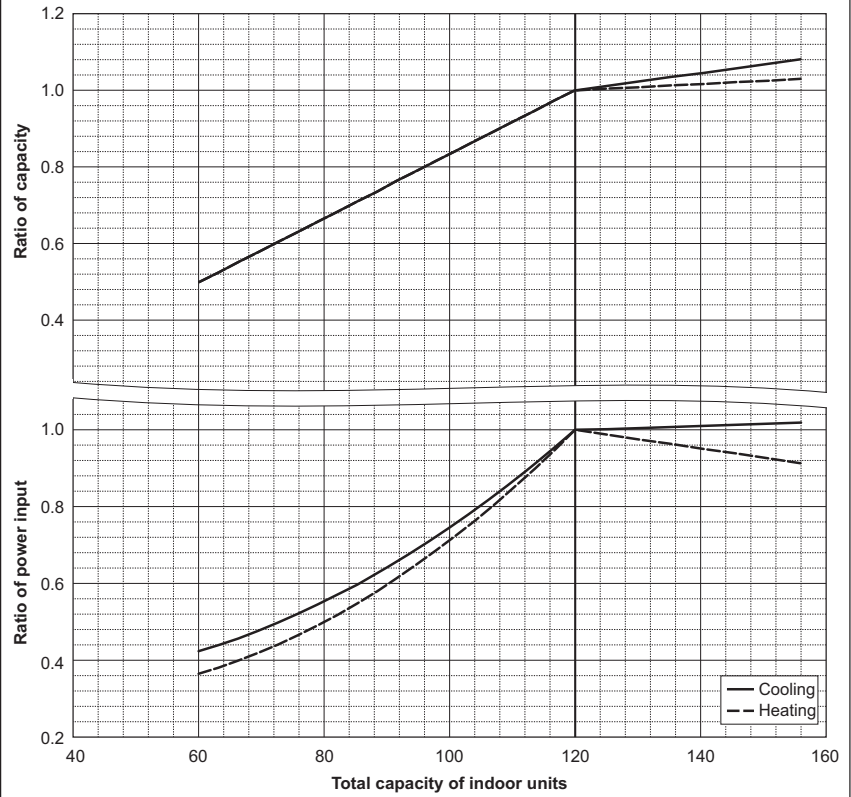


7. CAPACITY TABLES

PQHY-		P120TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	120,000	
	kW	35.2	
	Input kW	7.24	
Rated cooling capacity	BTU/h	114,000	
	kW	33.4	
	Input kW	6.66	7.35

PQHY-		P120TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	135,000	
	kW	39.6	
	Input kW	6.83	
Rated Heating capacity	BTU/h	129,000	
	kW	37.8	
	Input kW	6.29	5.92

PQHY-P120TLMU/YLMU-A1



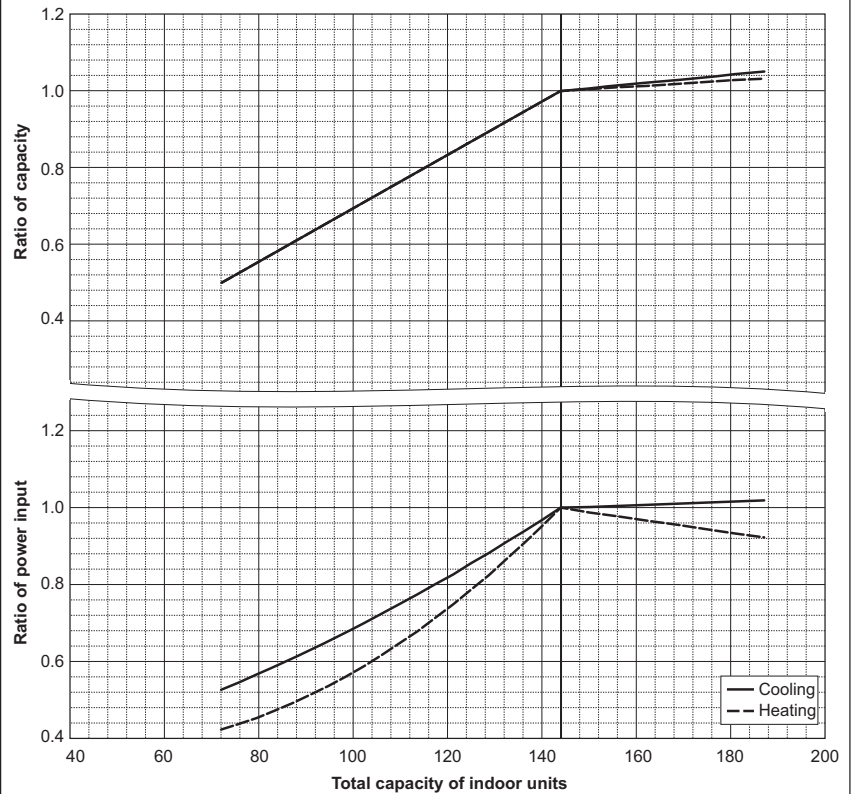
PQHY-		P144TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	8.78	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	8.07	9.98

PQHY-		P144TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	8.11	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	7.47	7.90

PQHY-		P144TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	7.11	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	6.53	7.72

PQHY-		P144TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	7.45	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	6.86	7.22

PQHY-P144T(S)LMU/Y(S)LMU-A1



7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-		P168TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	12.05	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	11.10	11.88

PQHY-		P168TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.86	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	9.09	9.72

PQHY-		P168TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	9.33	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	8.58	9.22

PQHY-		P168TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.34	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	8.60	8.03

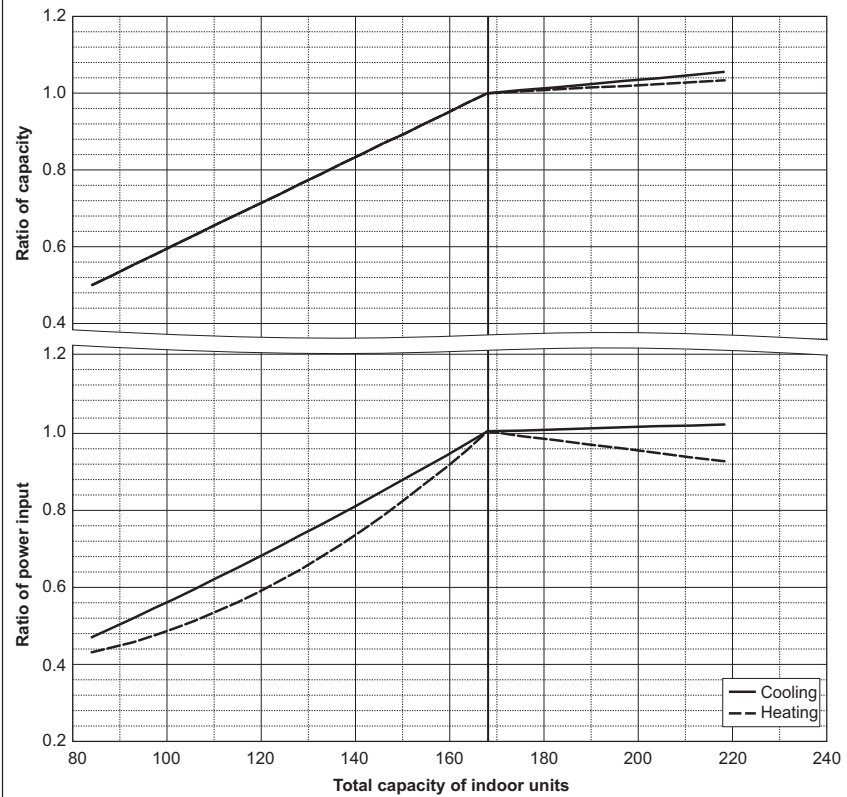
PQHY-		P192TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	15.05	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	13.87	14.19

PQHY-		P192TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.90	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.97	11.56

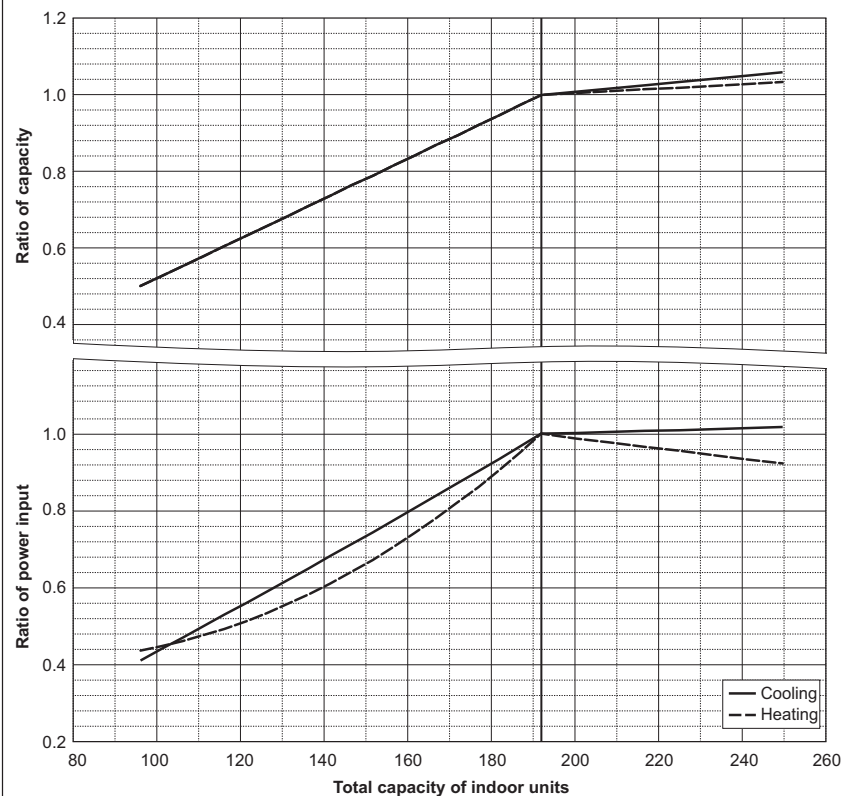
PQHY-		P192TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	11.30	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	10.40	10.98

PQHY-		P192TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.02	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.16	8.90

PQHY-P168T(S)LMU/Y(S)LMU-A1



PQHY-P192T(S)LMU/Y(S)LMU-A1



7. CAPACITY TABLES

PQHY-		P216TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	216,000	
	kW	63.3	
	Input kW	19.23	
Rated cooling capacity	BTU/h	206,000	
	kW	60.4	
	Input kW	17.72	16.10

PQHY-		P216TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	243,000	
	kW	71.2	
	Input kW	13.04	
Rated Heating capacity	BTU/h	232,000	
	kW	68.0	
	Input kW	12.01	12.34

PQHY-		P216TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	216,000	
	kW	63.3	
	Input kW	14.03	
Rated cooling capacity	BTU/h	206,000	
	kW	60.4	
	Input kW	12.93	13.24

PQHY-		P216TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	243,000	
	kW	71.2	
	Input kW	12.88	
Rated Heating capacity	BTU/h	232,000	
	kW	68.0	
	Input kW	11.88	10.35

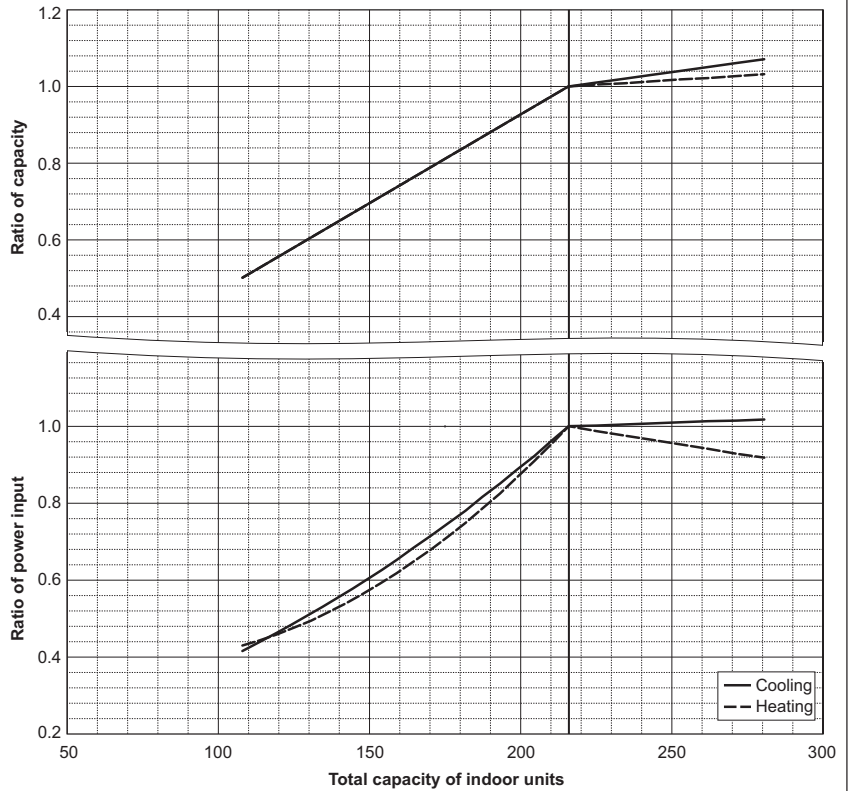
PQHY-		P240TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	240,000	
	kW	70.3	
	Input kW	21.14	
Rated cooling capacity	BTU/h	228,000	
	kW	66.8	
	Input kW	19.49	18.74

PQHY-		P240TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	270,000	
	kW	79.1	
	Input kW	15.12	
Rated Heating capacity	BTU/h	258,000	
	kW	75.6	
	Input kW	13.93	14.62

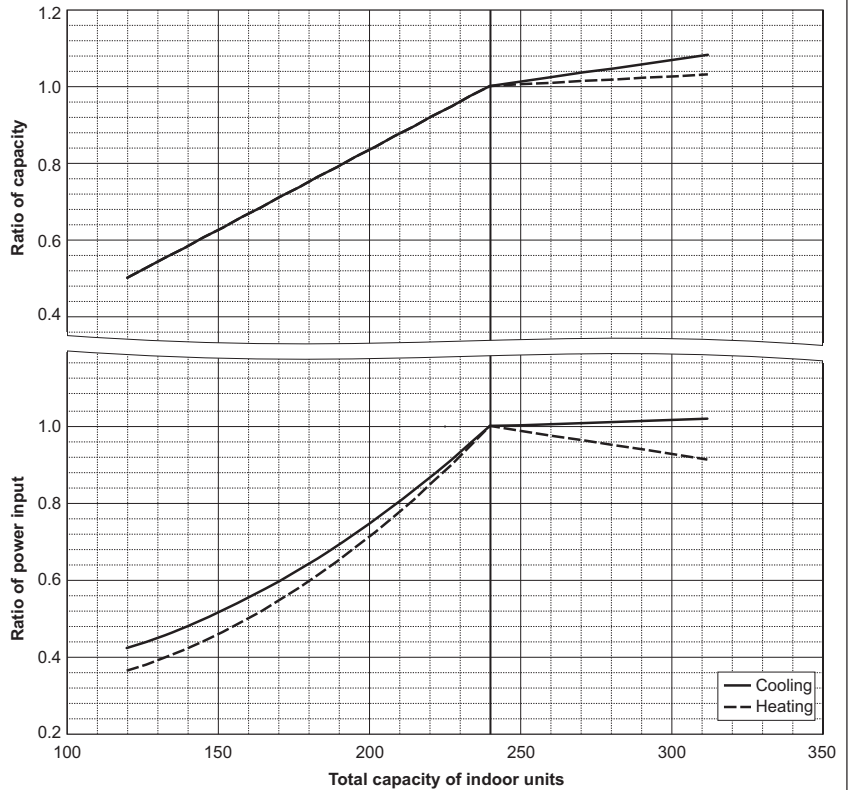
PQHY-		P240TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	240,000	
	kW	70.3	
	Input kW	16.89	
Rated cooling capacity	BTU/h	228,000	
	kW	66.8	
	Input kW	15.57	16.15

PQHY-		P240TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	270,000	
	kW	79.1	
	Input kW	14.58	
Rated Heating capacity	BTU/h	258,000	
	kW	75.6	
	Input kW	13.45	12.02

PQHY-P216T(S)LMU/Y(S)LMU-A1



PQHY-P240T(S)LMU/Y(S)LMU-A1



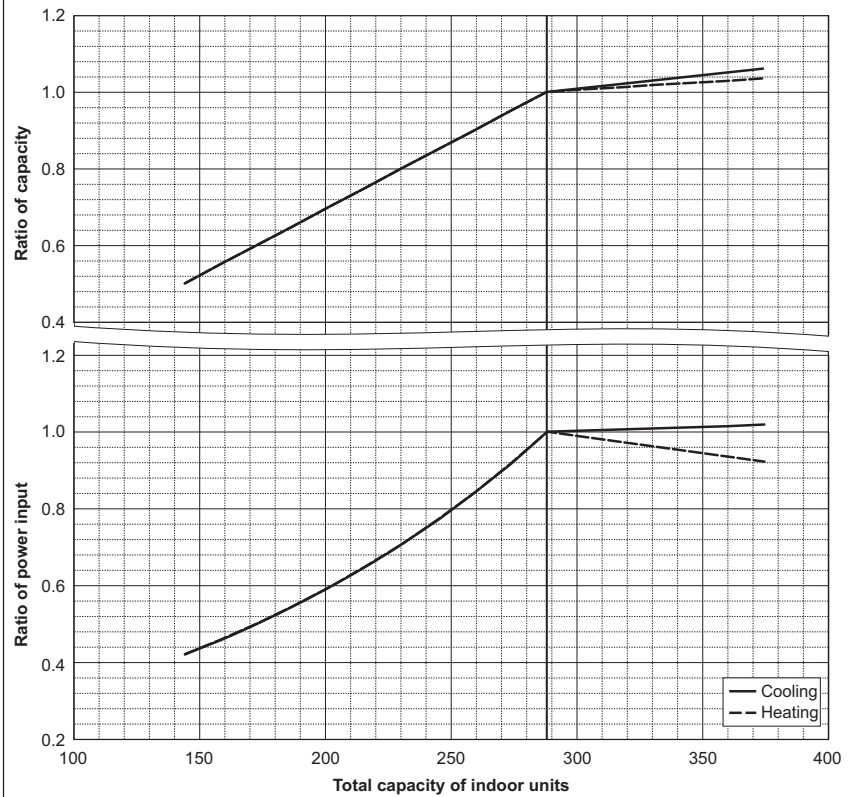
7. CAPACITY TABLES

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1

PQHY-		P288TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	288,000	
	kW	84.4	
	Input kW	20.42	
Rated cooling capacity	BTU/h	275,000	
	kW	80.6	
	Input kW	18.82	21.43

PQHY-		P288TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	323,000	
	kW	94.7	
	Input kW	17.50	
Rated Heating capacity	BTU/h	308,000	
	kW	90.3	
	Input kW	16.13	16.05

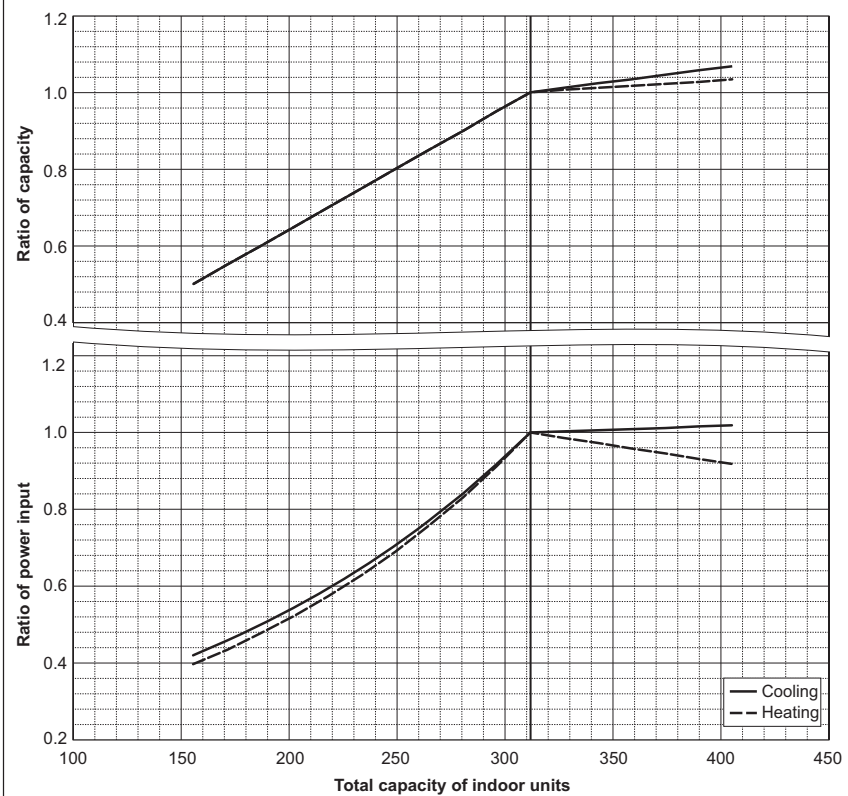
PQHY-P288TSLMU/YSLMU-A1



PQHY-		P312TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	312,000	
	kW	91.4	
	Input kW	23.41	
Rated cooling capacity	BTU/h	297,000	
	kW	87.0	
	Input kW	21.59	23.67

PQHY-		P312TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	350,000	
	kW	102.6	
	Input kW	19.11	
Rated Heating capacity	BTU/h	334,000	
	kW	97.9	
	Input kW	17.62	17.96

PQHY-P312TSLMU/YSLMU-A1

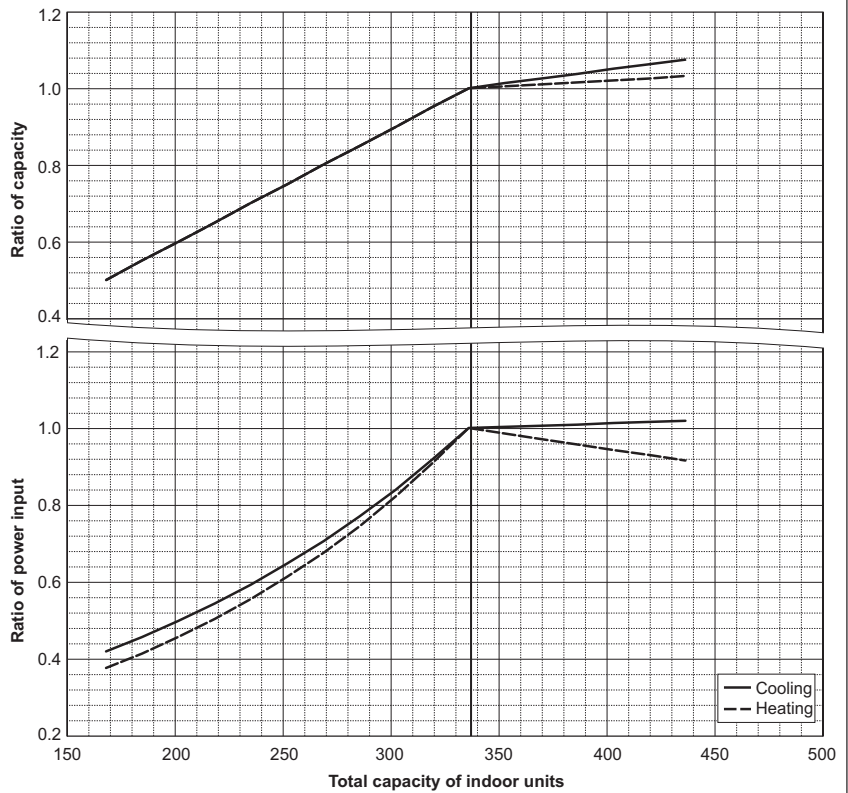


7. CAPACITY TABLES

PQHY-		P336TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	336,000	
	kW	98.5	
	Input kW	26.84	
Rated cooling capacity	BTU/h	320,000	
	kW	93.8	
	Input kW	24.76	25.85

PQHY-		P336TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	378,000	
	kW	110.8	
	Input kW	20.77	
Rated Heating capacity	BTU/h	361,000	
	kW	105.8	
	Input kW	19.16	20.05

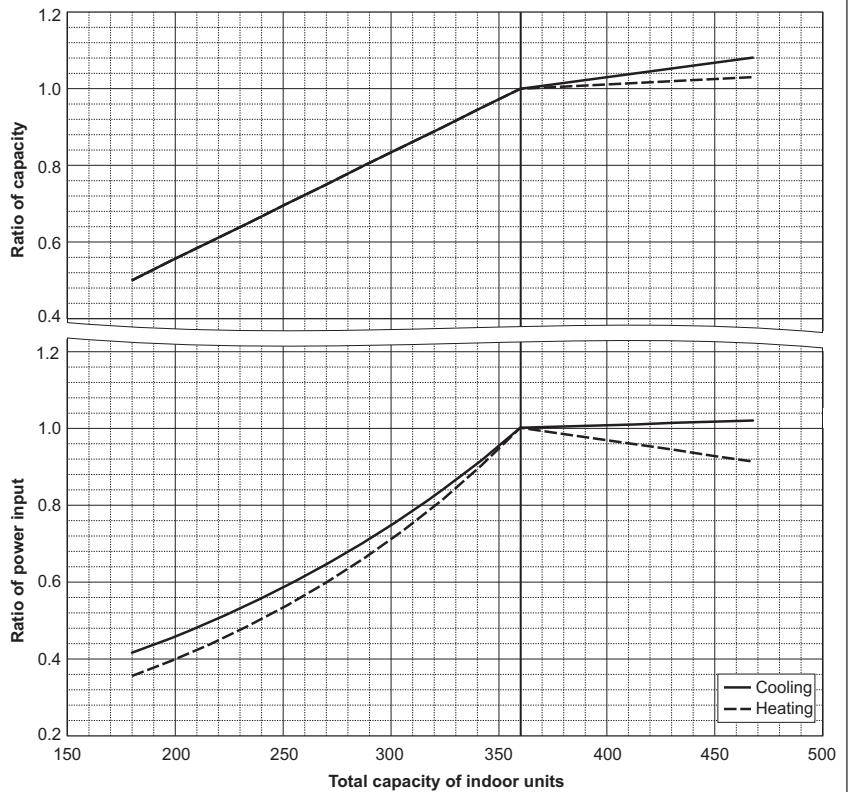
PQHY-P336TSLMU/YSLMU-A1



PQHY-		P360TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	360,000	
	kW	105.5	
	Input kW	29.43	
Rated cooling capacity	BTU/h	342,000	
	kW	100.2	
	Input kW	27.17	27.41

PQHY-		P360TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	405,000	
	kW	118.7	
	Input kW	22.85	
Rated Heating capacity	BTU/h	387,000	
	kW	113.4	
	Input kW	21.09	21.70

PQHY-P360TSLMU/YSLMU-A1



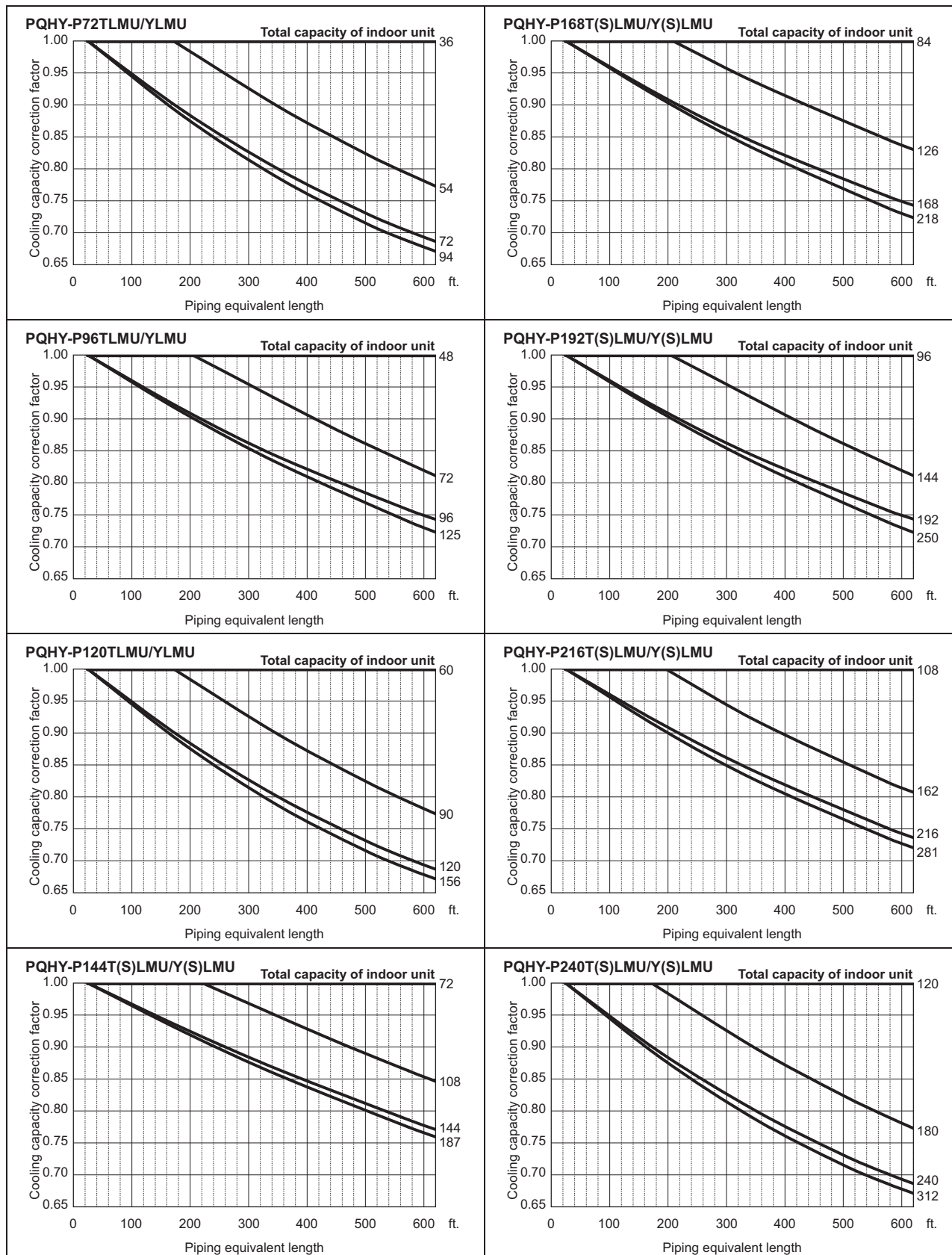
7. CAPACITY TABLES

7-3. Correction by refrigerant piping length

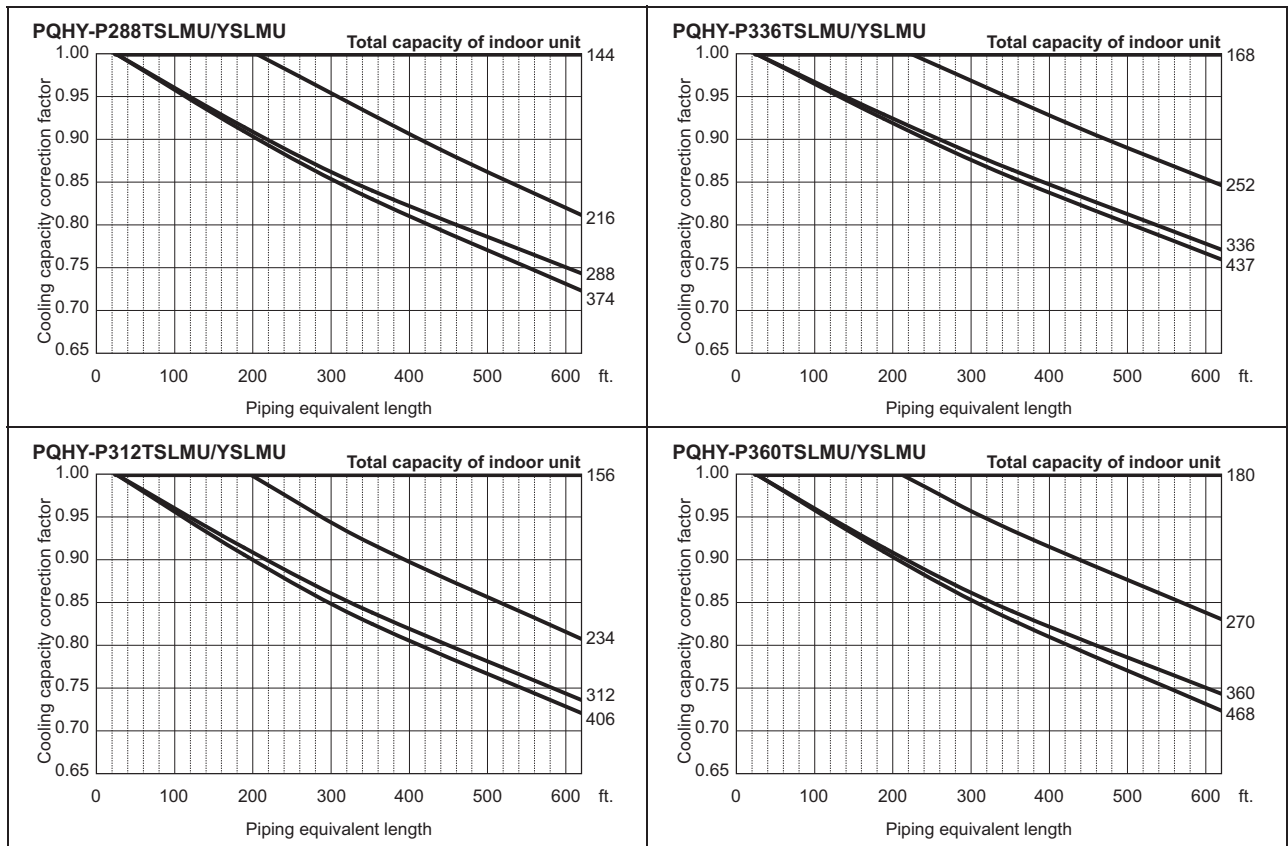
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

7-3-1. Cooling capacity correction

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1



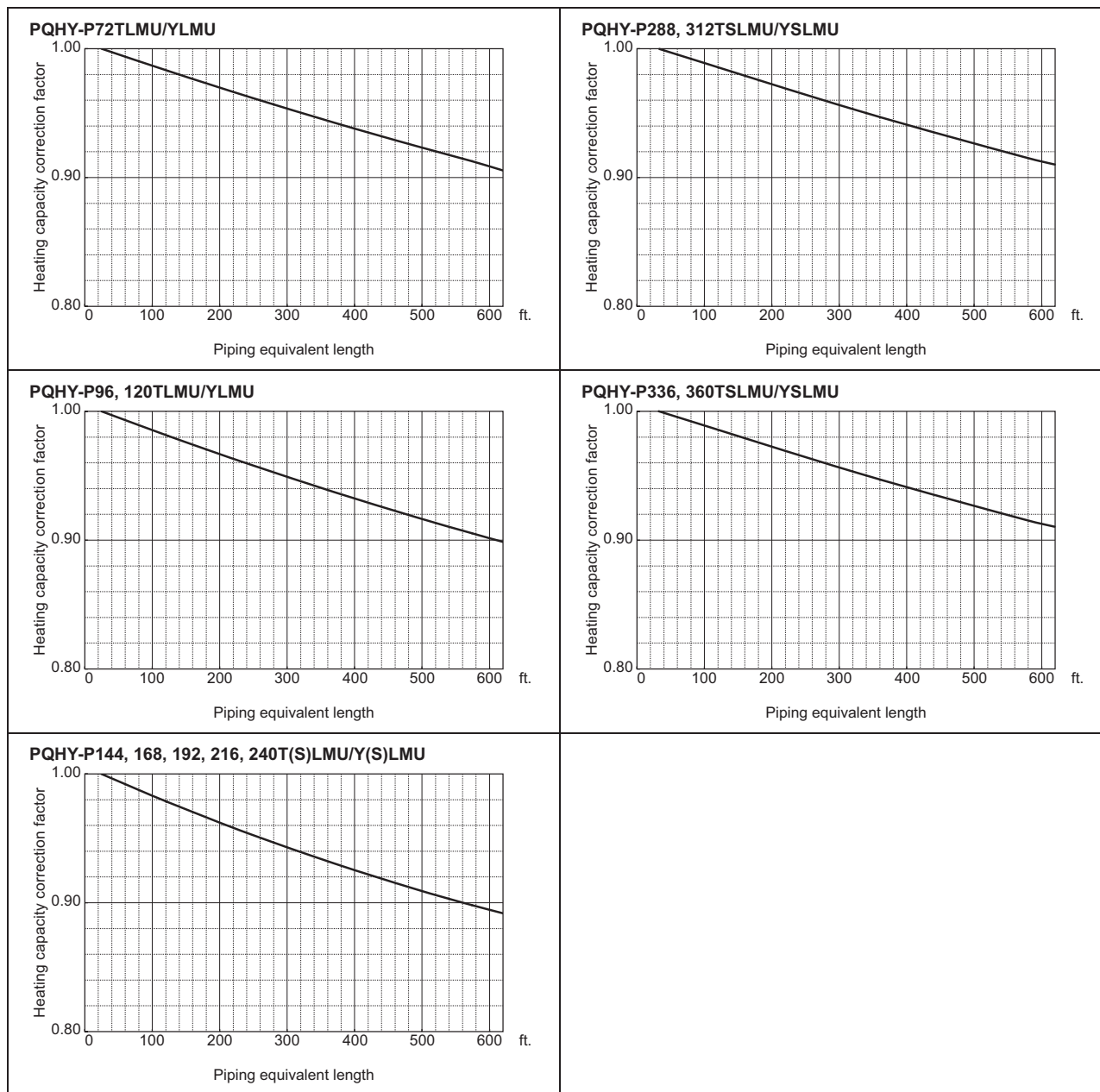
7. CAPACITY TABLES



7. CAPACITY TABLES

7-3-2. Heating capacity correction

PQHY-P-T(S)LMU-A1, Y(S)LMU-A1



7-3-3. How to obtain the equivalent piping length

1. PQHY-P72TLMU/YLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.15 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) [m]

2. PQHY-P96, 120TLMU/YLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.38 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) [m]

3. PQHY-P144, 168, 192, 216, 240T(S)LMU/Y(S)LMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.64 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) [m]

4. PQHY-P288, 312TSLMU/YSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.30 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 x number of bent on the piping) [m]

5. PQHY-P336, 360TSLMU/YSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.63 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 x number of bent on the piping) [m]

PQHY-P-Z(S)LMU-A1

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1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P72ZLMU-A1< For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 575 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h		72,000		
			kW		21.1		
			Power input		kW	3.23	
		(575)	Current input		A	3.6	
		(Rated)		BTU/h		69,000	
				kW		20.2	
			Power input		kW	2.96	3.12
		(575)	Current input		A	3.3	3.4
		Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)
				Circulating water	°F		23~113°F (-5~45°C)
Heating capacity (Nominal)		*3, 4	BTU/h		80,000		
			kW		23.4		
			Power input		kW	3.63	
		(575)	Current input		A	4.0	
		(Rated)		BTU/h		76,000	
				kW		22.3	
			Power input		kW	3.34	3.36
		(575)	Current input		A	3.7	3.7
		Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)
				Circulating water	°F		23~113°F (-5~45°C)
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity			
		Model/Quantity		P06~P96/1~15			
Sound pressure level (measured in anechoic room)		dB <A>		46.0			
Refrigerant piping diameter		Liquid pipe	in. (mm)		3/8 (9.52) Brazed		
		Gas pipe	in. (mm)		3/4 (19.05) Brazed		
Minimum Circuit Ampacity		A		5			
Maximum Overcurrent Protection		A		15			
Circulating water		Water flow rate	G/h		1,522		
			G/min (gpm)		25.4		
			m³/h		5.76		
			L/min		96		
			cfm		3.4		
		Pressure drop	psi		3.48		
			kPa		24		
		Operating volume range	G/h		793 ~ 1,902		
			G/min (gpm)		13.2 ~ 31.7		
			m³/h		3.0 ~ 7.2		
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter			
		Motor output	kW		4.3		
		Case heater	kW		-		
		Lubricant		MEL32			
External finish		Galvanized steel sheets					
External dimension H x W x D		in.		43-5/16 x 34-11/16 x 21-11/16			
		mm		1,100 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
		Control		LEV and HIC circuit			
Net weight		lbs (kg)		404 (183)			
Heat exchanger				plate type			
		Water volume in plate	G		1.32		
			l		5.0		
			psi		290		
		Water pressure Max.	MPa		2.0		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure					
Drawing		External		KL94C249			
		Wiring		KE94G421			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts				joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104, 108, 1010C-G			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P96ZLMU-A1< For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		96,000	
			kW		28.1	
	(575)	Power input	kW		4.65	
		Current input	A		5.1	
	(Rated)			BTU/h	92,000	
				kW	27.0	
	(575)	Power input	kW		4.26	5.19
		Current input	A		4.7	5.7
Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h		108,000	
			kW		31.7	
	(575)	Power input	kW		5.05	
		Current input	A		5.6	
	(Rated)			BTU/h	103,000	
				kW	30.2	
	(575)	Power input	kW		4.65	4.48
		Current input	A		5.1	4.9
Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)		
	Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/1~20			
Sound pressure level (measured in anechoic room)			dB <A>		48.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)		3/8 (9.52) Brazed (1/2 (12.7) Brazed, total length >= 90 m)		
	Gas pipe	in. (mm)		7/8 (22.2) Brazed		
Minimum Circuit Ampacity			A		7	
Maximum Overcurrent Protection			A		15	
Circulating water	Water flow rate	G/h		1,522		
		G/min (gpm)		25.4		
		m³/h		5.76		
		L/min		96		
		cfm		3.4		
	Pressure drop	psi		3.48		
		kPa		24		
	Operating volume range	G/h		793 ~ 1,902		
		G/min (gpm)		13.2 ~ 31.7		
		m³/h		3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW		6.0		
	Case heater	kW		-		
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16			
		mm	1,100 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	404 (183)			
Heat exchanger			plate type			
			Water volume in plate	G		1.32
				l		5.0
			Water pressure Max.	psi		290
				MPa		2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure			
Drawing	External		KL94C249			
	Wiring		KE94G421			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2 Header: CMY-Y104, 108, 1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:

- <Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal cooling conditions
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>,
Brine concentration 0%
- <Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal heating conditions
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>,
Brine concentration 0%

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is subject to rounding variation.

PQHY-P-Z(S)LMU-A1

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P120ZLMU-A1< For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2	BTU/h		120,000	
			kW		35.2	
			Power input		kW	7.24
		(575)	Current input		A	8.0
		(Rated)		BTU/h		114,000
				kW		33.4
			Power input		kW	6.66
		(575)	Current input		A	7.4
						8.2
		Temp. range of cooling		Indoor	W.B.	
		Circulating water	°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4	BTU/h		135,000	
			kW		39.6	
			Power input		kW	6.83
		(575)	Current input		A	7.6
		(Rated)		BTU/h		129,000
				kW		37.8
			Power input		kW	6.29
		(575)	Current input		A	7.0
						6.6
		Temp. range of heating		Indoor	D.B.	
		Circulating water	°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~130% of heatsource unit capacity		
		Model/Quantity		P06~P96/1~26		
Sound pressure level (measured in anechoic room)		dB <A>		54.0		
Refrigerant		Liquid pipe	in. (mm)		3/8 (9.52) Brazed (1/2 (12.7) Brazed, total length >= 40 m)	
piping diameter		Gas pipe	in. (mm)		7/8 (22.2) Brazed	
Minimum Circuit Ampacity		A		11		
Maximum Overcurrent Protection		A		15		
Circulating water		Water flow rate	G/h		1,522	
			G/min (gpm)		25.4	
			m³/h		5.76	
			L/min		96	
			cfm		3.4	
		Pressure drop	psi		3.48	
			kPa		24	
		Operating volume range	G/h		793 ~ 1,902	
			G/min (gpm)		13.2 ~ 31.7	
			m³/h		3.0 ~ 7.2	
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1		
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
		Starting method		Inverter		
		Motor output	kW	7.7		
		Case heater	kW	-		
		Lubricant	MEL32			
External finish		Galvanized steel sheets				
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16			
		mm	1,100 x 880 x 550			
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
		Inverter circuit		Over-heat protection, Over-current protection		
		Compressor		Over-heat protection		
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
		Control		LEV and HIC circuit		
Net weight		lbs (kg)		404 (183)		
Heat exchanger		plate type				
		Water volume in plate	G	1.32		
			l	5.0		
		Water pressure Max.	psi	290		
			MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure				
Drawing		External		KL94C249		
		Wiring		KE94G421		
Standard attachment		Document		Installation Manual		
		Accessory		Details refer to External Drw		
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P144ZLMU-A1< For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h	144,000	
			kW	42.2	
	(575)	Power input	kW	8.78	
		Current input	A	9.7	
	(Rated)		BTU/h	137,000	
			kW	40.2	
	(575)	Power input	kW	8.07	9.98
		Current input	A	9.0	11.1
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h	160,000	
			kW	46.9	
	(575)	Power input	kW	8.11	
		Current input	A	9.0	
	(Rated)		BTU/h	152,000	
			kW	44.5	
	(575)	Power input	kW	7.47	7.90
		Current input	A	8.3	8.8
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit	Total capacity		50~130% of heatsource unit capacity		
connectable	Model/Quantity		P06~P96/1~31		
Sound pressure level (measured in anechoic room)		dB <A>	54.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	1/2 (12.7) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	13		
Maximum Overcurrent Protection		A	20		
Circulating water	Water flow rate	G/h	1,902		
		G/min (gpm)	31.7		
		m³/h	7.20		
		L/min	120		
		cfm	4.2		
		psi	6.38		
	Pressure drop	kPa	44		
		Operating volume range	G/h	1,189 ~ 3,054	
	G/min (gpm)		19.8 ~ 50.9		
	m³/h		4.5 ~ 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	9.5		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		LEV and HIC circuit		
Net weight		lbs (kg)	505 (229)		
Heat exchanger			plate type		
			Water volume in plate	G	1.32
				l	5.0
			Water pressure Max.	psi	290
				MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		
Drawing	External		KL94C250		
	Wiring		KE94G421		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010C-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:

- <Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal cooling conditions
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>,
Brine concentration 0%
- <Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%
- <PWFY-P36/72NMU-E2-AU> Nominal heating conditions
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>,
Brine concentration 0%

Unit converter

BTU/h	=kW x 3.412
cfm	=m³/min x 35.31
lbs	=kg/0.4536

*Above specification data is
subject to rounding variation.

PQHY-P-Z(S)LMU-A1

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P168ZLMU-A1< For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		168,000	
			kW		49.2	
	(575)	Power input	kW		12.05	
		Current input	A		13.4	
	(Rated)			BTU/h		161,000
				kW		47.2
	(575)	Power input	kW		11.10	11.88
		Current input	A		12.3	13.2
Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h		188,000	
			kW		55.1	
	(575)	Power input	kW		9.86	
		Current input	A		11.0	
	(Rated)			BTU/h		179,000
				kW		52.5
	(575)	Power input	kW		9.09	9.72
		Current input	A		10.1	10.8
Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity			
		Model/Quantity	P06~P96/1~36			
Sound pressure level (measured in anechoic room)			dB <A>		56.0	
Refrigerant piping diameter	Liquid pipe	in. (mm)		5/8 (15.88) Brazed		
	Gas pipe	in. (mm)		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity			A		16	
Maximum Overcurrent Protection			A		25	
Circulating water	Water flow rate	G/h	1,902			
		G/min (gpm)	31.7			
		m³/h	7.20			
		L/min	120			
		cfm	4.2			
		Pressure drop	psi	6.38		
	kPa		44			
	Operating volume range	G/h	1,189 ~ 3,054			
		G/min (gpm)	19.8 ~ 50.9			
		m³/h	4.5 ~ 11.6			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	11.0			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	505 (229)			
Heat exchanger			plate type			
			Water volume in plate	G	1.32	
				l	5.0	
			Water pressure Max.	psi	290	
				MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure			
Drawing	External		KL94C250			
	Wiring		KE94G421			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P192ZLMU-A1< For Ground source >				
Indoor Model			Non-Ducted	Ducted			
Power source			3-phase 3-wire 575 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h		192,000		
			kW		56.3		
		(575)	Power input	kW		15.05	
			Current input	A		16.7	
		(Rated)		BTU/h		183,000	
				kW		53.6	
		(575)	Power input	kW		13.87	14.19
			Current input	A		15.4	15.8
		Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)
				Circulating water	°F		23~113°F (-5~45°C)
Heating capacity (Nominal)		*3, 4	BTU/h		215,000		
			kW		63.0		
		(575)	Power input	kW		11.90	
			Current input	A		13.2	
		(Rated)		BTU/h		205,000	
				kW		60.1	
		(575)	Power input	kW		10.97	11.56
			Current input	A		12.2	12.8
		Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)
				Circulating water	°F		23~113°F (-5~45°C)
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity				
		Model/Quantity	P06~P96/1~41				
Sound pressure level (measured in anechoic room)		dB <A>	58.0				
Refrigerant piping diameter		Liquid pipe	in. (mm)		5/8 (15.88) Braze		
		Gas pipe	in. (mm)		1-1/8 (28.58) Braze		
Minimum Circuit Ampacity		A	20				
Maximum Overcurrent Protection		A	30				
Circulating water		Water flow rate	G/h	1,902			
			G/min (gpm)	31.7			
			m³/h	7.20			
			L/min	120			
			cfm	4.2			
		Pressure drop	psi	6.38			
			kPa	44			
		Operating volume range	G/h	1,189 ~ 3,054			
			G/min (gpm)	19.8 ~ 50.9			
			m³/h	4.5 ~ 11.6			
Compressor		Type x Quantity	Inverter scroll hermetic compressor x 1				
		Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION				
		Starting method	Inverter				
		Motor output	kW		12.4		
		Case heater	kW		-		
		Lubricant	MEL32				
External finish		Galvanized steel sheets					
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16				
		mm	1,450 x 880 x 550				
Protection devices		High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
		Inverter circuit	Over-heat protection, Over-current protection				
		Compressor	Over-heat protection				
Refrigerant		Type x original charge	R410A x 13 lbs + 4 oz (6.0 kg)				
		Control	LEV and HIC circuit				
Net weight		lbs (kg)	505 (229)				
Heat exchanger		plate type					
		Water volume in plate	G	1.32			
			l	5.0			
		Water pressure Max.	psi	290			
			MPa	2.0			
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure					
Drawing		External	KL94C250				
		Wiring	KE94G421				
Standard attachment		Document	Installation Manual				
		Accessory	Details refer to External Drw				
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G					
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C).B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P144ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	144,000	
		kW	42.2	
	(575)	Power input	7.11	
		Current input	7.9	
	(Rated)	BTU/h	137,000	
		kW	40.2	
	(575)	Power input	6.53	7.72
		Current input	7.2	8.6
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	160,000	
		kW	46.9	
	(575)	Power input	7.45	
		Current input	8.3	
	(Rated)	BTU/h	152,000	
		kW	44.5	
	(575)	Power input	6.86	7.22
		Current input	7.6	8.0
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/1~31	
Sound pressure level (measured in anechoic room)		dB <A>	49.0	
Refrigerant piping diameter	Liquid pipe		1/2 (12.7) Brazed	
	Gas pipe		1-1/8 (28.58) Brazed	

Set Model			PQHY-P72ZLMU-A1< For Ground source >		PQHY-P72ZLMU-A1< For Ground source >	
Model						
Minimum Circuit Ampacity		A	5		5	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
G/min (gpm)		13.2 + 13.2 ~ 31.7 + 31.7				
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		
	mm	1,100 x 880 x 550		1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	404 (183)		404 (183)	
Heat exchanger			plate type		plate type	
	Water volume in plate	G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
Drawing	External		KL94C253			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P168ZSLMU-A1< For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h	168,000	
			kW	49.2	
	(575)	Power input	kW	9.33	
		Current input	A	10.4	
	(Rated)		BTU/h	161,000	
			kW	47.2	
	(575)	Power input	kW	8.58	
		Current input	A	9.5	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4		BTU/h	188,000	
			kW	55.1	
	(575)	Power input	kW	9.34	
		Current input	A	10.4	
	(Rated)		BTU/h	179,000	
			kW	52.5	
	(575)	Power input	kW	8.60	
		Current input	A	9.5	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity			
	Model/Quantity	P06~P96/1~36			
Sound pressure level (measured in anechoic room)			dB <A>		
			50.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		

Set Model			PQHY-P96ZLMU-A1< For Ground source >		PQHY-P72ZLMU-A1< For Ground source >	
Model			7		5	
Minimum Circuit Ampacity		A	15		15	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	404 (183)		404 (183)	
Heat exchanger	Water volume in plate		plate type		plate type	
		G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Brazed		3/8 (9.52) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
Drawing	External		KL94C253			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2 Header: CMY-Y104, 108, 1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(D.B. (40°C(D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P192ZSLMU-A1< For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h	192,000		
			kW	56.3		
	(575)	Power input	kW	11.30		
		Current input	A	12.6		
	(Rated)		BTU/h	183,000		
			kW	53.6		
	(575)	Power input	kW	10.40	10.98	
		Current input	A	11.6	12.2	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4		BTU/h	215,000		
			kW	63.0		
	(575)	Power input	kW	11.02		
		Current input	A	12.2		
	(Rated)		BTU/h	205,000		
			kW	60.1		
	(575)	Power input	kW	10.16	8.90	
		Current input	A	11.3	9.9	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity			
	Model/Quantity		P06~P96/1~41			
Sound pressure level (measured in anechoic room)		dB <A>		51.0		
Refrigerant piping diameter	Liquid pipe	in. (mm)	5/8 (15.88) Brazed			
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed			

Model			PQHY-P96ZLMU-A1< For Ground source >		PQHY-P96ZLMU-A1< For Ground source >	
Minimum Circuit Ampacity		A	7		7	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h			1,522 + 1,522	
		G/min (gpm)			25.4 + 25.4	
		m³/h			5.76 + 5.76	
		L/min			96 + 96	
		cfm			3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16		
	mm	1,100 x 880 x 550		1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	404 (183)		404 (183)	
Heat exchanger	Water volume in plate		plate type		plate type	
		G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	3/8 (9.52) Braze		3/8 (9.52) Braze	
	Gas pipe	in. (mm)	7/8 (22.2) Braze		7/8 (22.2) Braze	
Drawing	External		KL94C253			
	Wiring		KE94G421		KE94G421	
Standard	Document		Installation Manual			
attachment	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NLU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NLU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P216ZSLMU-A1< For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2	BTU/h	216,000		
			kW	63.3		
(Rated)	(575)	Power input	kW	14.03		
		Current input	A	15.6		
	(575)		BTU/h	206,000		
			kW	60.4		
		Power input	kW	12.93	13.24	
		Current input	A	14.4	14.7	
Temp. range of cooling		Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)		*3, 4	BTU/h	243,000		
			kW	71.2		
(Rated)	(575)	Power input	kW	12.88		
		Current input	A	14.3		
	(575)		BTU/h	232,000		
			kW	68.0		
		Power input	kW	11.88	10.35	
		Current input	A	13.2	11.5	
Temp. range of heating		Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable		Total capacity	50~130% of heatsource unit capacity			
		Model/Quantity	P06~P96/2~46			
Sound pressure level (measured in anechoic room)			dB <A>	55.0		
Refrigerant piping diameter		Liquid pipe	in. (mm)	5/8 (15.88) Brazed		
		Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		

Set Model			PQHY-P120ZLMU-A1< For Ground source >		PQHY-P96ZLMU-A1< For Ground source >	
Model			11		7	
Minimum Circuit Ampacity		A	15		15	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	404 (183)		404 (183)	
Heat exchanger			plate type		plate type	
	Water volume in plate	G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Braze		1/2 (12.7) Braze	
	Gas pipe	in. (mm)	7/8 (22.2) Braze		7/8 (22.2) Braze	
Drawing	External		KL94C253			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts				Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h =kW x 3,412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm =m³/min x 35.31
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs =kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>,		
Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)		
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m),		
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>,		
Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P240ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	240,000	
		kW	70.3	
	(575)	Power input	16.89	
		Current input	18.8	
	(Rated)	BTU/h	228,000	
		kW	66.8	
	(575)	Power input	15.57	16.15
		Current input	17.3	18.0
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	270,000	
		kW	79.1	
	(575)	Power input	14.58	
		Current input	16.2	
	(Rated)	BTU/h	258,000	
		kW	75.6	
	(575)	Power input	13.45	12.02
		Current input	15.0	13.4
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	57.0	
Refrigerant piping diameter	Liquid pipe		5/8 (15.88) Brazed	
	Gas pipe		1-1/8 (28.58) Brazed	

Set Model				
Model			PQHY-P120ZLMU-A1< For Ground source >	
Minimum Circuit Ampacity		A	11	
Maximum Overcurrent Protection		A	15	
Circulating water	Water flow rate	G/h	1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4	
		m³/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
	Pressure drop	psi	3.48	
		kPa	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902	
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7	
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	7.7	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	404 (183)	
Heat exchanger	Water volume in plate	G	plate type	
		l	1.32	
		psi	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed	
	Gas pipe	in. (mm)	7/8 (22.2) Brazed	
Drawing	External		KL94C253	
	Wiring		KE94G421	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Y100CBK3 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NLU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NLU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P288ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	288,000	
		kW	84.4	
		kW	20.42	
		A	22.7	
	(Rated)	BTU/h	275,000	
		kW	80.6	
		kW	18.82	21.43
		A	20.9	23.9
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	323,000	
		kW	94.7	
		kW	17.50	
		A	19.5	
	(Rated)	BTU/h	308,000	
		kW	90.3	
		kW	16.13	16.05
		A	17.9	17.9
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity		
	Model/Quantity	P06~P96/2~50		
Sound pressure level (measured in anechoic room)		dB <A>	57.0	
Refrigerant	Liquid pipe	in. (mm)	3/4 (19.05) Brazed	
piping diameter	Gas pipe	in. (mm)	1-3/8 (34.93) Brazed	
Set Model				
Model			PQHY-P144ZLMU-A1< For Ground source >	PQHY-P144ZLMU-A1< For Ground source >
Minimum Circuit Ampacity		A	13	13
Maximum Overcurrent Protection		A	20	20
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	6.38
		kPa	44	44
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
G/min (gpm)		19.8 + 19.8 ~ 50.9 + 50.9		
m³/h		4.5 + 4.5 ~ 11.6 + 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D	in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16
	mm	1,450 x 880 x 550		1,450 x 880 x 550
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lbs + 4 oz (6.0 kg)
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	505 (229)	505 (229)
Heat exchanger	Water volume in plate	G	plate type	plate type
		I	1.32	1.32
		5.0	5.0	
	Water pressure Max.	psi	290	290
		MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Change)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	in. (mm)	1/2 (12.7) Brazed	1/2 (12.7) Brazed
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	1-1/8 (28.58) Brazed
Drawing	External	KL94C254		
	Wiring	KE94G421	KE94G421	
Standard attachment	Document	Installation Manual		
	Accessory	Details refer to External Drw		
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	
Notes:				Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%				BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%				cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%				lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%				
				*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P312ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	312,000	
		kW	91.4	
	(575)	Power input	23.41	
		Current input	26.1	
	(Rated)	BTU/h	297,000	
		kW	87.0	
	(575)	Power input	21.59	23.67
		Current input	24.0	26.4
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	350,000	
		kW	102.6	
	(575)	Power input	19.11	
		Current input	21.3	
	(Rated)	BTU/h	334,000	
		kW	97.9	
	(575)	Power input	17.62	17.96
		Current input	19.6	20.0
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~130% of heatsource unit capacity		
	Model/Quantity	P06~P96/2-50		
Sound pressure level (measured in anechoic room)		dB <A> 58.0		
Refrigerant piping diameter	Liquid pipe	in. (mm) 3/4 (19.05) Brazed		
	Gas pipe	in. (mm) 1-3/8 (34.93) Brazed		

Model			PQHY-P168ZLMU-A1< For Ground source >		PQHY-P144ZLMU-A1< For Ground source >	
Minimum Circuit Ampacity		A	16		13	
Maximum Overcurrent Protection		A	25		20	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9			
m³/h		4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	11.0		9.5	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	505 (229)		505 (229)	
Heat exchanger	Water volume in plate		plate type		plate type	
		G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Drawing	External		KL94C254			
	Wiring		KE94G421		KE94G421	
Standard	Document		Installation Manual			
attachment	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQHY-P36ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	336,000	
		kW	98.5	
	(575)	Power input	26.84	
		Current input	29.9	
	(Rated)	BTU/h	320,000	
		kW	93.8	
	(575)	Power input	24.76	25.85
		Current input	27.6	28.8
Temp. range of cooling	Indoor		59~75°F (15~24°C)	
	Circulating water		23~113°F (-5~45°C)	
	*3, 4	BTU/h	378,000	
		kW	110.8	
Heating capacity (Nominal)	(575)	Power input	20.77	
		Current input	23.1	
	(Rated)	BTU/h	361,000	
		kW	105.8	
	(575)	Power input	19.16	20.05
		Current input	21.3	22.3
	Indoor		59~81°F (15~27°C)	
	Circulating water		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	59.0	
Refrigerant		Liquid pipe	3/4 (19.05) Brazed	
piping diameter		Gas pipe	1-5/8 (41.28) Brazed	

Set Model			PQHY-P168ZLMU-A1< For Ground source >		PQHY-P168ZLMU-A1< For Ground source >	
Model			16		16	
Minimum Circuit Ampacity		A	16		16	
Maximum Overcurrent Protection		A	25		25	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9			
m³/h		4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	11.0		11.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit			
Net weight		lbs (kg)	505 (229)		505 (229)	
Heat exchanger	Water volume in plate		plate type		plate type	
		G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure		
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed		1-1/8 (28.58) Brazed	
Drawing	External		KL94C254			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQHY-P-Z(S)LMU-A1

Heat Source Model			PQHY-P360ZSLMU-A1< For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	360,000	
		kW	105.5	
	(575)	Power input	29.43	
		Current input	32.8	
	(Rated)	BTU/h	342,000	
		kW	100.2	
	(575)	Power input	27.17	27.41
		Current input	30.3	30.5
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4	BTU/h	405,000	
		kW	118.7	
	(575)	Power input	22.85	
		Current input	25.4	
	(Rated)	BTU/h	387,000	
		kW	113.4	
	(575)	Power input	21.09	21.70
		Current input	23.5	24.2
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~130% of heatsource unit capacity	
	Model/Quantity		P06~P96/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	60.0	
Refrigerant		Liquid pipe	3/4 (19.05) Brazed	
piping diameter		Gas pipe	1-5/8 (41.28) Brazed	

Set Model				
Model			PQHY-P192ZLMU-A1< For Ground source >	
Minimum Circuit Ampacity		A	20	
Maximum Overcurrent Protection		A	30	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method	Inverter		
	Motor output	kW	12.4	
	Case heater	kW	-	
	Lubricant	MEL32		
External finish		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		LEV and HIC circuit	
Net weight		lbs (kg)	505 (229)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		l	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Pipe between unit and distributor	Liquid pipe	in. (mm)	5/8 (15.88) Brazed	
	Gas pipe	in. (mm)	1-1/8 (28.58) Brazed	
Drawing	External		KL94C254	
	Wiring		KE94G421	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Y200CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2 Header: CMY-Y104, 108, 1010C-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
		*Above specification data is subject to rounding variation.

PQHY-P72, 96, 120ZLMU-A1

Unit: mm(in)

- <Accessories>
- Refrigerant (Liquid) conn. pipe 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
 - Refrigerant (Gas) conn. elbow 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
 - Water stopper(Liquid,Gas) 1pc. each
(P72/P96/P120 ; Packaged in the accessory kit)
 - Sealing material for water stopper (Liquid,Gas) 1pc. each
(P72/P96/P120 ; Packaged in the accessory kit)
 - Sealing material for field piping (Liquid,Gas) 1pc. each
(P72/P96/P120 ; Packaged in the accessory kit)
 - Sealing material for drain socket 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
 - Pipe cover for gas 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)

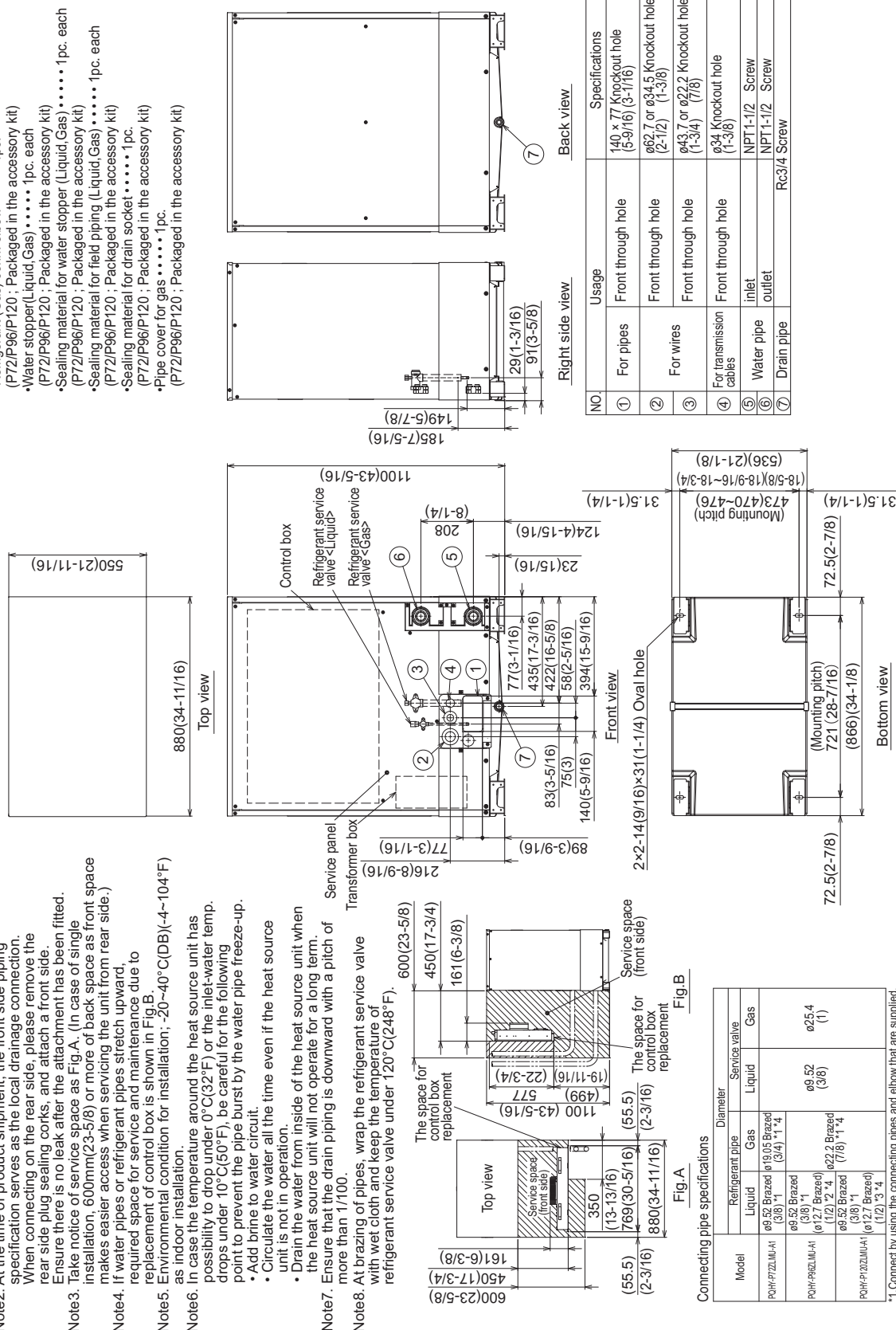


Fig.B

Fig. A

Model		Diameter			
		Refrigerant pipe		Service valve	
		Liquid	Gas	Liquid	Gas
PQW-P72Z-MU-A1	ø 5/2 Braze (3/8" 1/4)	ø 9/16 Braze (3/4" 1/4)			
PQW-P62Z-MU-A1	ø 5/2 Braze (3/8" 1/4)	ø 1/2 Braze (1/2" 2/4)	ø 9/2 (3/8)	ø 5/4 (1)	
PQW-P72Z-MU-A1	ø 5/2 Braze (3/8" 1/4)	ø 1/2 Braze (1/2" 2/4)			

	11/2"	3"	4"
1. Connect by using the connecting pipes and elbow that are supplied.			
2. Total length ≥ 90m (295ft)			
3. Total length ≥ 40m (131ft)			
4. Use the pipe joint (field supply) and connect to the refrigerant service			

PQH₂-P-Z(S)LMU-A1

PQHY-P-Z(S)LMU-A1

<Accessories>

- Refrigerant (Liquid) conn. pipe.....1pc.
(P144P/168/P192 : Packaged in the accessory kit)
Refrigerant (Gas) conn. elbow.....1pc.
(P144P/168/P192 : Packaged in the accessory kit)
Water stopper(Liquid Gas).....1pc. each
(P144P/168/P192 : Packaged in the accessory kit)
Sealing material for water stopper (Liquid Gas).....1pc. each
(P144P/168/P192 : Packaged in the accessory kit)
Sealing material for field piping (Liquid Gas).....1pc. each
(P144P/168/P192 : Packaged in the accessory kit)
Sealing material for drain socket.....1pc.
(P144P/168/P192 : Packaged in the accessory kit)
Pipe cover for gas.....1pc.
(P144P/168/P192 : Packaged in the accessory kit)
Sealing material for base leg (two types).....4pcs. each
(P144P/168/P192 : Packaged in the accessory kit)
Sealing material for panel.....1pc.
(P144P/168/P192 : Packaged in the accessory kit)

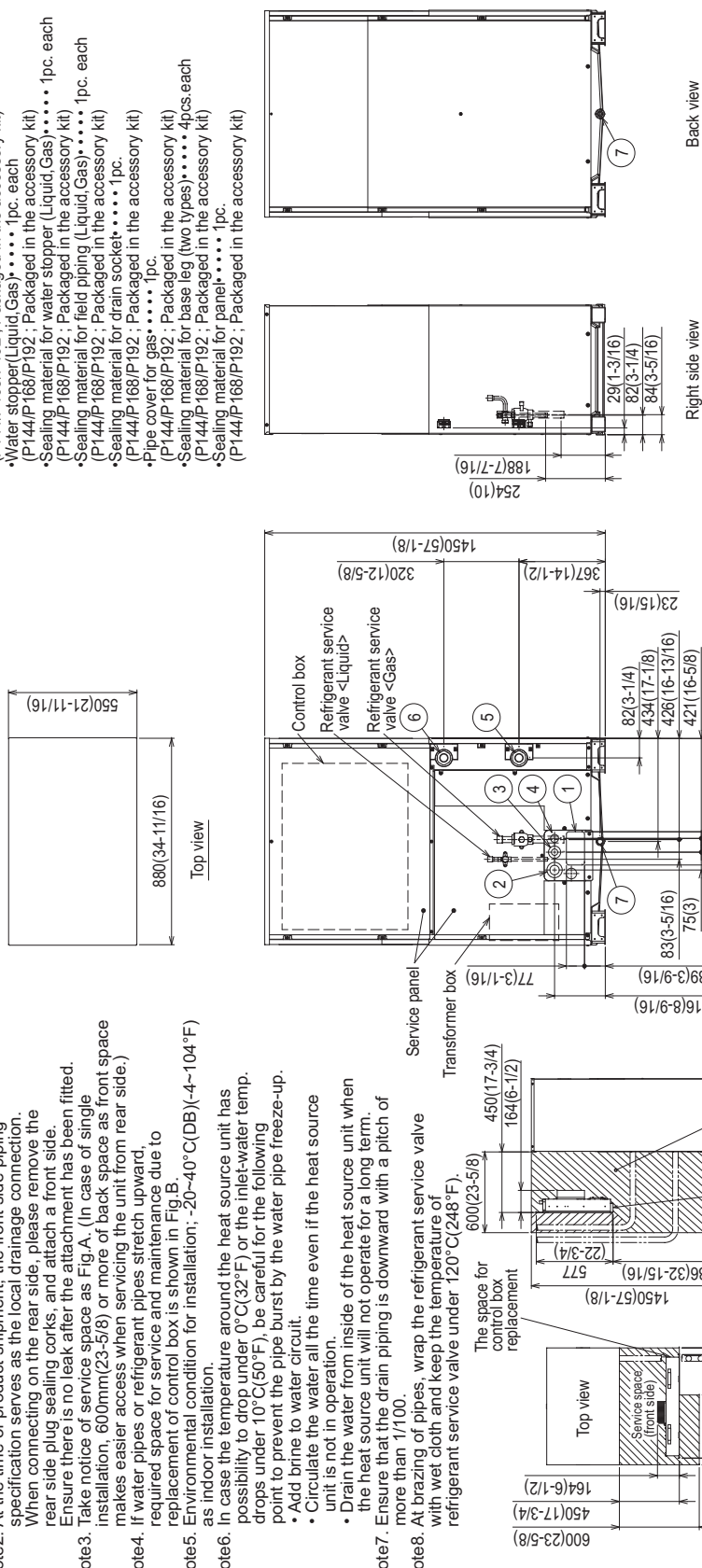


Fig. B

Fig. A

Connecting pipe specifications			
Model	Diameter		
	Refrigerant pipe		Service valve
	Liquid	Gas	Liquid
PCH-P14ZJ-MU-A1	ø12.7 Brazed (1/2) * 2		
PCH-P18ZJ-MU-A1		ø28.58 Brazed (1-1/8) * 1	ø15.88 (5/8)
PCH-P18ZJ-MU-A1			ø26.58 (1-1/8)

*1. Connect by using the connecting pipes and elbow that are supplied.

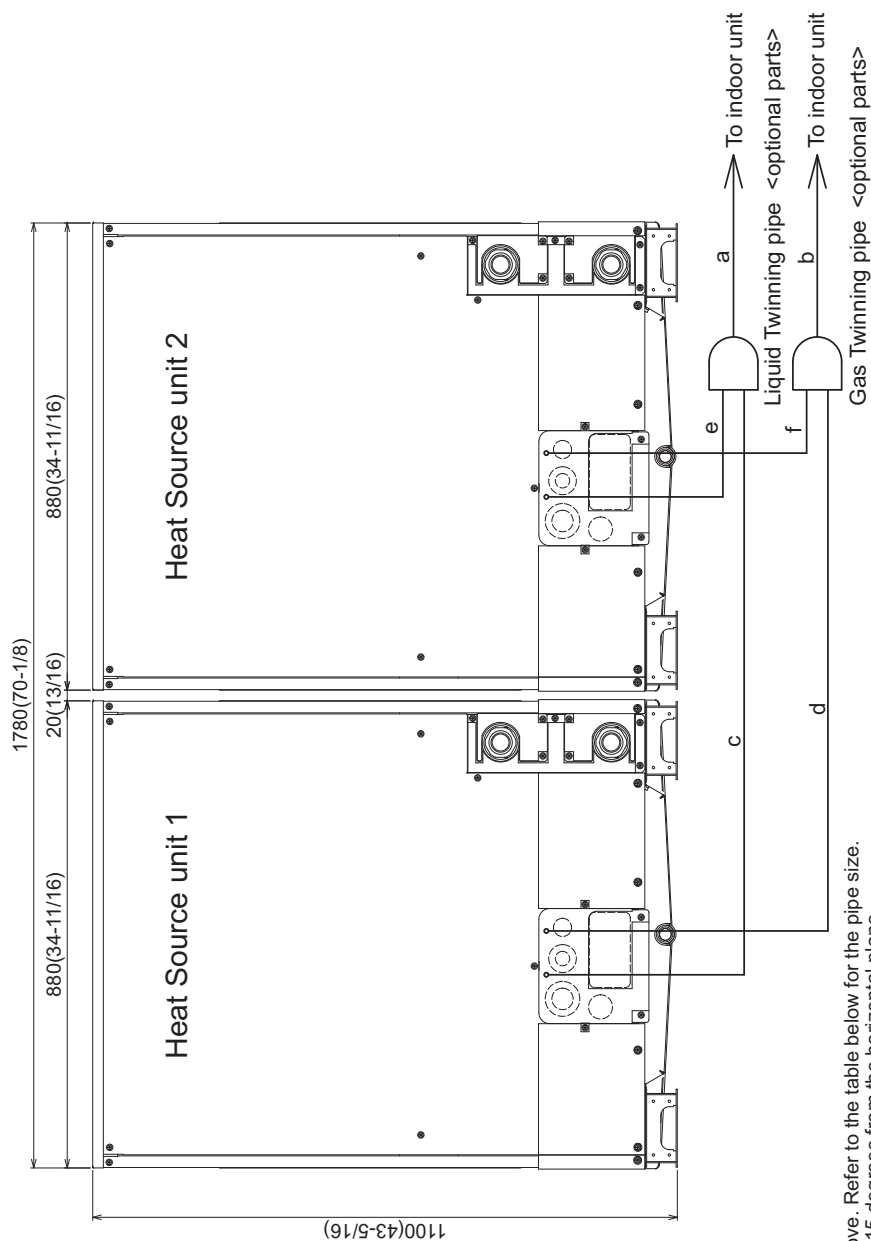
NO.	Usage	Specifications
①	For pipes	140 x 77 Knockout hole (5-9/16) (3-1/16)
②		
③	For wires	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④	For transmission cables	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	Water pipe	ø34 Knockout hole (1-3/8)
⑥	inlet outlet	NPT1-1/2 Screw
⑦	Drain pipe	NPT1-1/2 Screw Bx3/4 Screw

Unit: mm(in)

2. EXTERNAL DIMENSIONS

PQHY-P144, 168, 192, 216, 240ZSLMU-A1

Unit: mm(in)



Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.

2. Twinning pipe should not be tilted more than 15 degrees from the horizontal plane.

3. See the Installation Manual for the details of Twinning pipe installation.

4. The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm (19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).

5. Only use the Twinning pipe by Mitsubishi (optional parts).

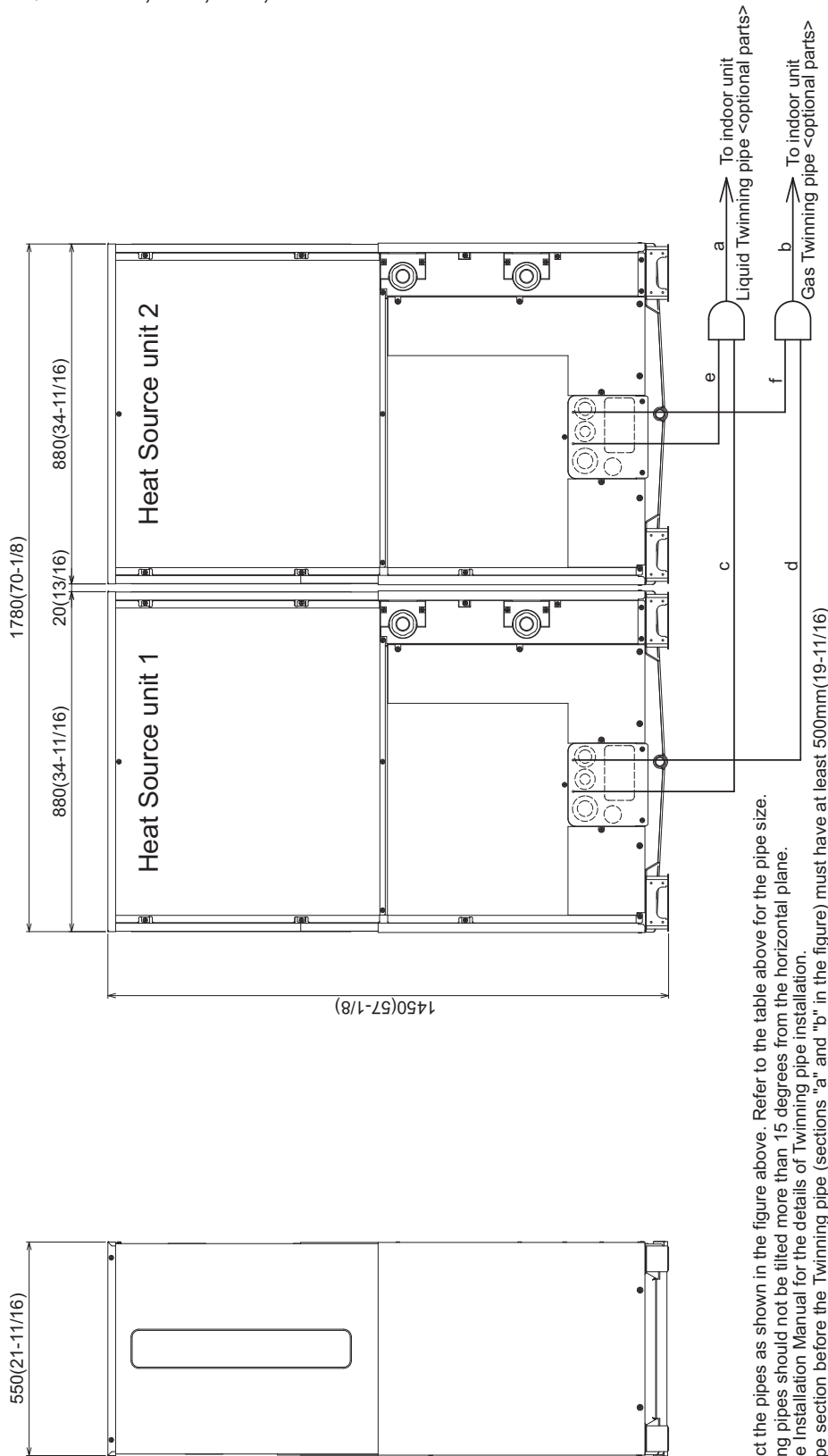
Twinning pipe connection size

Package unit name		PQHY-P144ZSLMU-A1	PQHY-P168ZSLMU-A1	PQHY-P192ZSLMU-A1	PQHY-P216ZSLMU-A1	PQHY-P240ZSLMU-A1
Component unit name	Heat Source unit 1	PQHY-P72ZLMU-A1	PQHY-P96ZLMU-A1	PQHY-P120ZLMU-A1	PQHY-P120ZLMU-A1	PQHY-P120ZLMU-A1
	Heat Source unit 2	PQHY-P72ZLMU-A1	PQHY-P96ZLMU-A1	PQHY-P96ZLMU-A1	PQHY-P96ZLMU-A1	PQHY-P120ZLMU-A1
Twinning pipe Kit(optional parts)		CMY-Y100CBK3				
Indoor unit-Twinning pipe	Liquid a	ø15.88(5/8)				
	Gas b	ø28.58(1-1/8)				
Twinning pipe-Heat Source unit 1	Liquid c	ø9.52(3/8)				
	Gas d	ø22.2(7/8)				
Twinning pipe-Heat Source unit 2	Liquid e	ø9.52(3/8)				
	Gas f	ø22.2(7/8)				

2. EXTERNAL DIMENSIONS

PQHY-P288, 312, 336, 360ZSLMU-A1

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table above for the pipe size.
 2. Twinning pipes should not be tilted more than 15 degrees from the horizontal plane.
 3. See the Installation Manual for the details of Twinning pipe installation.
 4. The pipe section before the Twinning pipe (sections "a" and "b" in the figure) must have at least 500mm(19-11/16) of straight section (*including the straight pipe that is supplied with the Twinning pipe).
 5. Only use the Twinning pipe by Mitsubishi (optional parts).

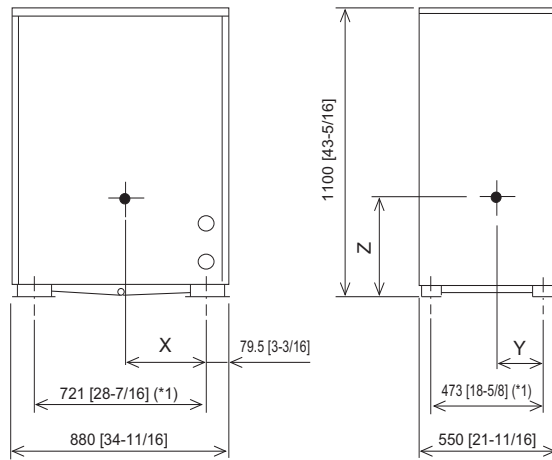
Twining pipe connection size

Package unit name	PQHY-P288ZSLMU-A1	PQHY-P312ZSLMU-A1	PQHY-P336ZSLMU-A1	PQHY-P360ZSLMU-A1
Heat Source unit 1	PQHY-P144ZLMU-A1	PQHY-P168ZLMU-A1	PQHY-P168ZLMU-A1	PQHY-P192ZLMU-A1
Heat Source unit 2	PQHY-P144ZLMU-A1	PQHY-P144ZLMU-A1	PQHY-P168ZLMU-A1	PQHY-P168ZLMU-A1
Twining Kit(optional parts)	CMY-Y200CBK2 ø19.05(3/4)			
Indoor unit~ Twinning pipe	ø34.93(1-3/8)			
Gas	ø41.28(1-5/8)			
Liquid	ø15.88(5/8)			
Twining pipe-Heat Source unit 1	ø12.7(1/2)			
Gas	ø28.58(1-1/8)			
Liquid	ø15.88(5/8)			
Twining pipe-Heat Source unit 2	ø12.7(1/2)			
Gas	ø28.58(1-1/8)			

3. CENTER OF GRAVITY

PQHY-P72, 96, 120ZLMU-A1

Unit: mm [in.]

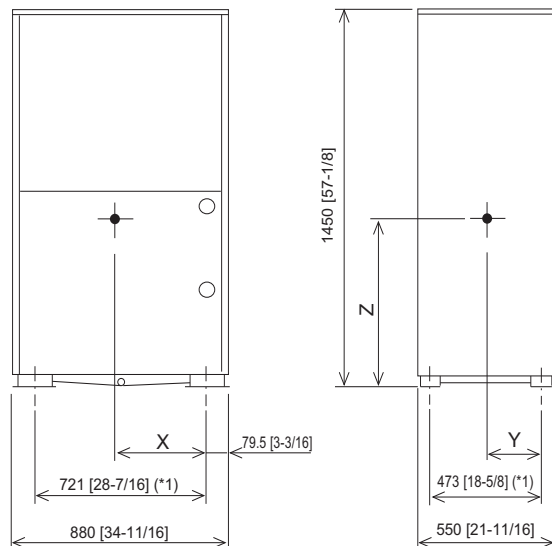


Model	X	Y	Z
PQHY-P72ZLMU-A1	387 [15-1/4]	227 [8-15/16]	430 [16-15/16]
PQHY-P96ZLMU-A1	387 [15-1/4]	227 [8-15/16]	430 [16-15/16]
PQHY-P120ZLMU-A1	387 [15-1/4]	227 [8-15/16]	430 [16-15/16]

*1 Mounting Pitch

PQHY-P144, 168, 192ZLMU-A1

Unit: mm [in.]



Model	X	Y	Z
PQHY-P144ZLMU-A1	387 [15-1/4]	230 [9-1/16]	616 [24-5/16]
PQHY-P168ZLMU-A1	387 [15-1/4]	230 [9-1/16]	616 [24-5/16]
PQHY-P192ZLMU-A1	387 [15-1/4]	230 [9-1/16]	616 [24-5/16]

*1 Mounting Pitch

4. ELECTRICAL WIRING DIAGRAMS

PQHY-P72, 96, 120, 144, 168, 192ZLMU-A1

PQHY-P-Z(S)LMU-A1

- *1 Single-dotted lines indicate wiring not supplied with the unit.
- *2 Dot-dash lines indicate the control box boundaries.
- *3 Refer to the Data book for connecting input/output signal connectors.
- *4 Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
- *5 5-star terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
- *6 Control box houses high-voltage parts.
Before inspecting the inside of the control box turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage between FT-P and FT-N on INV Board has dropped to DC20V or less.
- *7 Refer to the Data book for wiring terminal block for Pump Interlock, Operation ON signal and DC0-10V signal output.
- *8 Difference of appliance.

Model name	Appliance
P72/96/120	*8 do not exist
P144/168/192	*8 exist

*9 Difference of appliance.

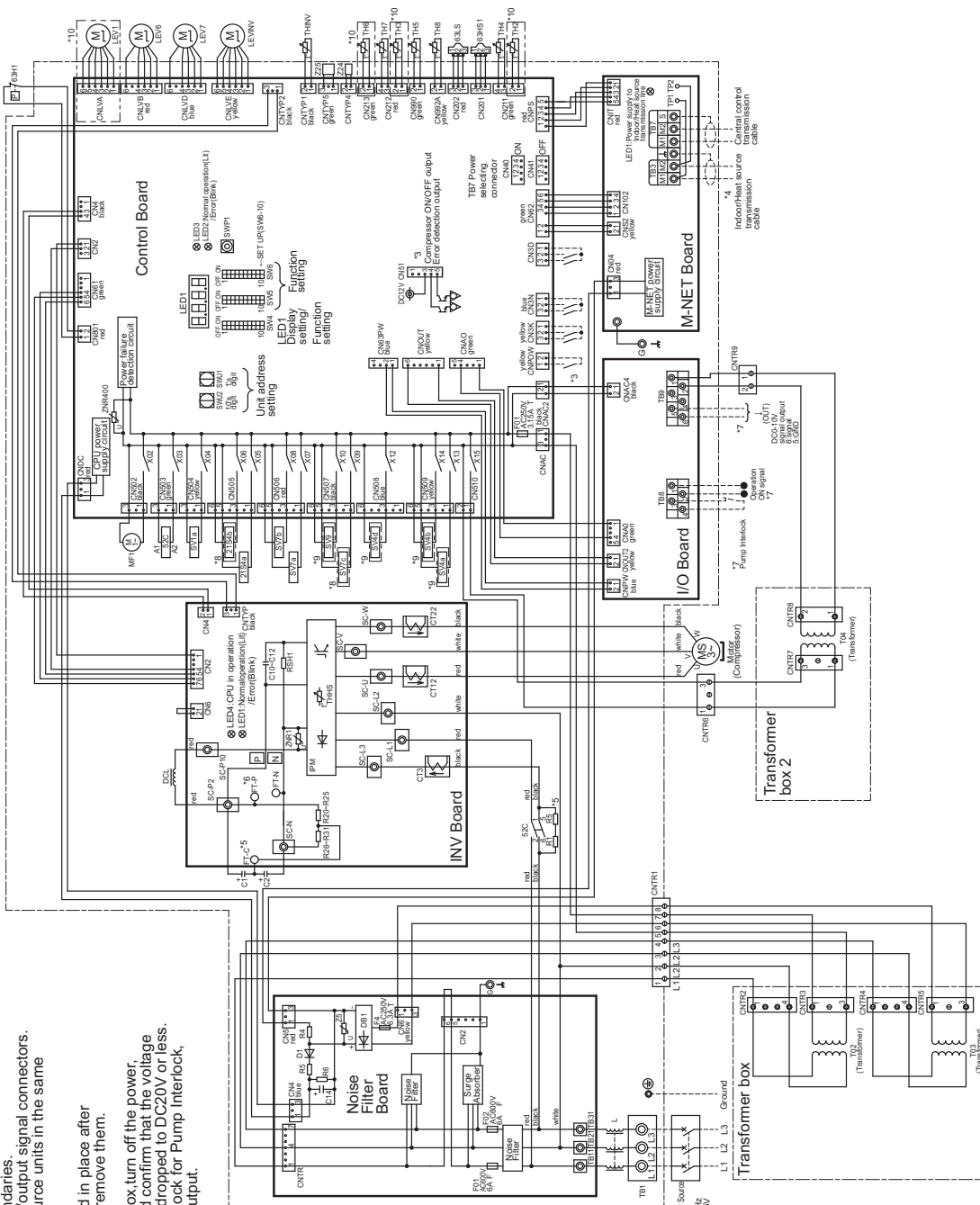
Model name	Appliance
PQHY	*9 do not exist
PQRY	*9 exist

*10 Difference of appliance.

Model name	Appliance
PQHY	*10 exist
PQRY	*10 do not exist

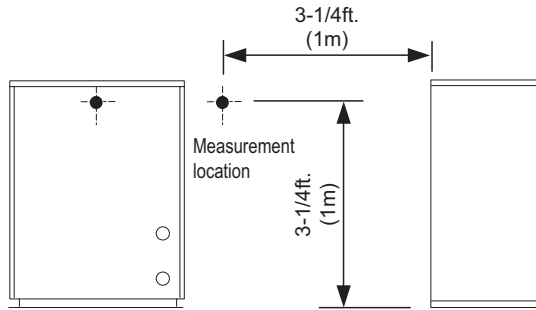
<Symbol explanation>

Symbol	Explanation
21S4a	4-way valve
21S4b	Heat exchanger capacity control
63H1	Pressure switch
63HS1	Pressure switch
63LS	Sensor
52C	Magnetic contactor (inverter main circuit)
C12	Capacitor (inverter main circuit)
C12/223	Capacitor (inverter main circuit)
DO1	DC output
L	Choke coil (for high frequency noise reduction)
LEV1	Linear expansion valve
LEV6	Linear expansion valve
LEV7	Linear expansion valve
LEVNV	Linear expansion valve
MF1	Fan motor (Radiator panel)
RT1	For current detection
RSH1	For opening/closing the bypass valve
SV1a	Solenoid valve
SV4a.b.d	Heat exchanger capacity control
SV7a.b.c	Heat exchanger capacity control
SV9	For opening/closing the bypass circuit
TB1	Terminal block
TB3	Power supply
TB7	Power supply
TB8	Power supply
TB9	Power supply
TH2	Thermistor
TH3	Thermistor
TH4	Thermistor
TH5	Thermistor
TH6	Thermistor
TH7	Thermistor
TH8	Thermistor
THINV	Thermistor
THHS	Thermistor
Z24.25	Function setting connector

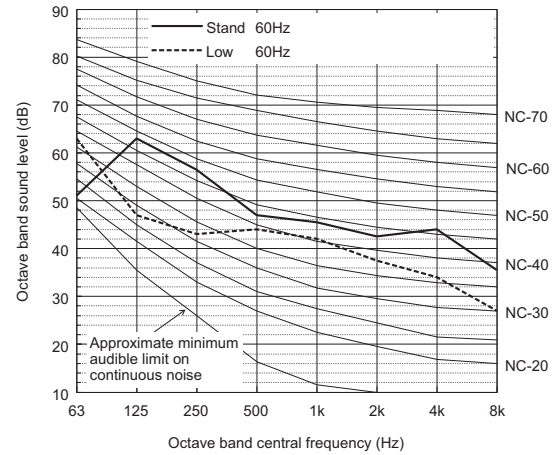


5. SOUND LEVELS

Measurement condition PQHY-P72, 96, 120ZLMU-A1



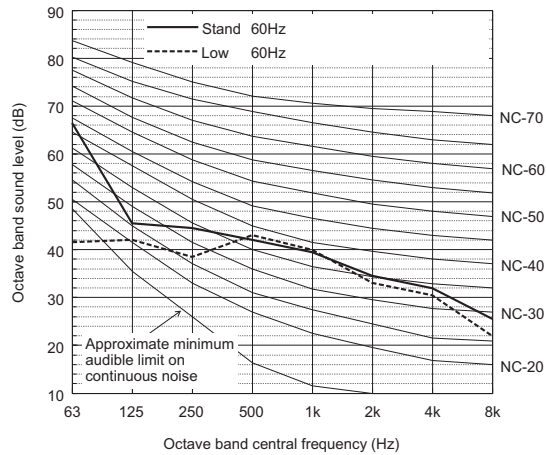
Sound level of PQHY-P120ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

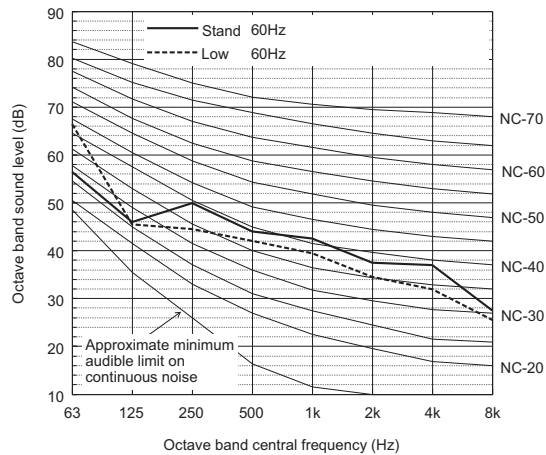
Sound level of PQHY-P72ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P96ZLMU-A1



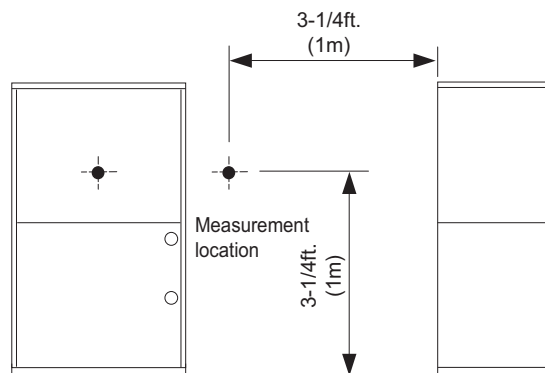
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

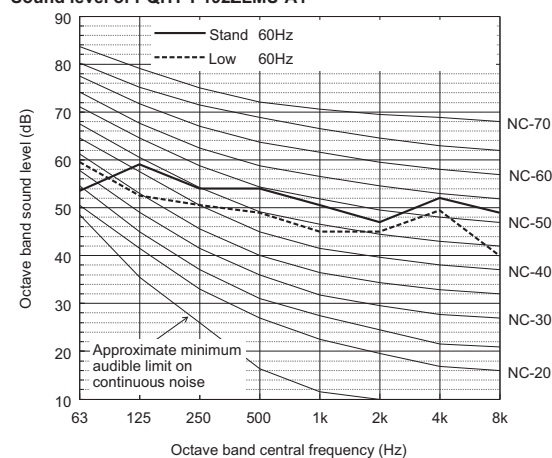
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P144, 168, 192ZLMU-A1



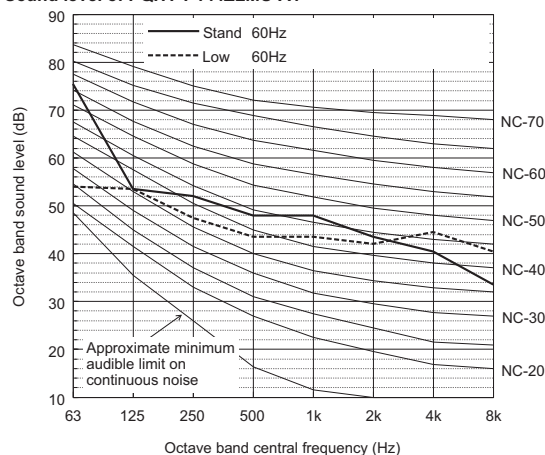
Sound level of PQHY-P192ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	53.5	59.0	54.0	54.0	50.5	47.0	52.0	49.0	58.0
Low noise mode	60Hz	59.5	52.5	50.5	49.0	45.0	45.0	49.5	40.0	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

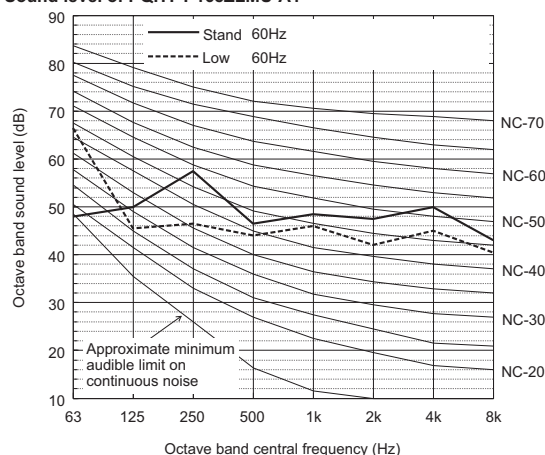
Sound level of PQHY-P144ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	53.5	52.0	48.0	48.0	43.5	40.5	33.5	54.0
Low noise mode	60Hz	54.0	53.5	47.5	43.5	43.5	42.0	44.5	40.5	50.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P168ZLMU-A1



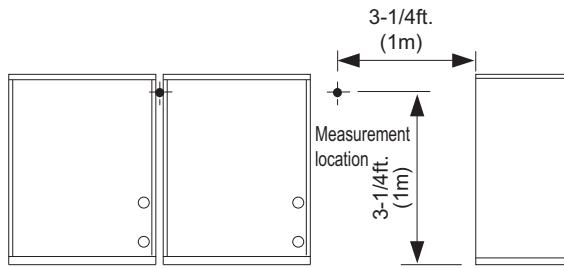
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	48.0	50.0	57.5	46.5	48.5	47.5	50.0	43.0	56.0
Low noise mode	60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

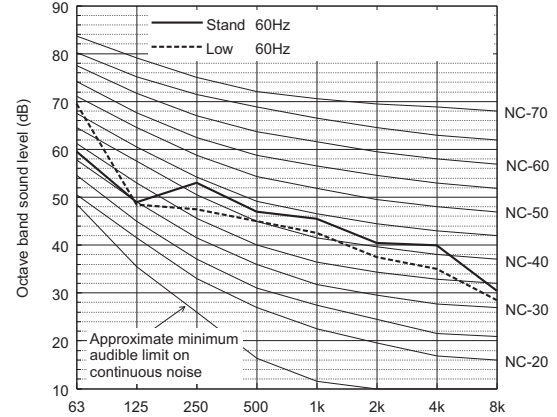
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P144, 168, 192, 216, 240ZSLMU-A1



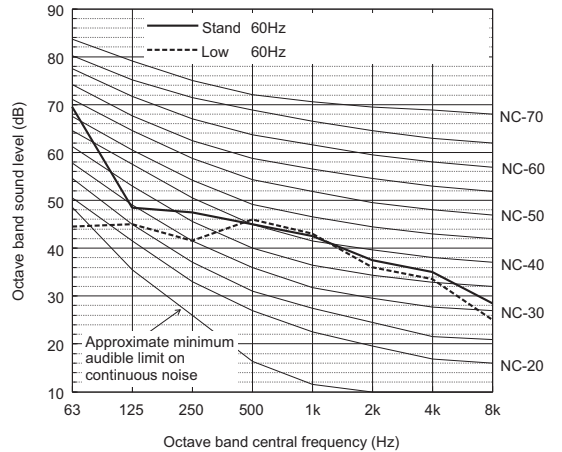
Sound level of PQHY-P192ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	59.5	49.0	53.0	47.0	45.5	40.5	40.0	30.5	51.0
Low noise mode	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

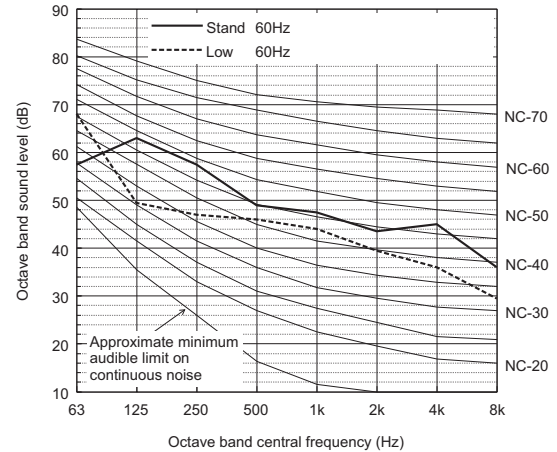
Sound level of PQHY-P144ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

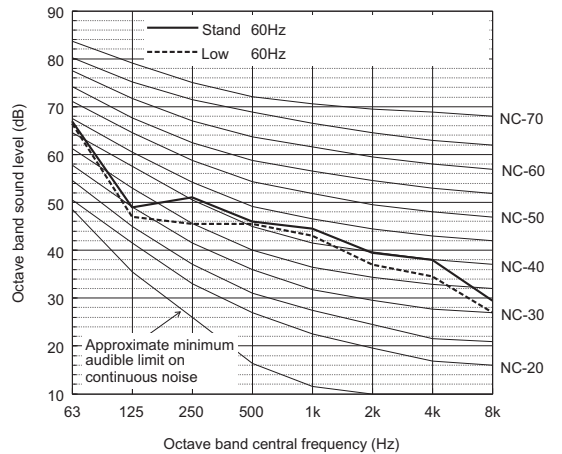
Sound level of PQHY-P216ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	28.5	49.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

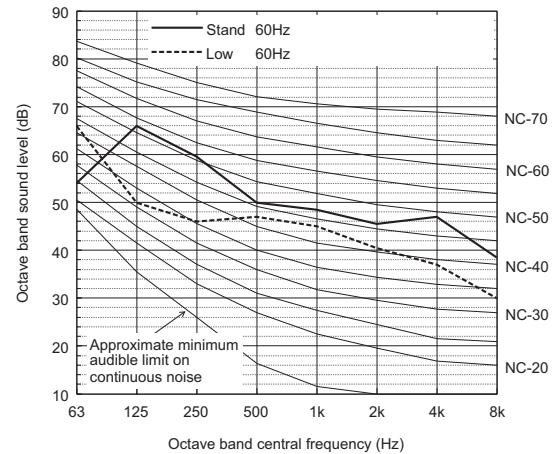
Sound level of PQHY-P168ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P240ZSLMU-A1



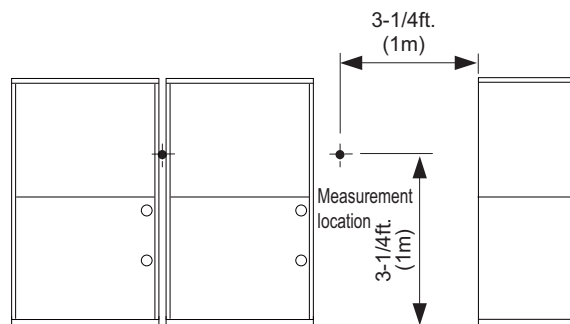
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

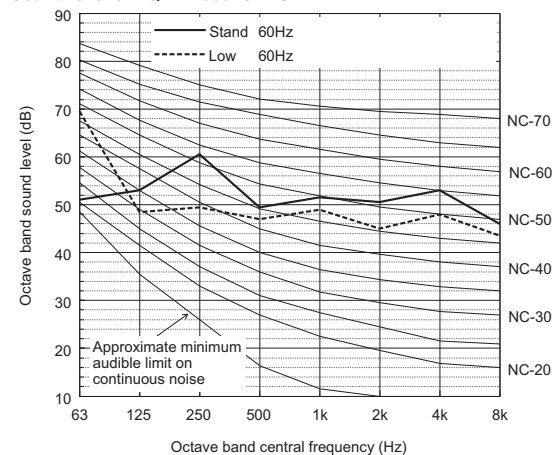
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

5. SOUND LEVELS

Measurement condition PQHY-P288, 312, 336, 360ZSLMU-A1



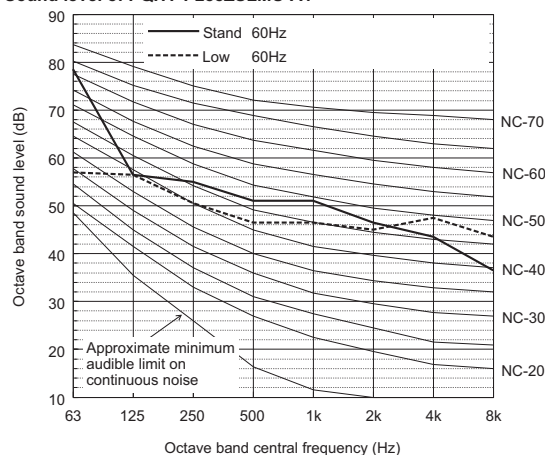
Sound level of PQHY-P336ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	53.0	60.5	49.5	51.5	50.5	53.0	46.0	59.0
Low noise mode	60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

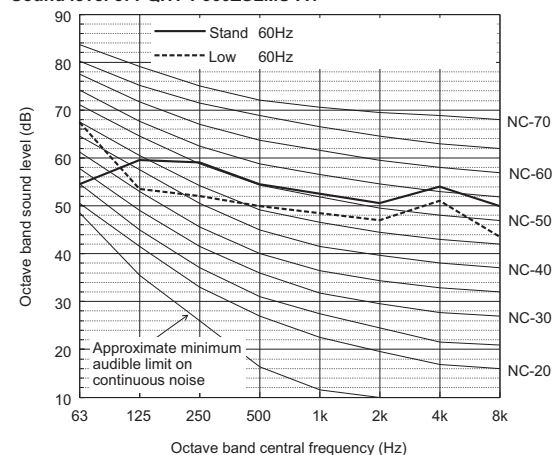
Sound level of PQHY-P288ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	78.5	56.5	55.0	51.0	51.0	46.5	43.5	36.5	57.0
Low noise mode	60Hz	57.0	56.5	50.5	46.5	46.5	45.0	47.5	43.5	53.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

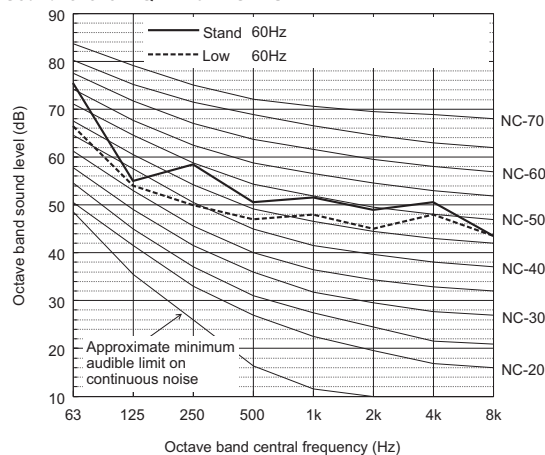
Sound level of PQHY-P360ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.5	59.5	59.0	54.5	52.5	50.5	54.0	50.0	60.0
Low noise mode	60Hz	67.5	53.5	52.0	50.0	48.5	47.0	51.0	43.5	56.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQHY-P312ZSLMU-A1



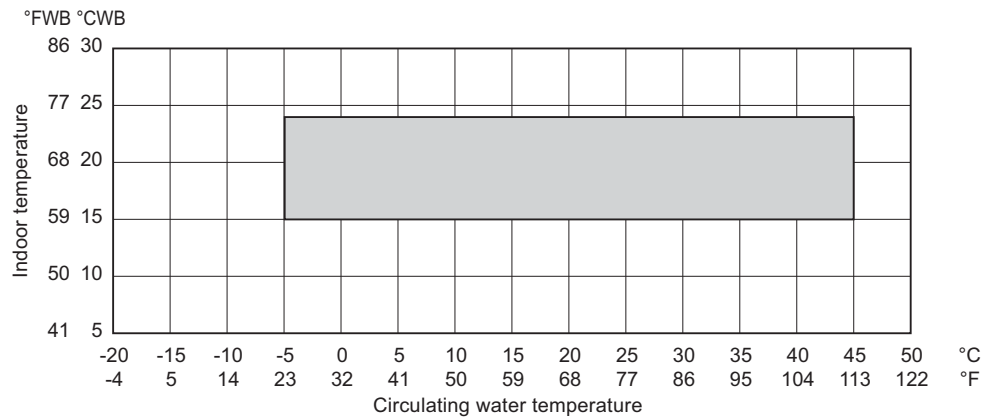
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	55.0	58.5	50.5	51.5	49.0	50.5	43.5	58.0
Low noise mode	60Hz	66.5	54.0	50.0	47.0	48.0	45.0	48.0	43.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

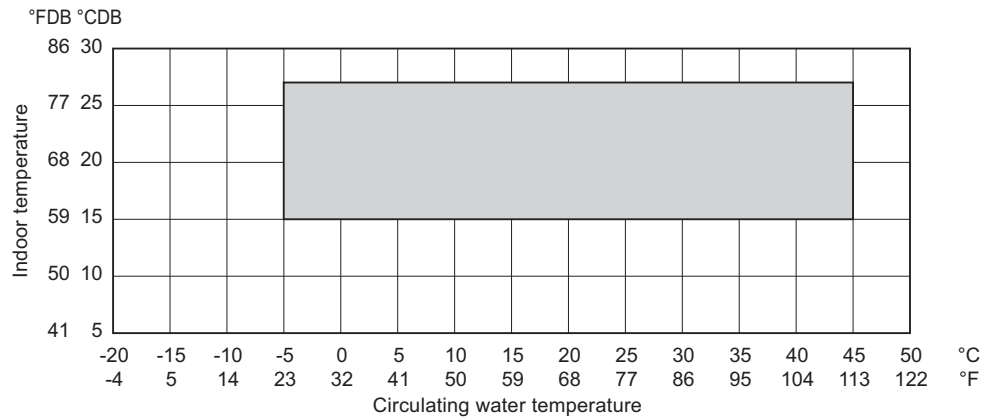
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating



PQHY-P-Z(S)LMU-A1

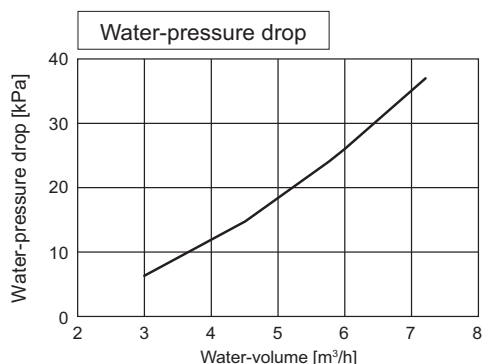
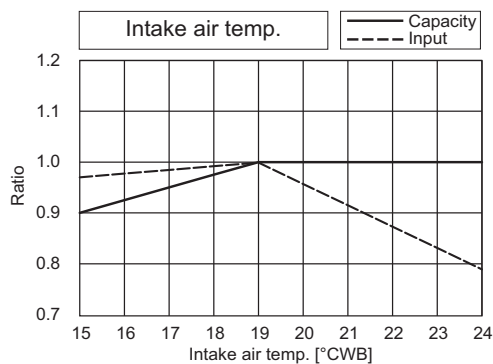
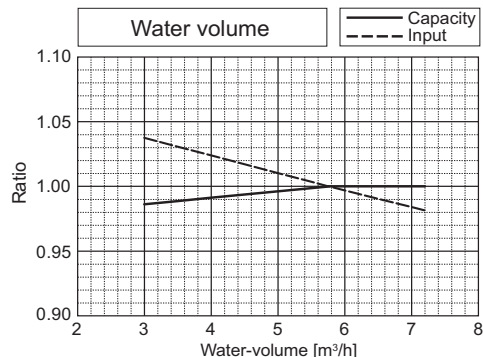
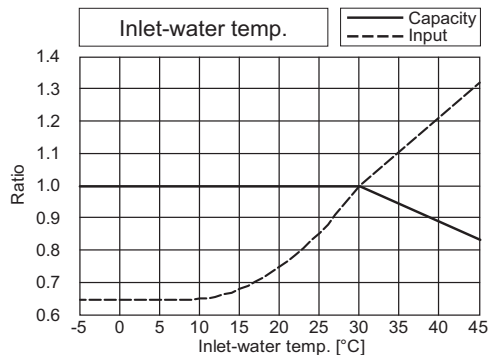
7. CAPACITY TABLES

7-1. Correction by temperature

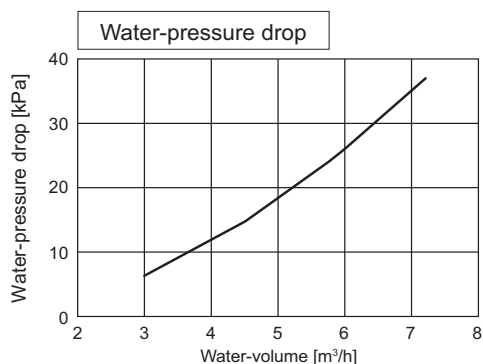
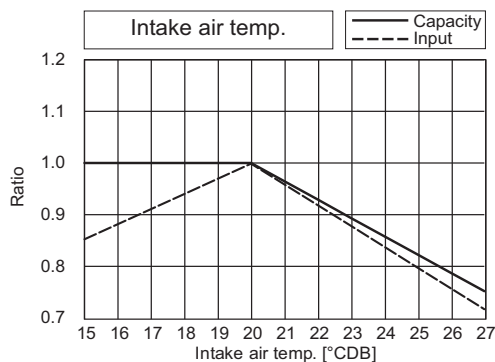
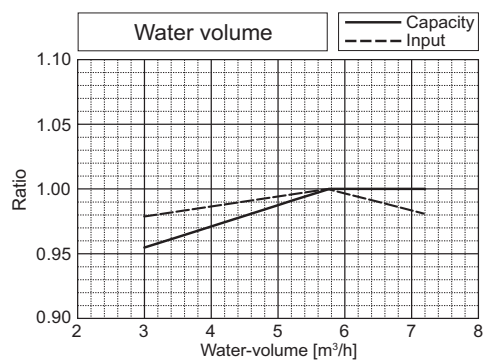
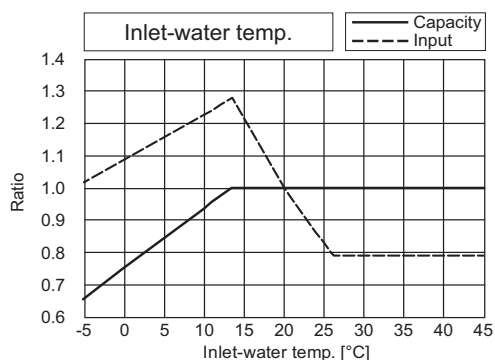
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

PQHY-P-Z(S)LMU-A1

PQHY-			P72ZLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12

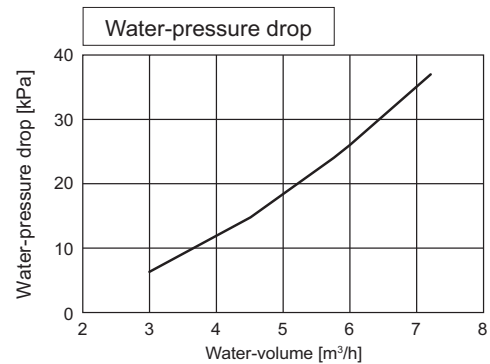
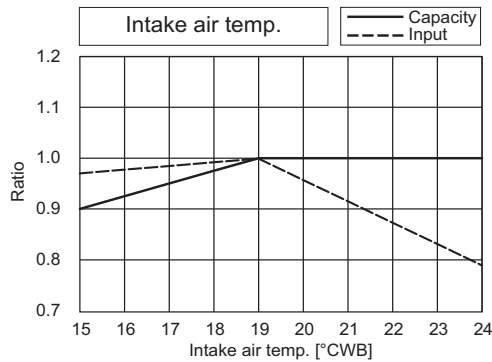
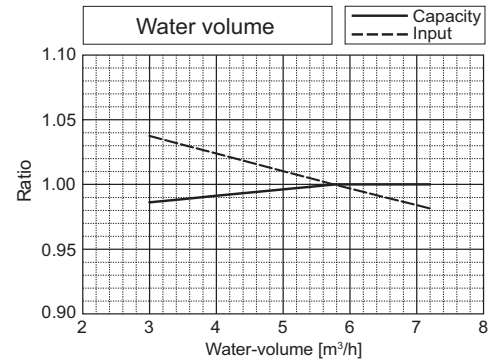
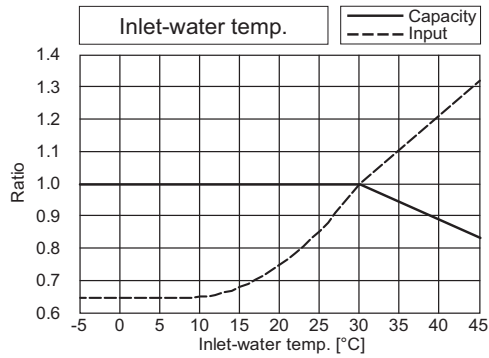


PQHY-			P72ZLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36

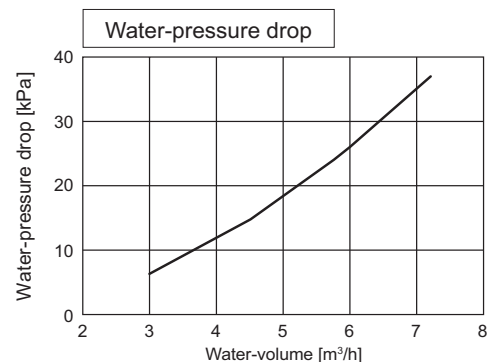
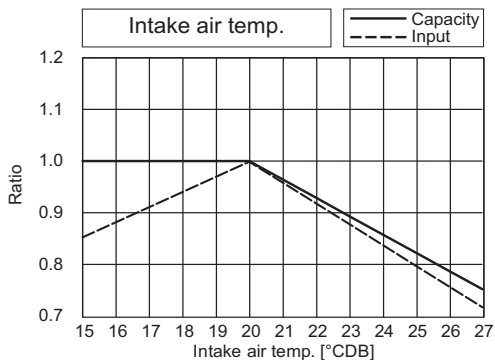
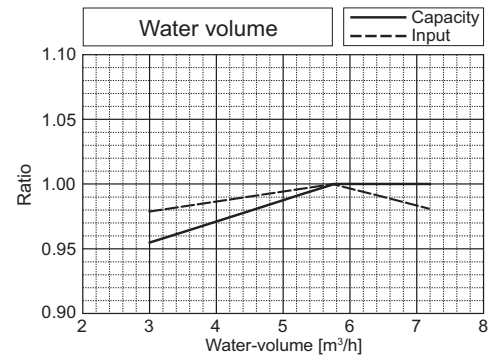
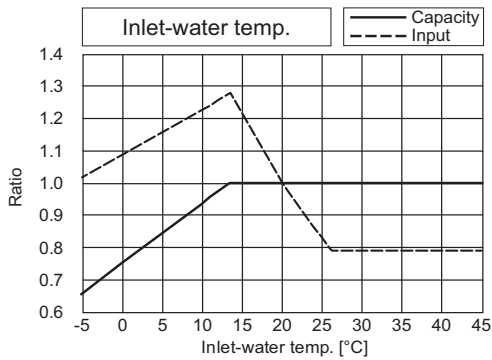


7. CAPACITY TABLES

PQHY-			P96ZLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19



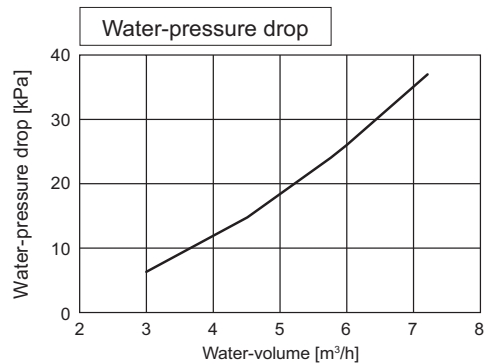
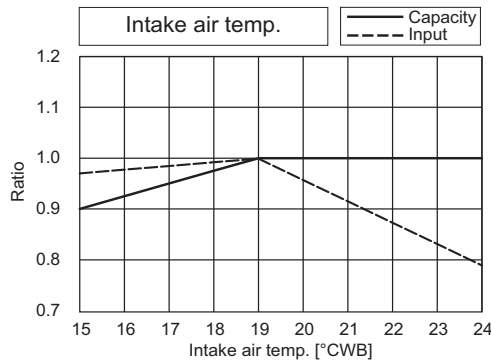
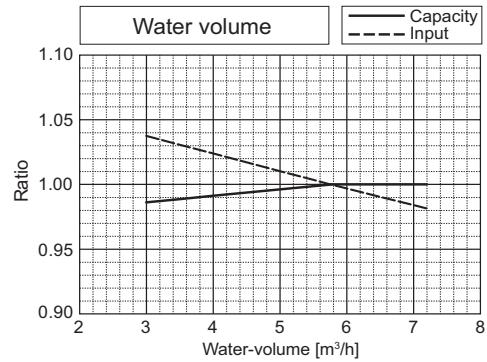
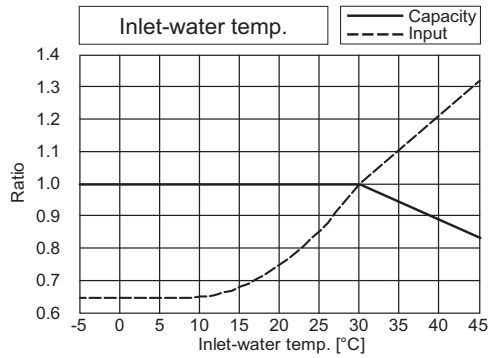
PQHY-			P96ZLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48



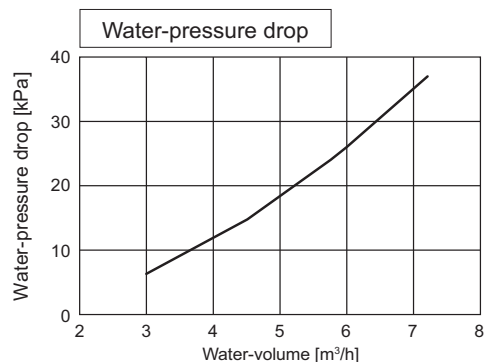
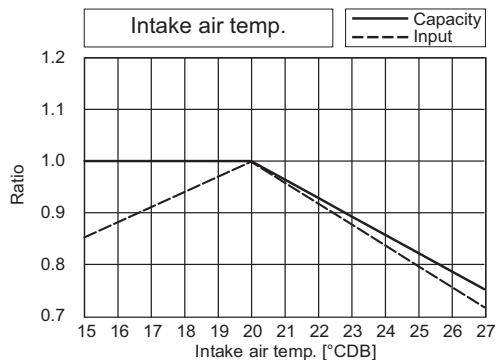
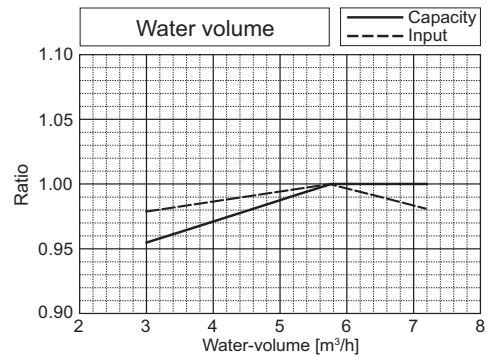
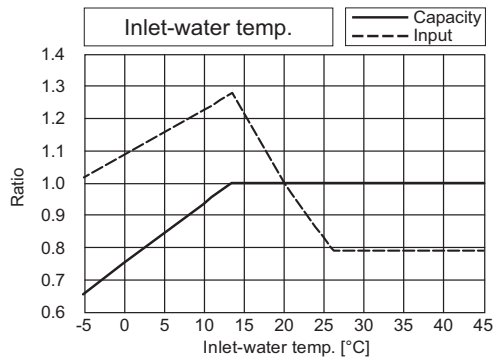
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-			P120ZLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

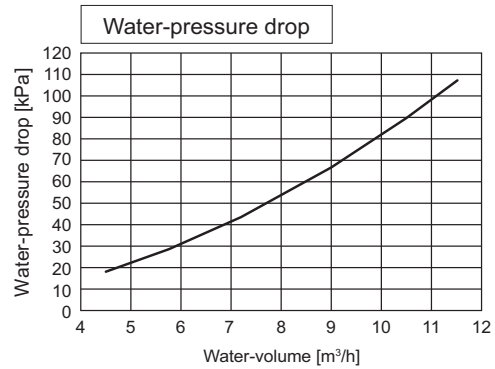
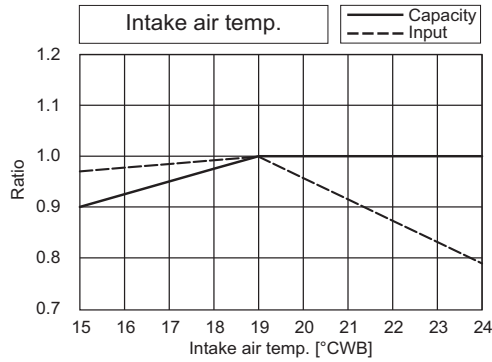
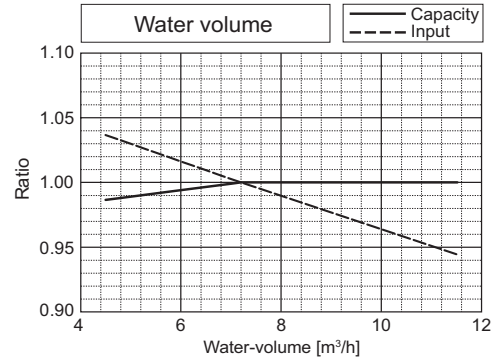
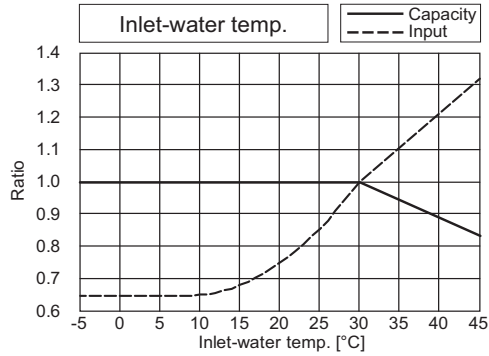


PQHY-			P120ZLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

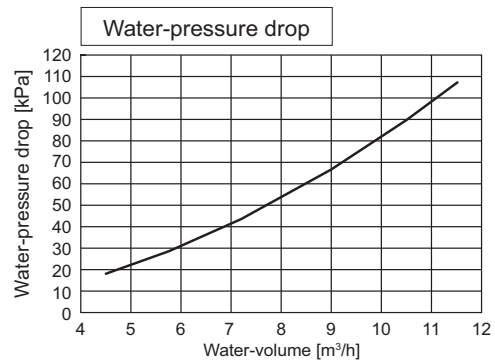
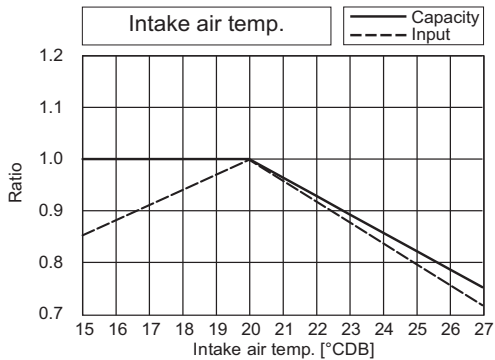
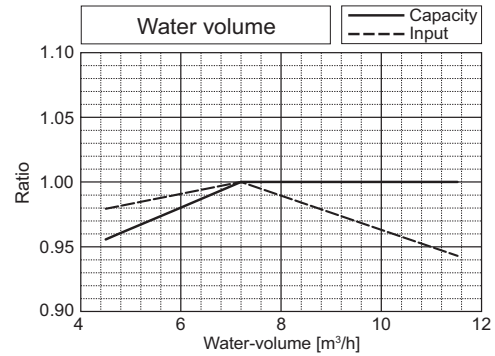
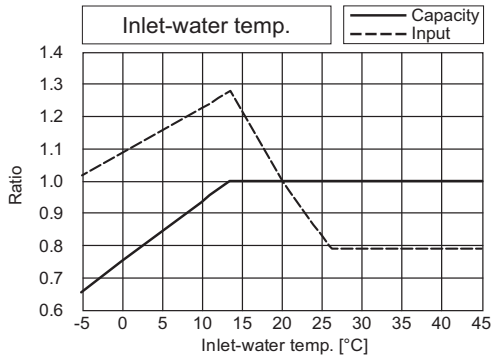


7. CAPACITY TABLES

PQHY-			P144ZLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98



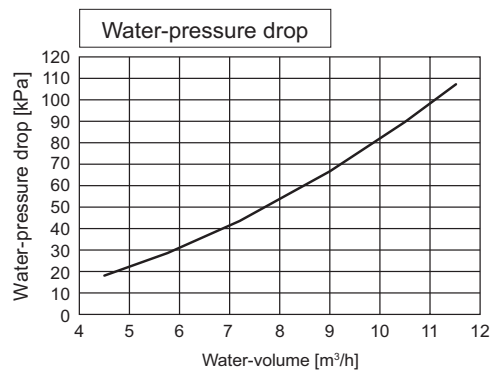
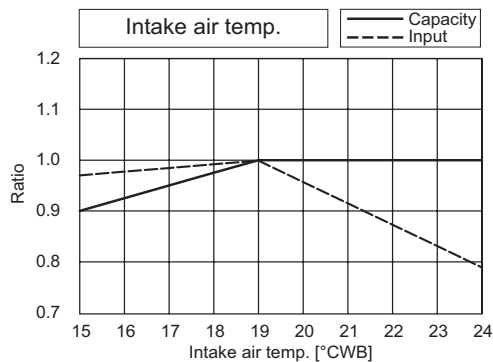
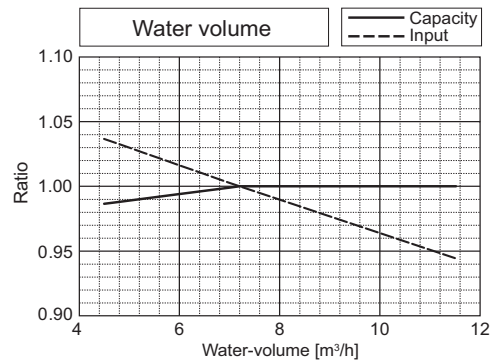
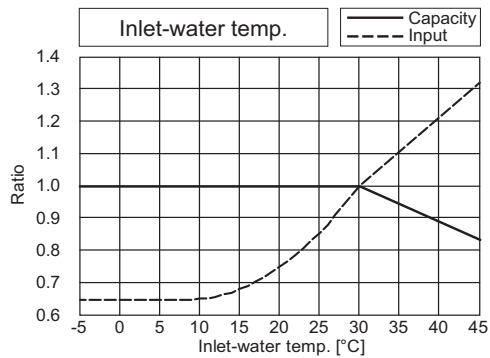
PQHY-			P144ZLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90



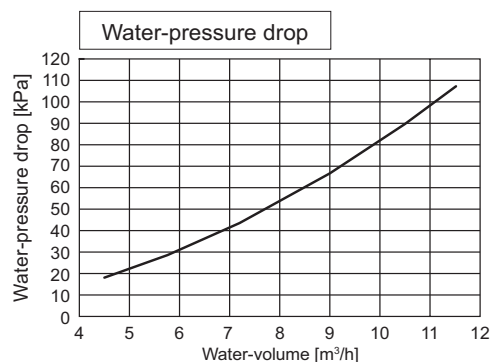
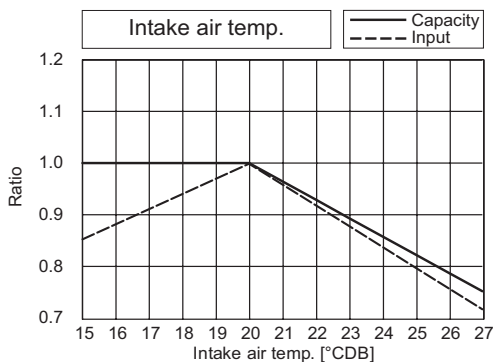
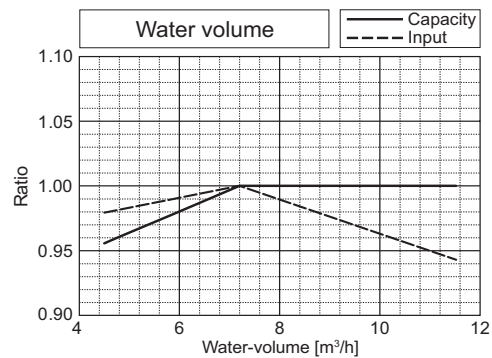
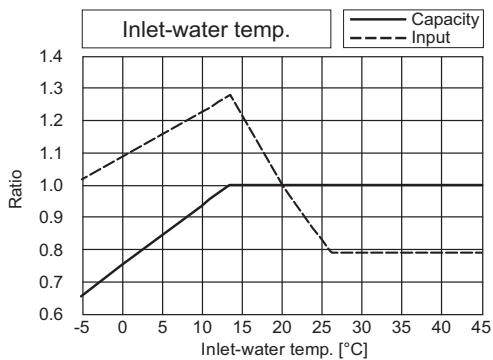
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-			P168ZLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88

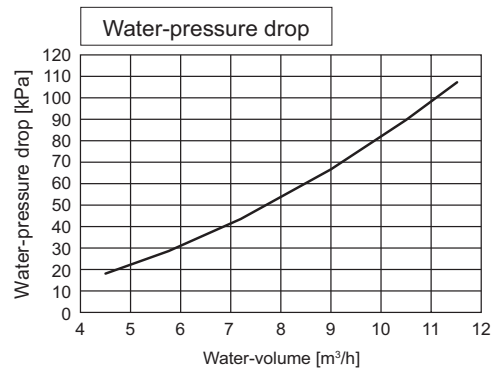
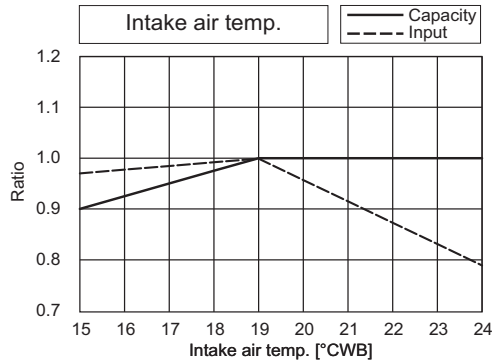
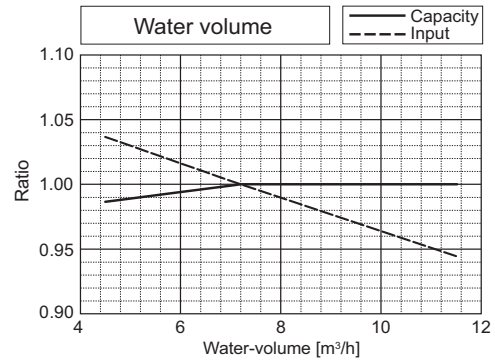
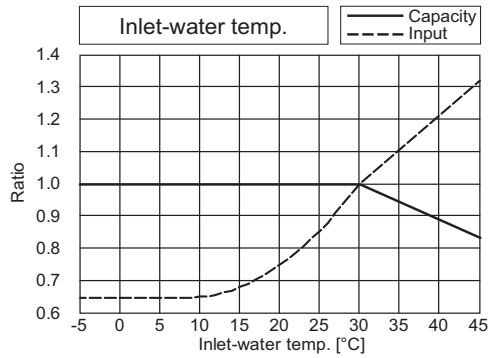


PQHY-			P168ZLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72

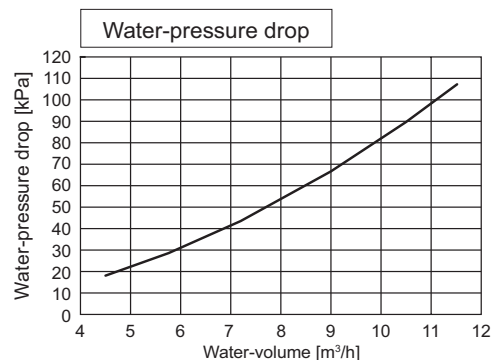
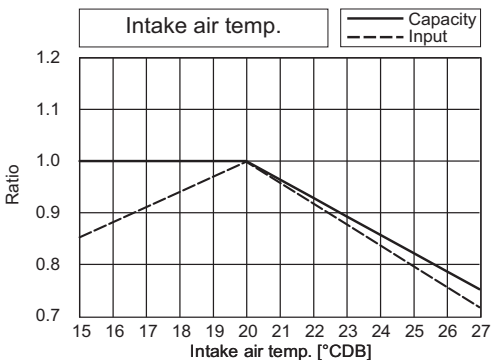
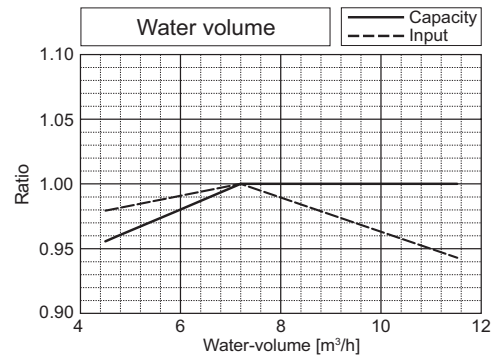
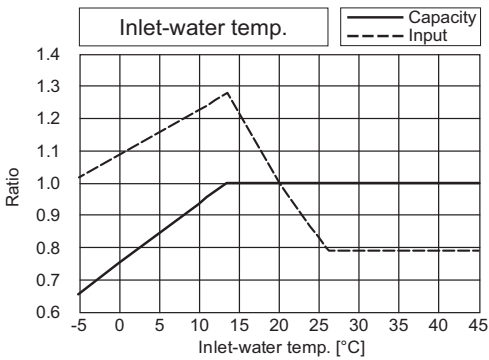


7. CAPACITY TABLES

PQHY-			P192ZLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19



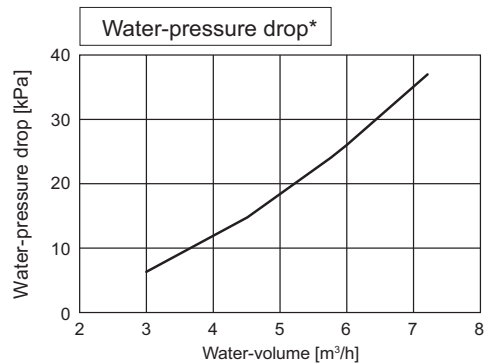
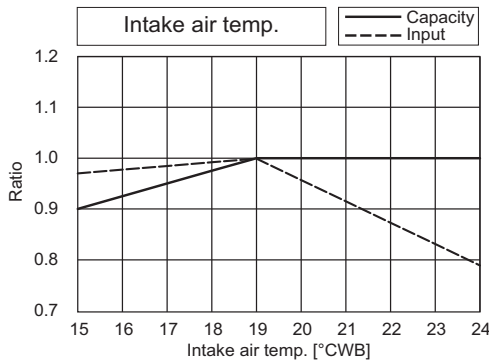
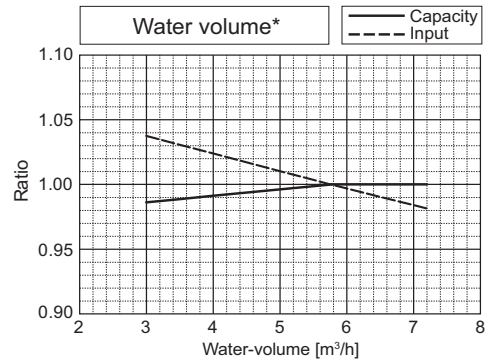
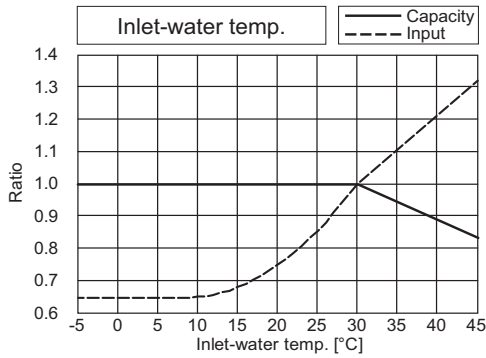
PQHY-			P192ZLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56



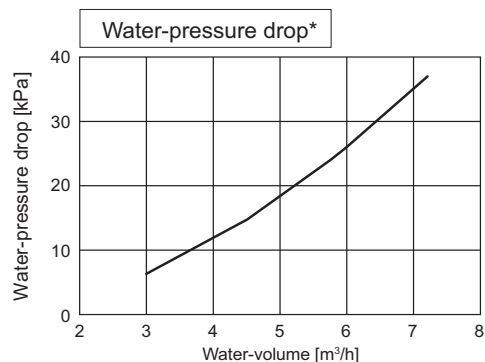
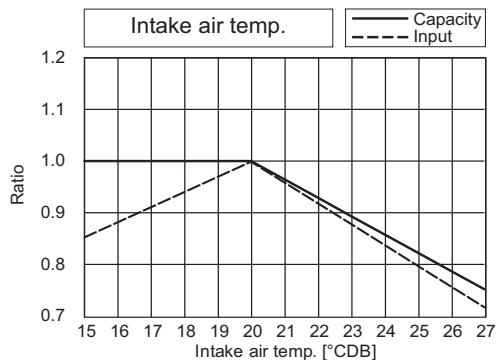
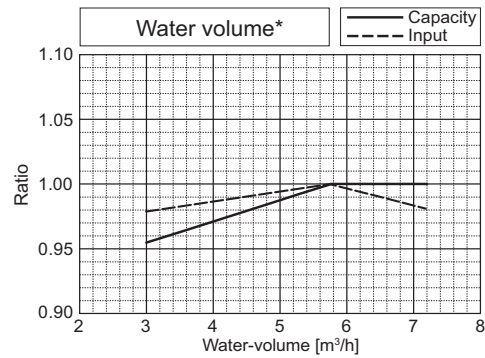
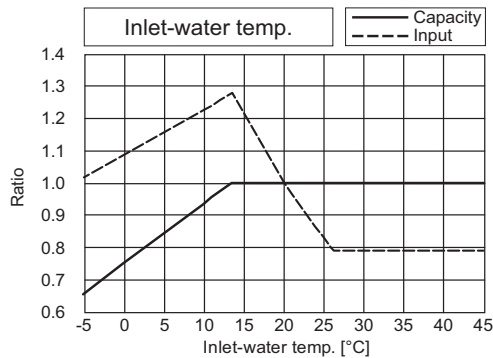
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P144ZSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72

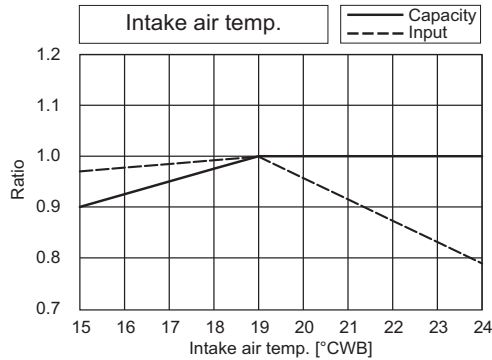
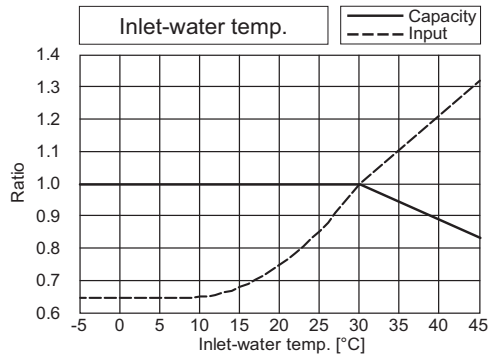


PQHY-			P144ZSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22

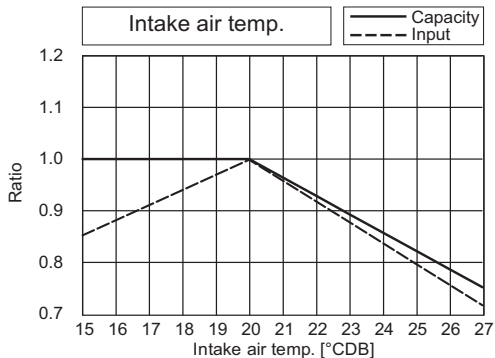
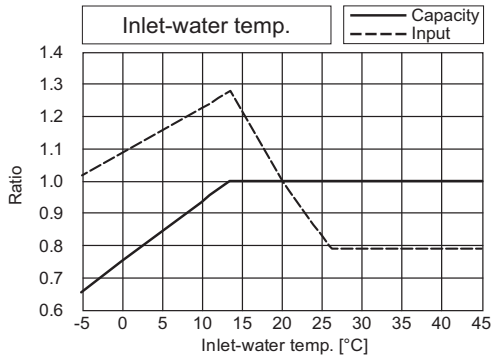


7. CAPACITY TABLES

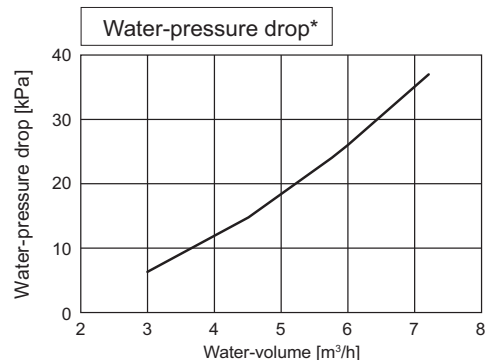
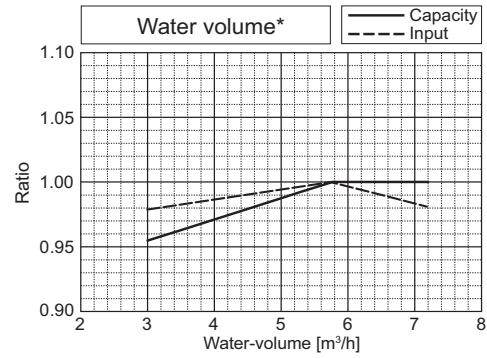
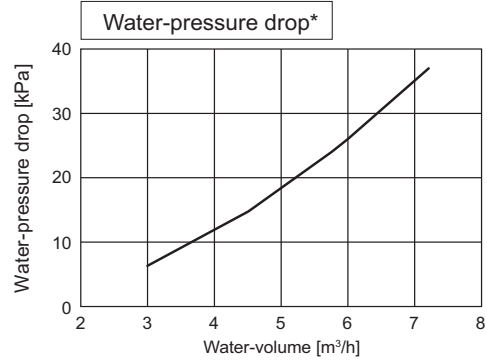
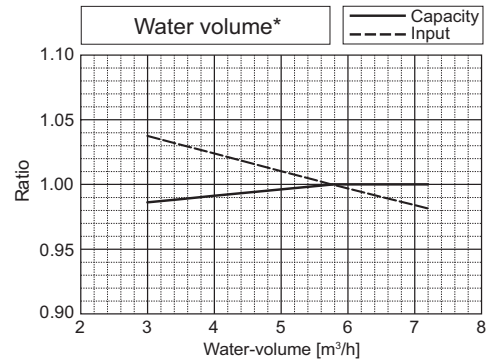
PQHY-			P168ZSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22



PQHY-			P168ZSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03



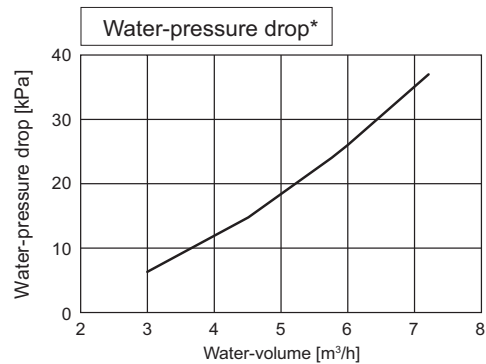
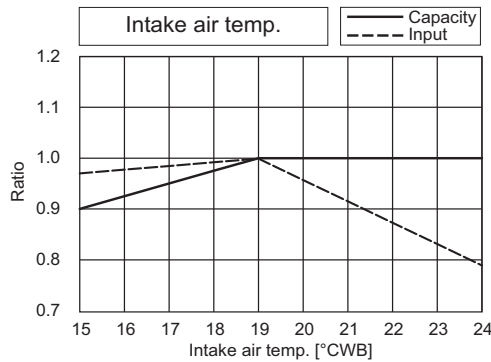
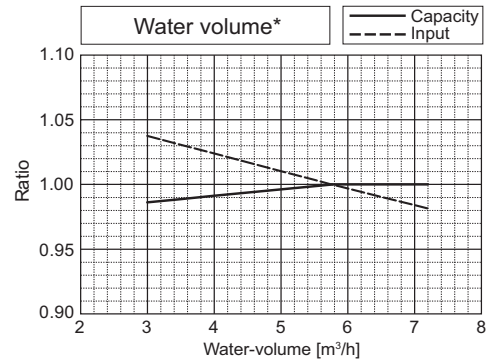
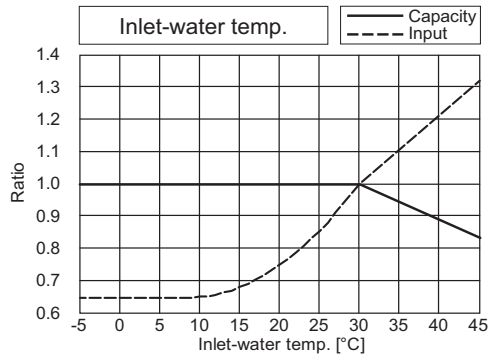
*The drawing indicates characteristic per unit.



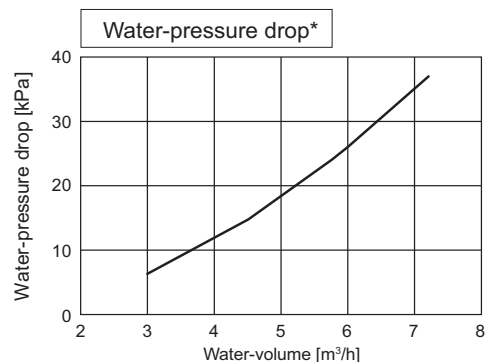
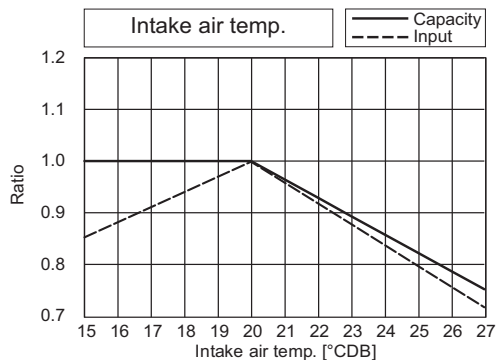
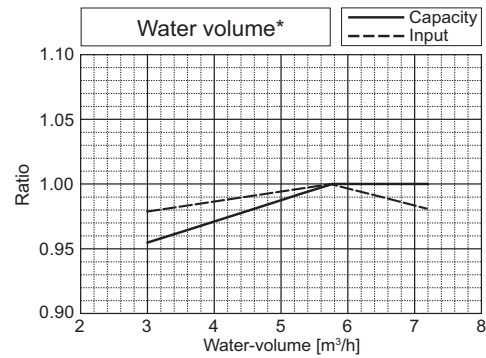
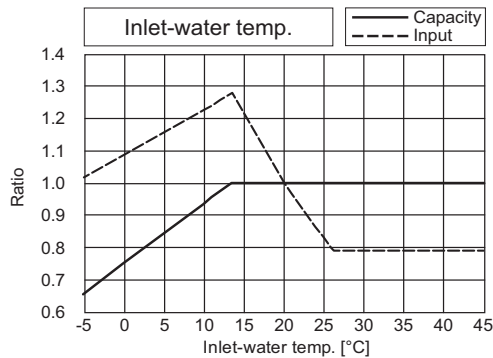
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P192ZSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98

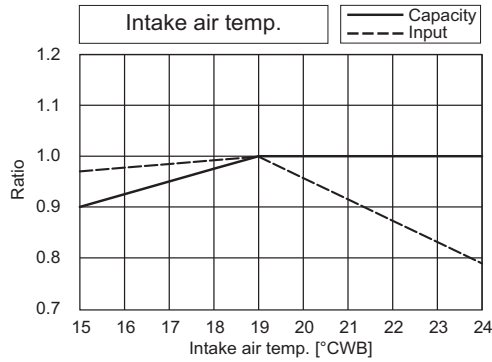
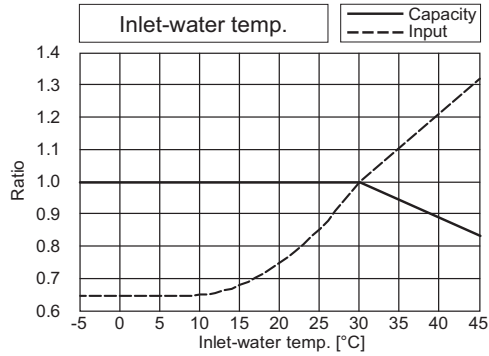


PQHY-			P192ZSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90

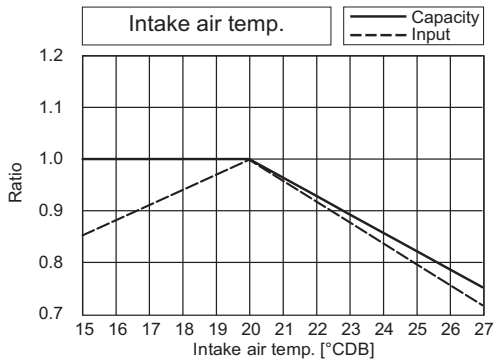
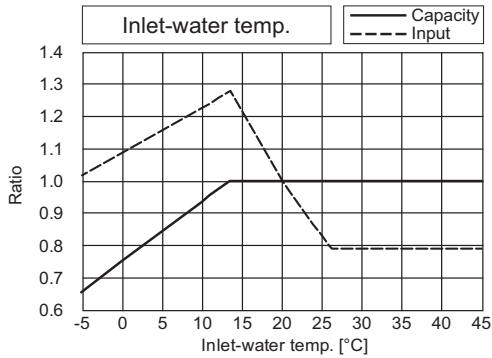


7. CAPACITY TABLES

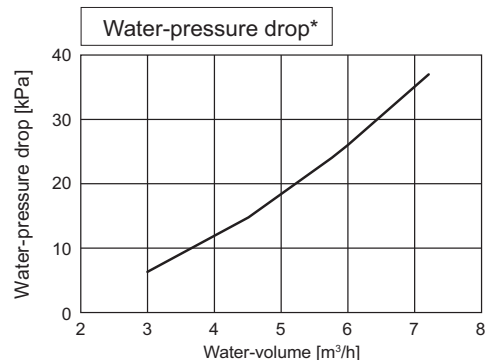
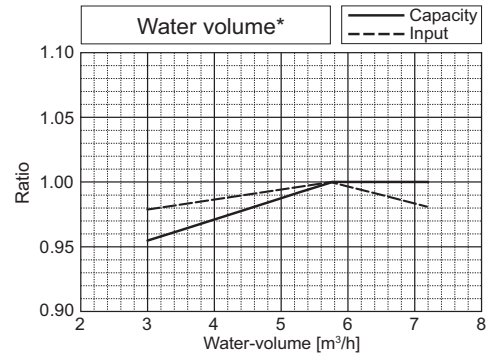
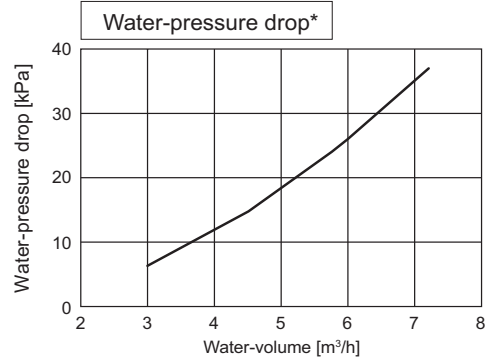
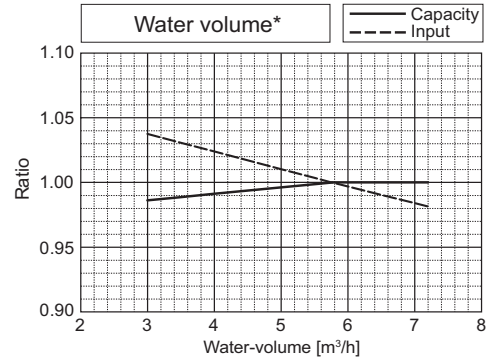
PQHY-			P216ZSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24



PQHY-			P216ZSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35



*The drawing indicates characteristic per unit.

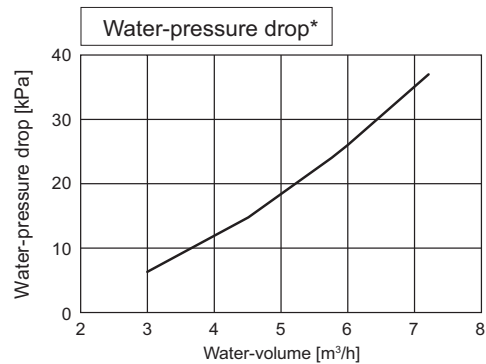
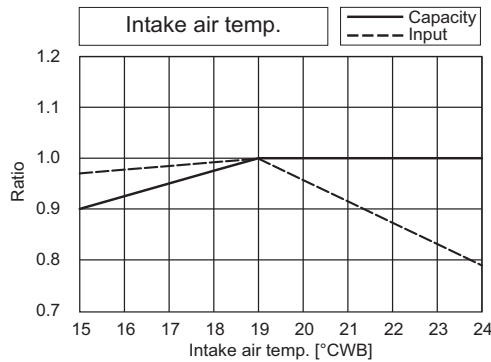
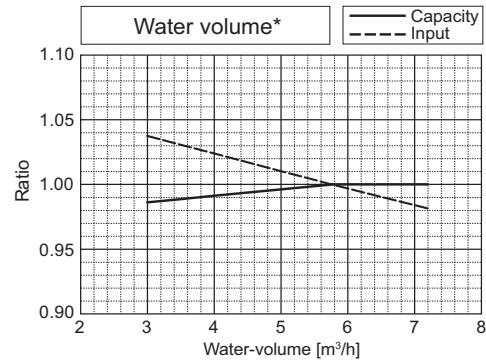
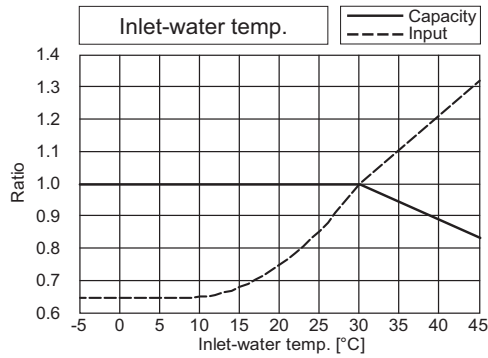


7. CAPACITY TABLES

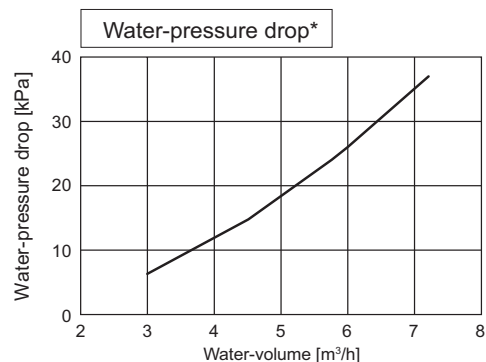
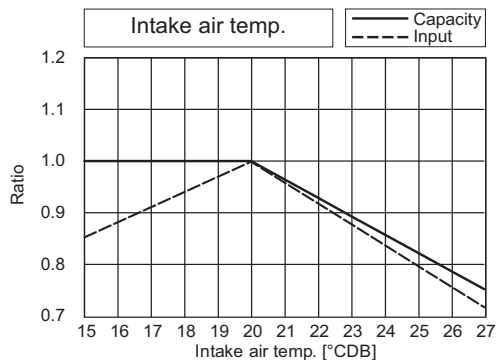
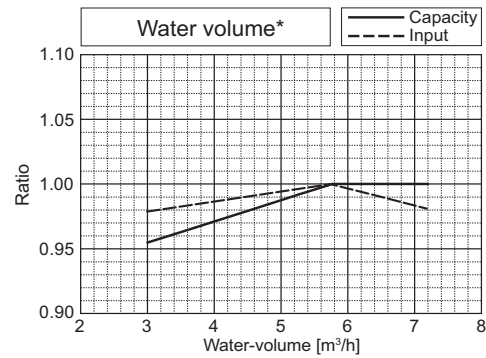
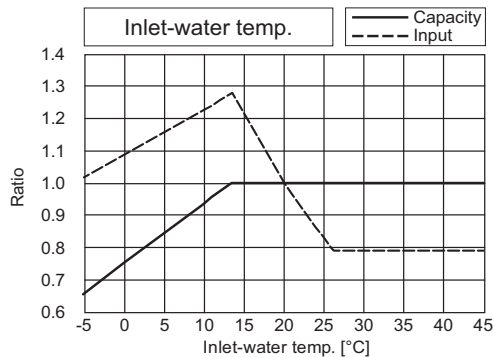
PQHY-P-Z(S)LMU-A1

PQHY-			P240ZSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15

*The drawing indicates characteristic per unit.

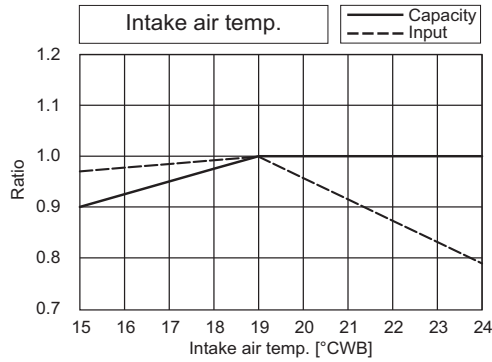
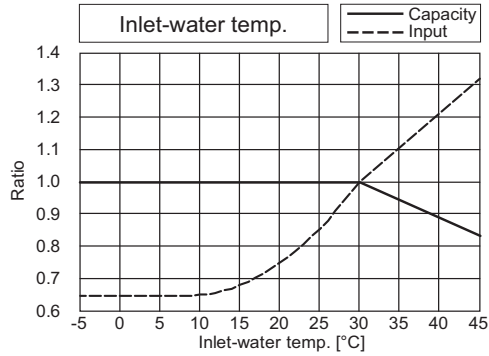


PQHY-			P240ZSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02

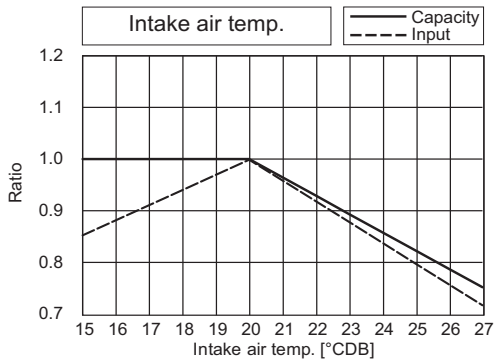
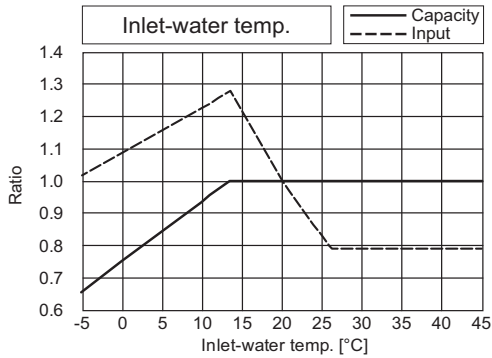


7. CAPACITY TABLES

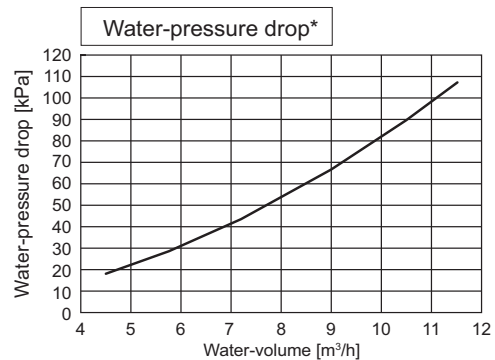
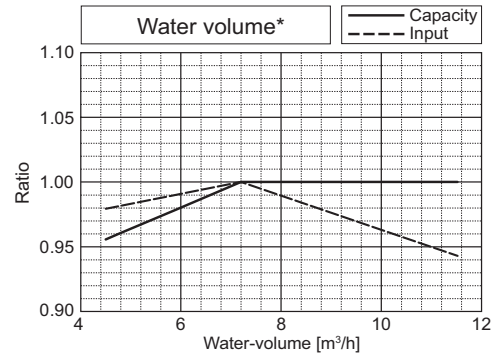
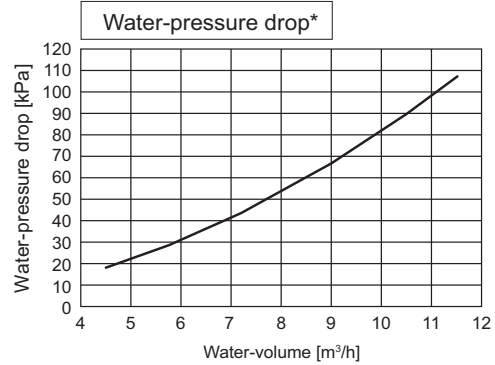
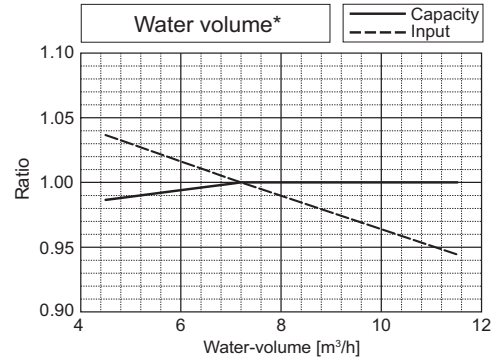
PQHY-			P288ZSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43



PQHY-			P288ZSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05



*The drawing indicates characteristic per unit.

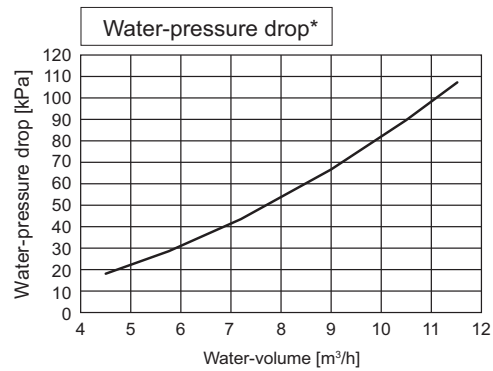
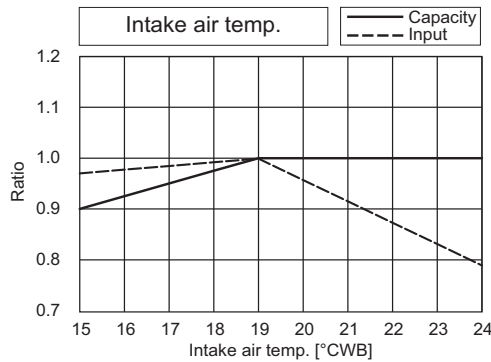
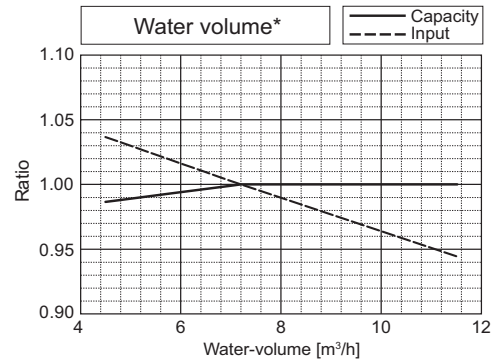
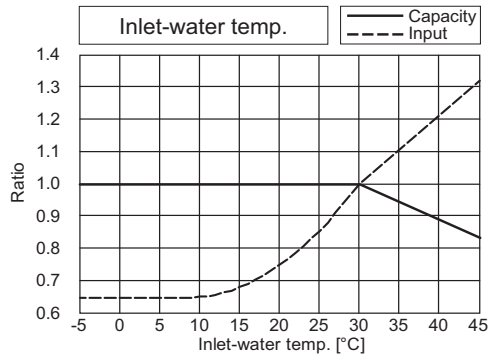


7. CAPACITY TABLES

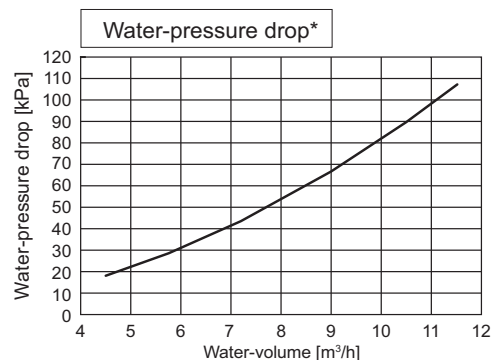
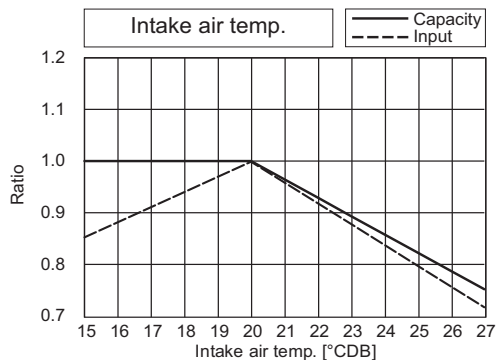
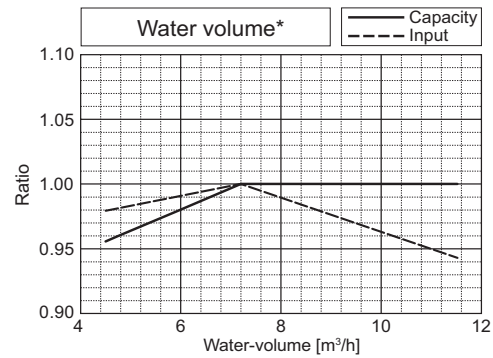
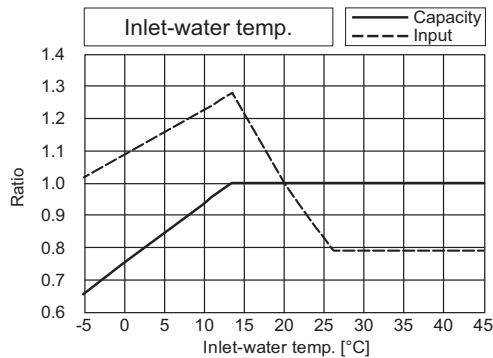
PQHY-P-Z(S)LMU-A1

PQHY-			P312ZSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67

*The drawing indicates characteristic per unit.

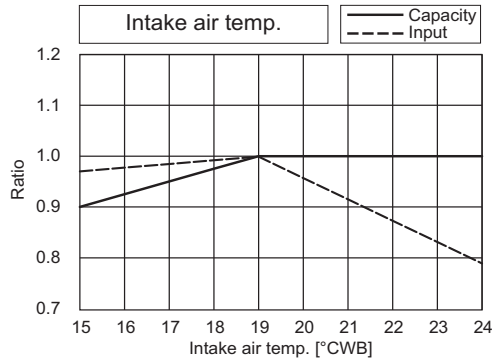
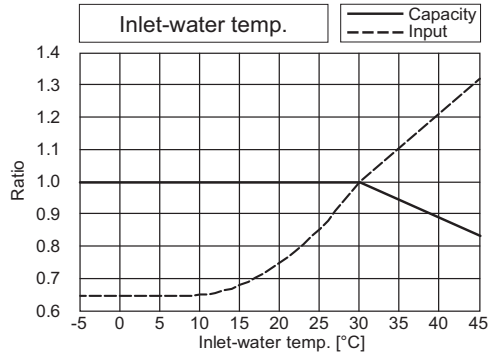


PQHY-			P312ZSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96

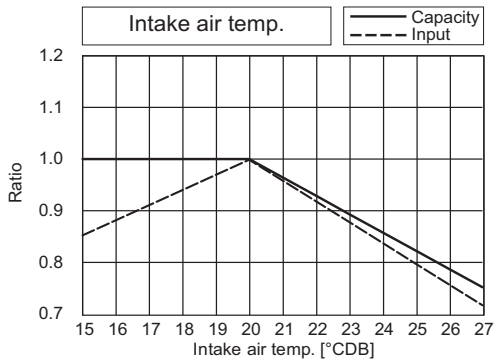
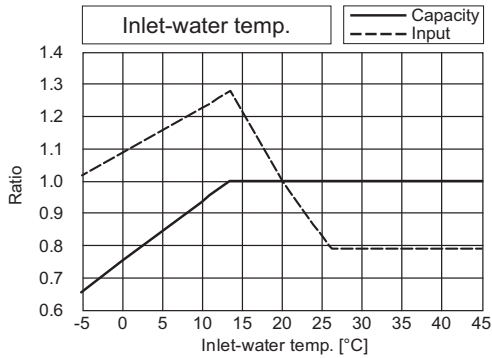


7. CAPACITY TABLES

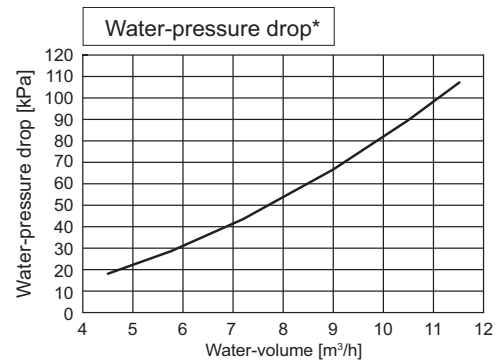
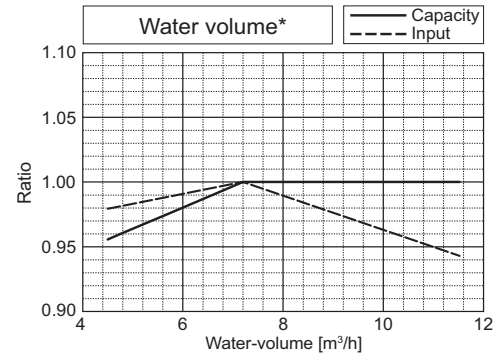
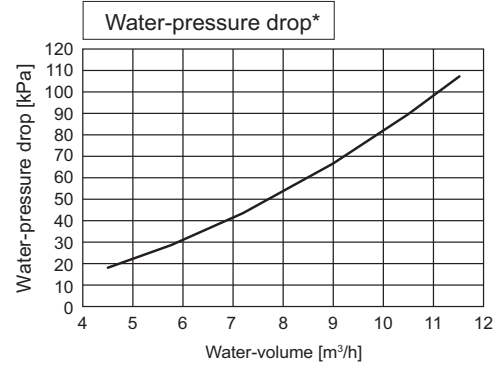
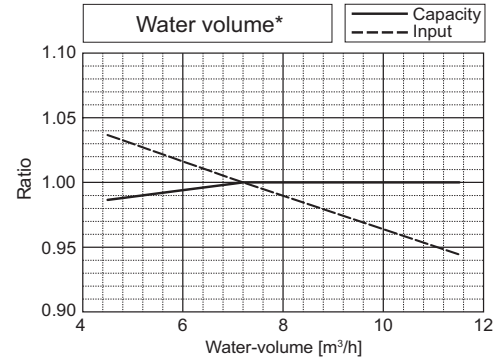
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Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85



PQHY-			P336ZSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05



*The drawing indicates characteristic per unit.

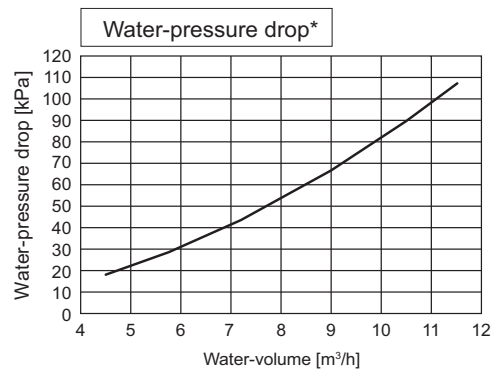
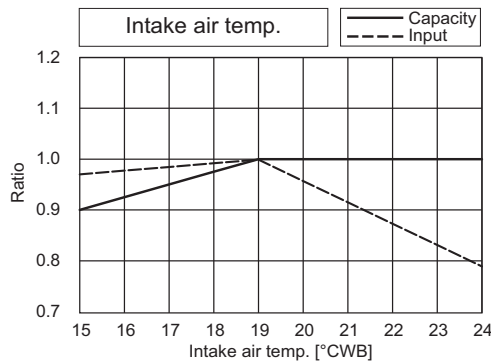
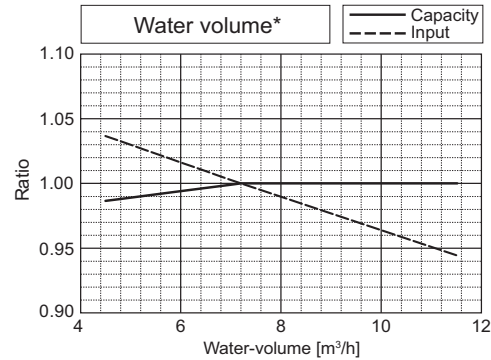
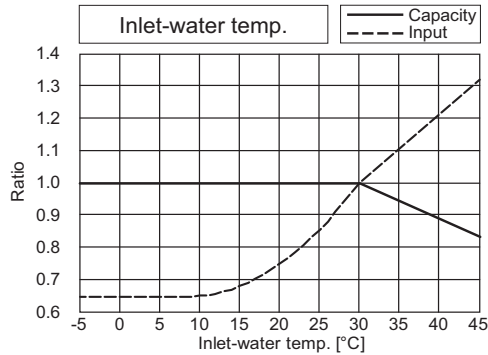


7. CAPACITY TABLES

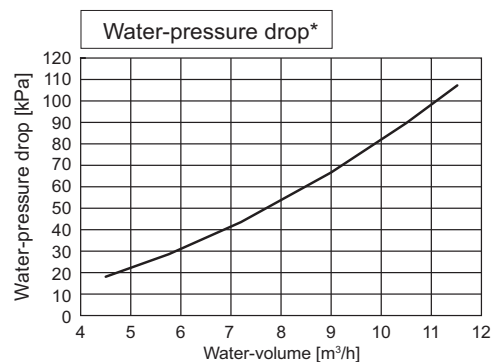
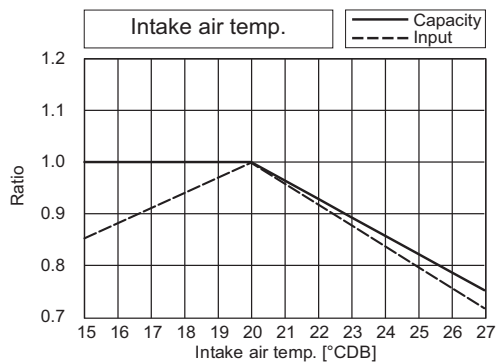
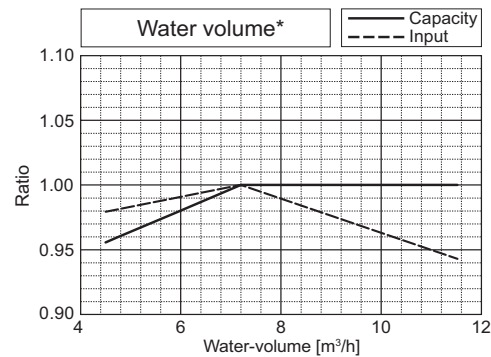
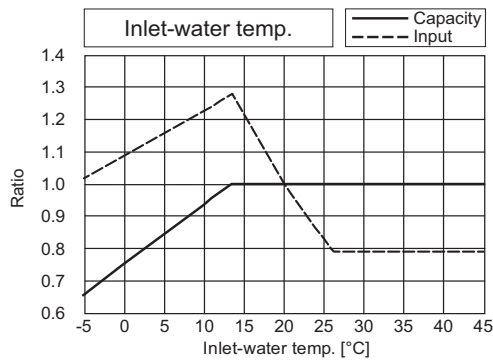
PQHY-P-Z(S)LMU-A1

PQHY-			P360ZSLMU		
Nominal Cooling Capacity	kW	105.5	Rated Cooling Capacity	kW	100.2
	BTU/h	360,000		BTU/h	342,000
Input	kW	29.43	Input	kW	(Non-Ducted) 27.17 (Ducted) 27.41

*The drawing indicates characteristic per unit.

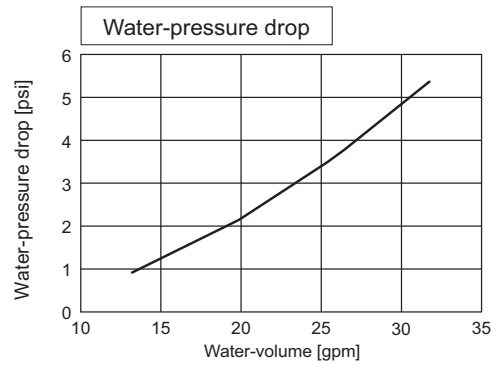
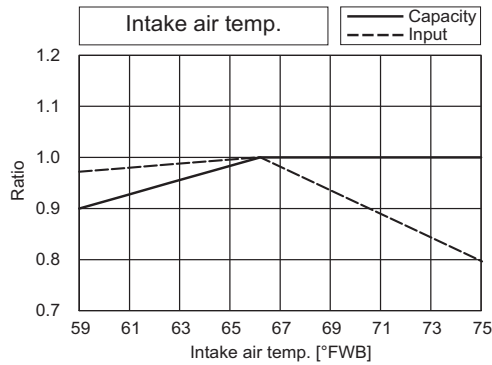
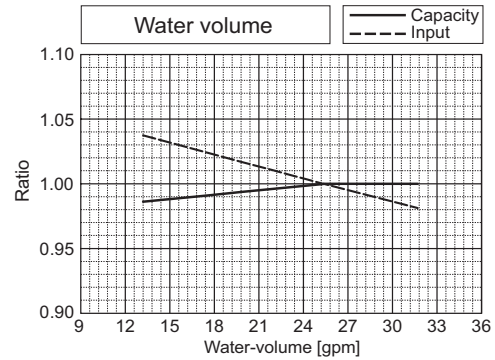
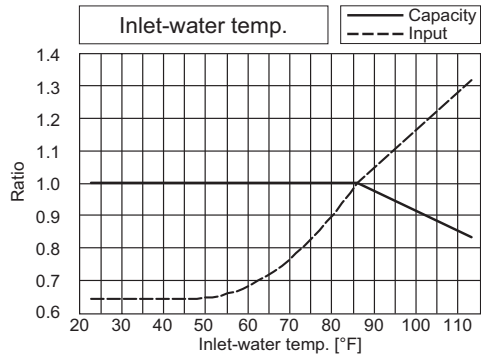


PQHY-			P360ZSLMU		
Nominal Heating Capacity	kW	118.7	Rated Heating Capacity	kW	113.4
	BTU/h	405,000		BTU/h	387,000
Input	kW	22.85	Input	kW	(Non-Ducted) 21.09 (Ducted) 21.70

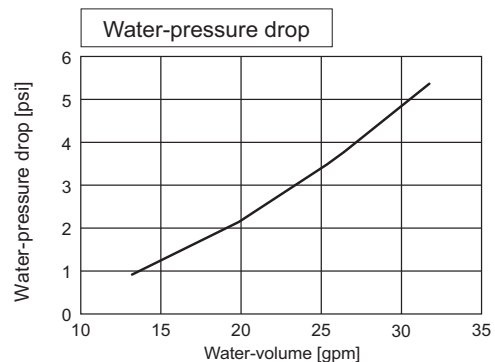
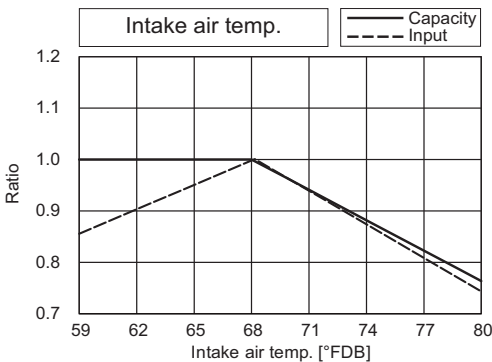
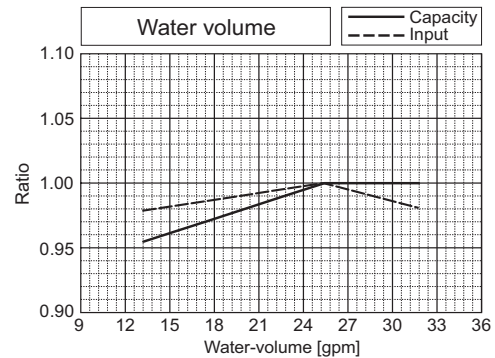
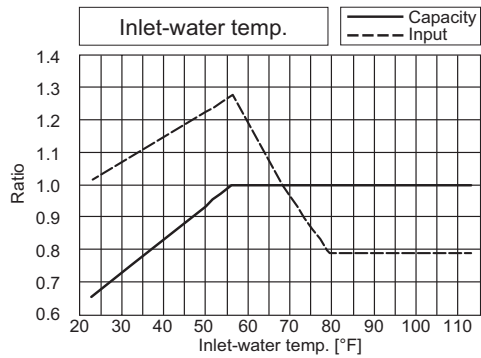


7. CAPACITY TABLES

PQHY-			P72ZLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12



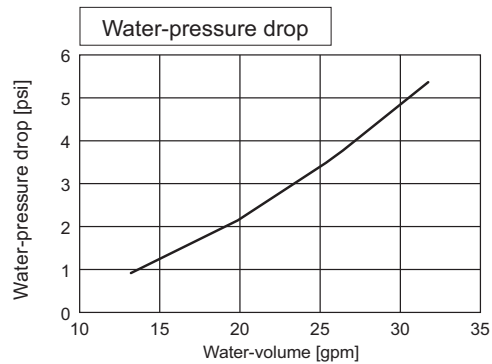
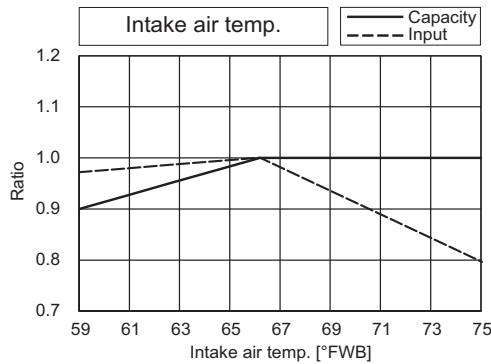
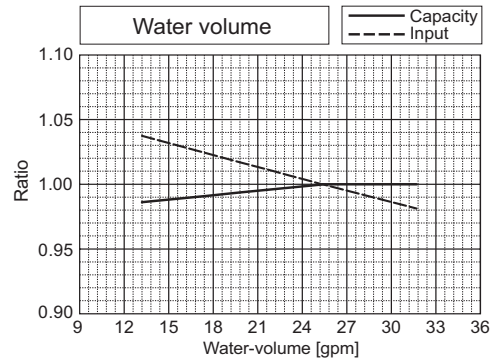
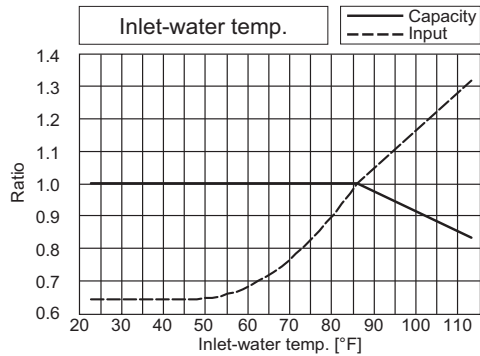
PQHY-			P72ZLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36



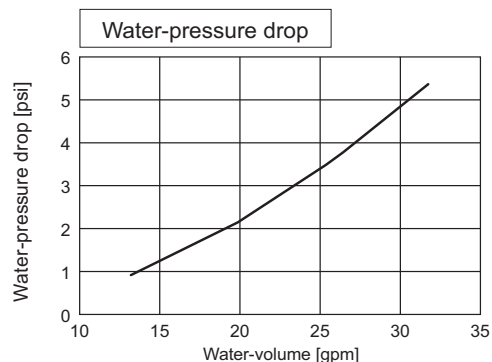
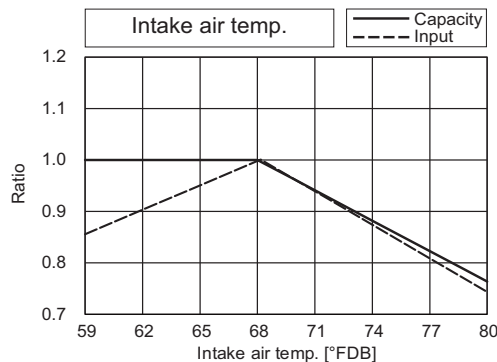
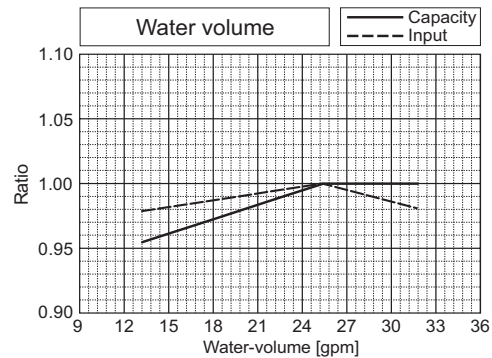
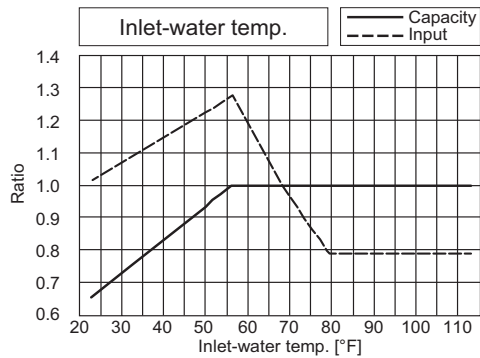
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-			P96ZLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19

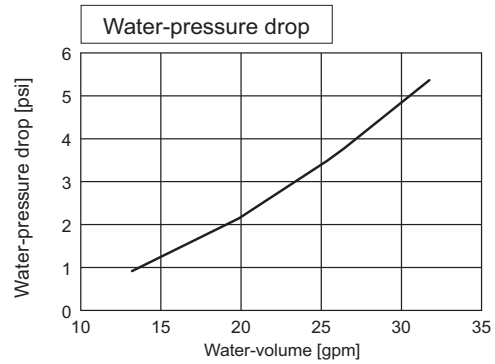
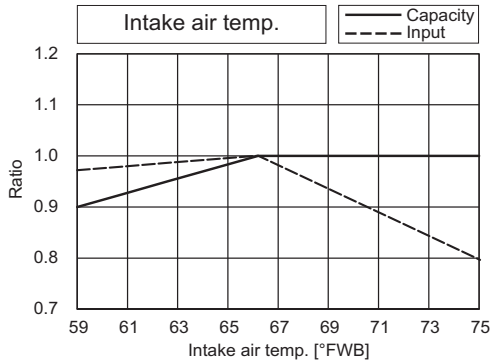
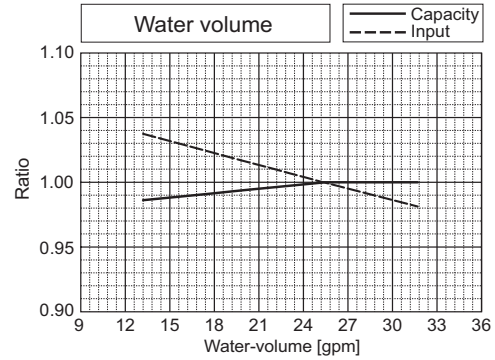
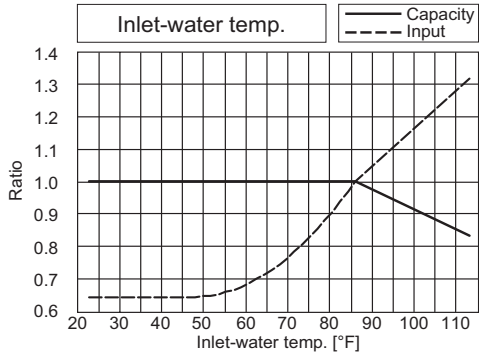


PQHY-			P96ZLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48

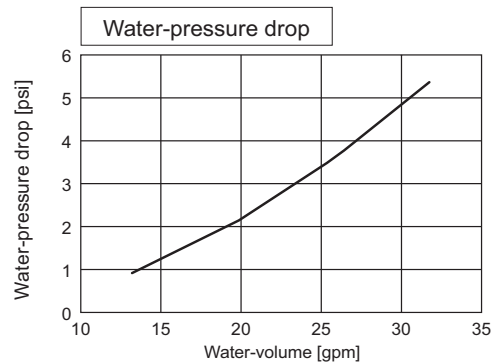
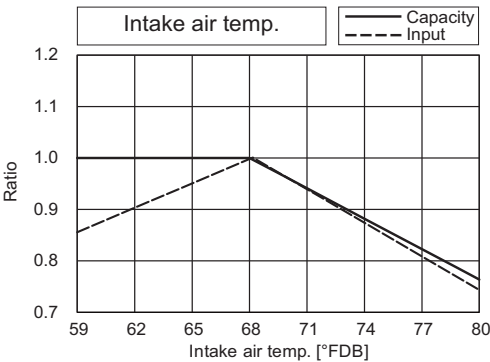
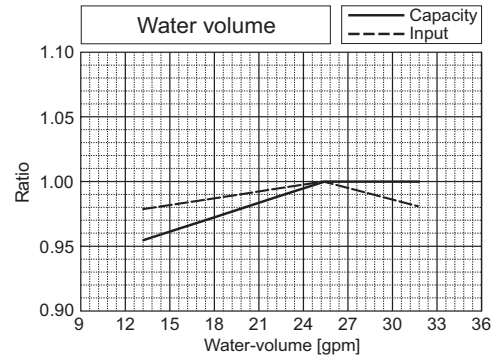
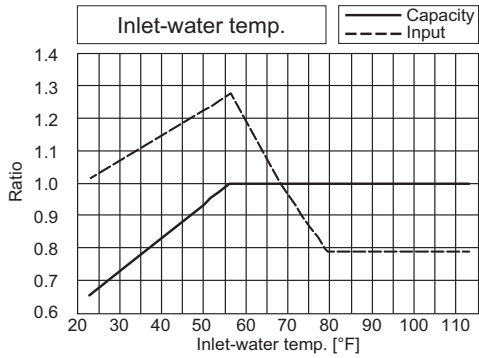


7. CAPACITY TABLES

PQHY-			P120ZLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35



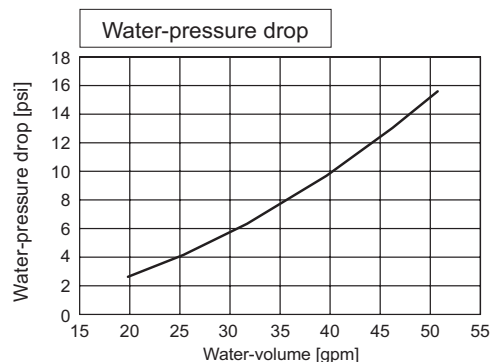
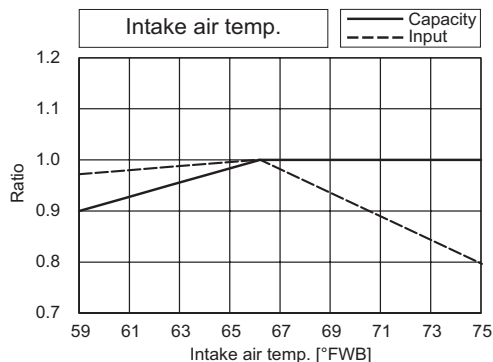
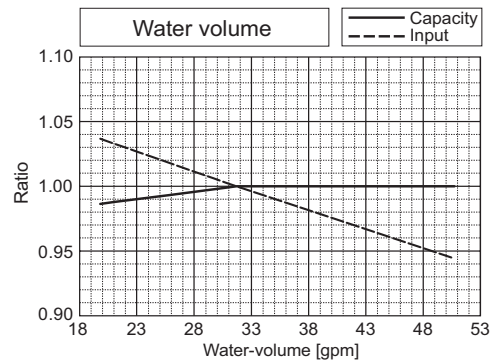
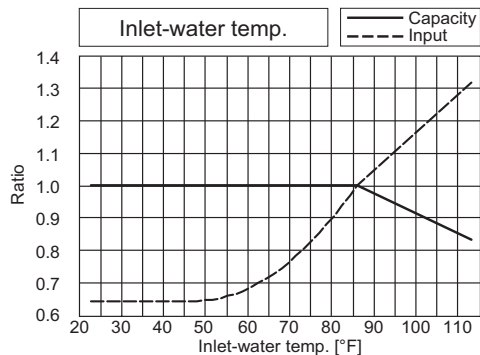
PQHY-			P120ZLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92



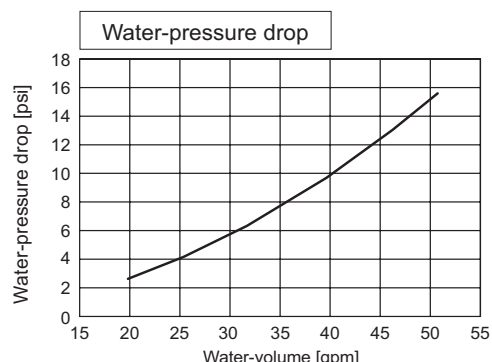
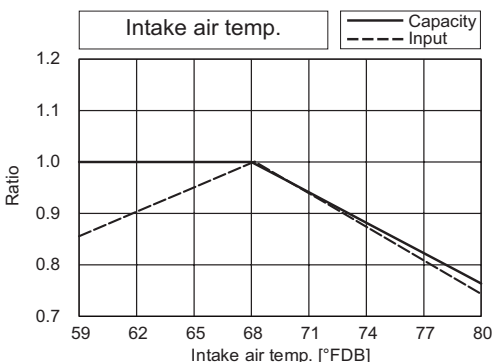
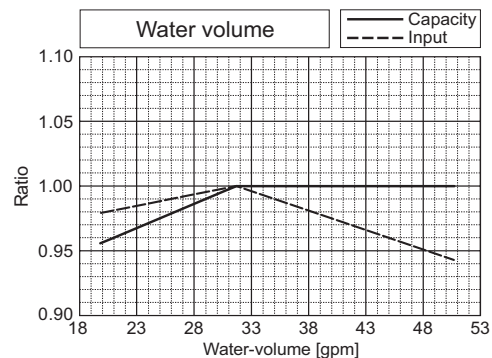
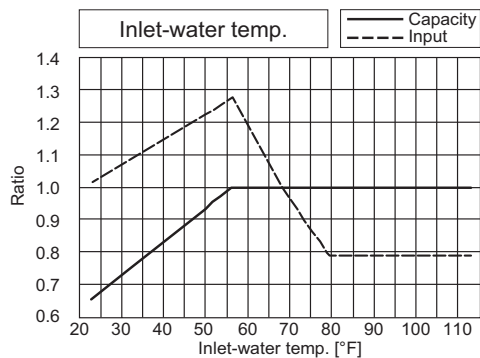
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-			P144ZLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98

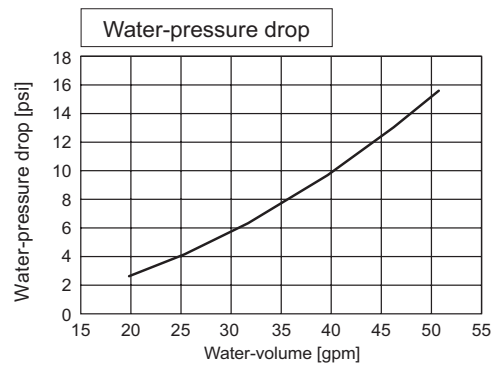
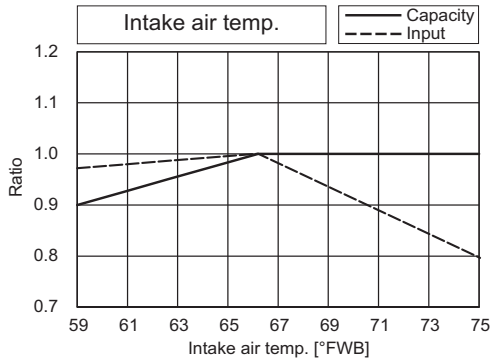
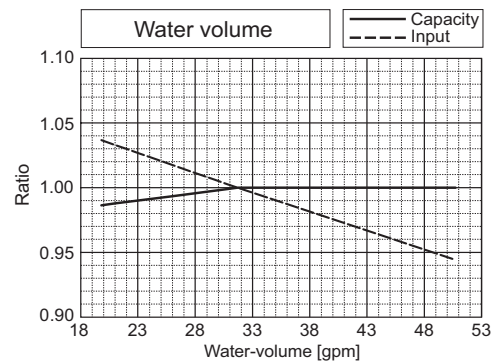
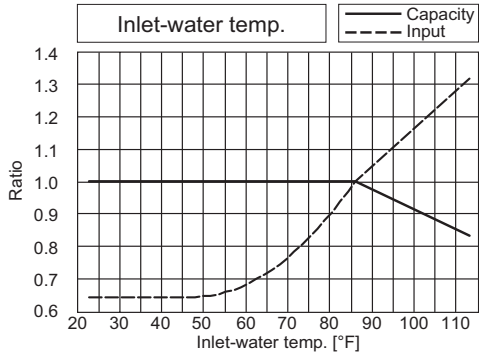


PQHY-			P144ZLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90

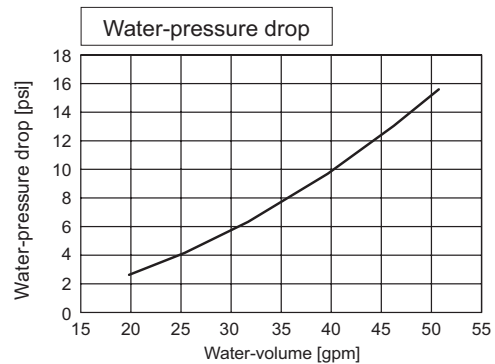
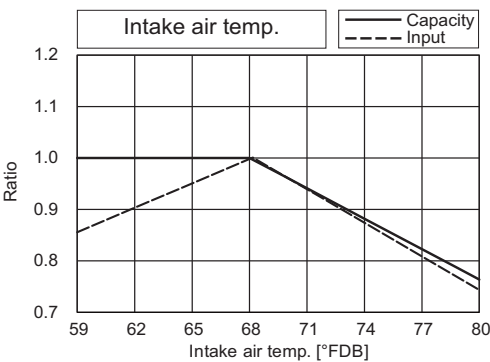
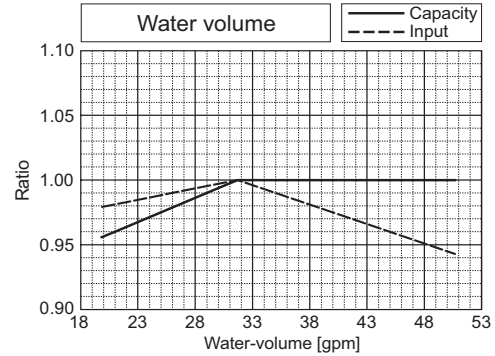
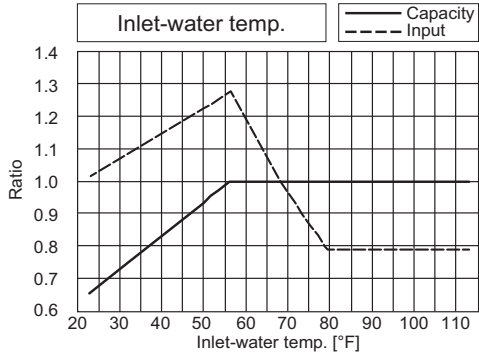


7. CAPACITY TABLES

PQHY-			P168ZLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88



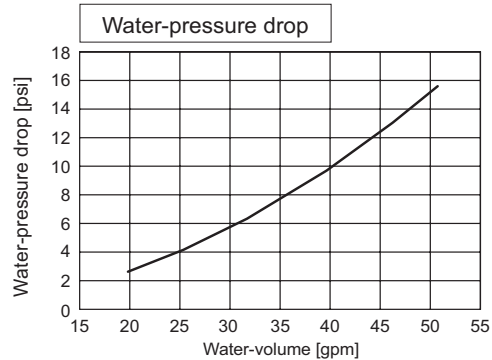
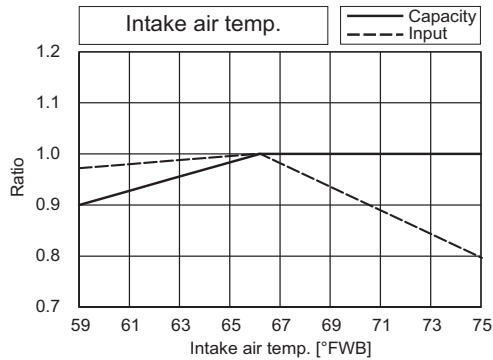
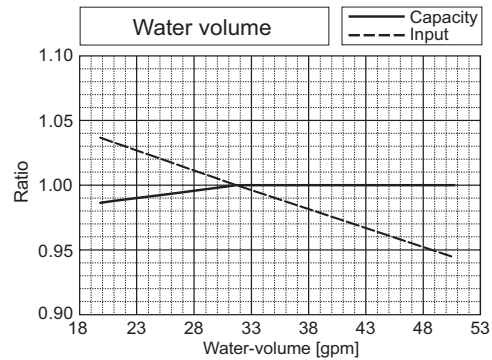
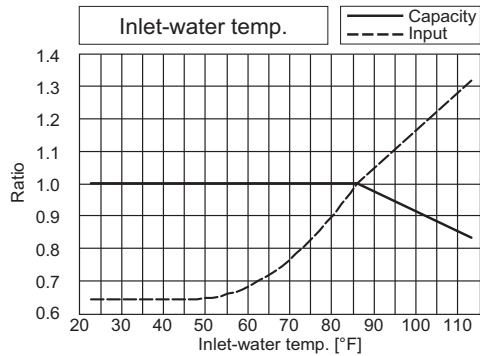
PQHY-			P168ZLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72



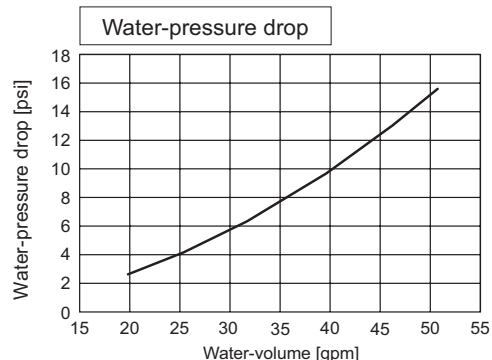
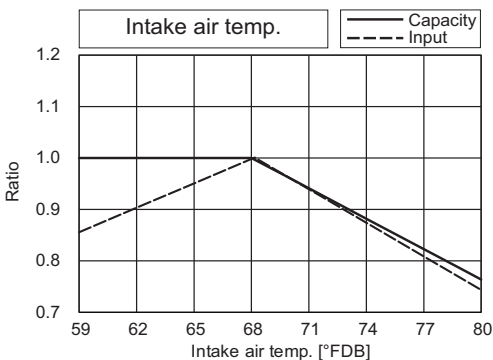
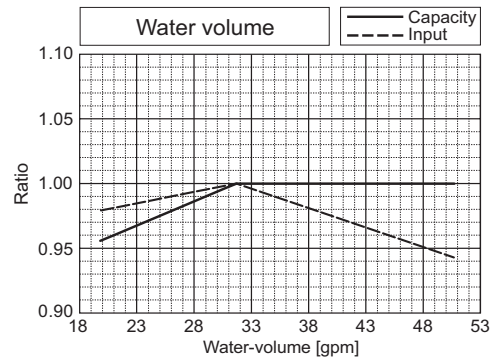
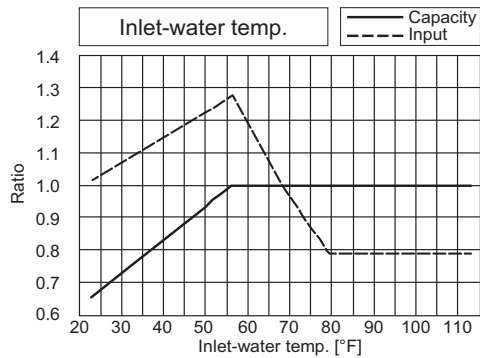
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-			P192ZLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19

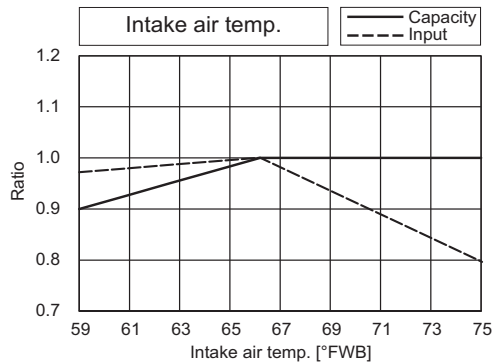
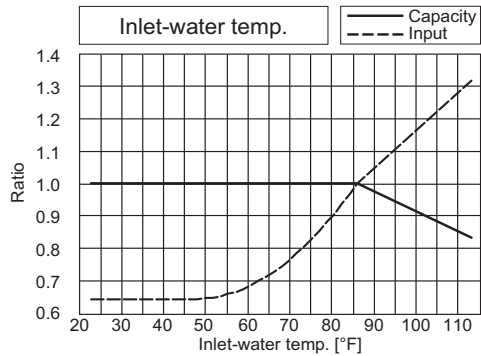


PQHY-			P192ZLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56

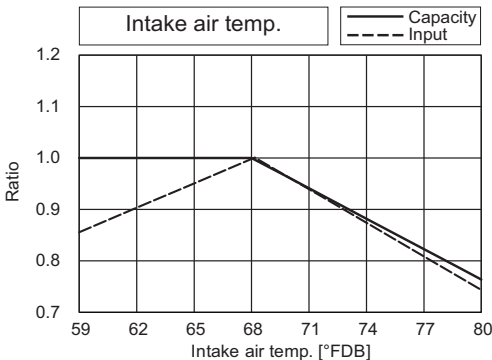
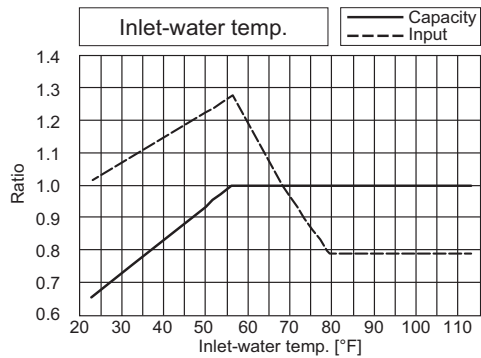


7. CAPACITY TABLES

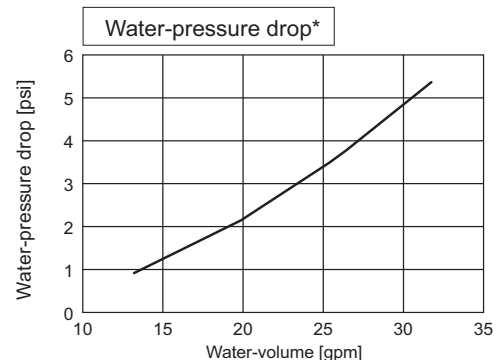
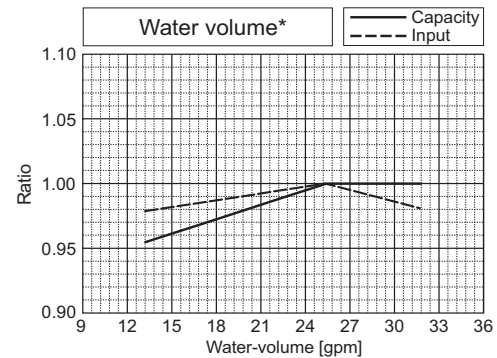
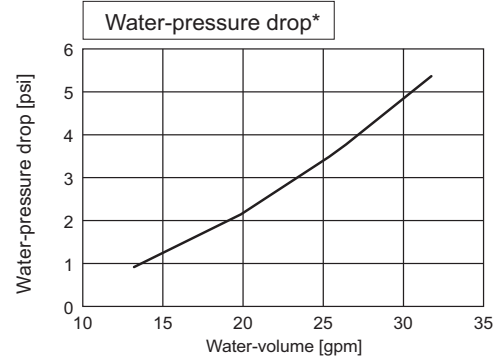
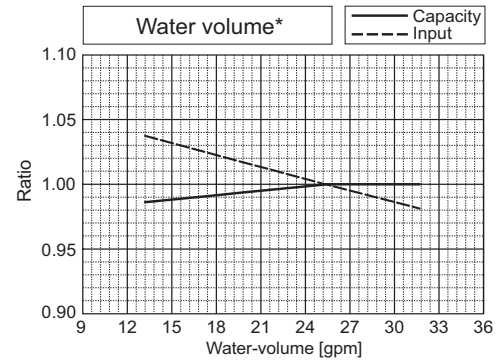
PQHY-			P144ZSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72



PQHY-			P144ZSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22



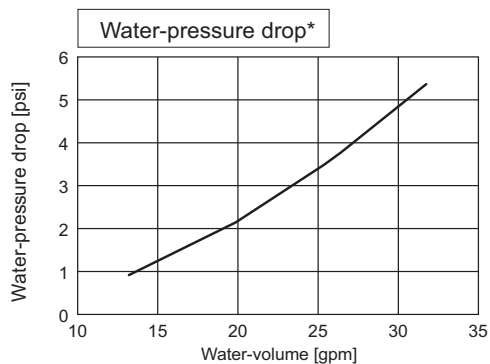
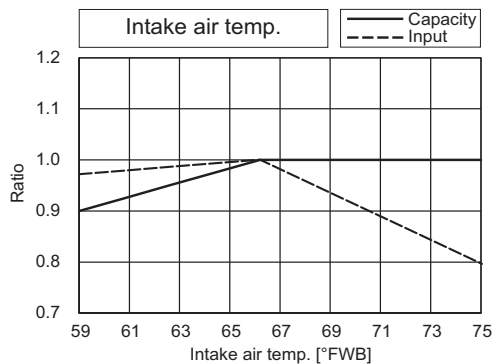
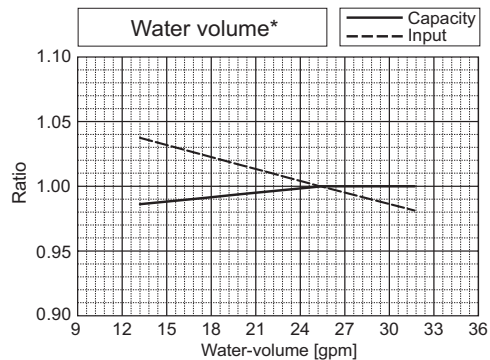
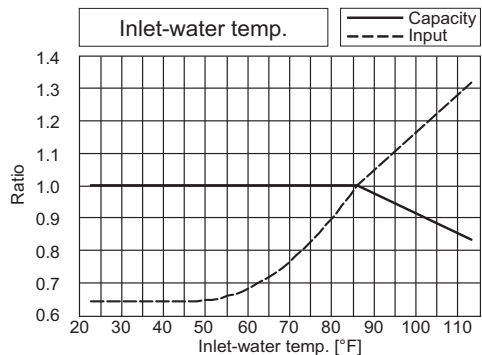
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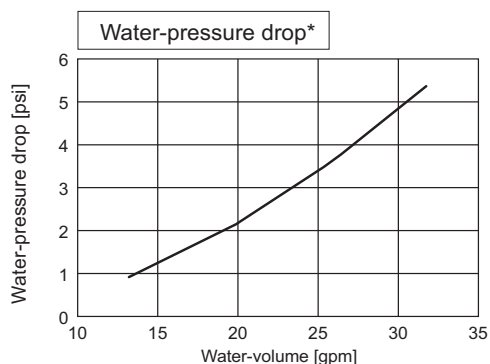
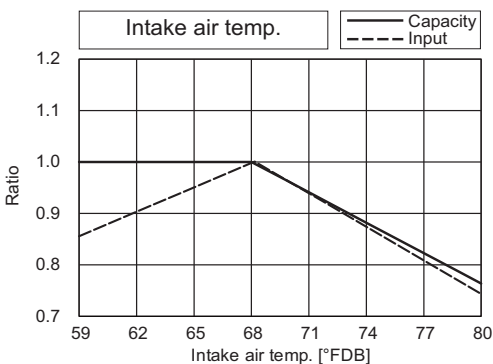
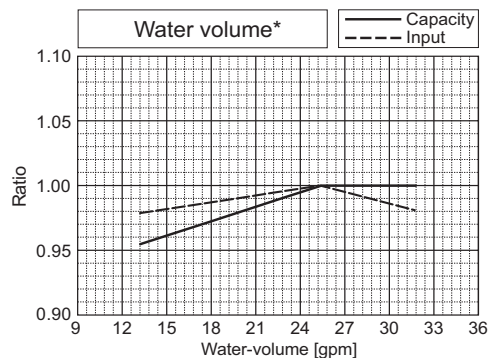
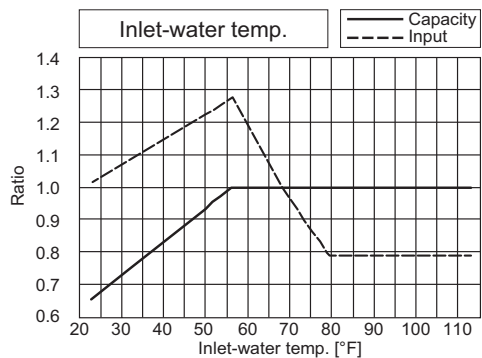
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P168ZSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22

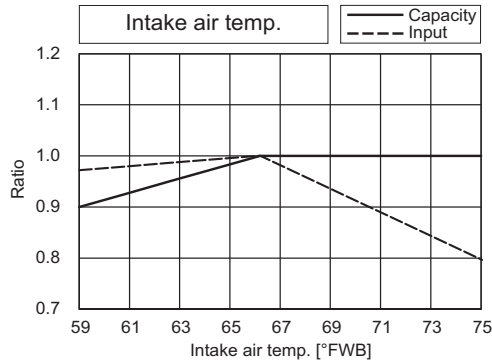
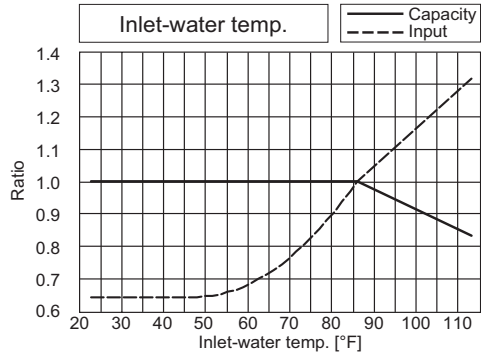


PQHY-			P168ZSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03

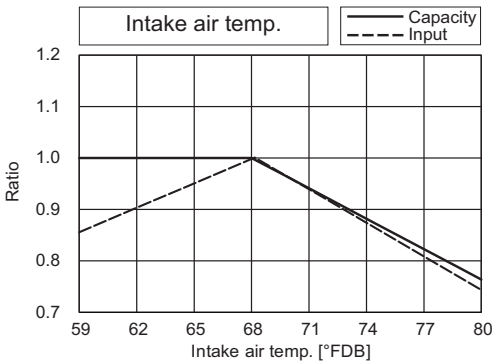
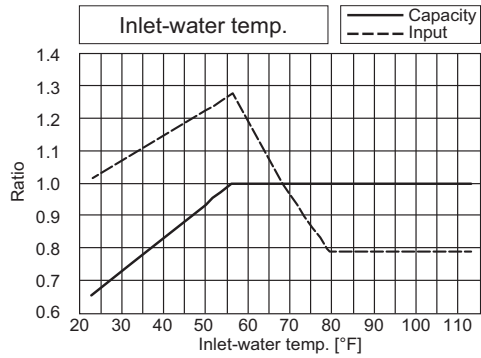


7. CAPACITY TABLES

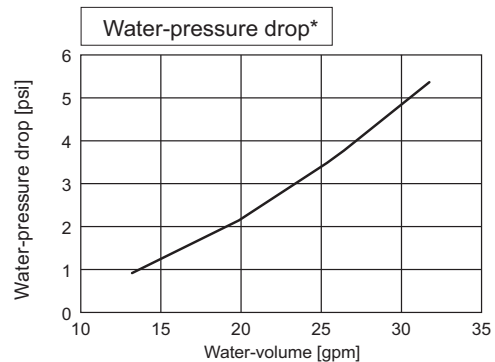
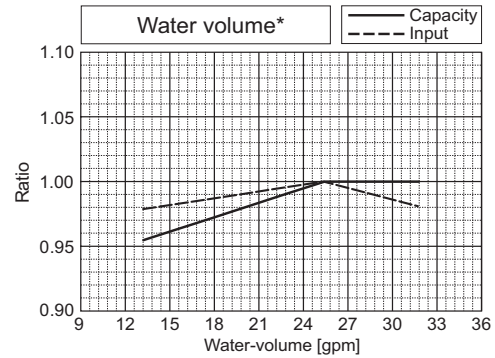
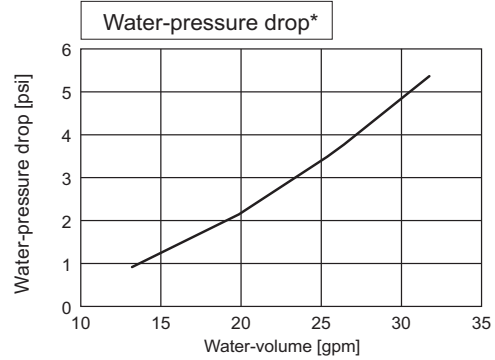
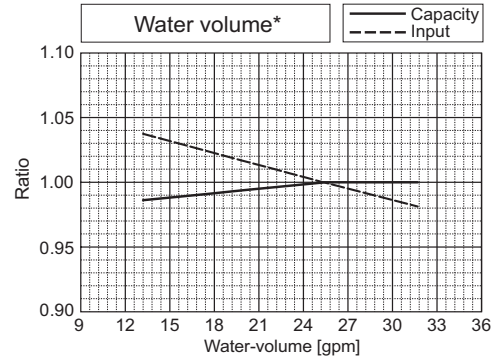
PQHY-			P192ZSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98



PQHY-			P192ZSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90



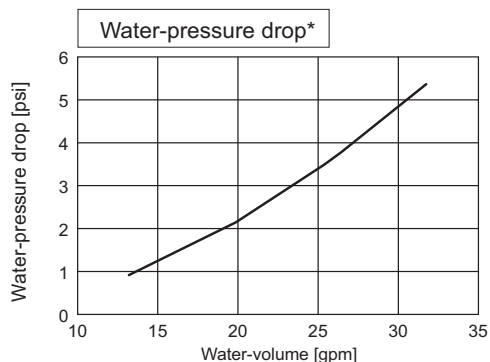
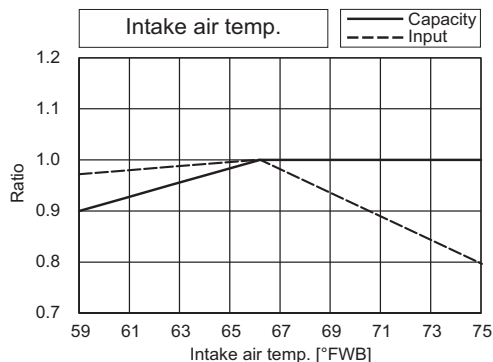
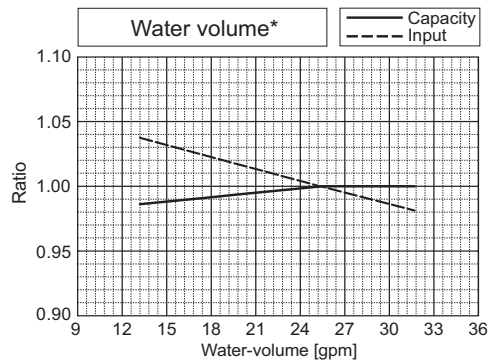
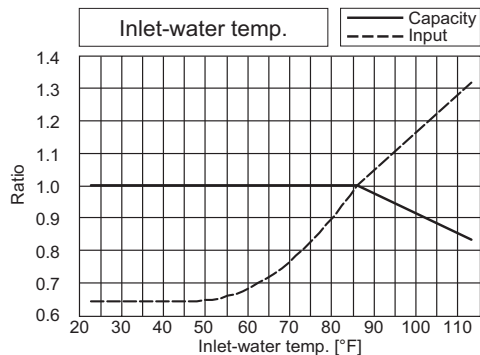
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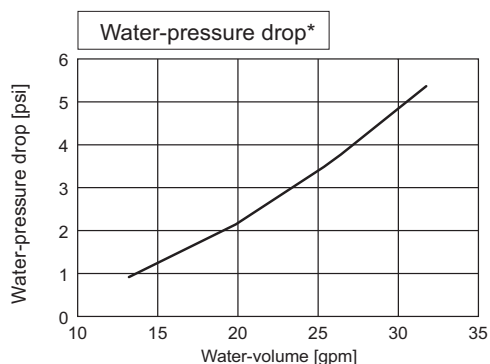
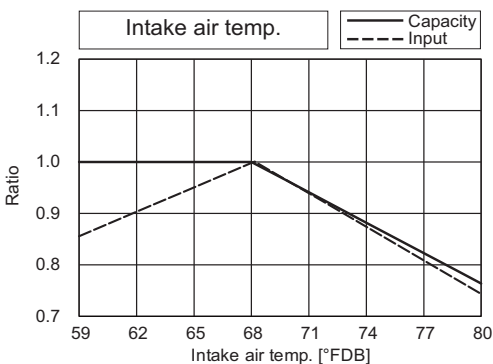
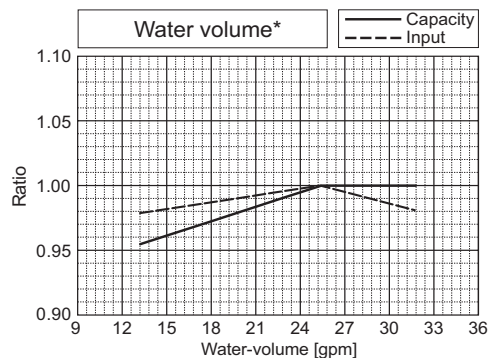
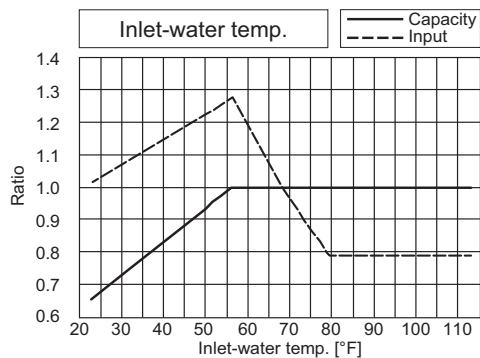
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P216ZSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24

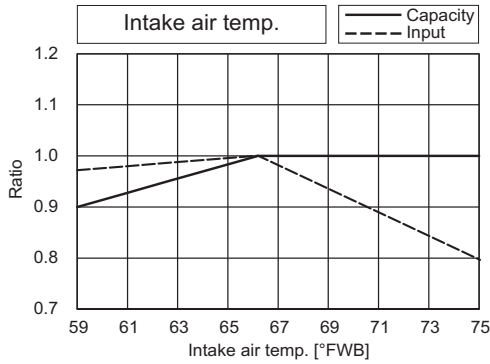
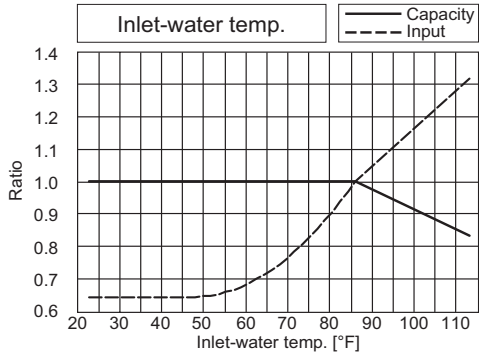


PQHY-			P216ZSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35

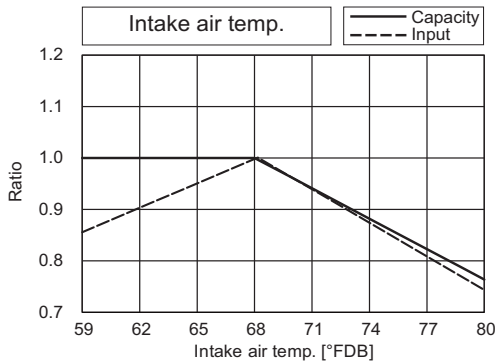
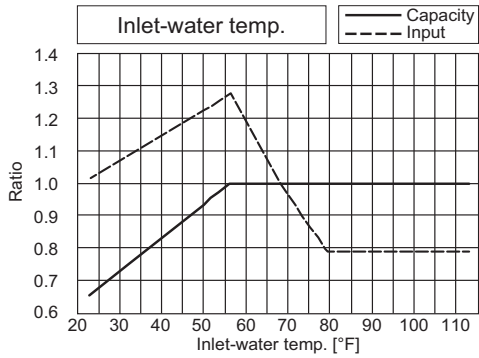


7. CAPACITY TABLES

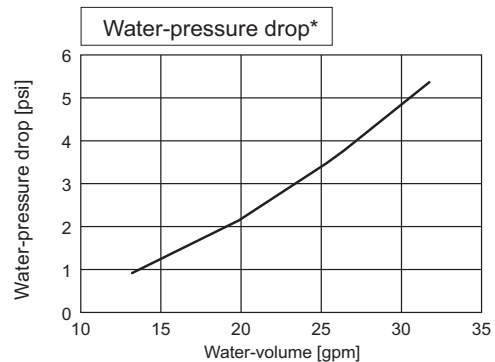
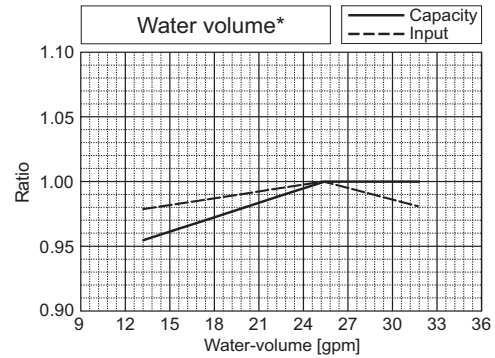
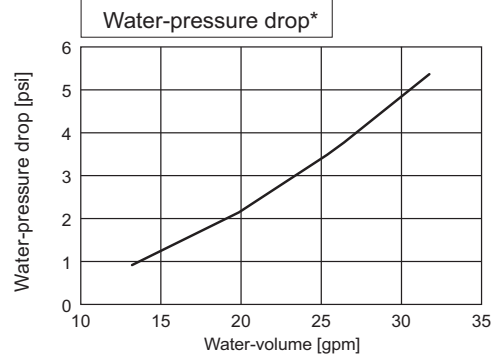
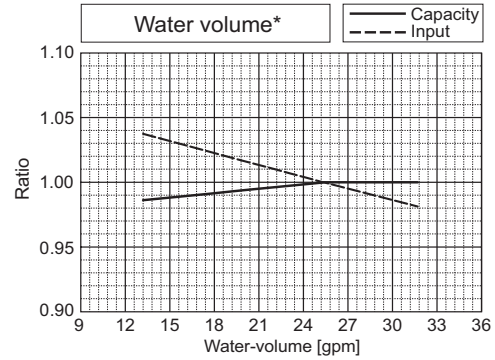
PQHY-			P240ZSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15



PQHY-			P240ZSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02



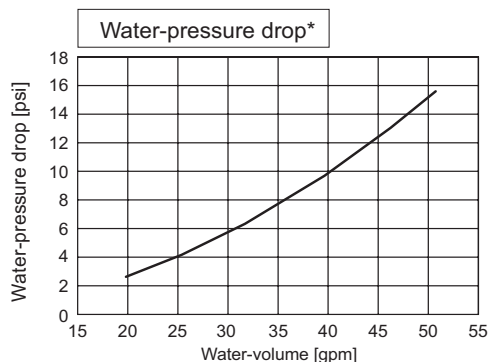
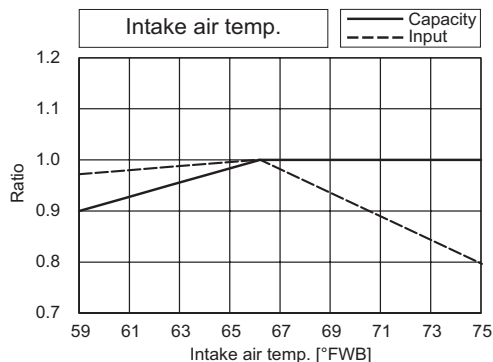
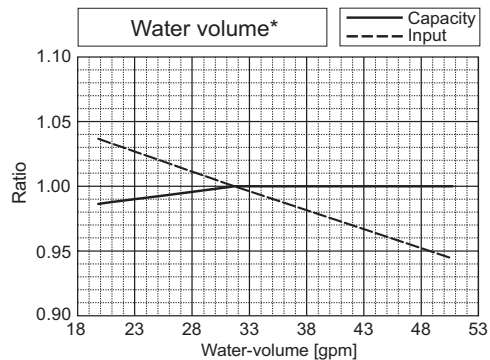
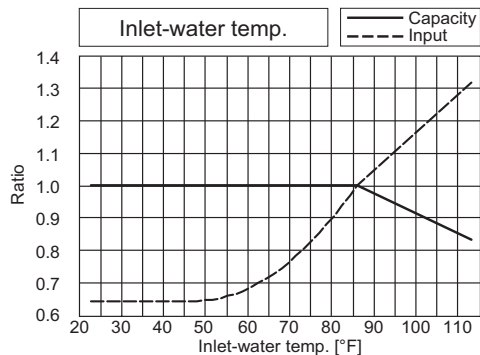
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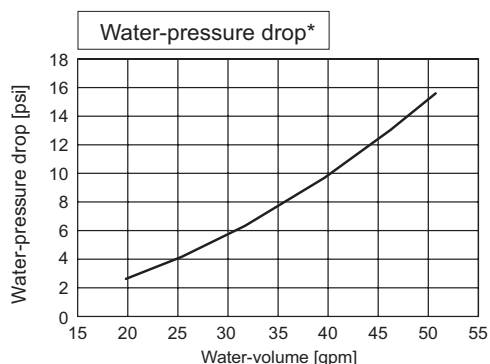
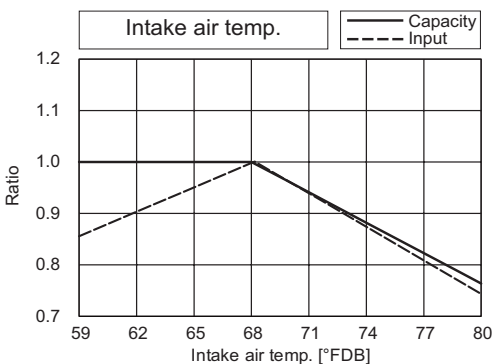
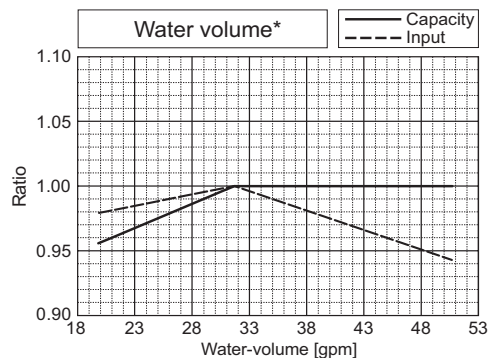
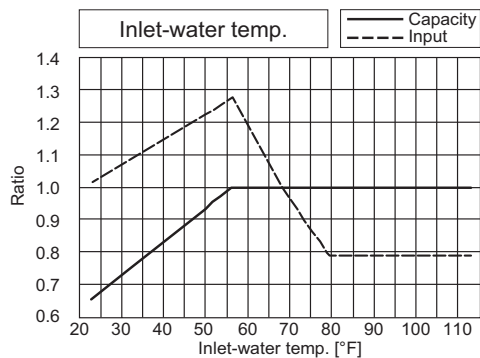
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P288ZSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43

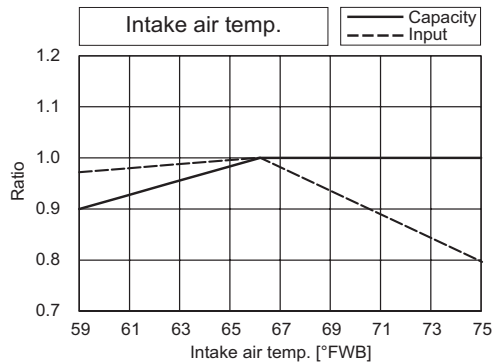
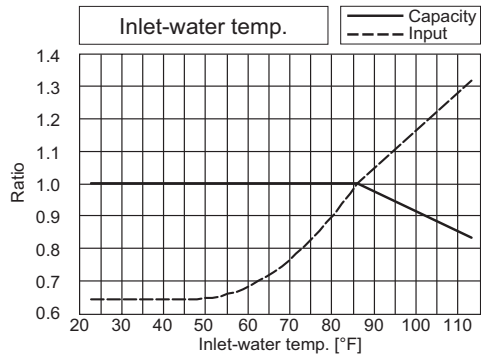


PQHY-			P288ZSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05

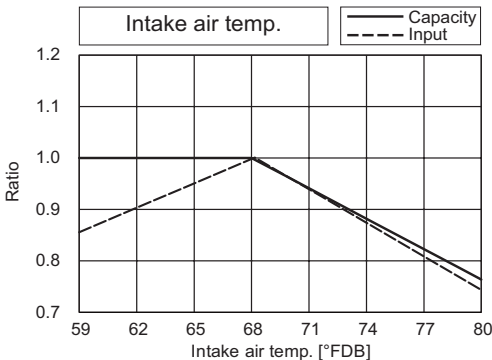
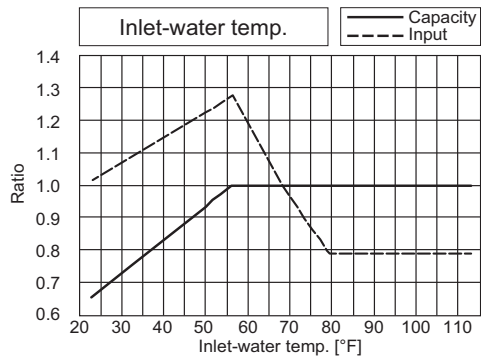


7. CAPACITY TABLES

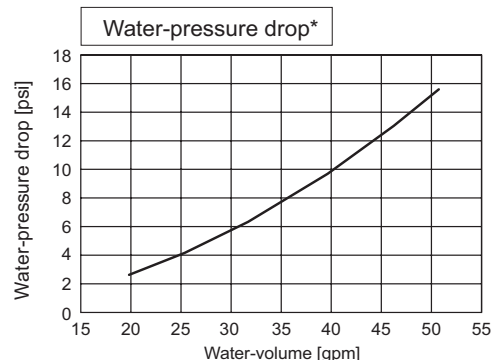
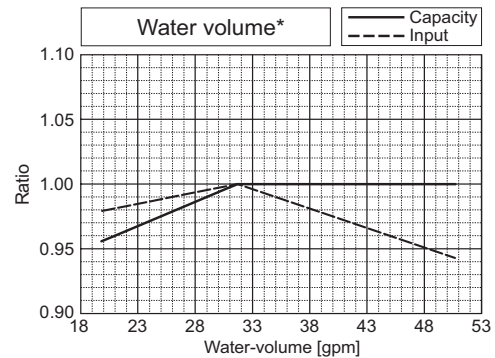
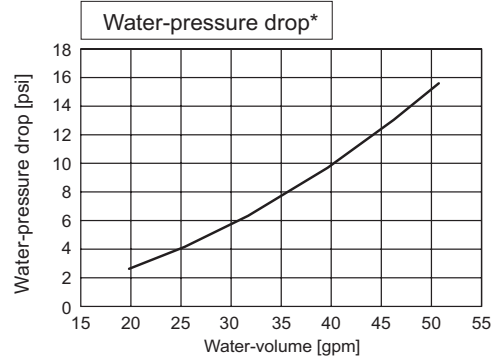
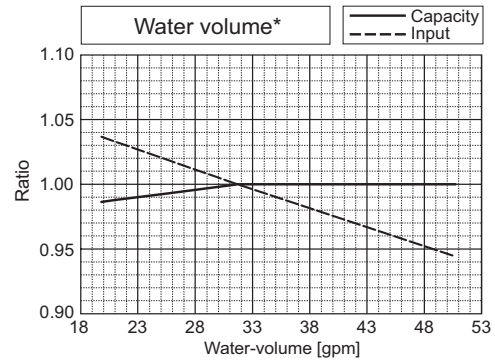
PQHY-			P312ZSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67



PQHY-			P312ZSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96



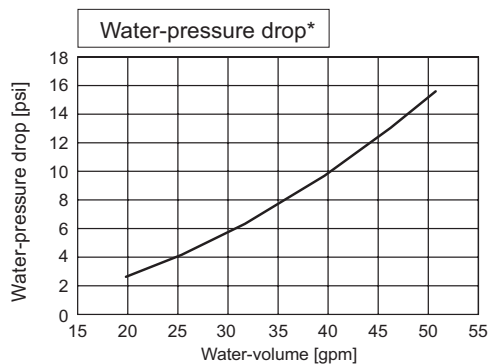
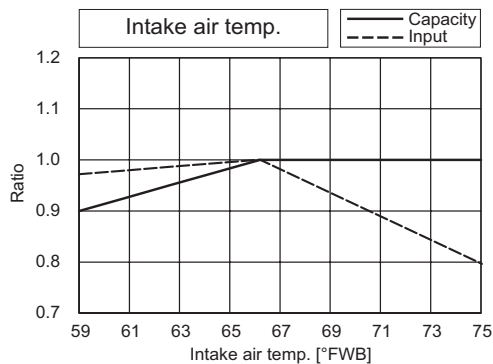
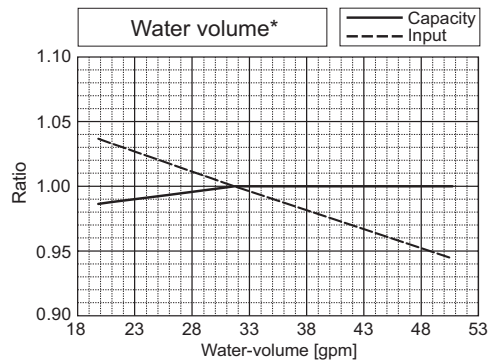
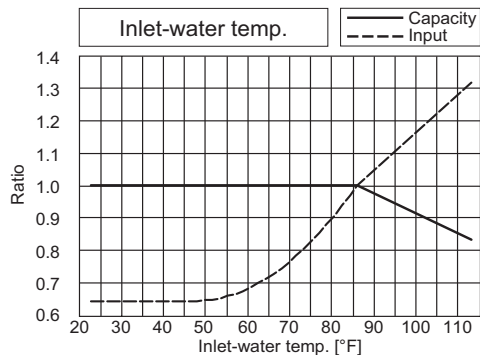
*The drawing indicates characteristic per unit.



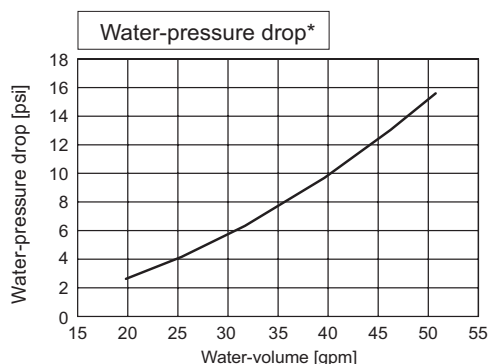
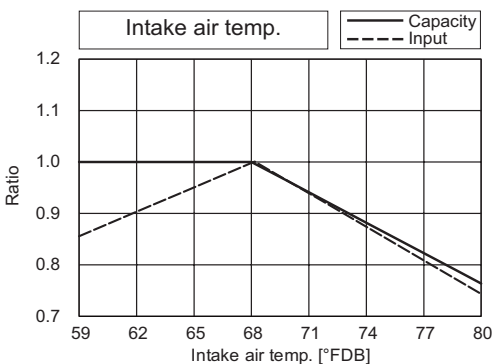
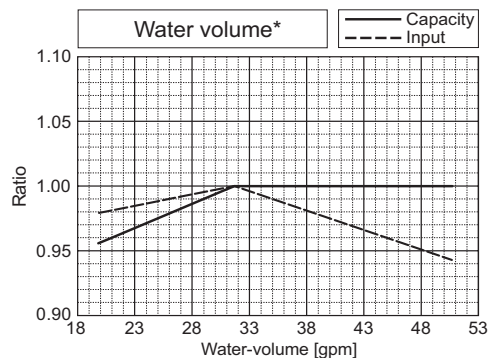
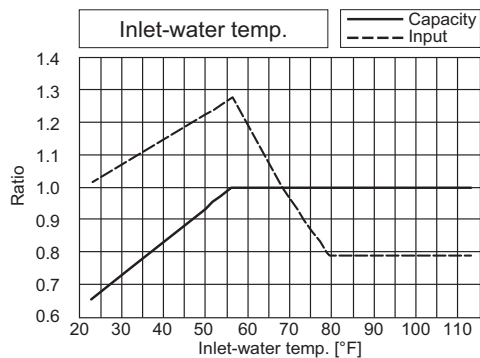
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQHY-			P336ZSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85

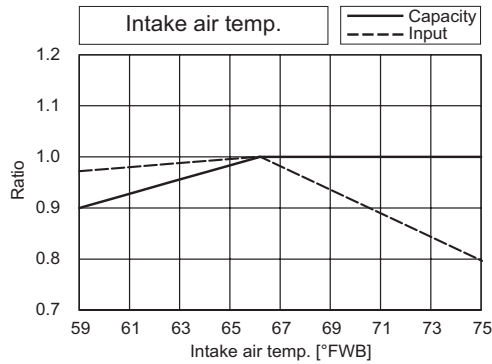
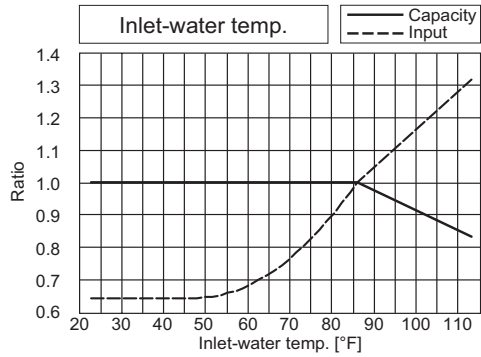


PQHY-			P336ZSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05

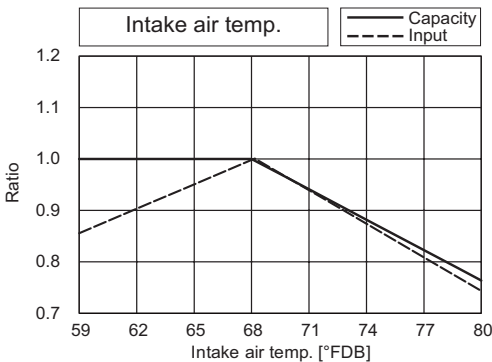
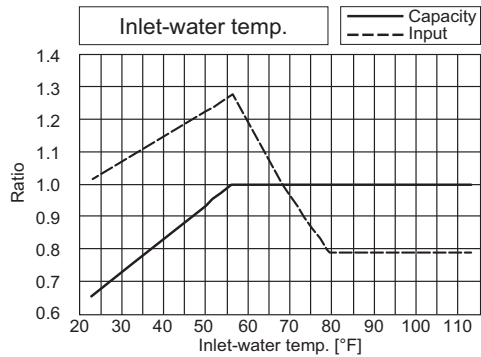


7. CAPACITY TABLES

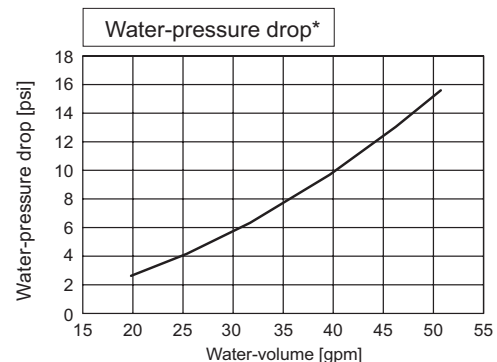
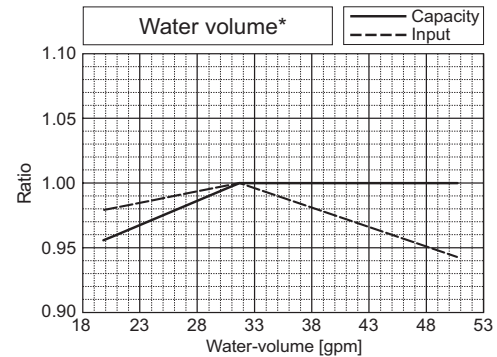
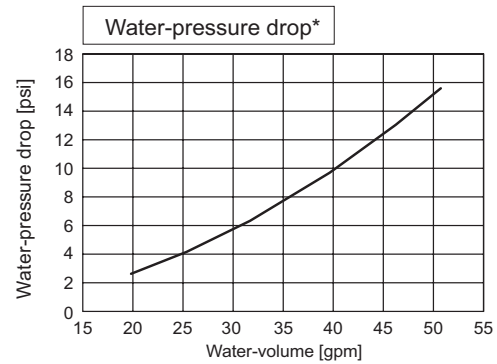
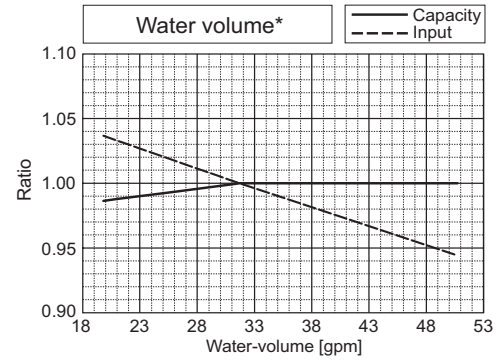
PQHY-			P360ZSLMU		
Nominal Cooling Capacity	kW	105.5	Rated Cooling Capacity	kW	100.2
	BTU/h	360,000		BTU/h	342,000
Input	kW	29.43	Input	kW	(Non-Ducted) 27.17 (Ducted) 27.41



PQHY-			P360ZSLMU		
Nominal Heating Capacity	kW	118.7	Rated Heating Capacity	kW	113.4
	BTU/h	405,000		BTU/h	387,000
Input	kW	22.85	Input	kW	(Non-Ducted) 21.09 (Ducted) 21.70



*The drawing indicates characteristic per unit.



PQHY-P360ZSLMU-A1

7. CAPACITY TABLES

7-2. Correction by total indoor

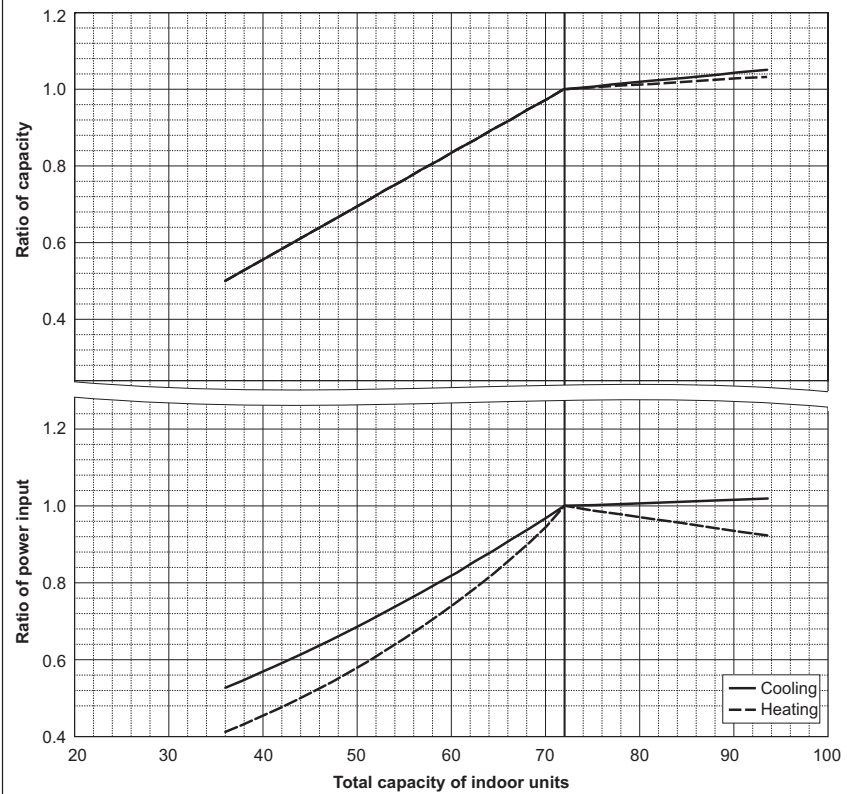
CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PQHY-P-Z(S)LMU-A1

PQHY-		P72ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	72,000	
	kW	21.1	
Input	kW	3.23	
Rated cooling capacity	BTU/h	69,000	
	kW	20.2	
Input	kW	2.96	3.12

PQHY-		P72ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	80,000	
	kW	23.4	
Input	kW	3.63	
Rated Heating capacity	BTU/h	76,000	
	kW	22.3	
Input	kW	3.34	3.36

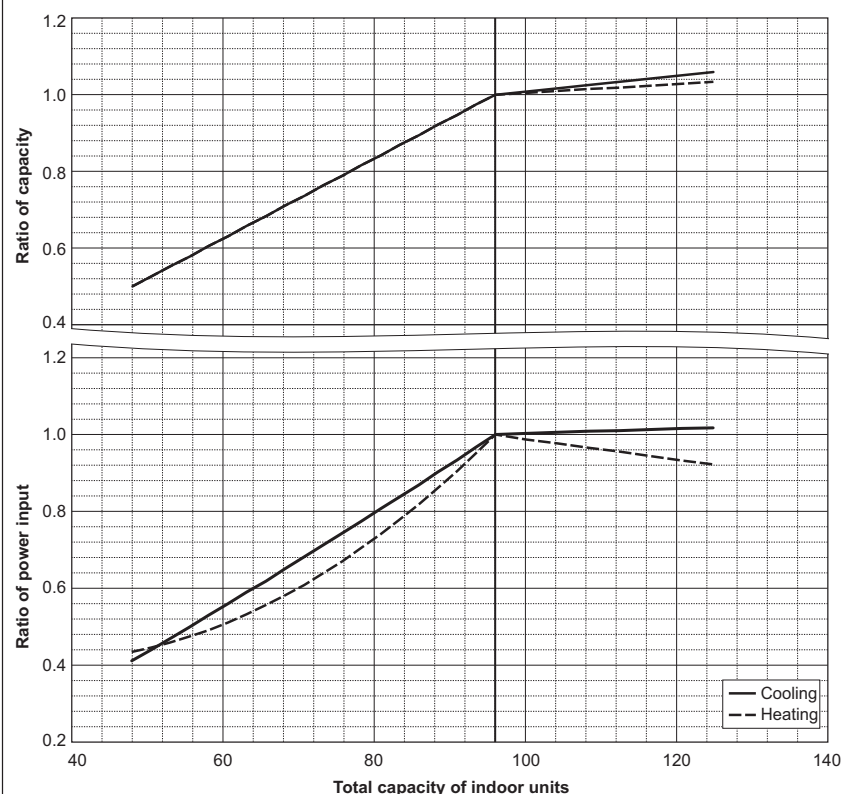
PQHY-P72ZLMU-A1



PQHY-		P96ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	96,000	
	kW	28.1	
Input	kW	4.65	
Rated cooling capacity	BTU/h	92,000	
	kW	27.0	
Input	kW	4.26	5.19

PQHY-		P96ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	108,000	
	kW	31.7	
Input	kW	5.05	
Rated Heating capacity	BTU/h	103,000	
	kW	30.2	
Input	kW	4.65	4.48

PQHY-P96ZLMU-A1

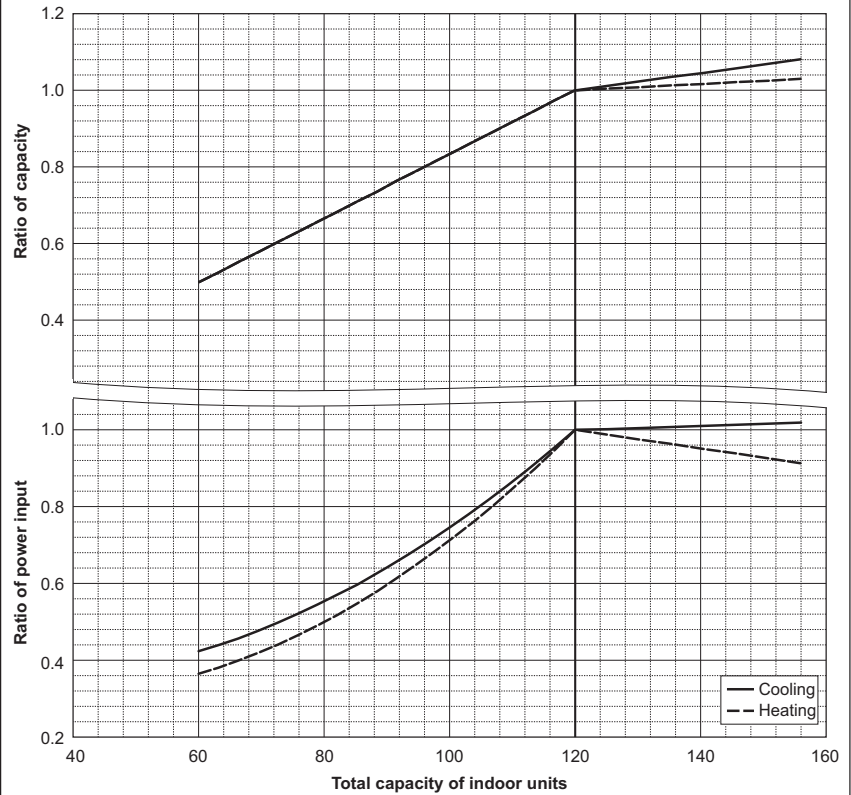


7. CAPACITY TABLES

PQHY-		P120ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	120,000	
	kW	35.2	
	Input kW	7.24	
Rated cooling capacity	BTU/h	114,000	
	kW	33.4	
	Input kW	6.66	7.35

PQHY-		P120ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	135,000	
	kW	39.6	
	Input kW	6.83	
Rated Heating capacity	BTU/h	129,000	
	kW	37.8	
	Input kW	6.29	5.92

PQHY-P120ZLMU-A1



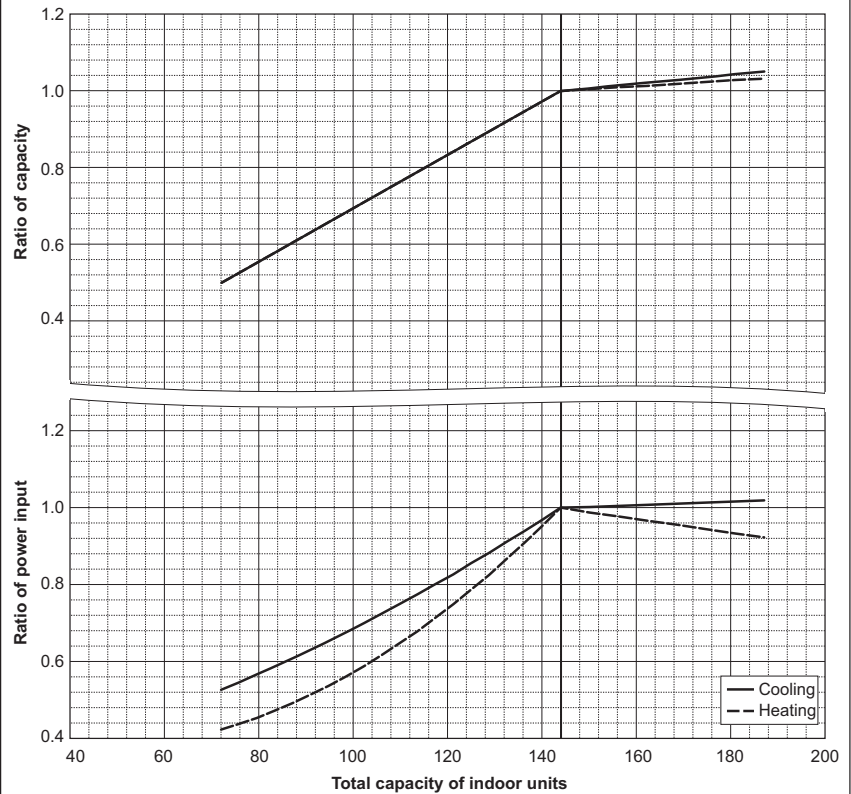
PQHY-		P144ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	8.78	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	8.07	9.98

PQHY-		P144ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	8.11	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	7.47	7.90

PQHY-		P144ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	7.11	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	6.53	7.72

PQHY-		P144ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	7.45	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	6.86	7.22

PQHY-P144Z(S)LMU-A1



PQHY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-		P168ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	12.05	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	11.10	11.88

PQHY-		P168ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.86	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	9.09	9.72

PQHY-		P168ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	9.33	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	8.58	9.22

PQHY-		P168ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.34	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	8.60	8.03

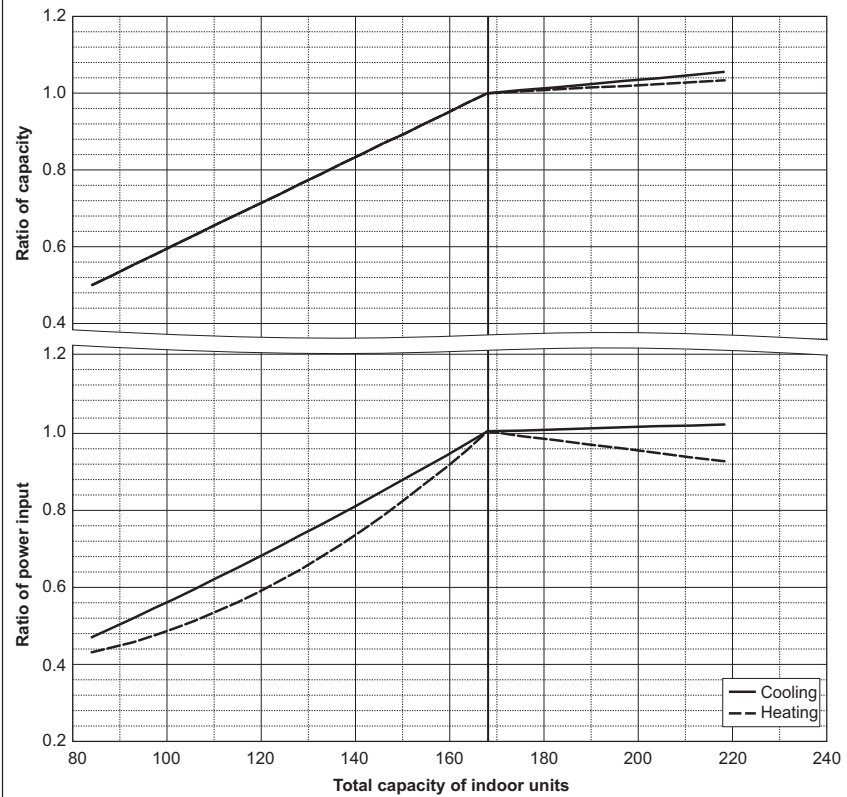
PQHY-		P192ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	15.05	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	13.87	14.19

PQHY-		P192ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.90	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.97	11.56

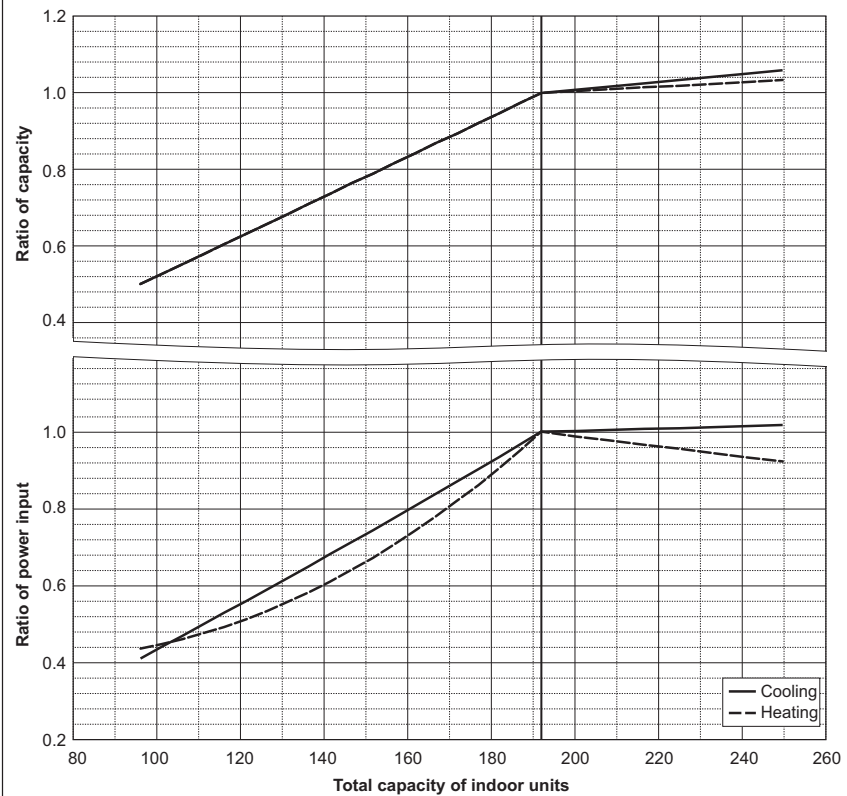
PQHY-		P192ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	11.30	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	10.40	10.98

PQHY-		P192ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.02	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.16	8.90

PQHY-P168Z(S)LMU-A1



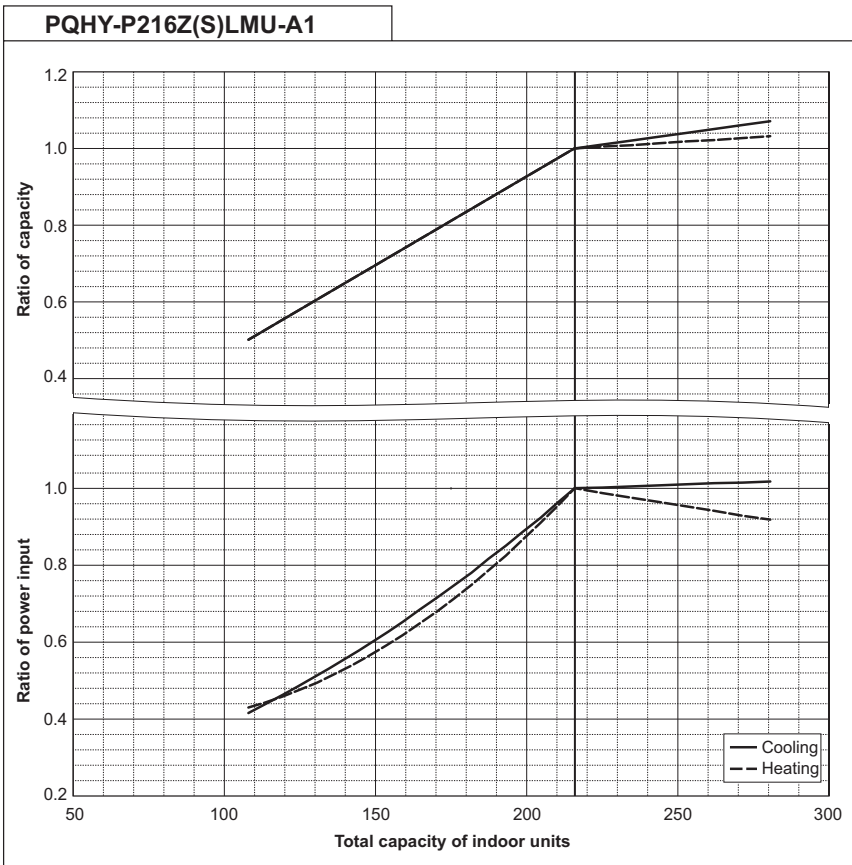
PQHY-P192Z(S)LMU-A1



7. CAPACITY TABLES

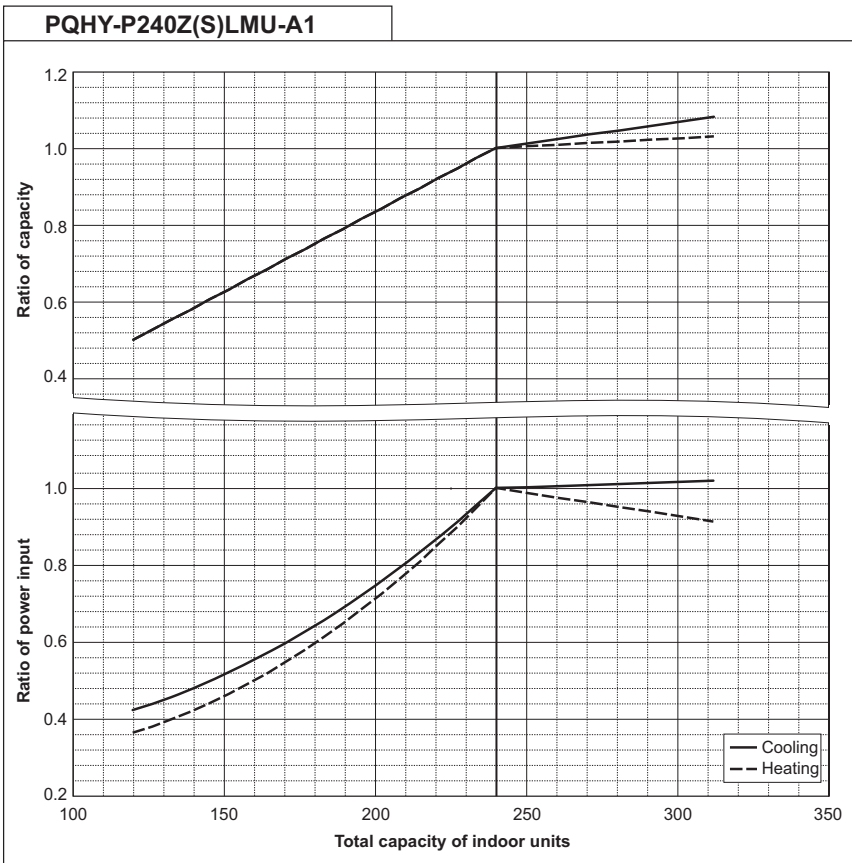
PQHY-		P216ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	216,000
		kW	63.3
	Input	kW	14.03
Rated cooling capacity		BTU/h	206,000
		kW	60.4
	Input	kW	12.93

PQHY-		P216ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	243,000
		kW	71.2
	Input	kW	12.88
Rated Heating capacity		BTU/h	232,000
		kW	68.0
	Input	kW	11.88



PQHY-		P240ZSLMU		
		Non-Ducted		Ducted
Nominal cooling capacity		BTU/h	240,000	
		kW	70.3	
	Input	kW	16.89	
Rated cooling capacity		BTU/h	228,000	
		kW	66.8	
	Input	kW	15.57	16.15

PQHY-		P240ZSLMU		
		Non-Ducted		Ducted
Nominal Heating capacity		BTU/h	270,000	
		kW	79.1	
	Input	kW	14.58	
Rated Heating capacity		BTU/h	258,000	
		kW	75.6	
	Input	kW	13.45	12.02



PQHY-P-Z(S)LMU-A1

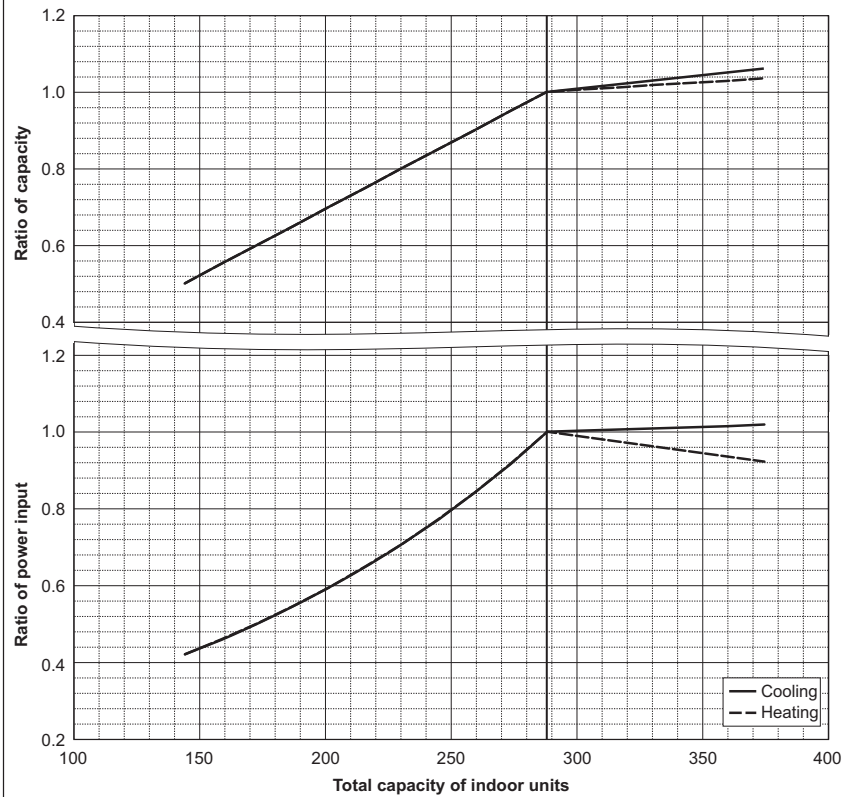
7. CAPACITY TABLES

PQHY-P-Z(S)LMU-A1

PQHY-		P288ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	288,000	
	kW	84.4	
	Input kW	20.42	
Rated cooling capacity	BTU/h	275,000	
	kW	80.6	
	Input kW	18.82	21.43

PQHY-		P288ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	323,000	
	kW	94.7	
	Input kW	17.50	
Rated Heating capacity	BTU/h	308,000	
	kW	90.3	
	Input kW	16.13	16.05

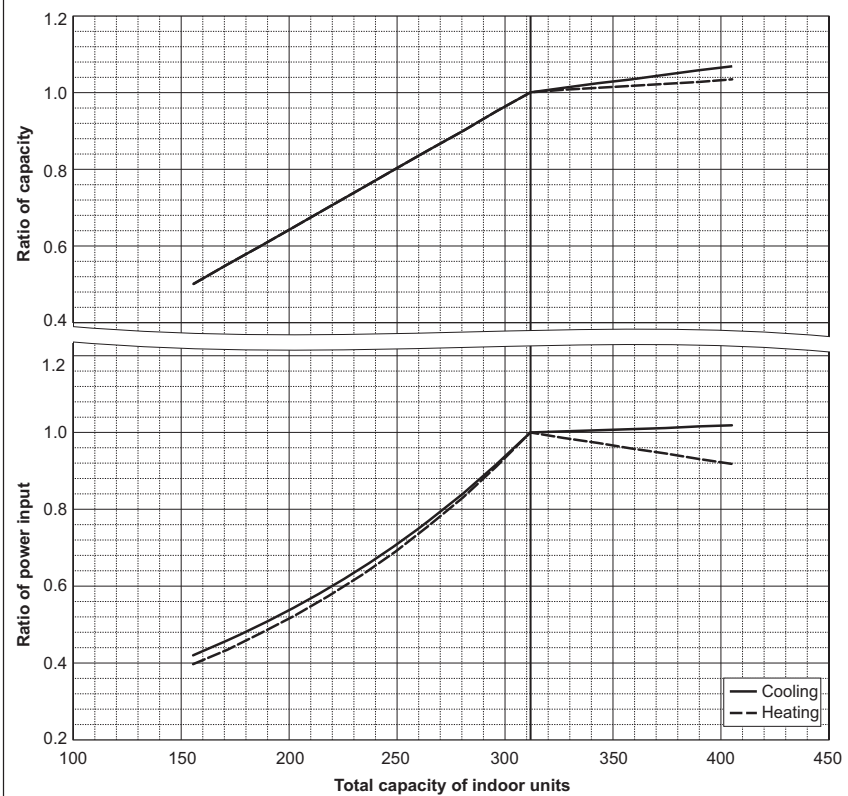
PQHY-P288ZSLMU-A1



PQHY-		P312ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	312,000	
	kW	91.4	
	Input kW	23.41	
Rated cooling capacity	BTU/h	297,000	
	kW	87.0	
	Input kW	21.59	23.67

PQHY-		P312ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	350,000	
	kW	102.6	
	Input kW	19.11	
Rated Heating capacity	BTU/h	334,000	
	kW	97.9	
	Input kW	17.62	17.96

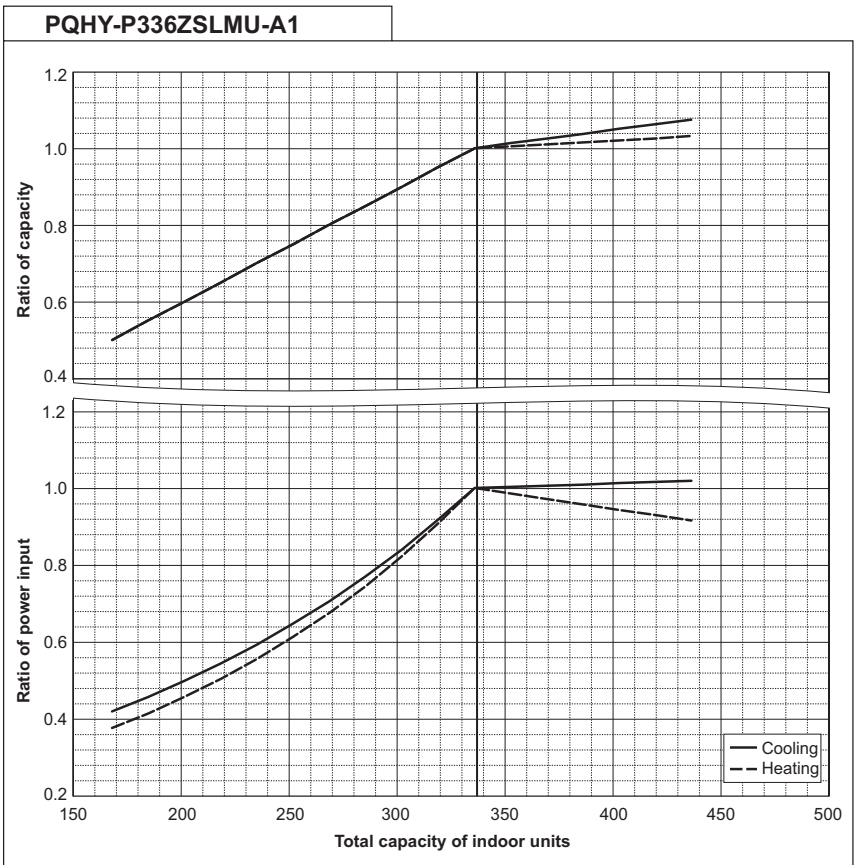
PQHY-P312ZSLMU-A1



7. CAPACITY TABLES

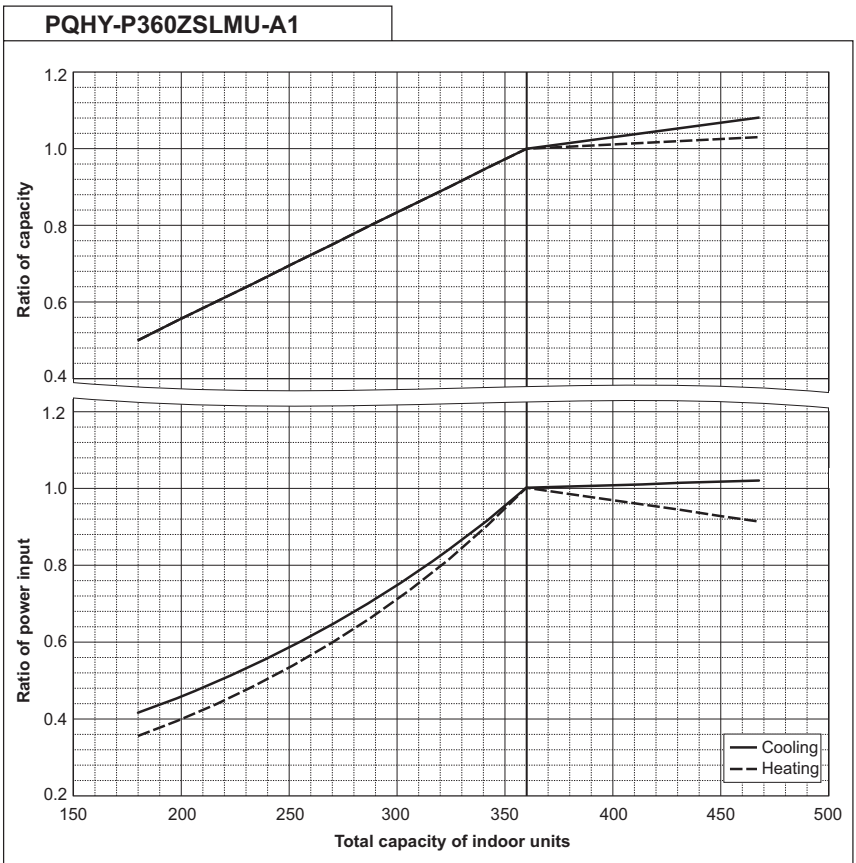
PQHY-		P336ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	336,000	
	kW	98.5	
	Input kW	26.84	
Rated cooling capacity	BTU/h	320,000	
	kW	93.8	
	Input kW	24.76	25.85

PQHY-		P336ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	378,000	
	kW	110.8	
	Input kW	20.77	
Rated Heating capacity	BTU/h	361,000	
	kW	105.8	
	Input kW	19.16	20.05



PQHY-		P360ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	360,000	
	kW	105.5	
	Input kW	29.43	
Rated cooling capacity	BTU/h	342,000	
	kW	100.2	
	Input kW	27.17	27.41

PQHY-		P360ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	405,000	
	kW	118.7	
	Input kW	22.85	
Rated Heating capacity	BTU/h	387,000	
	kW	113.4	
	Input kW	21.09	21.70



PQHY-P-Z(S)LMU-A1

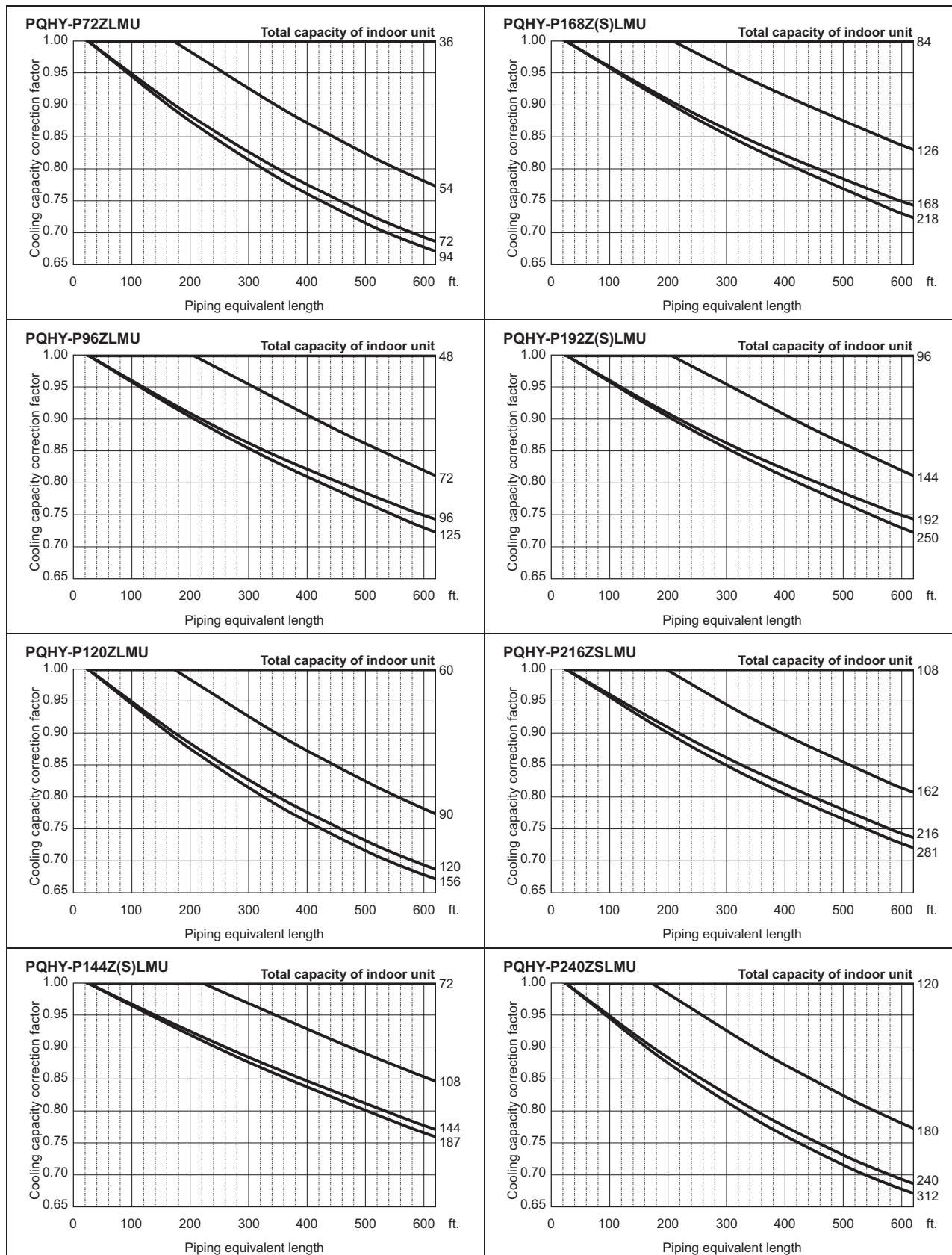
7. CAPACITY TABLES

7-3. Correction by refrigerant piping length

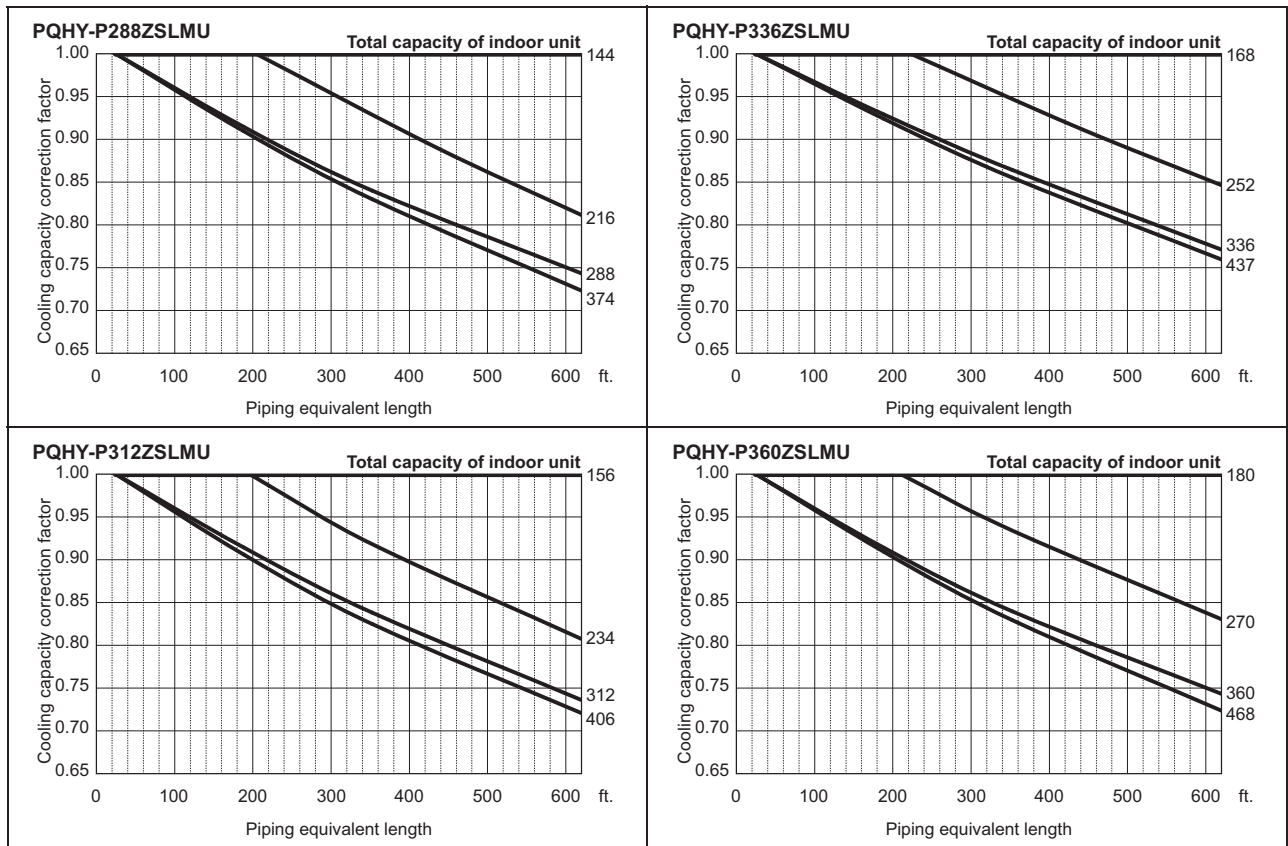
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

7-3-1. Cooling capacity correction

PQHY-P-Z(S)LMU-A1



7. CAPACITY TABLES

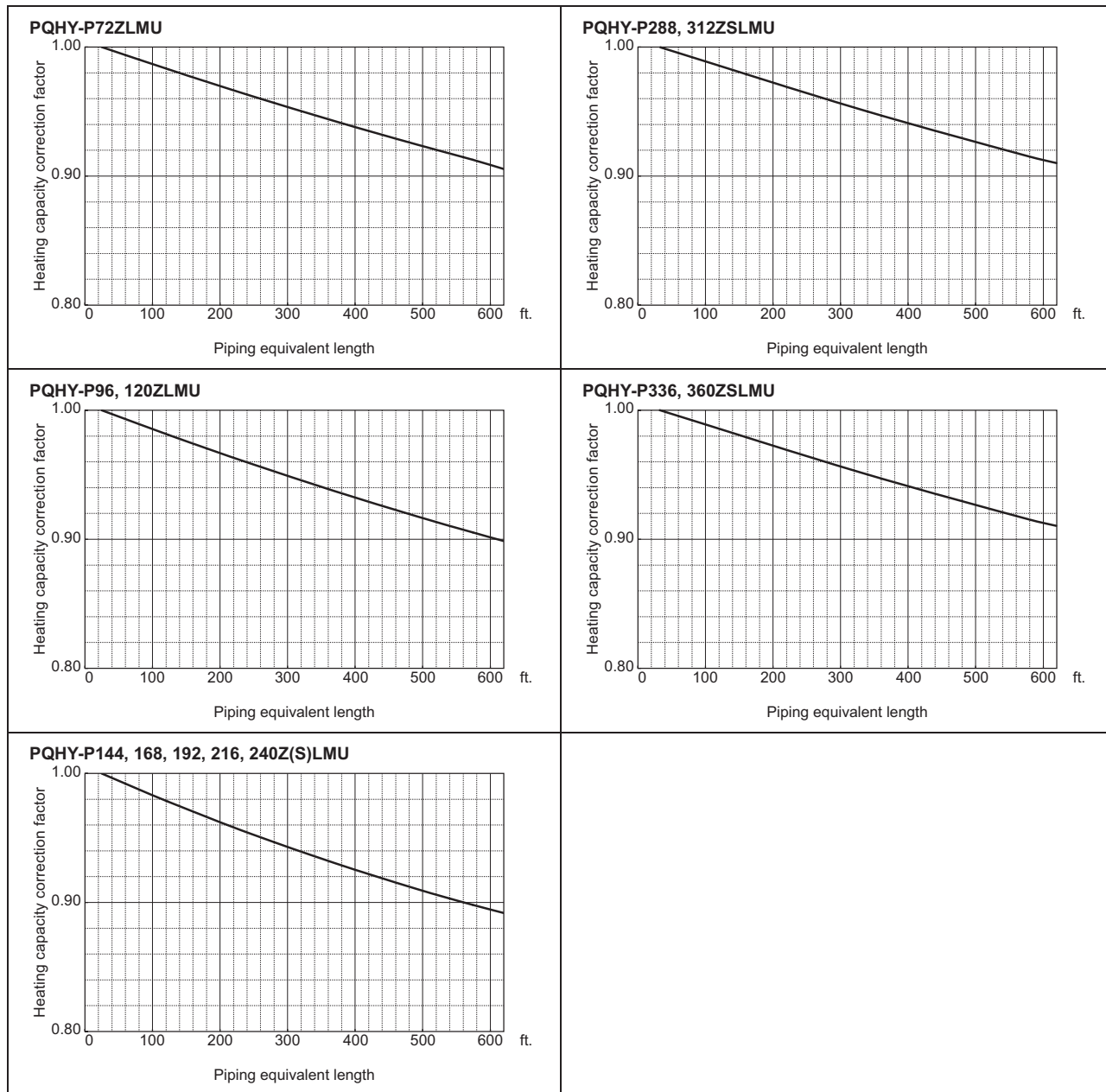


PQHY-P-Z(S)LMU-A1

7. CAPACITY TABLES

7-3-2. Heating capacity correction

PQHY-P-Z(S)LMU-A1



7-3-3. How to obtain the equivalent piping length

1. PQHY-P72ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.15 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) [m]

2. PQHY-P96, 120ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.38 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) [m]

3. PQHY-P144, 168, 192, 216, 240Z(S)LMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.64 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) [m]

4. PQHY-P288, 312ZSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.30 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 x number of bent on the piping) [m]

5. PQHY-P336, 360ZSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.63 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 x number of bent on the piping) [m]

PQRY-P-T(S)LMU-A1, PQRY-P-Y(S)LMU-A1

1. SPECIFICATIONS	166
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1. SPECIFICATIONS

Heat Source Model			PQRY-P72TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	72,000		
		kW	21.1		
	(208-230)	Power input	3.23		
		Current input	9.9-9.0		
	(Rated)	BTU/h	69,000		
		kW	20.2		
	(208-230)	Power input	2.96	3.12	
		Current input	9.1-8.2	9.6-8.7	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	80,000		
		kW	23.4		
	(208-230)	Power input	3.63		
		Current input	11.1-10.1		
	(Rated)	BTU/h	76,000		
		kW	22.3		
	(208-230)	Power input	3.34	3.36	
		Current input	10.3-9.3	10.3-9.3	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/1~18		
Sound pressure level (measured in anechoic room)		dB <A>	46.0		
Refrigerant	High pressure	in. (mm)	5/8 (15.88) Brazed		
piping diameter	Low pressure	in. (mm)	3/4 (19.05) Brazed		
Minimum Circuit Ampacity		A	13-12		
Maximum Overcurrent Protection		A	20-20		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
	Pressure drop	psi	3.48		
		kPa	24		
	Operating volume range	G/h	793 ~ 1,902		
		G/min (gpm)	13.2 ~ 31.7		
		m³/h	3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	4.3		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		
		mm	1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	382 (173)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		-			
Drawing	External		KL94C213		
	Wiring		KE94G422		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter	
	BTU/h	=kW x 3,412
	cfm	=m³/min x 35.31
	lbs	=kg/0.4536
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B.(20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
*Above specification data is subject to rounding variation.		

1. SPECIFICATIONS

Heat Source Model			PQRY-P96TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h	96,000	
			kW	28.1	
	(208-230)	Power input	kW	4.65	
		Current input	A	14.3-12.9	
		(Rated)	BTU/h	92,000	
				kW	27.0
	(208-230)	Power input	kW	4.26	
		Current input	A	13.1-11.8	
				5.19	
				16.0-14.4	
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		BTU/h	108,000	
			kW	31.7	
	(208-230)	Power input	kW	5.05	
		Current input	A	15.5-14.0	
		(Rated)	BTU/h	103,000	
				kW	30.2
	(208-230)	Power input	kW	4.65	
		Current input	A	14.3-12.9	
				4.48	
				13.8-12.4	
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/1~24		
Sound pressure level (measured in anechoic room)		dB <A>	48.0		
Refrigerant piping diameter	High pressure	in. (mm)	3/4 (19.05) Brazed		
	Low pressure	in. (mm)	7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	19-17		
Maximum Overcurrent Protection		A	30-25		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
		psi	3.48		
	Pressure drop	kPa	24		
		G/h	793 ~ 1,902		
	Operating volume range	G/min (gpm)	13.2 ~ 31.7		
		m³/h	3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	6.0		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish			Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		
		mm	1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	382 (173)		
Heat exchanger			plate type		
			Water volume in plate	G	1.32
				l	5.0
				Water pressure Max.	psi
				MPa	2.0
HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing	External		KL94C213		
	Wiring		KE94G422		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P120TLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		120,000	
			kW		35.2	
	(208-230)	Power input	kW		7.24	
		Current input	A		22.3-20.1	
	(Rated)		BTU/h		114,000	
			kW		33.4	
	(208-230)	Power input	kW		6.66	7.35
		Current input	A		20.5-18.5	22.6-20.5
	Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5		BTU/h		135,000	
			kW		39.6	
	(208-230)	Power input	kW		6.83	
		Current input	A		21.0-19.0	
	(Rated)		BTU/h		129,000	
			kW		37.8	
	(208-230)	Power input	kW		6.29	5.92
		Current input	A		19.3-17.5	18.2-16.5
	Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)	
		Circulating water	°F		23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity			
	Model/Quantity		P06~P96/1~30			
Sound pressure level (measured in anechoic room)			dB <A>		54.0	
Refrigerant piping diameter	High pressure		in. (mm)		3/4 (19.05) Brazed	
	Low pressure		in. (mm)		7/8 (22.2) Brazed	
Minimum Circuit Ampacity			A		29-26	
Maximum Overcurrent Protection			A		50-45	
Circulating water	Water flow rate	G/h		1,522		
		G/min (gpm)		25.4		
		m³/h		5.76		
		L/min		96		
		cfm		3.4		
	Pressure drop	psi		3.48		
		kPa		24		
	Operating volume range	G/h		793 ~ 1,902		
		G/min (gpm)		13.2 ~ 31.7		
		m³/h		3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output		kW		7.7	
	Case heater		kW		-	
	Lubricant				MEL32	
External finish			Galvanized steel sheets			
External dimension H x W x D			in.		43-5/16 x 34-11/16 x 21-11/16	
			mm		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)		382 (173)	
Heat exchanger	Water volume in plate		plate type			
			G		1.32	
			l		5.0	
	Water pressure Max.	psi		290		
		MPa		2.0		
HIC circuit (HIC: Heat Inter-Changer)					-	
Drawing	External		KL94C213			
	Wiring		KE94G422			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWIFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P144TLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2	BTU/h			144,000	
			kW			42.2	
(208-230)	(Rated)	Power input	kW			8.78	
		Current input	A			27.0-24.4	
	(208-230)		BTU/h	137,000			
			kW	40.2			
		Power input	kW			8.07	9.98
			Current input	A			24.8-22.5
Temp. range of cooling		Indoor	W.B.			59~75°F (15~24°C)	
		Circulating water	°F			23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4, 5	BTU/h			160,000	
			kW			46.9	
(208-230)	(Rated)	Power input	kW			8.11	
		Current input	A			25.0-22.6	
	(208-230)		BTU/h	152,000			
			kW	44.5			
		Power input	kW			7.47	7.90
			Current input	A			23.0-20.8
Temp. range of heating		Indoor	D.B.			59~81°F (15~27°C)	
		Circulating water	°F			23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity				50~150% of heat source unit capacity	
		Model/Quantity				P06~P96/1~36	
Sound pressure level (measured in anechoic room)		dB <A>				54.0	
Refrigerant piping diameter		High pressure	in. (mm)		7/8 (22.2) Brazed		
		Low pressure	in. (mm)		1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A				35-32	
Maximum Overcurrent Protection		A				60-50	
Circulating water		Water flow rate	G/h		1,902		
			G/min (gpm)		31.7		
			m³/h		7.20		
			L/min		120		
			cfm		4.2		
		Pressure drop	psi		6.38		
			kPa		44		
		Operating volume range	G/h		1,189 ~ 3,054		
			G/min (gpm)		19.8 ~ 50.9		
			m³/h		4.5 ~ 11.6		
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1			
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
		Starting method		Inverter			
		Motor output	kW	9.5			
		Case heater	kW	-			
		Lubricant		MEL32			
External finish		Galvanized steel sheets					
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16				
		mm	1,450 x 880 x 550				
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
		Inverter circuit		Over-heat protection, Over-current protection			
		Compressor		Over-heat protection			
Refrigerant		Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
		Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	481 (218)				
Heat exchanger		Water volume in plate		plate type			
				G		1.32	
		Water pressure Max.		l		5.0	
				psi		290	
				MPa		2.0	
HIC circuit (HIC: Heat Inter-Changer)		-					
Drawing		External		KL94C214			
		Wiring		KE94G423			
Standard attachment		Document		Installation Manual			
		Accessory		Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1					
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°CDB.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P168TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)		*1, 2	BTU/h		
		kW			
(208-230)		Power input	kW		
		Current input	A		
(Rated)		BTU/h			
		kW			
(208-230)		Power input	kW		
		Current input	A		
Temp. range of cooling		Indoor	W.B.		
		Circulating water	°F		
Heating capacity (Nominal)		*3, 4, 5	BTU/h		
		kW			
(208-230)		Power input	kW		
		Current input	A		
(Rated)		BTU/h			
		kW			
(208-230)		Power input	kW		
		Current input	A		
Temp. range of heating		Indoor	D.B.		
		Circulating water	°F		
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity		
		Model/Quantity	P06~P96/1~42		
Sound pressure level (measured in anechoic room)		dB <A>			
Refrigerant		High pressure	in. (mm)		
piping diameter		Low pressure	in. (mm)		
Minimum Circuit Ampacity		A			
Maximum Overcurrent Protection		A			
Circulating water		Water flow rate	G/h		
			G/min (gpm)		
			m³/h		
			L/min		
			cfm		
		Pressure drop	psi		
			kPa		
			Operating volume range		
				G/h	
				G/min (gpm)	
m³/h					
Compressor		Type x Quantity			
		Manufacture			
		Starting method			
		Motor output	kW		
		Case heater	kW		
		Lubricant			
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
		Inverter circuit		Over-heat protection, Over-current protection	
		Compressor		Over-heat protection	
Refrigerant		Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
		Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	481 (218)		
Heat exchanger				plate type	
		Water volume in plate	G	1.32	
			l	5.0	
		Water pressure Max.	psi	290	
			MPa	2.0	
H/C circuit (H/C: Heat Inter-Changer)		-			
Drawing		External		KL94C214	
		Wiring		KE94G423	
Standard attachment		Document		Installation Manual	
Optional parts		Accessory		Details refer to External Drw	
		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1			
		Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1			
		Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P192TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h	192,000	
			kW	56.3	
	(208-230)	Power input	kW	15.05	
		Current input	A	46.4-41.9	
			BTU/h	183,000	
		(Rated)		kW	53.6
	Power input		kW	13.87	
			Current input	A	42.7-38.6
	(208-230)				14.19
				43.7-39.5	
Temp. range of cooling			Indoor	W.B.	
			Circulating water	59~75°F (15~24°C)	
				23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5		BTU/h	215,000	
			kW	63.0	
	(208-230)	Power input	kW	11.90	
		Current input	A	36.7-33.1	
			BTU/h	205,000	
		(Rated)		kW	60.1
	Power input		kW	10.97	
			Current input	A	33.8-30.5
	(208-230)				11.56
				35.6-32.2	
Temp. range of heating			Indoor	D.B.	
			Circulating water	59~81°F (15~27°C)	
				23~113°F (-5~45°C)	
Indoor unit connectable			Total capacity	50~150% of heat source unit capacity	
			Model/Quantity	P06~P96/1~48	
Sound pressure level (measured in anechoic room)			dB <A>	58.0	
Refrigerant piping diameter			High pressure	in. (mm)	
			Low pressure	in. (mm)	
				7/8 (22.2) Brazed	
				1-1/8 (28.58) Brazed	
Minimum Circuit Ampacity			A	54-49	
Maximum Overcurrent Protection			A	90-80	
Circulating water	Water flow rate	G/h	1,902		
		G/min (gpm)	31.7		
		m³/h	7.20		
		L/min	120		
		cfm	4.2		
		Pressure drop	psi	6.38	
	Operating volume range	kPa	44		
		G/h	1,189 ~ 3,054		
		G/min (gpm)	19.8 ~ 50.9		
		m³/h	4.5 ~ 11.6		
Compressor			Type x Quantity	Inverter scroll hermetic compressor x 1	
			Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
			Starting method	Inverter	
			Motor output	kW	12.4
			Case heater	kW	-
			Lubricant	MEL32	
External finish			Galvanized steel sheets		
External dimension H x W x D			in.	57-1/8 x 34-11/16 x 21-11/16	
			mm	1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight	lbs (kg)		481 (218)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
		psi	290		
	Water pressure Max.	MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing	External		KL94C214		
	Wiring		KE94G423		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P216TLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		216,000		
			63.3		
	(208-230)	Power input	19.23		
		Current input	59.3-53.6		
	(Rated)		206,000		
			60.4		
	(208-230)	Power input	17.72		
		Current input	54.6-49.4	16.10	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5		243,000		
			71.2		
	(208-230)	Power input	13.04		
		Current input	40.2-36.3		
	(Rated)		232,000		
			68.0		
	(208-230)	Power input	12.01	12.34	
		Current input	37.0-33.4	38.0-34.4	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>	58.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	69-63		
Maximum Overcurrent Protection		A	110-110		
Circulating water	Water flow rate	G/h	3,044		
		G/min (gpm)	50.7		
		m³/h	11.52		
		L/min	192		
		cfm	6.8		
	Pressure drop	psi	6.53		
		kPa	45		
	Operating volume range	G/h	1,585 ~ 3,804		
		G/min (gpm)	26.4 ~ 63.4		
m³/h		6.0 ~ 14.4			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	14.5		
	Case heater	kW	0.045 (240 V)		
	Lubricant		MEL32		
External finish			Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 25 lbs + 13 oz (11.7 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	558 (253)		
Heat exchanger			plate type		
			Water volume in plate		
			G	2.64	
			l	10.0	
			Water pressure Max.		
psi	290				
MPa	2.0				
HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing	External		KL94C215		
	Wiring		KE94G426		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWIFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWIFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWIFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P240TLMU-A1 < For Ground source >					
Indoor Model			Non-Ducted		Ducted			
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz					
Cooling capacity (Nominal)	*1, 2		BTU/h			240,000		
			kW			70.3		
	(208-230)	Power input	kW			21.14		
		Current input	A			65.1-58.9		
			BTU/h			228,000		
		(Rated)		kW			66.8	
	Power input		kW			19.49	18.74	
			Current input	A			60.1-54.3	57.7-52.2
				W.B.			59~75°F (15~24°C)	
			°F			23~113°F (-5~45°C)		
Heating capacity (Nominal)			*3, 4, 5		BTU/h	270,000		
			kW			79.1		
			kW			15.12		
(208-230)	(Rated)	Current input	A			46.6-42.1		
			BTU/h			258,000		
			kW			75.6		
		Power input	kW			13.93	14.62	
	Current input		A			42.9-38.8	45.0-40.7	
				D.B.			59~81°F (15~27°C)	
		°F			23~113°F (-5~45°C)			
Indoor unit connectable			Total Capacity			50~150% of heat source unit capacity		
			Model/Quantity			P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)			dB <A>			58.0		
Refrigerant piping diameter			High pressure			in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	
			Low pressure			in. (mm)	1-3/8 (34.93) Brazed	
Minimum Circuit Ampacity			A			79-71		
Maximum Overcurrent Protection			A			125-125		
Circulating water			Water flow rate		G/h	3,044		
					G/min (gpm)	50.7		
					m³/h	11.52		
					L/min	192		
					cfm	6.8		
					psi	6.53		
			Pressure drop		kPa	45		
					Operating volume range		G/h	1,585 ~ 3,804
							G/min (gpm)	26.4 ~ 63.4
							m³/h	6.0 ~ 14.4
Compressor			Type x Quantity				Inverter scroll hermetic compressor x 1	
			Manufacture			AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
			Starting method			Inverter		
			Motor output		kW	16.1		
			Case heater		kW	0.045 (240 V)		
			Lubricant		MEL32			
External finish			Galvanized steel sheets					
External dimension H x W x D			in.		57-1/8 x 34-11/16 x 21-11/16			
			mm		1,450 x 880 x 550			
Protection devices			High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
			Inverter circuit			Over-heat protection, Over-current protection		
			Compressor			Over-heat protection		
Refrigerant			Type x original charge			R410A x 25 lbs + 13 oz (11.7 kg)		
			Control			Indoor LEV and BC controller		
Net weight			lbs (kg)		558 (253)			
Heat exchanger						plate type		
			Water volume in plate		G	2.64		
					l	10.0		
					Water pressure Max.	psi	290	
			MPa	2.0				
			HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing			External			KL94C215		
			Wiring			KE94G426		
Standard attachment			Document			Installation Manual		
			Accessory			Details refer to External Drw		
Optional parts						joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks						Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model				PQRY-P144TSLMU-A1 < For Ground source >					
Indoor Model				Non-Ducted		Ducted			
Power source				3-phase 3-wire 208-230 V ±10% 60 Hz					
Cooling capacity (Nominal)		*1, 2		BTU/h		144,000			
				kW		42.2			
		(208-230)	Power input		kW		7.11		
			Current input		A		21.9-19.8		
		(Rated)	BTU/h		137,000				
			kW		40.2				
		(208-230)	Power input		kW		6.53		
			Current input		A		20.1-18.2		
		Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
				Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4, 5		BTU/h		160,000			
				kW		46.9			
		(208-230)	Power input		kW		7.45		
			Current input		A		22.9-20.7		
		(Rated)	BTU/h		152,000				
			kW		44.5				
		(208-230)	Power input		kW		6.86		
			Current input		A		21.1-19.1		
		Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
				Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity					
		Model/Quantity		P06~P96/1~36					
Sound pressure level (measured in anechoic room)				dB <A>		49.0			
Refrigerant		High pressure		in. (mm)		7/8 (22.2) Brazed			
piping diameter		Low pressure		in. (mm)		1-1/8 (28.58) Brazed			

Set Model			PQRY-P72TLMU-A1 < For Ground source >		PQRY-P72TLMU-A1 < For Ground source >	
Model			13-12		13-12	
Minimum Circuit Ampacity			A		A	
Maximum Overcurrent Protection			20-20		20-20	
Circulating water	Water flow rate	G/h			1,522 + 1,522	
		G/min (gpm)			25.4 + 25.4	
		m³/h			5.76 + 5.76	
		L/min			96 + 96	
		cfm			3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h			793 + 793 ~ 1,902 + 1,902	
G/min (gpm)				13.2 + 13.2 ~ 31.7 + 31.7		
m³/h				3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D			in.		43-5/16 x 34-11/16 x 21-11/16	
			mm		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)		382 (173)	
Heat exchanger	Water volume in plate		plate type		plate type	
			G		1.32	
			l		5.0	
			psi		290	
			MPa		2.0	
HiC circuit (HiC: Heat Inter-Changer)			-		-	
Pipe between unit and distributor	High pressure	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Low pressure	in. (mm)	-		3/4 (19.05) Brazed	
Drawing	External		KL94C219			
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHR1 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHR1 1230) Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P168TSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	168,000		
		kW	49.2		
	(208-230)	Power input	9.33		
		Current input	28.7-26.0		
	(Rated)	BTU/h	161,000		
		kW	47.2		
	(208-230)	Power input	8.58	9.22	
		Current input	26.4-23.9	28.4-25.7	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	188,000		
		kW	55.1		
	(208-230)	Power input	9.34		
		Current input	28.8-26.0		
	(Rated)	BTU/h	179,000		
		kW	52.5		
	(208-230)	Power input	8.60	8.03	
		Current input	26.5-23.9	24.7-22.3	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/1~42			
Sound pressure level (measured in anechoic room)		dB <A>	50.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Set Model					
Model			PQRY-P96TLMU-A1 < For Ground source >	PQRY-P72TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			19-17	13-12	
Maximum Overcurrent Protection			30-25	20-20	
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
	Pressure drop	psi	3.48	3.48	
		kPa	24	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	Inverter	
	Motor output		6.0	4.3	
	Case heater		-	-	
	Lubricant		MEL32	MEL32	
External finish			Galvanized steel sheets	Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550	1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	382 (173)	382 (173)	
Heat exchanger			plate type	plate type	
	Water volume in plate	G	1.32	1.32	
		l	5.0	5.0	
	Water pressure Max.	psi	290	290	
MPa		2.0	2.0		
HiC circuit (HiC: Heat Inter-Changer)			-	-	
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed	
	Low pressure	in. (mm)	-	7/8 (22.2) Brazed	
Drawing	External		KL94C219		
	Wiring		KE94G422	KE94G422	
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2		
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1		
			Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1		
			Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./68°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model				PQRY-P192TSLMU-A1 < For Ground source >				
Indoor Model				Non-Ducted		Ducted		
Power source				3-phase 3-wire 208-230 V ±10% 60 Hz				
Cooling capacity (Nominal)		*1, 2		192,000				
				56.3				
	(208-230)	Power input		11.30				
		Current input		34.8-31.5				
		(Rated)			183,000			
					53.6			
	(208-230)	Power input		10.40		10.98		
		Current input		32.0-29.0		33.8-30.6		
	Temp. range of cooling		Indoor	W.B.		59~75°F (15~24°C)		
			Circulating water	°F		23~113°F (-5~45°C)		
Heating capacity (Nominal)		*3, 4, 5		215,000				
				63.0				
	(208-230)	Power input		11.02				
		Current input		33.9-30.7				
		(Rated)			205,000			
					60.1			
	(208-230)	Power input		10.16		8.90		
		Current input		31.3-28.3		27.4-24.8		
	Temp. range of heating		Indoor	D.B.		59~81°F (15~27°C)		
			Circulating water	°F		23~113°F (-5~45°C)		
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity				
		Model/Quantity		P06~P96/1~48				
Sound pressure level (measured in anechoic room)				51.0				
Refrigerant piping diameter		High pressure	in. (mm)	7/8 (22.2) Brazed				
		Low pressure	in. (mm)	1-1/8 (28.58) Brazed				

Set Model		PQRY-P96TLMU-A1 < For Ground source >		PQRY-P96TLMU-A1 < For Ground source >		
Model		PQRY-P96TLMU-A1 < For Ground source >		PQRY-P96TLMU-A1 < For Ground source >		
Minimum Circuit Ampacity		A	19-17	19-17		
Maximum Overcurrent Protection		A	30-25	30-25		
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48	3.48		
		kPa	24	24		
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2			
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	

1. SPECIFICATIONS

Heat Source Model			PQRY-P216TSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h		216,000
			kW		63.3
	(208-230)	Power input	kW		14.03
		Current input	A		43.2-39.1
		(Rated)	BTU/h		206,000
			kW		60.4
	(208-230)	Power input	kW		12.93
		Current input	A		39.8-36.0
	Temp. range of cooling	Indoor	W.B.		59~75°F (15~24°C)
		Circulating water	°F		23~113°F (-5~45°C)
Heating capacity (Nominal)	*3, 4, 5		BTU/h		243,000
			kW		71.2
	(208-230)	Power input	kW		12.88
		Current input	A		39.7-35.9
		(Rated)	BTU/h		232,000
			kW		68.0
	(208-230)	Power input	kW		11.88
		Current input	A		36.6-33.1
	Temp. range of heating	Indoor	D.B.		59~81°F (15~27°C)
		Circulating water	°F		23~113°F (-5~45°C)
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>		55.0	
Refrigerant	High pressure	in. (mm)		7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	
piping diameter	Low pressure	in. (mm)		1-1/8 (28.58) Brazed	

Set Model			PQRY-P120TLMU-A1 < For Ground source >		PQRY-P96TLMU-A1 < For Ground source >	
Model			29-26		19-17	
Minimum Circuit Ampacity		A	50-45		30-25	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h	1,522 + 1,522		1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4		25.4 + 25.4	
		m³/h	5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		793 + 793 ~ 1,902 + 1,902	
G/min (gpm)		13.2 + 13.2 ~ 31.7 + 31.7		13.2 + 13.2 ~ 31.7 + 31.7		
	m³/h	3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	382 (173)		382 (173)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)			-		-	
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
	Low pressure	in. (mm)	-		7/8 (22.2) Brazed	
Drawing	External		KL94C219		KL94C219	
	Wiring		KE94G422		KE94G422	
Standard attachment	Document		Installation Manual		Installation Manual	
	Accessory		Details refer to External Drw		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2		Heat Source Twinning kit: CMY-Q100CBK2	
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1	
			Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1		Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1	
			Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	
			Due to continuing improvement, above specifications may be subject to change without notice.		Due to continuing improvement, above specifications may be subject to change without notice.	
			The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.)		The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.)	
			The ambient relative humidity of the Heat Source Unit needs to be kept below 80%.		The ambient relative humidity of the Heat Source Unit needs to be kept below 80%.	
			The Heat Source Unit should not be installed at outdoor.		The Heat Source Unit should not be installed at outdoor.	
			Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.		Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit.	
			Be sure to provide interlocking for the unit operation and water circuit.		Be sure to provide interlocking for the unit operation and water circuit.	
			The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit.		The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit.	
			Install the supplied insulation material to the unused drain-socket.		Install the supplied insulation material to the unused drain-socket.	
			When installing insulation material around both water and refrigerant piping, follow the installation manual.		When installing insulation material around both water and refrigerant piping, follow the installation manual.	
			Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON.		Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON.	
			It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	
			When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.		When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.	

Notes:		Unit converter	
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h	=kW x 3,412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm	=m³/min x 35.31
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs	=kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m).			
Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>.			
Brine concentration 0%			
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)			
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%			
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions			
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m).			
Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>.			
Brine concentration 0%			
5.<PWFY-P36NMU-E-BU> Nominal heating conditions			
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m).			
Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%			
		*Above specification data is subject to rounding variation.	

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P240TSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h		
			240,000		
			kW		
			70.3		
	(208-230)	Power input	kW		
			16.89		
	(Rated)	Current input	A		
			52.0-47.1		
			BTU/h		
			228,000		
Heating capacity (Nominal)	*3, 4, 5		BTU/h		
			270,000		
			kW		
			79.1		
	(208-230)	Power input	kW		
			14.58		
	(Rated)	Current input	A		
			44.9-40.6		
			BTU/h		
			258,000		
Temp. range of cooling			kW		
			75.6		
	(208-230)	Power input	kW		
			13.45		
	(Rated)	Current input	A		
			41.4-37.5		
			BTU/h		
			37.0-33.5		
	Temp. range of heating	Indoor	D.B.	59-81°F (15-27°C)	
		Circulating water	°F	23-113°F (-5-45°C)	
Indoor unit connectable			50-150% of heat source unit capacity		
Total capacity			P06-P96/2-50 (Connectable branch pipe number is max. 48.)		
Model/Quantity					
Sound pressure level (measured in anechoic room)			dB <A>		
			57.0		
Refrigerant			7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		
piping diameter			1-3/8 (34.93) Brazed		
Set Model					
Model			PQRY-P120TLMU-A1 < For Ground source >		
Minimum Circuit Ampacity			29-26		
Maximum Overcurrent Protection			50-45		
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
	Pressure drop	psi	3.48		
		kPa	24		
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter			
	Motor output	7.7			
	Case heater	-			
	Lubricant	MEL32			
External finish			Galvanized steel sheets		
External dimension H x W x D			43-5/16 x 34-11/16 x 21-11/16		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection			
	Compressor	Over-heat protection			
	Refrigerant	R410A x 11 lbs + 1 oz (5.0 kg)			
Type x original charge			R410A x 11 lbs + 1 oz (5.0 kg)		
Control			Indoor LEV and BC controller		
Net weight		lbs (kg)	382 (173)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
H/C circuit (H/C: Heat Inter-Change)			-		
Pipe between unit and distributor			3/4 (19.05) Brazed		
Drawing			KL94C219		
Standard attachment			KE94G422		
Optional parts			Installation Manual		
			Details refer to External Drw		
			Heat Source Twinning kit: CMY-Q100CBK2		
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1		
			Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1		
			Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(D.B. (40°C(D.B.)) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.		

1. SPECIFICATIONS

Heat Source Model			PQRY-P288TSLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		288,000			
			84.4			
	(208-230)	Power input	20.42			
		(Rated)	Current input	62.9-56.9		
				275,000		
		(208-230)		80.6		
	Power input		18.82			
	(Rated)		Current input	58.0-52.4		
				21.43		
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4, 5		323,000			
			94.7			
	(208-230)	Power input	17.50			
		(Rated)	Current input	53.9-48.8		
				308,000		
		(208-230)		90.3		
	Power input		16.13			
	(Rated)		Current input	49.7-44.9		
				16.05		
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity			
		Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)			
Sound pressure level (measured in anechoic room)		dB <A>	57.0			
Refrigerant piping diameter	High pressure	in. (mm)	1-1/8 (28.58) Brazed			
	Low pressure	in. (mm)	1-3/8 (34.93) Brazed			
Set Model						
Model			PQRY-P144TLMU-A1 < For Ground source >		PQRY-P144TLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			A		35-32	
Maximum Overcurrent Protection			A		60-50	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
		Pressure drop	psi	6.38		
	kPa		44			
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9			
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6			
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method	Inverter		Inverter		
	Motor output	9.5		9.5		
	Case heater	-		-		
	Lubricant	MEL32		MEL32		
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D			in.		57-1/8 x 34-11/16 x 21-11/16	
			mm		1,450 x 880 x 550	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection		
	Compressor	Over-heat protection		Over-heat protection		
Refrigerant	Type x original charge	R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control	Indoor LEV and BC controller				
Net weight		lbs (kg)	481 (218)		481 (218)	
Heat exchanger			plate type		plate type	
	Water volume in plate	G	1.32		1.32	
		l	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HiC circuit (HiC: Heat Inter-Changer)			-		-	
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Low pressure	in. (mm)	-		1-1/8 (28.58) Brazed	
Drawing	External		KL94C220			
	Wiring		KE94G423		KE94G423	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model				PQRY-P312TSLMU-A1 < For Ground source >							
Indoor Model				Non-Ducted		Ducted					
Power source				3-phase 3-wire 208-230 V ±10% 60 Hz							
Cooling capacity (Nominal)		*1, 2		BTU/h		312,000					
				kW		91.4					
		(208-230)		Power input		kW		23.41			
				Current input		A		72.1-65.2			
				(Rated)		BTU/h		297,000			
						kW		87.0			
		(208-230)		Power input		kW		21.59		23.67	
				Current input		A		66.5-60.2		73.0-66.0	
				Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
						Circulating water		°F		23~113°F (-5~45°C)	
		Heating capacity (Nominal)		*3, 4, 5		BTU/h		350,000			
						kW		102.6			
				(208-230)		Power input		kW		19.11	
						Current input		A		58.9-53.3	
						(Rated)		BTU/h		334,000	
kW								97.9			
(208-230)				Power input		kW		17.62		17.96	
				Current input		A		54.3-49.1		55.3-50.0	
				Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
						Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable				Total capacity		50~150% of heat source unit capacity					
				Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)					
Sound pressure level (measured in anechoic room)				dB <A>		58.0					
Refrigerant piping diameter				High pressure		in. (mm)		1-1/8 (28.58) Brazed			
				Low pressure		in. (mm)		1-3/8 (34.93) Brazed			

Set Model			PQRY-P168TLMU-A1 < For Ground source >		PQRY-P144TLMU-A1 < For Ground source >	
Model		A	44-39		35-32	
Minimum Circuit Ampacity		A	70-70		60-50	
Maximum Overcurrent Protection		A	70-70		60-50	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
G/min (gpm)		19.8 + 19.8 ~ 50.9 + 50.9				
m³/h		4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	11.0		9.5	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	481 (218)		481 (218)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
			1.32		1.32	
		l	5.0		5.0	
		psi	290		290	
	Water pressure Max.	MPa	2.0		2.0	
HiC circuit (HiC: Heat Inter-Changer)		-		-		
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Low pressure	in. (mm)	-		1-1/8 (28.58) Brazed	
Drawing	External		KL94C220			
	Wiring		KE94G423		KE94G423	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHR1 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHR1 1230) Indoor: 68°F D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P336TSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted		Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h		
			336,000		
			kW		
			98.5		
	(208-230)	Power input	kW		
		Current input	A		
	(Rated)		BTU/h		
			320,000		
	(208-230)	Power input	kW		
		Current input	A		
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		BTU/h		
			378,000		
			kW		
			110.8		
	(208-230)	Power input	kW		
		Current input	A		
	(Rated)		BTU/h		
			361,000		
	(208-230)	Power input	kW		
		Current input	A		
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>	59.0		
Refrigerant piping diameter	High pressure		in. (mm)		
	Low pressure		in. (mm)		
Set Model			1-5/8 (41.28) Brazed		
Model			PQRY-P168TLMU-A1 < For Ground source >		PQRY-P168TLMU-A1 < For Ground source >
Minimum Circuit Ampacity		A	44-39		44-39
Maximum Overcurrent Protection		A	70-70		70-70
Circulating water	Water flow rate	G/h	1,902 + 1,902		
		G/min (gpm)	31.7 + 31.7		
		m³/h	7.20 + 7.20		
		L/min	120 + 120		
		cfm	4.2 + 4.2		
		psi	6.38		
	Pressure drop	kPa	44		
		G/h	1,189 + 1,189 ~ 3,054 + 3,054		
	Operating volume range	G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9		
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method	Inverter		Inverter	
	Motor output	11.0		11.0	
	Case heater	-		-	
	Lubricant	MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16
		mm	1,450 x 880 x 550		1,450 x 880 x 550
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection
	Compressor		Over-heat protection		Over-heat protection
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	481 (218)		481 (218)
Heat exchanger	plate type		plate type		
	Water volume in plate	G	1.32		
		I	5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
	HiC circuit (HiC: Heat Inter-Changer)		-		
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed
	Low pressure	in. (mm)	-		1-1/8 (28.58) Brazed
Drawing	External		KL94C220		
	Wiring		KE94G423		KE94G423
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P72YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h			
			kW			
			kW			
	(460)	Power input	A			
		Current input	A			
	(Rated)			BTU/h		
				kW		
	(460)	Power input	kW			
		Current input	A			
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4, 5		BTU/h			
			kW			
			kW			
	(460)	Power input	A			
		Current input	A			
	(Rated)			BTU/h		
				kW		
	(460)	Power input	kW			
		Current input	A			
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity			
	Model/Quantity		P06~P96/1~18			
Sound pressure level (measured in anechoic room)		dB <A>	46.0			
Refrigerant piping diameter	High pressure	in. (mm)	5/8 (15.88) Brazed			
	Low pressure	in. (mm)	3/4 (19.05) Brazed			
Minimum Circuit Ampacity		A	6			
Maximum Overcurrent Protection		A	15			
Circulating water	Water flow rate	G/h	1,522			
		G/min (gpm)	25.4			
		m³/h	5.76			
		L/min	96			
		cfm	3.4			
	Pressure drop	psi	3.48			
		kPa	24			
	Operating volume range	G/h	793 ~ 1,902			
		G/min (gpm)	13.2 ~ 31.7			
		m³/h	3.0 ~ 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	4.3			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16			
		mm	1,100 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	406 (184)			
Heat exchanger	Water volume in plate	G	plate type			
		l	1.32			
		psi	5.0			
		MPa	290			
				2.0		
HiC circuit (HiC: Heat Inter-Changer)			-			
Drawing	External		KL94C216			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B.(20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P96YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		96,000	
			kW		28.1	
	(460)	Power input	kW		4.65	
		Current input	A		6.4	
		(Rated)	BTU/h		92,000	
			kW		27.0	
	(460)	Power input	kW		4.26	5.19
		Current input	A		5.9	7.2
		Indoor		W.B.		59~75°F (15~24°C)
		Circulating water		°F		23~113°F (-5~45°C)
Heating capacity (Nominal)	*3, 4, 5		BTU/h		108,000	
			kW		31.7	
	(460)	Power input	kW		5.05	
		Current input	A		7.0	
		(Rated)	BTU/h		103,000	
			kW		30.2	
	(460)	Power input	kW		4.65	4.48
		Current input	A		6.4	6.2
		Indoor		D.B.		59~81°F (15~27°C)
		Circulating water		°F		23~113°F (-5~45°C)
Indoor unit connectable			Total capacity		50~150% of heat source unit capacity	
			Model/Quantity		P06~P96/1~24	
Sound pressure level (measured in anechoic room)			dB <A>		48.0	
Refrigerant piping diameter	High pressure		in. (mm)		3/4 (19.05) Braze	
	Low pressure		in. (mm)		7/8 (22.2) Braze	
Minimum Circuit Ampacity			A		9	
Maximum Overcurrent Protection			A		15	
Circulating water	Water flow rate	G/h		1,522		
		G/min (gpm)		25.4		
		m³/h		5.76		
		L/min		96		
		cfm		3.4		
	Pressure drop	psi		3.48		
		kPa		24		
	Operating volume range	G/h		793 ~ 1,902		
		G/min (gpm)		13.2 ~ 31.7		
		m³/h		3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	6.0			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D			in.	43-5/16 x 34-11/16 x 21-11/16		
			mm	1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)	406 (184)		
Heat exchanger			plate type			
			Water volume in plate	G	1.32	
				l	5.0	
				Water pressure Max.	psi	290
MPa	2.0					
HIC circuit (HIC: Heat Inter-Changer)			-			
Drawing	External		KL94C216			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P120YLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	120,000		
		kW	35.2		
	(460)	Power input	kW	7.24	
		Current input	A	10.0	
	(Rated)	BTU/h	114,000		
		kW	33.4		
	(460)	Power input	kW	6.66	7.35
		Current input	A	9.2	10.2
Temp. range of cooling	Indoor	W.B.	59-75°F (15-24°C)		
	Circulating water	°F	23-113°F (-5-45°C)		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	135,000		
		kW	39.6		
	(460)	Power input	kW	6.83	
		Current input	A	9.5	
	(Rated)	BTU/h	129,000		
		kW	37.8		
	(460)	Power input	kW	6.29	5.92
		Current input	A	8.7	8.2
Temp. range of heating	Indoor	D.B.	59-81°F (15-27°C)		
	Circulating water	°F	23-113°F (-5-45°C)		
Indoor unit connectable	Total capacity	50-150% of heat source unit capacity			
	Model/Quantity	P06-P96/1-30			
Sound pressure level (measured in anechoic room)		dB <A>	54.0		
Refrigerant	High pressure	in. (mm)	3/4 (19.05) Brazed		
piping diameter	Low pressure	in. (mm)	7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	13		
Maximum Overcurrent Protection		A	20		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
	Pressure drop	psi	3.48		
		kPa	24		
	Operating volume range	G/h	793 ~ 1,902		
		G/min (gpm)	13.2 ~ 31.7		
		m³/h	3.0 ~ 7.2		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter			
	Motor output	kW	7.7		
	Case heater	kW	-		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		
		mm	1,100 x 880 x 550		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection			
	Compressor	Over-heat protection			
Refrigerant	Type x original charge	R410A x 11 lbs + 1 oz (5.0 kg)			
	Control	Indoor LEV and BC controller			
Net weight		lbs (kg)	406 (184)		
Heat exchanger	Water volume in plate	G	plate type		
		l	1.32		
			5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HiC circuit (HiC: Heat Inter-Changer)		-			
Drawing	External	KL94C216			
	Wiring	KE94G419			
Standard attachment	Document	Installation Manual			
	Accessory	Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.5 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P144YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h	144,000		
			kW	42.2		
	(460)	Power input	kW	8.78		
		Current input	A	12.2		
		(Rated)	BTU/h	137,000		
			kW	40.2		
	(460)	Power input	kW	8.07	9.98	
		Current input	A	11.2	13.9	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		BTU/h	160,000		
			kW	46.9		
	(460)	Power input	kW	8.11		
		Current input	A	11.3		
		(Rated)	BTU/h	152,000		
			kW	44.5		
	(460)	Power input	kW	7.47	7.90	
		Current input	A	10.4	11.0	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity			
	Model/Quantity		P06~P96/1~36			
Sound pressure level (measured in anechoic room)		dB <A>	54.0			
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed			
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed			
Minimum Circuit Ampacity		A	16			
Maximum Overcurrent Protection		A	25			
Circulating water	Water flow rate	G/h	1,902			
		G/min (gpm)	31.7			
		m³/h	7.20			
		L/min	120			
		cfm	4.2			
		Pressure drop	psi	6.38		
	Operating volume range	kPa	44			
		G/h	1,189 ~ 3,054			
		G/min (gpm)	19.8 ~ 50.9			
		m³/h	4.5 ~ 11.6			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	9.5			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish		Galvanized steel sheets				
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	508 (230)			
Heat exchanger			plate type			
	Water volume in plate	G	1.32			
		l	5.0			
		Water pressure Max.	psi	290		
		MPa	2.0			
HIC circuit (HIC: Heat Inter-Changer)		-				
Drawing	External		KL94C217			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P168YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h			
			kW			
	(460)	Power input	kW			
		Current input	A			
		(Rated)		BTU/h		
				kW		
	(460)	Power input	kW			
		Current input	A			
		(Rated)		BTU/h		
				kW		
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)			
	Circulating water	°F	23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4, 5		BTU/h			
			kW			
	(460)	Power input	kW			
		Current input	A			
		(Rated)		BTU/h		
				kW		
	(460)	Power input	kW			
		Current input	A			
		(Rated)		BTU/h		
				kW		
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)			
	Circulating water	°F	23~113°F (-5~45°C)			
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity			
	Model/Quantity		P06~P96/1~42			
Sound pressure level (measured in anechoic room)		dB <A>	56.0			
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Braze			
	Low pressure	in. (mm)	1-1/8 (28.58) Braze			
Minimum Circuit Ampacity		A	20			
Maximum Overcurrent Protection		A	35			
Circulating water	Water flow rate	G/h	1,902			
		G/min (gpm)	31.7			
		m³/h	7.20			
		L/min	120			
		cfm	4.2			
		psi	6.38			
	Pressure drop	kPa	44			
		Operating volume range	G/h	1,189 ~ 3,054		
			G/min (gpm)	19.8 ~ 50.9		
			m³/h	4.5 ~ 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	11.0			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish		Galvanized steel sheets				
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	508 (230)			
Heat exchanger	Water volume in plate		plate type			
			G			
			l			
	Water pressure Max.	psi	290			
		MPa	2.0			
H/C circuit (H/C: Heat Inter-Changer)			-			
Drawing	External		KL94C217			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
Optional parts	Accessory		Details refer to External Drw			
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B./20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P192YLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted		Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h	192,000		
			kW	56.3		
	(460)	Power input	kW	15.05		
		(Rated)	Current input	A	20.9	
				BTU/h	183,000	
					kW	53.6
	(460)	Power input	kW	13.87	14.19	
		Current input	A	19.3	19.7	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4, 5		BTU/h	215,000		
			kW	63.0		
	(460)	Power input	kW	11.90		
		(Rated)	Current input	A	16.5	
				BTU/h	205,000	
					kW	60.1
	(460)	Power input	kW	10.97	11.56	
		Current input	A	15.2	16.1	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
Circulating water		°F	23~113°F (-5~45°C)			
Indoor unit connectable			50~150% of heat source unit capacity			
Model/Quantity			P06~P96/1~48			
Sound pressure level (measured in anechoic room)			dB <A>			
			58.0			
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Braze			
	Low pressure	in. (mm)	1-1/8 (28.58) Braze			
Minimum Circuit Ampacity			A			
			25			
Maximum Overcurrent Protection			A			
			40			
Circulating water	Water flow rate	G/h	1,902			
		G/min (gpm)	31.7			
		m³/h	7.20			
		L/min	120			
		cfm	4.2			
	Pressure drop	psi	6.38			
		kPa	44			
	Operating volume range	G/h	1,189 ~ 3,054			
		G/min (gpm)	19.8 ~ 50.9			
		m³/h	4.5 ~ 11.6			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	12.4			
	Case heater	kW	-			
	Lubricant		MEL32			
External finish			Galvanized steel sheets			
External dimension H x W x D	in.		57-1/8 x 34-11/16 x 21-11/16			
		mm	1,450 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)			
			508 (230)			
Heat exchanger	Water volume in plate		plate type			
		G	1.32			
		l	5.0			
	Water pressure Max.	psi	290			
		MPa	2.0			
H/C circuit (H/C: Heat Inter-Changer)			-			
Drawing	External		KL94C217			
	Wiring		KE94G419			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Heat Source Model			PQRY-P216YLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	216,000		
		kW	63.3		
	(Rated)	Power input	19.23		
		Current input	26.8		
		BTU/h	206,000		
		kW	60.4		
	(460)	Power input	17.72	16.10	
		Current input	24.7	22.4	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	243,000		
		kW	71.2		
	(Rated)	Power input	13.04		
		Current input	18.1		
		BTU/h	232,000		
		kW	68.0		
	(460)	Power input	12.01	12.34	
		Current input	16.7	17.2	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)			
Sound pressure level (measured in anechoic room)		dB <A>	58.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	31		
Maximum Overcurrent Protection		A	50		
Circulating water	Water flow rate	G/h	3,044		
		G/min (gpm)	50.7		
		m³/h	11.52		
		L/min	192		
		cfm	6.8		
	Pressure drop	psi	6.53		
		kPa	45		
	Operating volume range	G/h	1,585 ~ 3,804		
		G/min (gpm)	26.4 ~ 63.4		
		m³/h	6.0 ~ 14.4		
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter			
	Motor output	kW	14.5		
	Case heater	kW	0.045 (240 V)		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection			
	Compressor	Over-heat protection			
Refrigerant	Type x original charge	R410A x 25 lbs + 13 oz (11.7 kg)			
	Control	Indoor LEV and BC controller			
Net weight		lbs (kg)	574 (260)		
Heat exchanger	Water volume in plate		plate type		
		G	2.64		
		l	10.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		-			
Drawing	External	KL94C218			
	Wiring	KE94G419			
Standard attachment	Document	Installation Manual			
	Accessory	Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P240YLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz				
Cooling capacity (Nominal)	*1, 2		BTU/h			240,000	
			kW			70.3	
	(Rated)	Power input	kW			21.14	
		(460)	Current input	A			29.4
				BTU/h	228,000		
		(460)		kW			66.8
	Power input		kW			19.49	18.74
	Current input		A			27.1	26.1
Temp. range of cooling	Indoor		W.B.			59~75°F (15~24°C)	
	Circulating water	°F			23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		BTU/h			270,000	
			kW			79.1	
	(Rated)	Power input	kW			15.12	
		(460)	Current input	A			21.0
				BTU/h	258,000		
		(460)		kW			75.6
	Power input		kW			13.93	14.62
	Current input		A			19.4	20.3
Temp. range of heating	Indoor		D.B.			59~81°F (15~27°C)	
	Circulating water	°F			23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity				
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)				
Sound pressure level (measured in anechoic room)			dB <A>			58.0	
Refrigerant piping diameter	High pressure	in. (mm)			7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		
	Low pressure	in. (mm)			1-3/8 (34.93) Brazed		
Minimum Circuit Ampacity			A			36	
Maximum Overcurrent Protection			A			60	
Circulating water	Water flow rate	G/h			3,044		
		G/min (gpm)			50.7		
		m³/h			11.52		
		L/min			192		
		cfm			6.8		
		Pressure drop	psi			6.53	
	kPa			45			
	Operating volume range	G/h			1,585 ~ 3,804		
		G/min (gpm)			26.4 ~ 63.4		
		m³/h			6.0 ~ 14.4		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1				
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION				
	Starting method		Inverter				
	Motor output	kW		16.1			
	Case heater	kW		0.045 (240 V)			
	Lubricant		MEL32				
External finish			Galvanized steel sheets				
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16				
		mm	1,450 x 880 x 550				
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)				
	Inverter circuit		Over-heat protection, Over-current protection				
	Compressor		Over-heat protection				
Refrigerant	Type x original charge		R410A x 25 lbs + 13 oz (11.7 kg)				
	Control		Indoor LEV and BC controller				
Net weight		lbs (kg)	574 (260)				
Heat exchanger	Water volume in plate	plate type					
		G	2.64				
		l	10.0				
	Water pressure Max.	psi	290				
		MPa	2.0				
		HIC circuit (HIC: Heat Inter-Changer)		-			
Drawing	External		KL94C218				
	Wiring		KE94G419				
Standard attachment	Document		Installation Manual				
	Accessory		Details refer to External Drw				
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P144YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	144,000	
		kW	42.2	
		kW	7.11	
		A	9.9	
	(Rated)	BTU/h	137,000	
		kW	40.2	
		kW	6.53	7.72
		A	9.1	10.7
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	160,000	
		kW	46.9	
		kW	7.45	
		A	10.3	
	(Rated)	BTU/h	152,000	
		kW	44.5	
		kW	6.86	7.22
		A	9.5	10.0
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	
	Model/Quantity		P06~P96/1~36	
Sound pressure level (measured in anechoic room)		dB <A>	49.0	
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed	
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed	

Set Model			PQRY-P72YLMU-A1 < For Ground source >		PQRY-P72YLMU-A1 < For Ground source >	
Model			6		6	
Minimum Circuit Ampacity		A	15		15	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522		1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4		25.4 + 25.4	
		m³/h	5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		793 + 793 ~ 1,902 + 1,902	
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		13.2 + 13.2 ~ 31.7 + 31.7	
m³/h		3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller		Indoor LEV and BC controller	
Net weight		lbs (kg)	406 (184)		406 (184)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
		HiC circuit (HiC: Heat Inter-Changer)		-		-
Pipe between unit and distributor	High pressure	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Low pressure	in. (mm)	-		3/4 (19.05) Brazed	
Drawing	External		KL94C221		KL94C221	
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual		Installation Manual	
	Accessory		Details refer to External Drw		Details refer to External Drw	
Optional parts		Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F(D.B. (40°C D.B.)) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHR1 1230) Indoor: 81°F(D.B./66°F(W.B. (27°C D.B./19°C W.B.)), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHR1 1230) Indoor: 68°F(D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P168YSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	168,000		
		kW	49.2		
	(460)	Power input	kW	9.33	
		Current input	A	13.0	
	(Rated)	BTU/h	161,000		
		kW	47.2		
	(460)	Power input	kW	8.58	9.22
		Current input	A	11.9	12.8
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	188,000		
		kW	55.1		
	(460)	Power input	kW	9.34	
		Current input	A	13.0	
	(Rated)	BTU/h	179,000		
		kW	52.5		
	(460)	Power input	kW	8.60	8.03
		Current input	A	11.9	11.1
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/1~42			
Sound pressure level (measured in anechoic room)		dB <A>	50.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Set Model					
Model			PQRY-P96YLMU-A1 < For Ground source >	PQRY-P72YLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			9	6	
Maximum Overcurrent Protection			15	15	
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
	Pressure drop	psi	3.48	3.48	
		kPa	24	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	Inverter	
	Motor output	kW	6.0	4.3	
	Case heater	kW	-	-	
	Lubricant		MEL32	MEL32	
External finish			Galvanized steel sheets	Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550	1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	406 (184)	406 (184)	
Heat exchanger			plate type	plate type	
	Water volume in plate	G	1.32	1.32	
		I	5.0	5.0	
	Water pressure Max.	psi	290	290	
MPa		2.0	2.0		
HiC circuit (HiC: Heat Inter-Changer)			-	-	
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed	
	Low pressure	in. (mm)	-	7/8 (22.2) Brazed	
Drawing	External		KL94C221		
	Wiring		KE94G419	KE94G419	
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./68°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model				PQRY-P192YSLMU-A1 < For Ground source >							
Indoor Model				Non-Ducted		Ducted					
Power source				3-phase 3-wire 460 V ±10% 60 Hz							
Cooling capacity (Nominal)		*1, 2		BTU/h		192,000					
				kW		56.3					
		(460)	(Rated)	Power input		kW		11.30			
				Current input		A		15.7			
				BTU/h		183,000					
				kW		53.6					
				(460)	Power input	kW		10.40		10.98	
						Current input		A		14.5	
		Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)			
				Circulating water		°F		23~113°F (-5~45°C)			
Heating capacity (Nominal)		*3, 4, 5		BTU/h		215,000					
				kW		63.0					
		(460)	(Rated)	Power input		kW		11.02			
				Current input		A		15.3			
				BTU/h		205,000					
				kW		60.1					
				(460)	Power input	kW		10.16		8.90	
						Current input		A		14.1	
		Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)			
				Circulating water		°F		23~113°F (-5~45°C)			
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity							
		Model/Quantity		P06~P96/1~48							
Sound pressure level (measured in anechoic room)				dB <A>		51.0					
Refrigerant		High pressure		in. (mm)		7/8 (22.2) Brazed					
piping diameter		Low pressure		in. (mm)		1-1/8 (28.58) Brazed					

Set Model			PQRY-P96YLMU-A1 < For Ground source >		PQRY-P96YLMU-A1 < For Ground source >	
Model			9		9	
Minimum Circuit Ampacity			A		A	
Maximum Overcurrent Protection			15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
G/min (gpm)		13.2 + 13.2 ~ 31.7 + 31.7				
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension H x W x D			in.		43-5/16 x 34-11/16 x 21-11/16	
			mm		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)		406 (184)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
		psi	5.0		5.0	
		290	290		290	
		MPa	2.0		2.0	
HiC circuit (HiC: Heat Inter-Changer)			-		-	
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
	Low pressure	in. (mm)	-		7/8 (22.2) Brazed	
Drawing	External		KL94C221			
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHR1 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHR1 1230) Indoor: 68°F.D.B.(20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P216YSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 460 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	216,000		
		kW	63.3		
	(460)	Power input	14.03		
		Current input	19.5		
		(Rated)	BTU/h	206,000	
			kW	60.4	
	(460)	Power input	12.93	13.24	
		Current input	18.0	18.4	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	243,000		
		kW	71.2		
	(460)	Power input	12.88		
		Current input	17.9		
		(Rated)	BTU/h	232,000	
			kW	68.0	
	(460)	Power input	11.88	10.35	
		Current input	16.5	14.4	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity		
		Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>	55.0		
Refrigerant		High pressure	7/8 (22.2) Braze (1-1/8 (28.58) Braze for the part that exceeds 65 m)		
piping diameter		Low pressure	1-1/8 (28.58) Braze		
Set Model					
Model			PQRY-P120YLMU-A1 < For Ground source >		
Minimum Circuit Ampacity			A		
Maximum Overcurrent Protection			A		
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
	Pressure drop	psi	3.48	3.48	
		kPa	24	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output		7.7		
	Case heater		-		
	Lubricant		MEL32		
External finish			Galvanized steel sheets		
External dimension H x W x D			43-5/16 x 34-11/16 x 21-11/16		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
	Refrigerant		R410A x 11 lbs + 1 oz (5.0 kg)		
Control			Indoor LEV and BC controller		
Net weight			406 (184)		
Heat exchanger	Water volume in plate	G	plate type		
		I	1.32		
		psi	5.0		
		MPa	2.0		
		HIC circuit (HIC: Heat Inter-Changer)			-
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Braze		
	Low pressure	in. (mm)	7/8 (22.2) Braze		
Drawing			KL94C221		
Standard attachment			KE94G419		
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2		
Remarks			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Notes: 1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0% 2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0% 3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0% 4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0% 5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%					
Unit converter BTU/h =kW x 3.412 cfm =m³/min x 35.31 lbs =kg/0.4536 *Above specification data is subject to rounding variation					

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

1. SPECIFICATIONS

Heat Source Model				PQRY-P240YSLMU-A1 < For Ground source >			
Indoor Model				Non-Ducted		Ducted	
Power source				3-phase 3-wire 460 V ±10% 60 Hz			
Cooling capacity (Nominal)		*1, 2		BTU/h		240,000	
				kW		70.3	
(Rated)	(460)	Power input		kW		16.89	
		Current input		A		23.5	
	(460)			BTU/h		228,000	
				kW		66.8	
		Power input		kW		15.57	
		Current input		A		21.7	
Temp. range of cooling		Indoor		W.B.		59~75°F (15~24°C)	
		Circulating water		°F		23~113°F (-5~45°C)	
Heating capacity (Nominal)		*3, 4, 5		BTU/h		270,000	
				kW		79.1	
(Rated)	(460)	Power input		kW		14.58	
		Current input		A		20.3	
	(460)			BTU/h		258,000	
				kW		75.6	
		Power input		kW		13.45	
		Current input		A		18.7	
Temp. range of heating		Indoor		D.B.		59~81°F (15~27°C)	
		Circulating water		°F		23~113°F (-5~45°C)	
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity			
		Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)			
Sound pressure level (measured in anechoic room)				dB <A>		57.0	
Refrigerant piping diameter		High pressure		in. (mm)		7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	
		Low pressure		in. (mm)		1-3/8 (34.93) Brazed	

Set Model			PQRY-P120YLMU-A1 < For Ground source >		PQRY-P120YLMU-A1 < For Ground source >	
Model			13		13	
Minimum Circuit Ampacity		A	20		20	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output		7.7		7.7	
	Case heater		-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	406 (184)		406 (184)	
Heat exchanger	Water volume in plate	plate type		plate type		
		G	1.32		1.32	
		l	5.0		5.0	
		psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		-		-		
Pipe between unit and distributor	High pressure		3/4 (19.05) Brazed		3/4 (19.05) Brazed	
	Low pressure		-		7/8 (22.2) Brazed	
Drawing	External		KL94C221			
	Wiring		KE94G419		KE94G419	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts				Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P288YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	288,000	
		kW	84.4	
	(460)	Power input	20.42	
		Current input	28.4	
	(Rated)	BTU/h	275,000	
		kW	80.6	
	(460)	Power input	18.82	21.43
		Current input	26.2	29.8
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	323,000	
		kW	94.7	
	(460)	Power input	17.50	
		Current input	24.4	
	(Rated)	BTU/h	308,000	
		kW	90.3	
	(460)	Power input	16.13	16.05
		Current input	22.4	22.3
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity		
	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>	57.0	
Refrigerant piping diameter	High pressure	in. (mm)	1-1/8 (28.58) Brazed	
	Low pressure	in. (mm)	1-3/8 (34.93) Brazed	
Set Model				
Model			PQRY-P144YLMU-A1 < For Ground source >	PQRY-P144YLMU-A1 < For Ground source >
Minimum Circuit Ampacity		A	16	16
Maximum Overcurrent Protection		A	25	25
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	6.38
		kPa	44	44
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method	Inverter		Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	-	-
	Lubricant	MEL32		MEL32
External finish			Galvanized steel sheets	Galvanized steel sheets
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
		mm	1,450 x 880 x 550	1,450 x 880 x 550
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		Over-heat protection	Over-heat protection
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lbs + 4 oz (6.0 kg)
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	508 (230)	508 (230)
Heat exchanger			plate type	plate type
		Water volume in plate	G	1.32
	Water pressure Max.	I	5.0	5.0
		psi	290	290
		MPa	2.0	2.0
HiC circuit (HiC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed
	Low pressure	in. (mm)	-	1-1/8 (28.58) Brazed
Drawing	External		KL94C222	
	Wiring		KE94G419	KE94G419
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P312YSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2		312,000	
			91.4	
	(460)	Power input	23.41	
		Current input	32.6	
			297,000	
		(Rated)		87.0
	Power input		21.59	
			Current input	30.1
	(460)			
				33.0
Temp. range of cooling	Indoor		59~75°F (15~24°C)	
	Circulating water	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		350,000	
			102.6	
	(460)	Power input	19.11	
		Current input	26.6	
			334,000	
		(Rated)		97.9
	Power input		17.62	
			Current input	24.5
	(460)			
				25.0
Temp. range of heating	Indoor		59~81°F (15~27°C)	
	Circulating water	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant piping diameter	High pressure		1-1/8 (28.58) Brazed	
	Low pressure		1-3/8 (34.93) Brazed	
Set Model				
Model			PQRY-P168YLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			20	
Maximum Overcurrent Protection			35	
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9	
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output		11.0	
	Case heater		-	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D			57-1/8 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	508 (230)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		l	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HiC circuit (HiC: Heat Inter-Changer)			-	
Pipe between unit and distributor	High pressure		7/8 (22.2) Brazed	
	Low pressure		1-1/8 (28.58) Brazed	
Drawing	External		KL94C222	
	Wiring		KE94G419	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHR1 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHR1 1230) Indoor: 68°F D.B./20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P336YSLMU-A1 < For Ground source >				
Indoor Model			Non-Ducted		Ducted		
Power source			3-phase 3-wire 460 V ±10% 60 Hz				
Cooling capacity (Nominal)	*1, 2	BTU/h	336,000				
		kW	98.5				
	(Rated)	Power input	kW	26.84			
		(460)	Current input	A	37.4		
			BTU/h	320,000			
		(460)	Power input	kW	93.8		
	Power input		kW	24.76	25.85		
	Current input		A	34.5	36.0		
	Temp. range of cooling		Indoor	W.B.	59~75°F (15~24°C)		
		Circulating water	°F	23~113°F (-5~45°C)			
Heating capacity (Nominal)	*3, 4, 5	BTU/h	378,000				
		kW	110.8				
	(Rated)	Power input	kW	20.77			
		(460)	Current input	A	28.9		
			BTU/h	361,000			
		(460)	Power input	kW	105.8		
	Power input		kW	19.16	20.05		
	Current input		A	26.7	27.9		
	Temp. range of heating		Indoor	D.B.	59~81°F (15~27°C)		
		Circulating water	°F	23~113°F (-5~45°C)			
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity				
		Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)				
Sound pressure level (measured in anechoic room)		dB <A>	59.0				
Refrigerant piping diameter		High pressure	1-1/8 (28.58) Brazed				
		Low pressure	1-5/8 (41.28) Brazed				
Set Model							
Model			PQRY-P168YLMU-A1 < For Ground source >		PQRY-P168YLMU-A1 < For Ground source >		
Minimum Circuit Ampacity		A	20		20		
Maximum Overcurrent Protection		A	35		35		
Circulating water	Water flow rate	G/h	1,902 + 1,902				
		G/min (gpm)	31.7 + 31.7				
		m³/h	7.20 + 7.20				
		L/min	120 + 120				
		cfm	4.2 + 4.2				
	Pressure drop	psi	6.38		6.38		
		kPa	44		44		
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054				
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9				
		m³/h	4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1			
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method	Inverter		Inverter			
	Motor output	11.0		11.0			
	Case heater	-		-			
	Lubricant	MEL32		MEL32			
External finish			Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		1,450 x 880 x 550		
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection			
	Compressor	Over-heat protection		Over-heat protection			
Refrigerant	Type x original charge	R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control	Indoor LEV and BC controller					
Net weight		lbs (kg)	508 (230)		508 (230)		
Heat exchanger	Water volume in plate		plate type		plate type		
		G	1.32		1.32		
	Water pressure Max.	I	5.0		5.0		
		psi	290		290		
		MPa	2.0		2.0		
HiC circuit (HiC: Heat Inter-Changer)		-		-			
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed		
	Low pressure	in. (mm)	-		1-1/8 (28.58) Brazed		
Drawing	External	KL94C222					
	Wiring	KE94G419		KE94G419			
Standard attachment	Document	Installation Manual					
	Accessory	Details refer to External Drw					
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1					
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.					

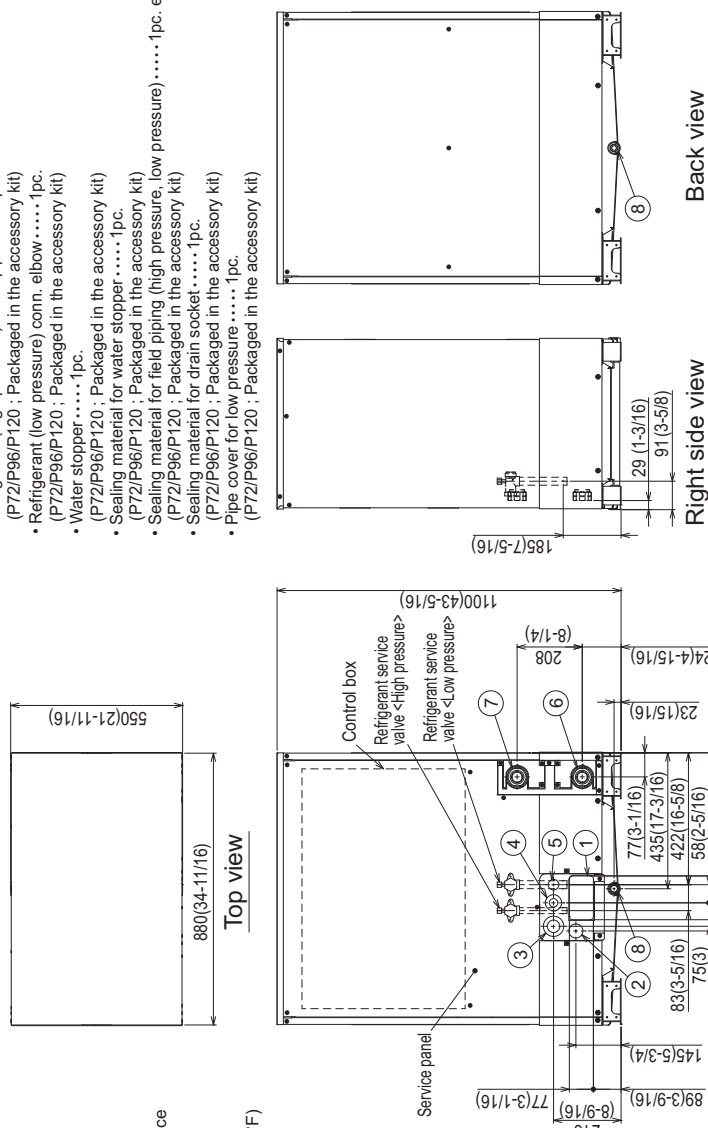
Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

Unit: mm(in)

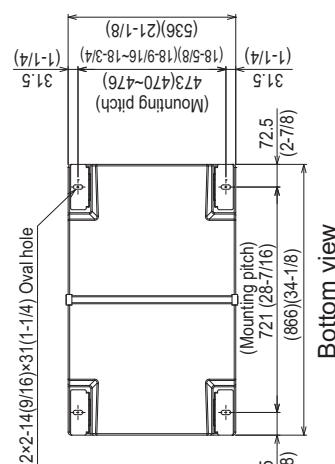
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

<Accessories>

- Refrigerant (high pressure) conn. pipe.....1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
- Refrigerant (low pressure) conn. elbow 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
- Water stopper.....1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for water stopper 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure) 1pc. each
(P72/P96/P120 ; Packaged in the accessory kit)
- Sealing material for drain socket..... 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)
- Pipe cover for low pressure 1pc.
(P72/P96/P120 ; Packaged in the accessory kit)



No.	Usage	Specifications
①	Front through hole	140 × 77 Knockout hole (5-9/16) (3-1/16)
②	For pipes Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-13/16)
③	Front through hole	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④	For wires Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	For transmission cables Front through hole	ø34 Knockout hole (1-3/8)
⑥	inlet	NPT1-1/2 Screw
⑦	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	Drain pipe



Note 1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc. (field erection work)

Note 2. At the time of product shipment, the front side piping specification serves as the local drainage connection.

When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side.

Ensure there is no leak after the attachment has been fitted.
 Tear side plug sealing cone, and attach a front side.

Note3. Take notice of service space as Fig.A. (In case of single

installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)

Note 4. If water pipes or refrigerant pipes stretch upward, it makes easier access when servicing the unit from rear.

required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note 5. Environmental condition for installation; -20~40°C(DB) (-4~104°F) as indoor installation.

Note 6. In case the temperature around the heat source unit has possibility to drop under 0°C (32°F) or the inlet-water temp. as indoor installation.

possibility to drop under 0°C (32°F) of the inlet-water temp.: drops under 10°C (50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.

- Add brine to water circuit.

- Circulate the water all the time even if the heat source unit is not in operation.

- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.

Note 7. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note 8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of

with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

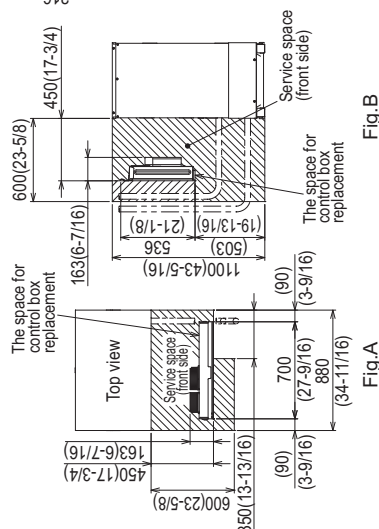


Fig. B

Fig.A

Connecting pipe specifications			
Model	Diameter		
	Refrigerant pipe	Service valve	
	High pressure	Low pressure	High pressure Low pressure
PORV-P77TILU-A1	ø15.88 Brazed (5/8) 1" 2	ø19.05 Brazed (3/4) 1" 2	
PORV-P96TILU-A1	ø19.05 Brazed (3/4) 1"	ø22.2 Brazed (7/8) 1" 2	ø19.05 (3/4)
PORV-P20TILU-A1			ø25.4 (1)

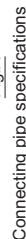
*1. Connect by using the connecting pipes and elbow that are supplied.

*2. Use the pipe joint (field supply) and connect to the refrigerant service valve piping.

PQRY-P144, 168, 192TLMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

refrigerant service valve under 120°C(248°F).



Model	Refrigerant pipe		Service valve
	High pressure	Low pressure	
PQR-P/144TL MU-A1			
PQR-P/168TL MU-A1	ø22.2 Braze (7/8) "1	ø28.58 Braze (1-1/8) "1	ø25.4 (1)
PQR-P/192TL MU-A1			ø28.58 (1-1/8)

[illegible]

NO.	Usage	Specifications
①	Front through hole	140 × 77 Knockout hole (5-9/16) (3-1/16)
②	For pipes	Front through hole (Uses when wiring kit (optional parts) is mounted.) ø45 Knockout hole (1-13/16)
③	For wires	Front through hole ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④	For wires	Front through hole ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	For transmission cables	Front through hole ø34 Knockout hole (1-3/8)
⑥	Water pipe	NPT1-1/2 Screw
⑦	Water pipe	NPT1-1/2 Screw
⑧	Drain pipe	R-3/4 Screw

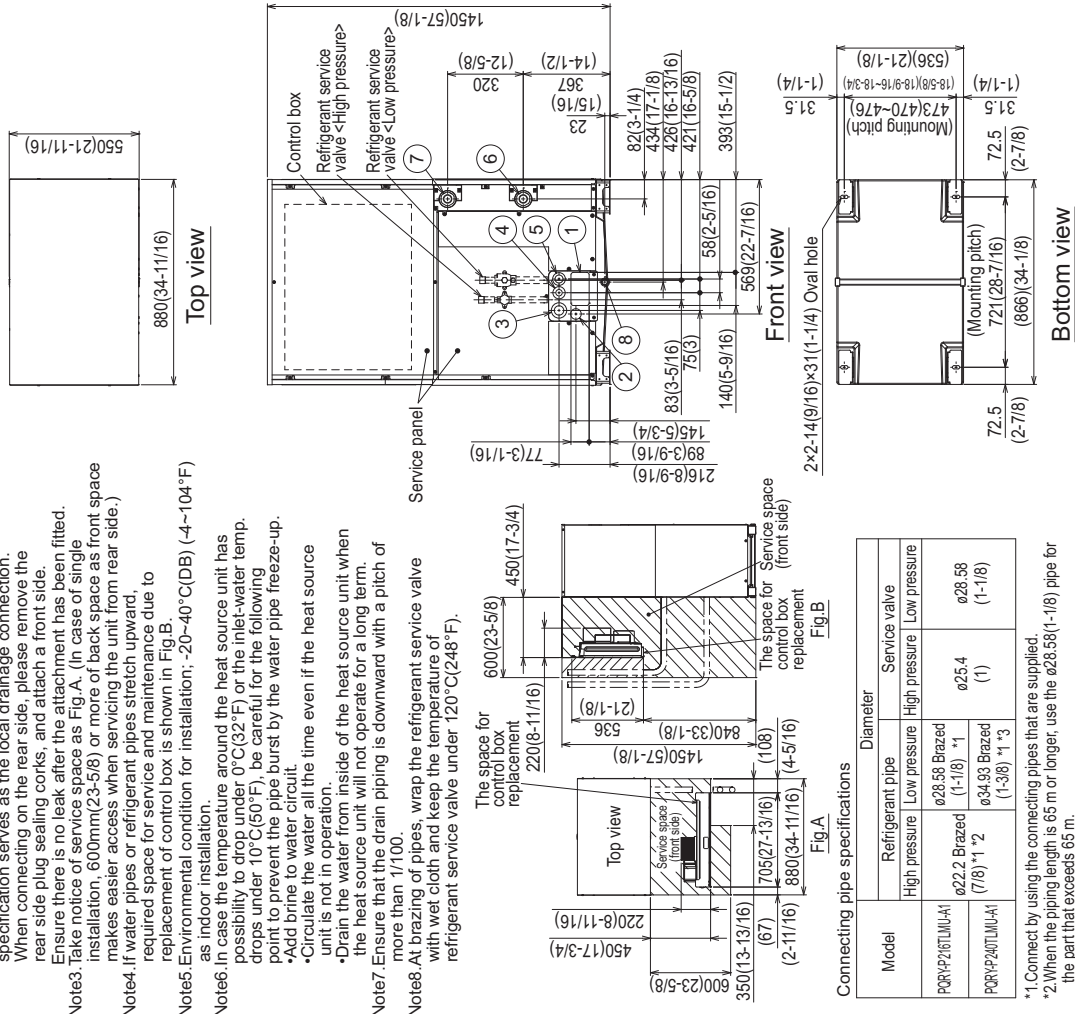
2. EXTERNAL DIMENSIONS

PQRY-P216, 240TLMU-A1

Unit: mm(in)

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

- <Accessories>
- Refrigerant (high pressure) conn. pipe.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Refrigerant (low pressure) conn. pipe.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Water stopper.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Sealing material for water stopper.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Sealing material for field piping (high pressure, low pressure).....1pc. each
(P216/P240; Packaged in the accessory kit)
 - Sealing material for drain socket.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Pipe cover for low pressure.....1pc.
(P216/P240; Packaged in the accessory kit)
 - Sealing material for base leg (two types).....4pc. each
(P216/P240; Packaged in the accessory kit)
 - Sealing material for panel.....1pc.
(P216/P240; Packaged in the accessory kit)

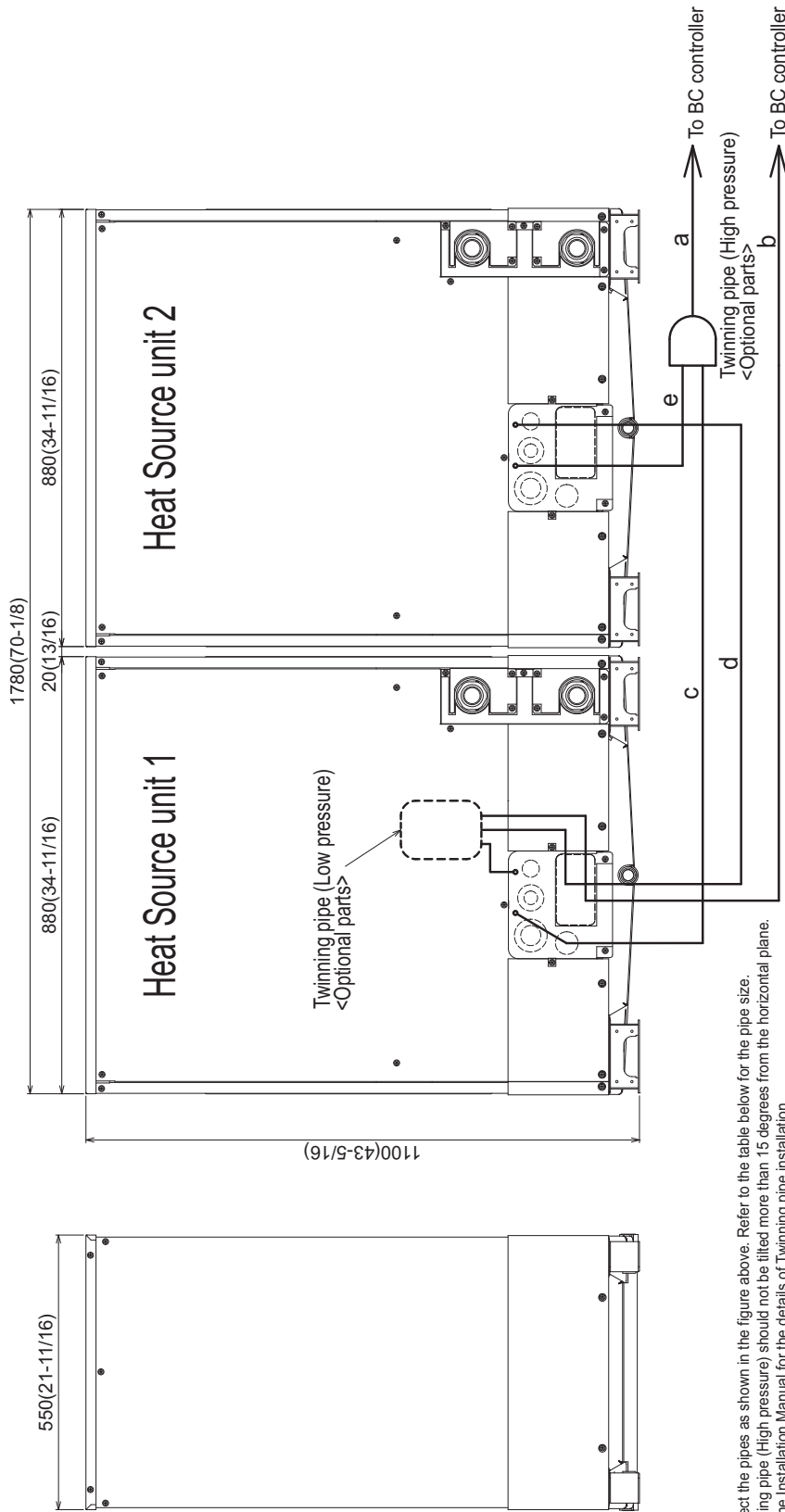


No.	Usage	Specifications
①	Front through hole	140 x 77 Knockout hole (5-9/16) (3-1/16)
②	For pipes	Front through hole (Uses when turning kit (optional parts) is mounted.)
③	For wires	Front through hole (1-13/16)
④	For transmission cables	Front through hole (2-1/2) (1-3/8)
⑤	For transmission cables	Front through hole (1-3/4) (7/8)
⑥	Water pipe inlet	Front through hole (1-3/8)
⑦	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	NPT1-1/2 Screw

2. EXTERNAL DIMENSIONS

PQRY-P144, 168, 192, 216, 240TSLMU-A1

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQRY-P144TSLMU-A1	PQRY-P168TSLMU-A1	PQRY-P182TSLMU-A1	PQRY-P216TSLMU-A1	PQRY-P240TSLMU-A1
Component unit name	Heat Source unit 1	PQRY-P72TLMU-A1	PQRY-P96TLMU-A1	PQRY-P120TLMU-A1	PQRY-P144TLMU-A1	PQRY-P168TLMU-A1
	Heat Source unit 2	PQRY-P72TLMU-A1	PQRY-P96TLMU-A1	PQRY-P120TLMU-A1	PQRY-P144TLMU-A1	PQRY-P168TLMU-A1
Twinning pipe Kit(optional parts)		QMY-Q100CBK2				
BC controller-Twinning pipe	High pressure	ø22.2(7/8)				
	Low pressure	ø28.58(1-1/8)				

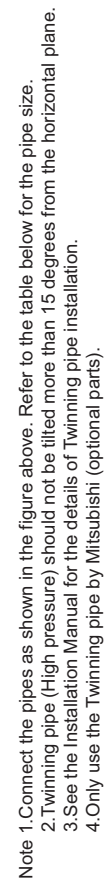
Unit model	High pressure	Low pressure
	c or e	d
P72	ø15.88(5/8) *2	ø19.05(3/4) *2
P96	ø19.05(3/4)	ø22.2(7/8)
P120		

*1. When the piping length is 65 m or longer, use the ø28.58(1-1/8) pipe for the part that exceeds 65 m.
*2. When the package unit name "PQRY-P168TSLMU-A1", use the ø19.05(3/4) pipe for high pressure and the ø22.2(7/8) pipe for low pressure.

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Unit: mm(in)



Twinning pipe connection size

		Package unit name	PQRYP-P312TSLMU-A1	PQRYP-P36TSLMU-A1
Component unit name	Heat Source unit 1		PQRYP-P144TLTMU-A1	PQRYP-P168TLTMU-A1
	Heat Source unit 2		PQRYP-P144TLTMU-A1	PQRYP-P168TLTMU-A1
Twinning pipe Kit(optional parts)			CMY-Q200CBK	
BC controller~ Twinning pipe	High pressure	a	φ28.59(1-1/8)	
	Low pressure	b	φ34.93(1-1/8)	φ41.28(1-5/8)

	Unit model	High pressure	Low pressure
		c o r e	d
Twinning pipe-Heat source unit	P144	ø22.2(7/8)	ø28.58(1-1/8)
	B168		

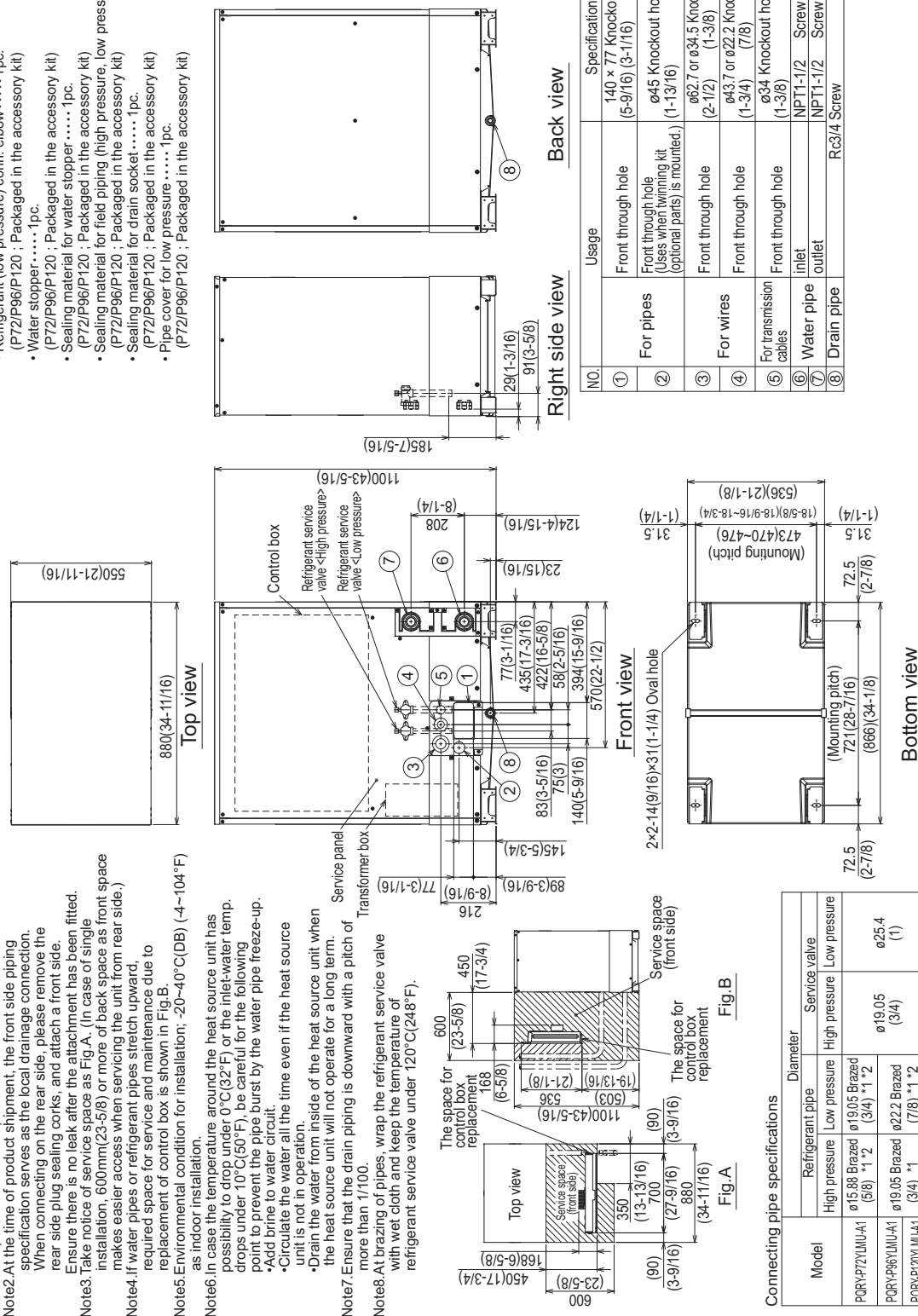
2. EXTERNAL DIMENSIONS

PQRY-P72, 96, 120YLMU-A1

Unit: mm(in)

<Accessories>

- Refrigerant (high pressure) conn. pipe.....1pc.
(P72/P96/P120; Packaged in the accessory kit)
- Refrigerant (low pressure) conn. elbow 1pc.
(P72/P96/P120; Packaged in the accessory kit)
- Water stopper.....1pc.
(P72/P96/P120; Packaged in the accessory kit)
- Sealing material for water stopper.....1pc.
(P72/P96/P120; Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure).....1pc. each
(P72/P96/P120; Packaged in the accessory kit)
- Sealing material for drain socket.....1pc.
(P72/P96/P120; Packaged in the accessory kit)
- Pipe cover for low pressure.....1pc.
(P72/P96/P120; Packaged in the accessory kit)



Connecting pipe specifications

Fig. B

Fig. A

*1.Connect by using the connecting pipes and elbow that are supplied.

*2. Use the pipe joint(field supply) and connect to the refrigerant service valve piping.

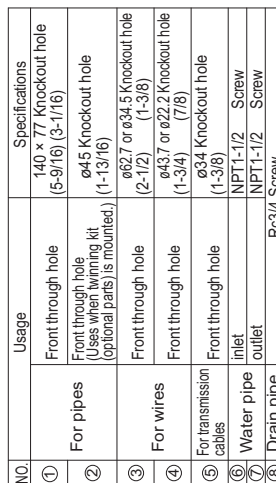
Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQR-P72V1MU1A1	ø15.88 Brazed (5/8) *1/2	ø19.05 Brazed (3/4) *1/2	ø19.05 (3/4)	ø25.4 (1)
PQR-P98V1MU1A1	ø19.05 Brazed (3/4) *	ø22.2 Brazed (7/8) *1/2		
PQR-P120V1MU1A1				

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

PQRY-P144, 168, 192YLMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

Note 8. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).



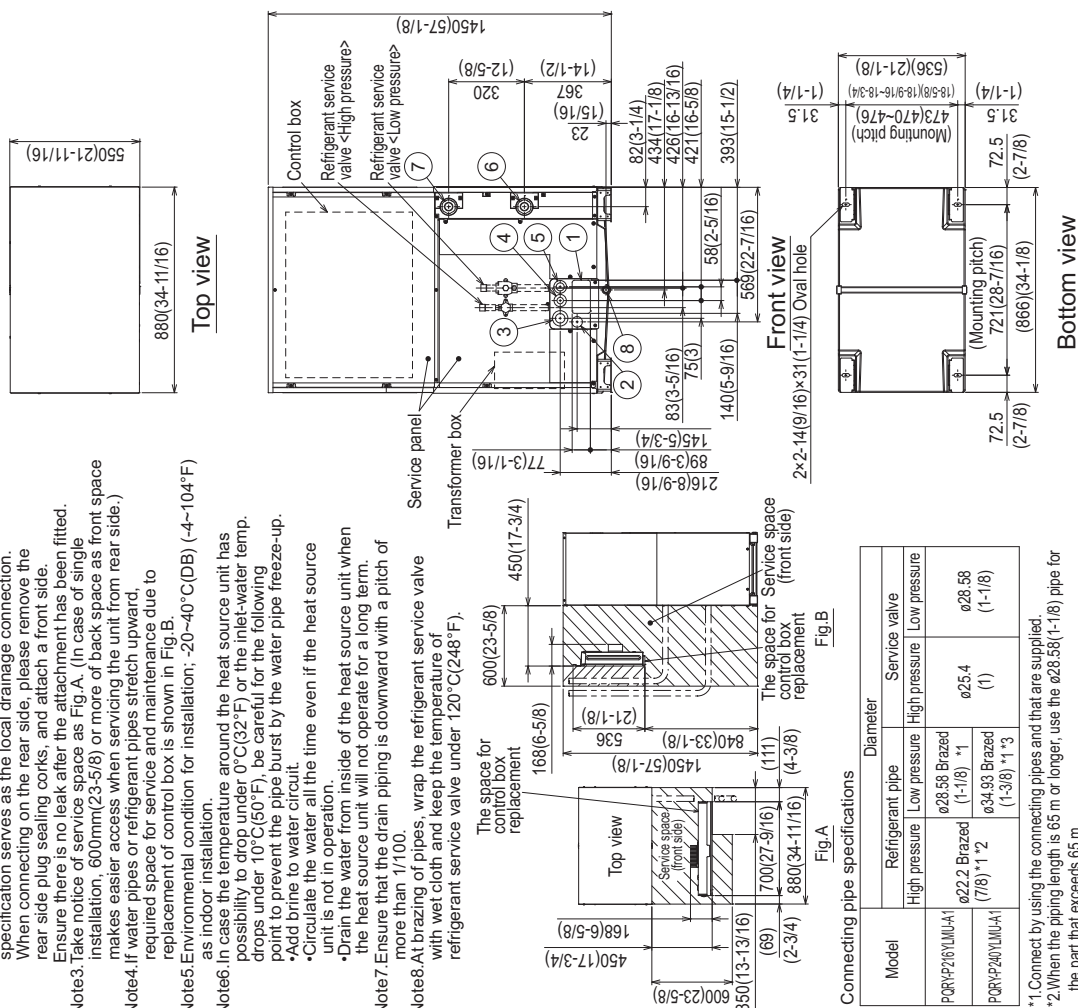
Connecting pipe specifications					
Model	Diameter				
	Refrigerant pipe		Service valve		
	High pressure	Low pressure	High pressure	Low pressure	
QPR-P144V1MU-A1					
QPR-P168V1MU-A1	ø22.5 Brazed (7/8) *1	ø28.58 Brazed (1-1/8) *1	ø25.4 (1)	ø28.58 (1-1/8)	
QPR-P182V1MU-A1					

*11. Connect by using the connecting pipes that are supplied.

PQRY-P216, 240YLMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

*3. Use the pipe joint(field supply) and connect to the refrigerant service valve pip



NO.	Usage	Specifications
①	Front through hole	140 × 77 Knockout hole (5-9/16) (3-1/16)
②	For pipes Front through hole (uses twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-13/16)
③	Front through hole	ø62.7 or ø34.5 Knockout hole (2-1/2) (1-3/8)
④	For wires Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑤	For transmission cables Front through hole	ø34 Knockout hole (1-3/8)
⑥	Water pipe inlet	NPT1-1/2 Screw
⑦	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	ø2-3/4 Screw

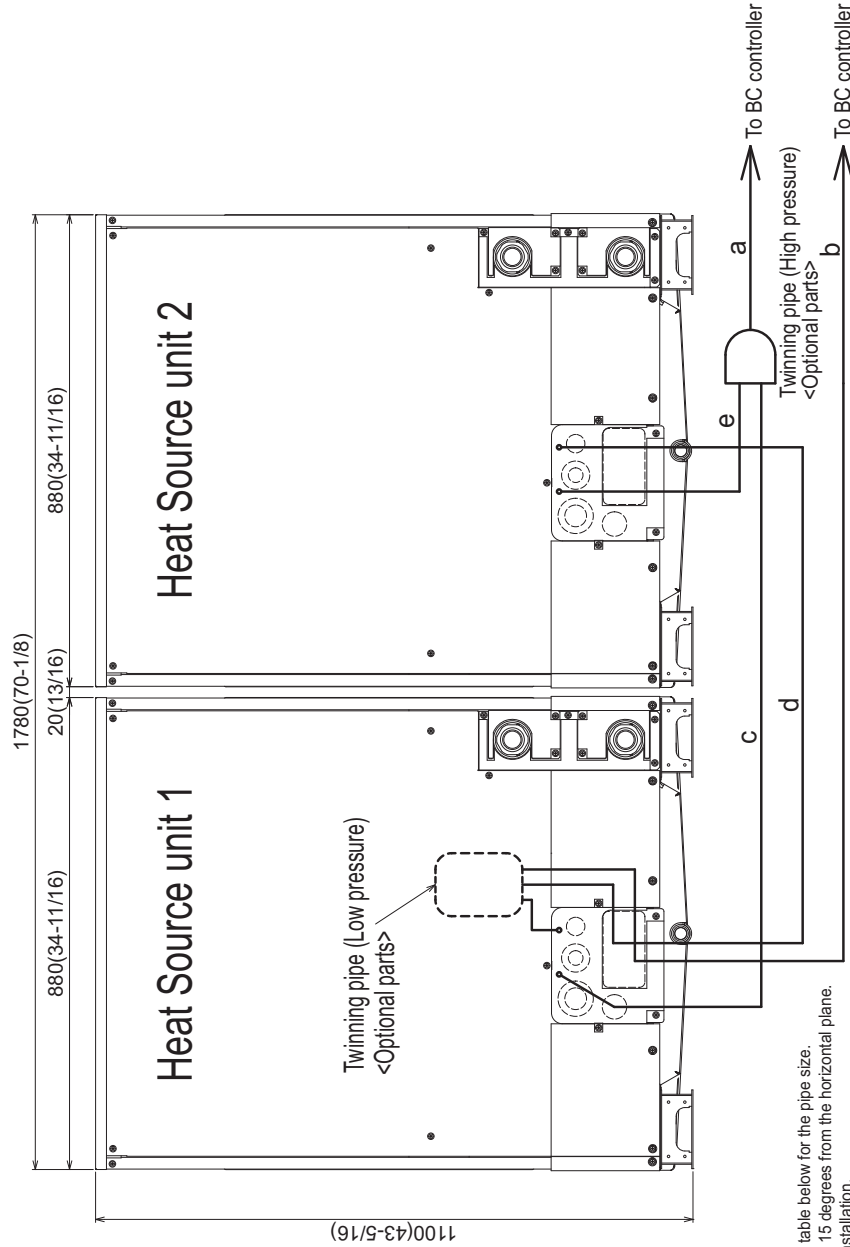
Accessories?

- Refrigerant (high pressure) conn. pipe.....1pc.
(P216/P240; Packaged in the accessory kit)
- Refrigerant (low pressure) conn. pipe 1pc.
(P216/P240; Packaged in the accessory kit)
- Water stopper 1pc.
(P216/P240; Packaged in the accessory kit)
- Sealing material for water stopper.....1pc.
(P216/P240; Packaged in the accessory kit)
- Sealing material for field piping (high pressure,
low pressure).....1pc. each
(P216/P240; Packaged in the accessory kit)
- Sealing material for drain socket 1pc.
(P216/P240; Packaged in the accessory kit)
- Pipe cover for low pressure 1pc.
(P216/P240; Packaged in the accessory kit)
- Sealing material for base leg (two types) 4pcs. each
(P216/P240; Packaged in the accessory kit)
- Sealing material for panel.....1pc.
(P216/P240; Packaged in the accessory kit)

2. EXTERNAL DIMENSIONS

PQRY-P144, 168, 192, 216, 240YSLMU-A1

Unit: mm(in)



- Note 1 Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

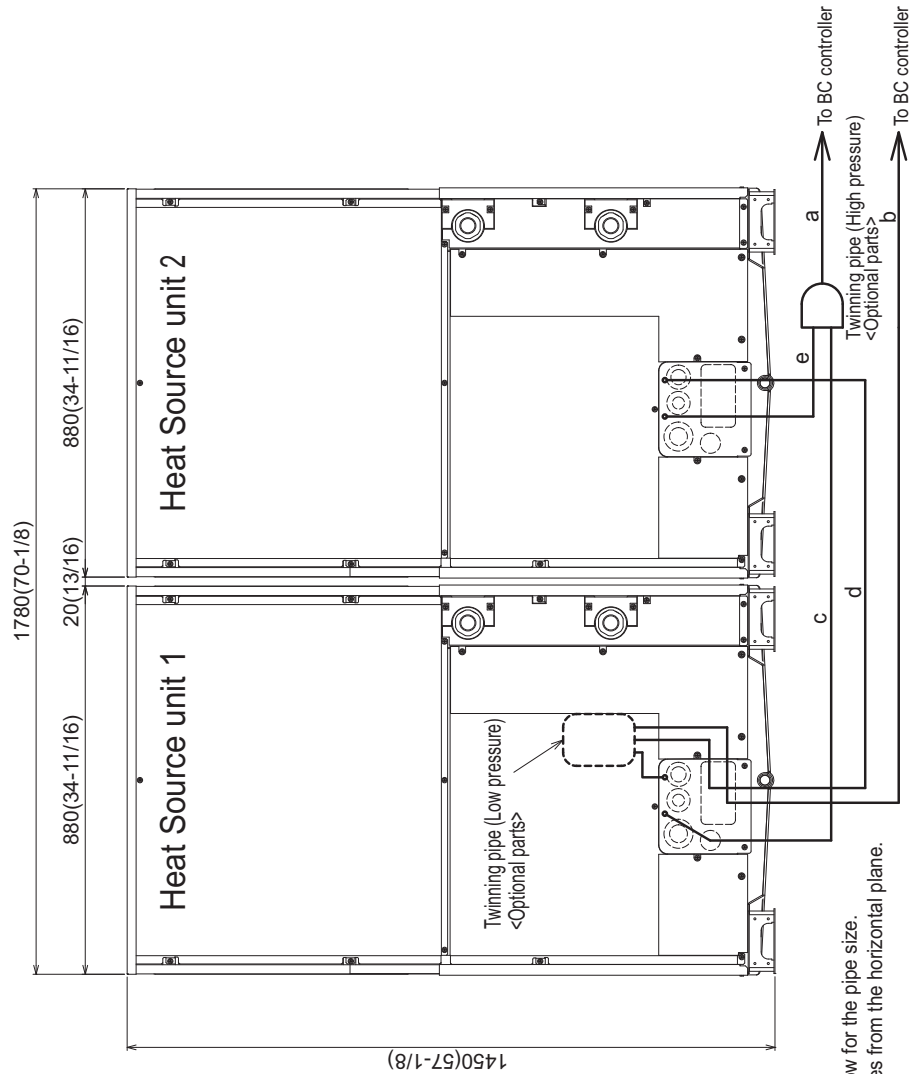
Package unit name		PQRY-P144YSLMU-A1	PQRY-P168YSLMU-A1	PQRY-P192YSLMU-A1	PQRY-P216YSLMU-A1	PQRY-P240YSLMU-A1
Component unit name	Heat Source unit 1	PQRY-P72YLMU-A1	PQRY-P96YLMU-A1	PQRY-P120YLMU-A1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1
	Heat Source unit 2	PQRY-P72YLMU-A1	PQRY-P96YLMU-A1	PQRY-P120YLMU-A1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1
Twinning pipe kit (optional parts)		CMY-Q100CBK2				
BC controller~ Twinning pipe	High pressure	ø22.2(7/8)				
	Low pressure	ø22.2(7/8)*1				
Unit model		ø28.58(1-1/8)				
Twinning pipe-Heat source unit	High pressure	ø19.05(3/4)				
	Low pressure	ø19.05(3/4)				
	Unit model	ø34.93(1-3/8)				

*1. When the piping length is 65 m or longer, use the ø28.58(1-1/8) pipe for the part that exceeds 65 m.
*2. When the package unit name "PQRY-P168YSLMU-A1", use the ø19.05(3/4) pipe for high pressure and the ø22.2(7/8) pipe for low pressure.

2. EXTERNAL DIMENSIONS

PQRY-P288, 312, 336YSLMU-A1

Unit: mm(in)



- Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name	PQRY-P288YSLMU-A1	PQRY-P312YSLMU-A1	PQRY-P336YSLMU-A1
Component unit name	Heat Source unit 1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1
Heat Source unit 2	PQRY-P144YLMU-A1	PQRY-P144YLMU-A1	PQRY-P168YLMU-A1
Twinning pipe Kit(optional parts)	CNY-Q200CBK		
BC controller~Twinning pipe	High pressure	a	ø28.58(1-1/8)
	Low pressure	b	ø34.93(1-3/8)
		ø41.28(1-5/8)	

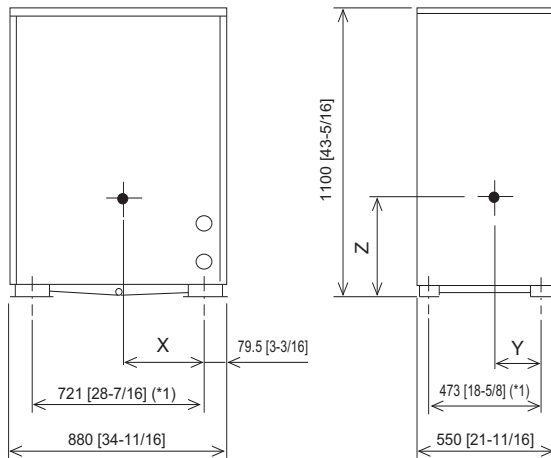
Twinning pipe-Heat source unit	Unit model	
	High pressure core	Low pressure d
P144	ø22.2(7/8)	ø28.58(1-1/8)
	P168	

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

3. CENTER OF GRAVITY

PQRY-P72, 96, 120TLMU-A1/YLMU-A1

Unit: mm [in.]

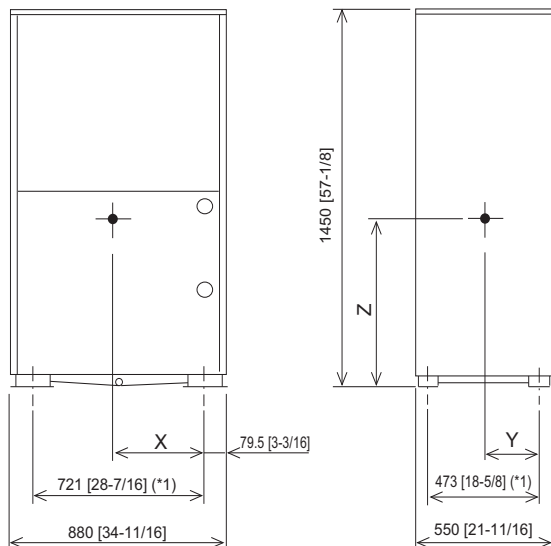


Model	X	Y	Z
PQRY-P72TLMU-A1	351 [13-7/8]	235 [9-5/16]	438 [17-1/4]
PQRY-P96TLMU-A1	351 [13-7/8]	235 [9-5/16]	438 [17-1/4]
PQRY-P120TLMU-A1	351 [13-7/8]	235 [9-5/16]	438 [17-1/4]
PQRY-P72YLMU-A1	370 [14-5/8]	224 [8-7/8]	428 [16-7/8]
PQRY-P96YLMU-A1	370 [14-5/8]	224 [8-7/8]	428 [16-7/8]
PQRY-P120YLMU-A1	370 [14-5/8]	224 [8-7/8]	428 [16-7/8]

*1 Mounting Pitch

PQRY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1

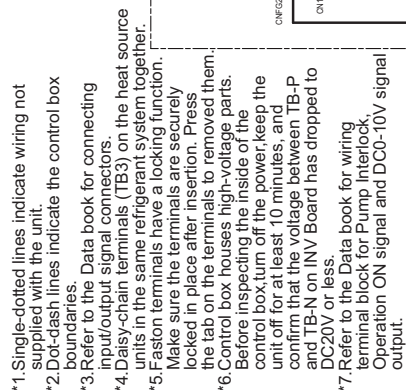
Unit: mm [in.]



Model	X	Y	Z
PQRY-P144TLMU-A1	382 [15-1/16]	233 [9-3/16]	622 [24-1/2]
PQRY-P168TLMU-A1	382 [15-1/16]	233 [9-3/16]	622 [24-1/2]
PQRY-P192TLMU-A1	382 [15-1/16]	233 [9-3/16]	622 [24-1/2]
PQRY-P216TLMU-A1	371 [14-5/8]	232 [9-3/16]	685 [27]
PQRY-P240TLMU-A1	371 [14-5/8]	232 [9-3/16]	685 [27]
PQRY-P144YLMU-A1	399 [15-3/4]	228 [9]	611 [24-1/16]
PQRY-P168YLMU-A1	399 [15-3/4]	228 [9]	611 [24-1/16]
PQRY-P192YLMU-A1	399 [15-3/4]	228 [9]	611 [24-1/16]
PQRY-P216YLMU-A1	380 [15]	221 [8-3/4]	632 [24-15/16]
PQRY-P240YLMU-A1	380 [15]	221 [8-3/4]	632 [24-15/16]

*1 Mounting Pitch

PQRY-P72, 96, 120TLMU-A1



Model name	Appliance
PQHY	*8 do not exist
PQRY	*8 exist

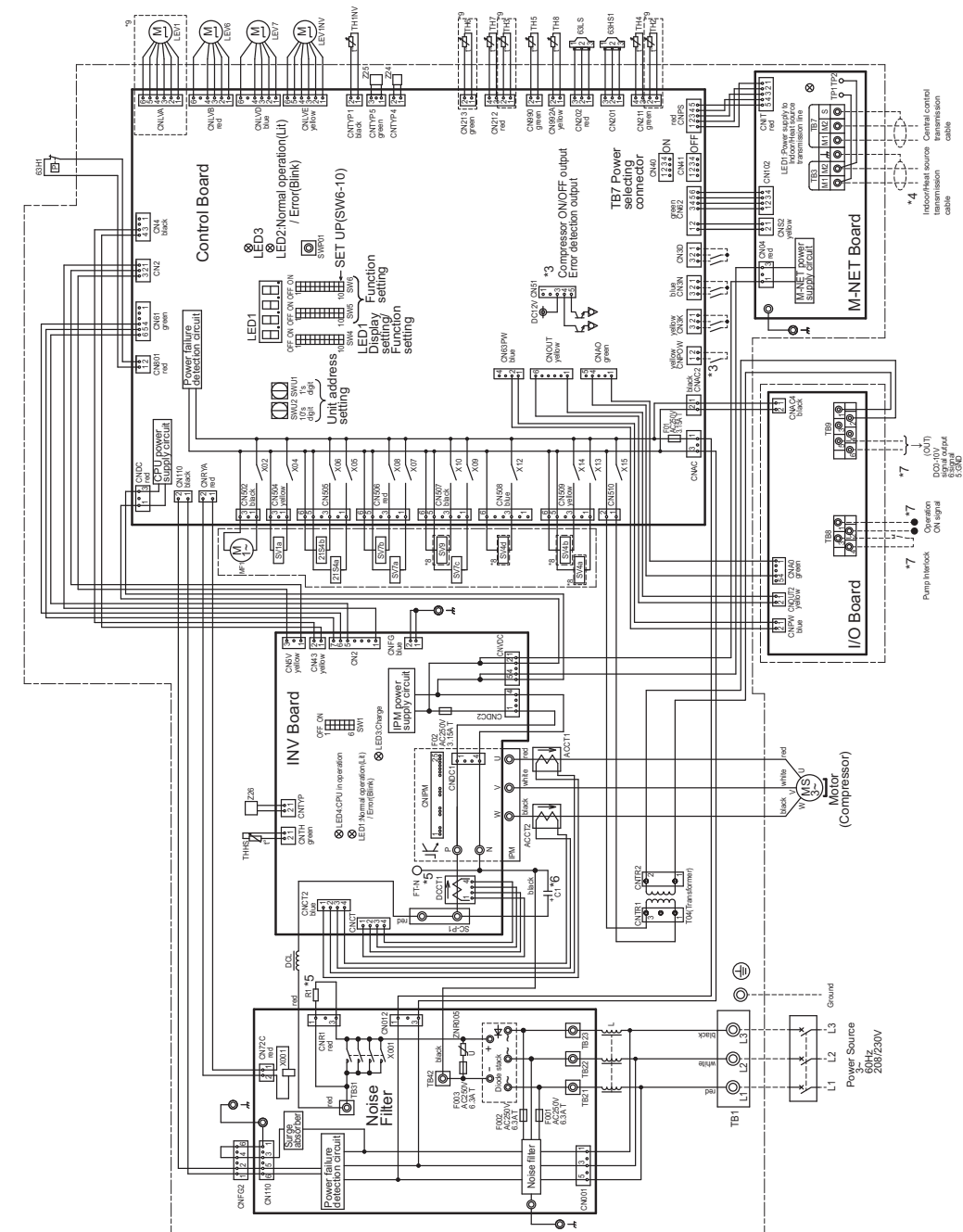
<Symbol explanation>

Symbol	Explanation
2/5a,b	4-way valve
2/5a,b	Coil/heating switching
SV9	High pressure protection for the heat source unit
63H1	Pressure switch
63H1	High pressure
63H1	Pressure
X001	Magnetic relay (inverter main circuit)
Q11~C116	Capacitor (inverter main circuit)
CT17	Current sensor (AC)
DCL	DC reactor
L	Inductor (for high frequency noise reduction)
LEV1	Linear expansion valve
LEV6	Heat exchanger capacity control valve
LEV7	Heat exchanger capacity control valve
LEV1V	Heat exchanger for inverter
RF1	Fan motor (radiator panel)
RF1~RF3	Resistor
SV1a	For inrush current prevention
SV1a	For opening/closing the bypass circuit under the O/S
SV1a	Solenoid valve
SV4b,b,d	Heat exchanger capacity control valve
SV7a,b	Heat exchanger capacity control valve
SV9	For opening/closing the bypass circuit
TB1	Power supply terminal block
TB3	Power supply terminal block
TB7	Central control transmission cable
TH12	Operation ON signal, power input and signal output for variable water flow valve
TH13	Subcool by-pass outlet temperature
TH14	Discharge pipe temperature
TH15	ACC mesh pipe temperature
TH16	Subcooled inlet refrigerant temperature
TH17	Water inlet temperature
TH18	Water outlet temperature
TH19	Outlet temp. detect of heat exchanger for inverter
THHS	PM temperature
THHS	Function

4. ELECTRICAL WIRING DIAGRAMS

PQRY-P144, 168, 192TLMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1



- *1. Single-dotted lines indicate wiring not supplied with the unit.
- *2. Dot-dash lines indicate the control box boundaries.
- *3. Refer to the Data book for connecting input/output signal connectors.
- *4. Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
- *5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
- *6. Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage at both ends of the main capacitor (C1) has dropped to DC20V or less.
- *7. Refer to the Databook for wiring terminal block for Pump Interlock, Operation ON signal and DC0-10V signal output.
- *8. Difference of appliance.
- *9. Difference of appliance.

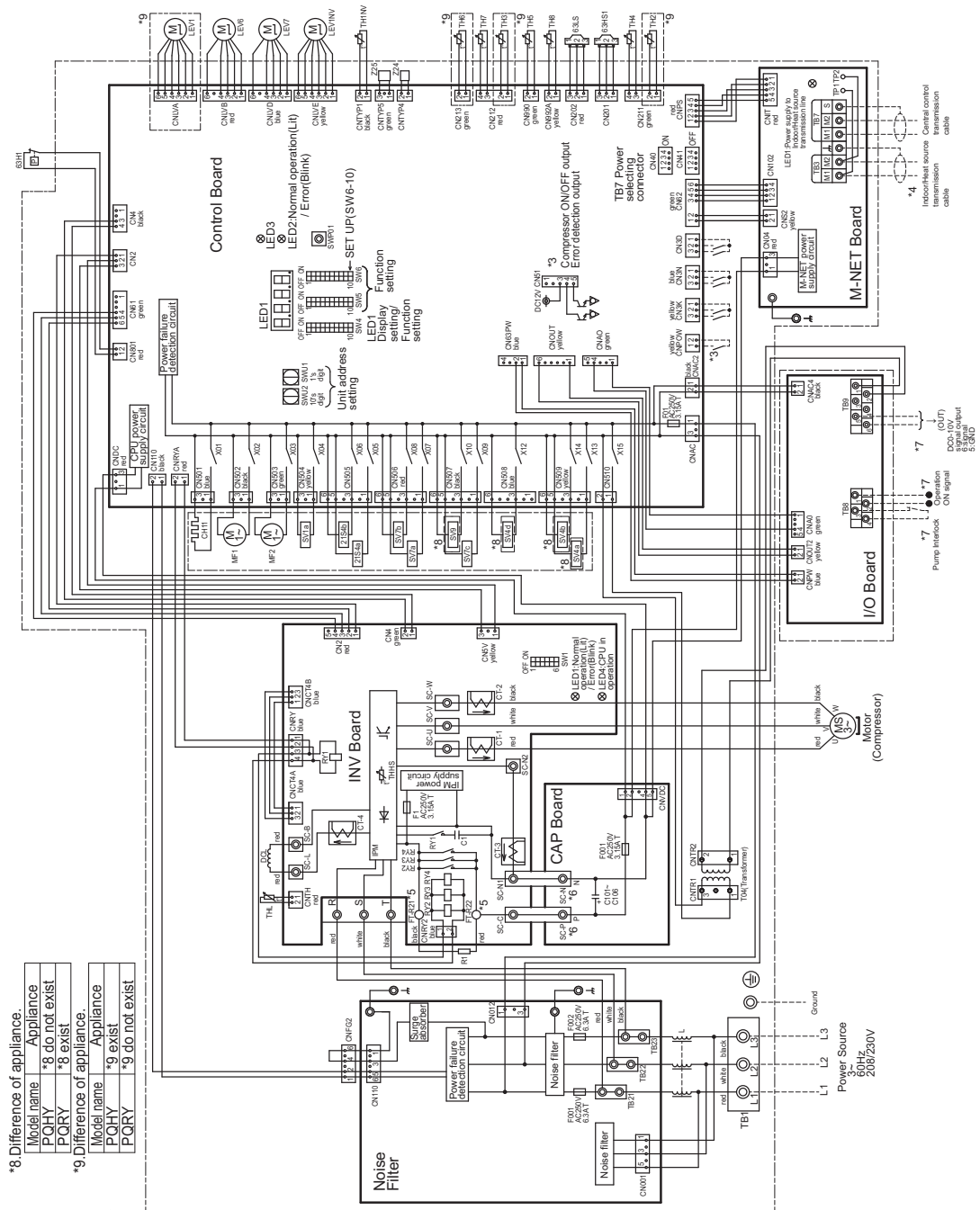
Model name	Appliance
PQRY	*8 do not exist
PQRY	*8 exist
Model name	Appliance
PQHY	*9 exist
PQRY	*9 do not exist

<Symbol explanation>

Symbol	Explanation
21S4a	4-way valve Cooling/Heating switching
21S4b	Heat exchanger capacity control
63H1	Pressure switch
63H51	High pressure protection for the heat source unit
63LS	Low pressure sensor
X001	Magnetic relay (inverter main circuit)
C1	Capacitor (inverter main circuit)
ACC11.2	Current sensor (AC)
DCC11	Current sensor (DC)
DCL	DC reactor
L	Inductor (for high frequency noise reduction)
LEV1	Linear expansion valve
LEV6	HIC bypass Controls refrigerant flow in HIC circuit
LEV7	Heat exchanger capacity control valve
LEV10V	Heat exchanger capacity control valve for inverter
MF1	Fan motor/Radiator fan
R1	Resistor
SV1a	Solenoid valve
SV4a,b,d	For opening/closing the bypass circuit under the OIS
SV5a,b,c	Heat exchanger capacity control valve
SV9	For opening/closing the bypass circuit
TB1	Terminal block
TB3	Power supply cable
TB7	Indoor/Heat source transmission cable
TB8	Central control transmission cable
TB9	Operation ON signal, Power input and signal output for variable water flow valve
TH2	Thermistor
TH3	Subcool bypass outlet temperature
TH4	Discharge pipe temperature
TH5	ACC inlet pipe temperature
TH6	Subcooled liquid refrigerant temperature
TH7	Water inlet temperature
TH8	Water outlet temperature
TH9	Water inlet temperature of heat exchanger for inverter
TH10	Water outlet temperature of heat exchanger for inverter
TH15	IPM temperature
Z24.25.26	Function setting connector

4. ELECTRICAL WIRING DIAGRAMS

PQRY-P216, 240TLMU-A1

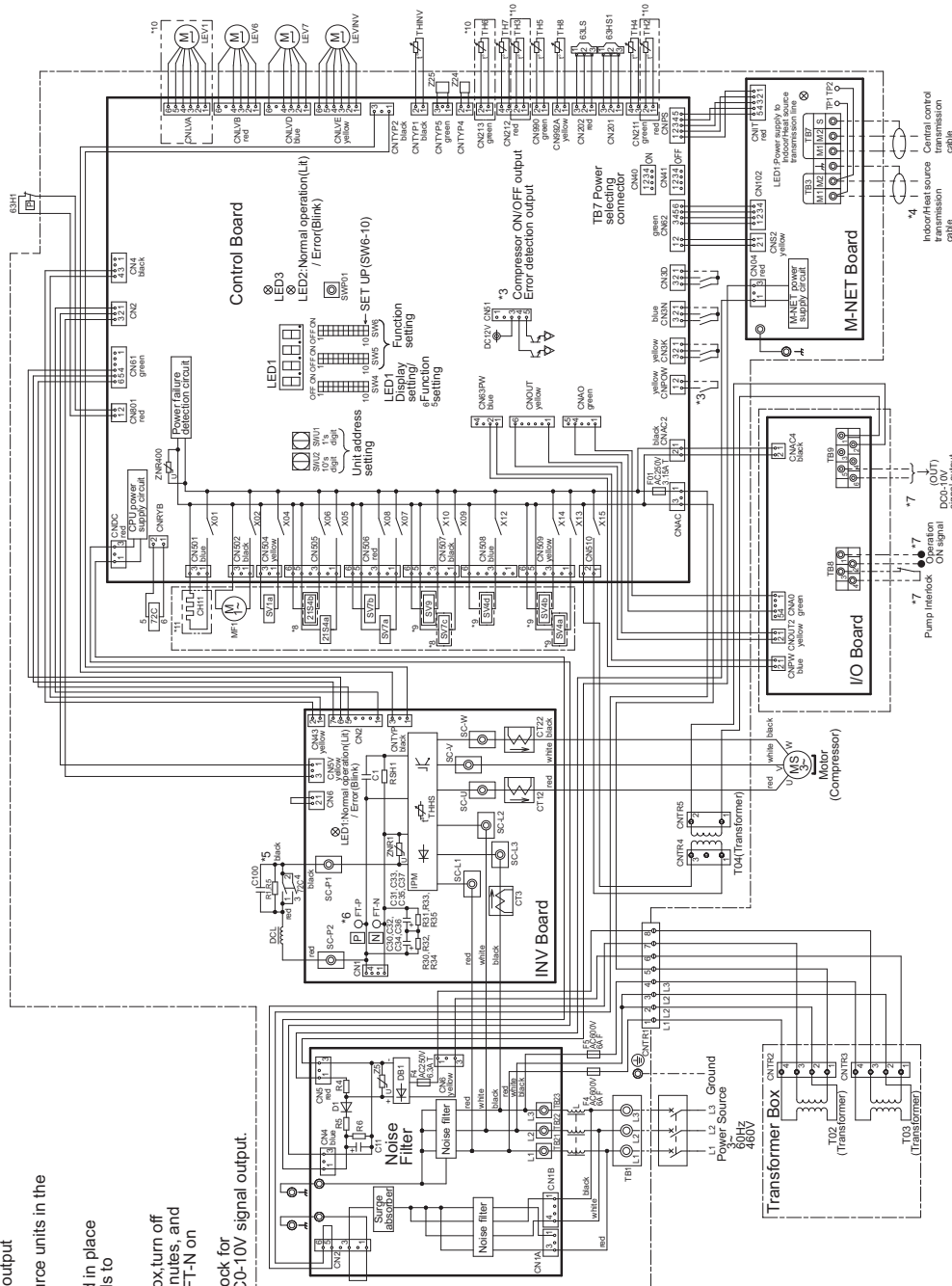


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

4. ELECTRICAL WIRING DIAGRAMS

PQRY-P72, 96, 120, 144, 168, 192, 216, 240YLMU-A1

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1



***11. Difference of appliance.**

Model name	Appliance
P72/96/120/144/168/192	*11 do not exist
P216/240	*11 exist

1. Single-dotted lines indicate wiring not supplied with the unit.
2. Dot-dash lines indicate the control box boundaries.
3. Refer to the Data book for connecting input/output signal connectors.
4. Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
5. Faston terminals have a locking function.
Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
6. Control box houses high-voltage parts.
Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage between F1-P and F1-N on INV Board has dropped to DC20V or less.
7. Refer to the Data book for wiring terminal block for Pump Interlock Operation ON signal and DC0-10V signal output.
8. Difference of appliance.

Model name	Appliance
P72/96/120	*8 do not exist
P144/168/192/216/240	*8 exist

Model name	Appliance
PQHY	*9 do not exist
PQRY	*9 exist

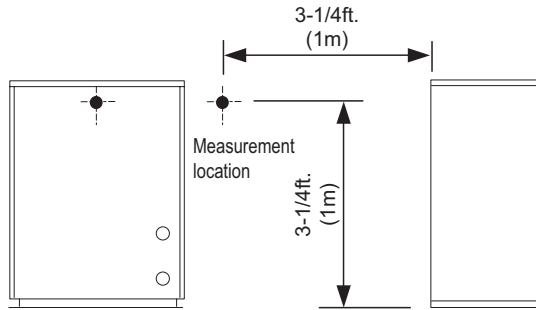
Model name	Appliance
PQHY	*10 exist
PORV	*10 do not exist

<Symbol explanation>

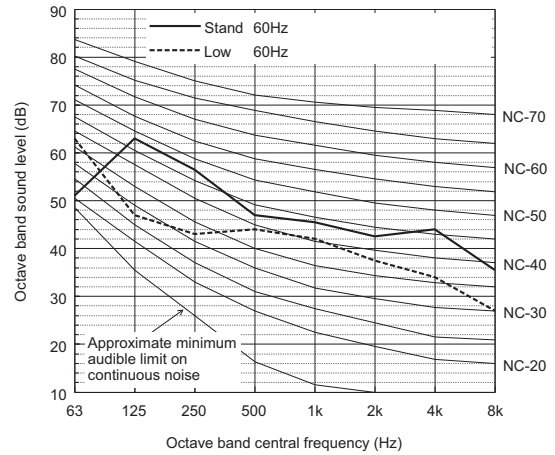
Symbol	Explanation
2ISa4	Cooling/Heating switching
2ISa4b	Heat exchanger capacity control
63H1	High pressure protection for the heat source unit
63HS1	High pressure
63HS2	Pressure
73C	Magnetic relay (inverter main circuit)
C30-C37	Capacitor relay (inverter main circuit)
CH11	Craticase heater (for heating the compressor)
CT12.22.3	Current sensor(A/C)
DCL	DC reactor
	Choke coil(for high frequency noise)
	L
	Linear expansion valve
LEV1	H/C bypass Controls refrigerant flow in H/C circuit
LEV6	Heat exchanger capacity control
LEV7	Heat exchanger capacity control
LEVNV	Heat exchanger capacity control
MF-1	Fan motor(Radiator panel)
RSH1	Resistor
RSH1a	For constant current prevention
SV1a	For opening/closing the bypass circuit under the O/S
SV4a,b,d	Heat exchanger capacity control
SV7a,b,c	Heat exchanger capacity control
SV9	For opening/closing the bypass circuit
TB1	Power supply
TB3	Indoor/Heat source transmission cable
TB7	Central control transmission cable
TB8	Operation O/N signal, cable
TB9	Power input and signal output for variable water flow valve
TH2	Subcool bypass outlet temperature
TH3	Pipe temperature
TH4	Discharge pipe temperature
TH5	C/O mid-pipe temperature
TH6	Suction liquid refrigerant temperature
TH7	Water inlet temperature
TH8	Water outlet temperature
THNV	Outlet temp, detect of heat exchanger for inverter
TH13	P/N1 temperature
TU13	Function selector
TU13.95	

5. SOUND LEVELS

Measurement condition PQRY-P72, 96, 120TLMU-A1/YLMU-A1



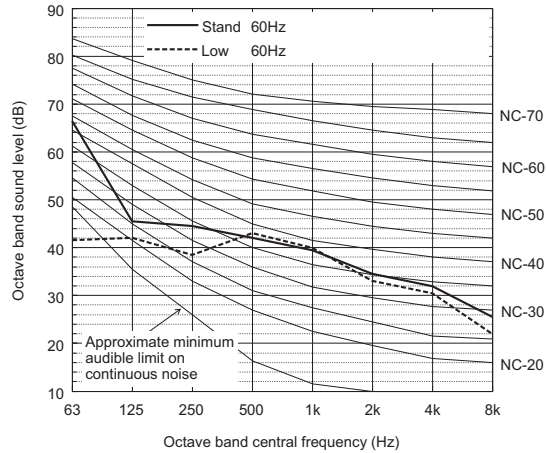
Sound level of PQRY-P120TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

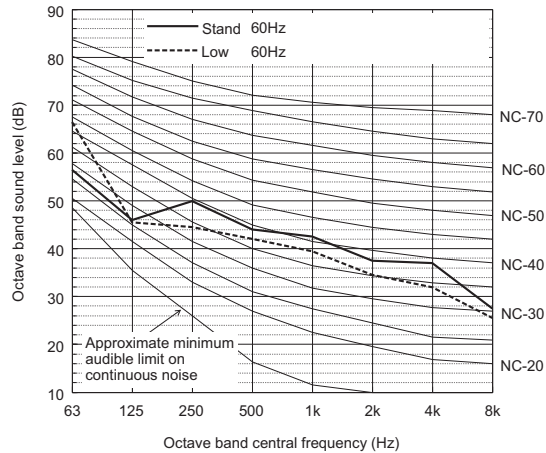
Sound level of PQRY-P72TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P96TLMU-A1/YLMU-A1



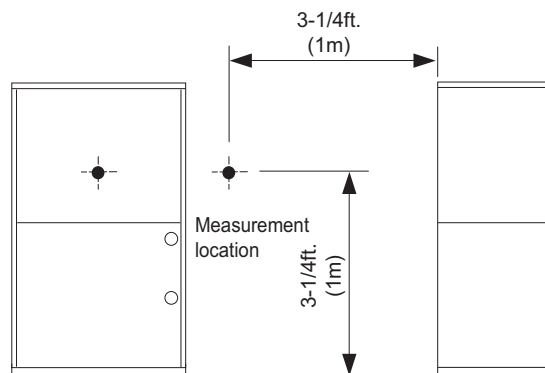
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

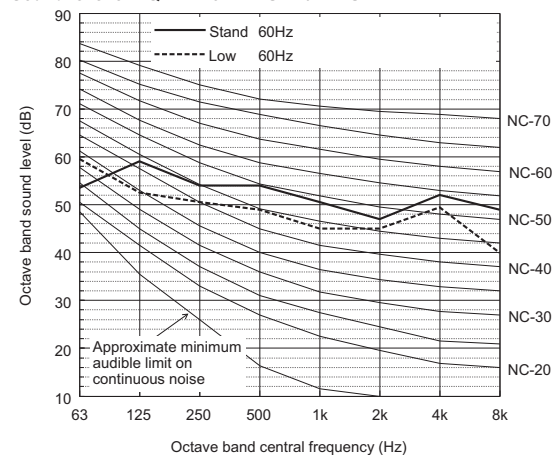
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition PQRY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1



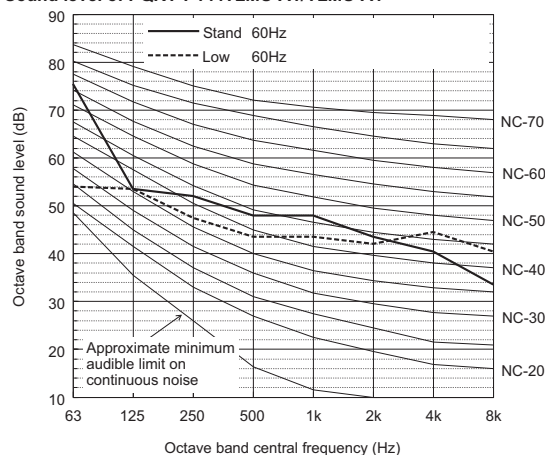
Sound level of PQRY-P192TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	53.5	59.0	54.0	54.0	50.5	47.0	52.0	49.0	58.0
Low noise mode	60Hz	59.5	52.5	50.5	49.0	45.0	45.0	49.5	40.0	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

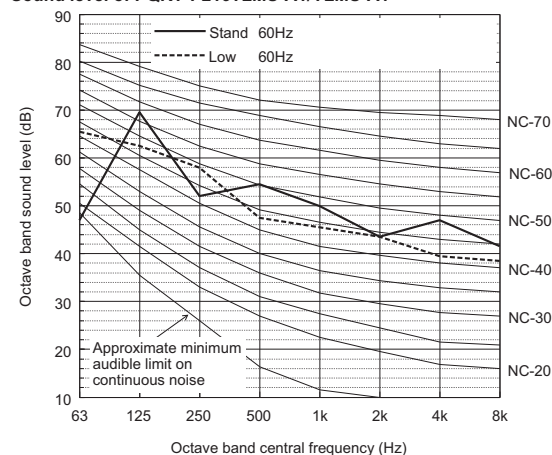
Sound level of PQRY-P144TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	53.5	52.0	48.0	48.0	43.5	40.5	33.5	54.0
Low noise mode	60Hz	54.0	53.5	47.5	43.5	43.5	42.0	44.5	40.5	50.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

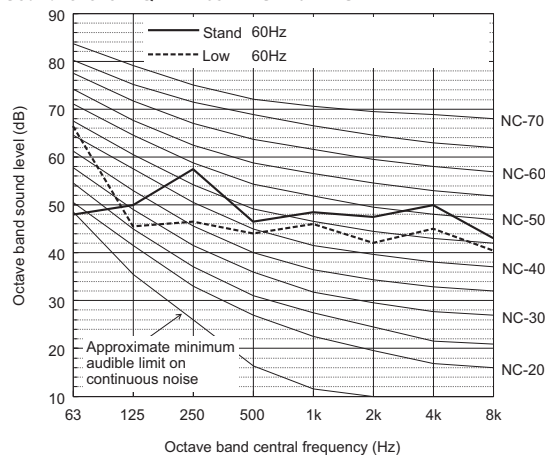
Sound level of PQRY-P216TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	47.0	69.5	52.0	54.5	50.0	43.5	47.0	41.5	58.0
Low noise mode	60Hz	65.5	62.5	58.0	47.5	45.5	43.5	39.5	38.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

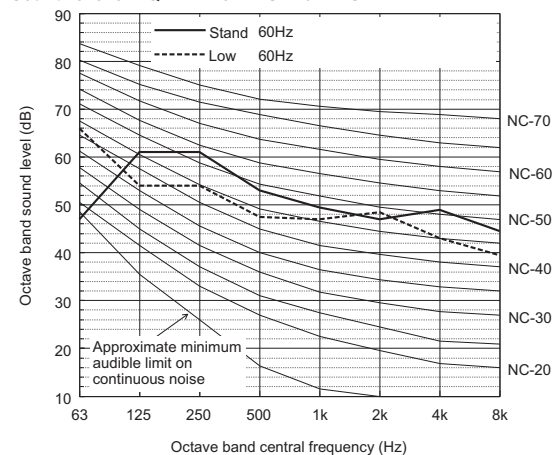
Sound level of PQRY-P168TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	48.0	50.0	57.5	46.5	48.5	47.5	50.0	43.0	56.0
Low noise mode	60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P240TLMU-A1/YLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	47.0	61.0	61.0	53.0	49.5	47.0	49.0	44.5	58.0
Low noise mode	60Hz	66.0	54.0	54.0	47.5	47.0	48.5	43.0	39.5	54.0

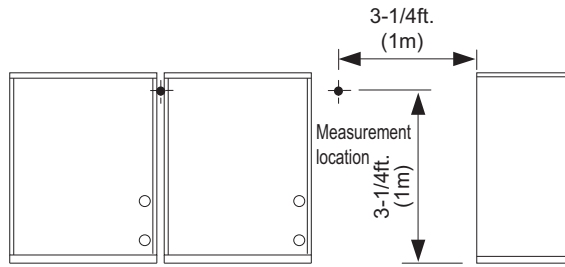
When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
- For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

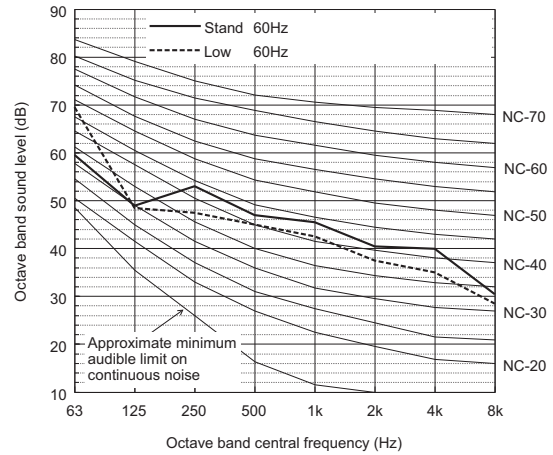
5. SOUND LEVELS

Measurement condition

PQRY-P144, 168, 192, 216, 240TSLMU-A1/YSLMU-A1



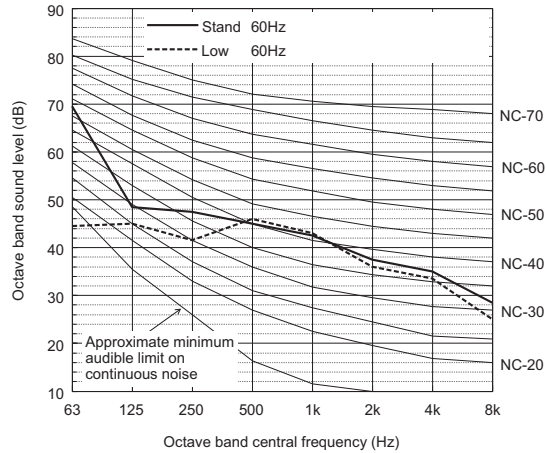
Sound level of PQRY-P192TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	59.5	49.0	53.0	47.0	45.5	40.5	30.5	51.0	
Low noise mode	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	28.5	49.0	

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

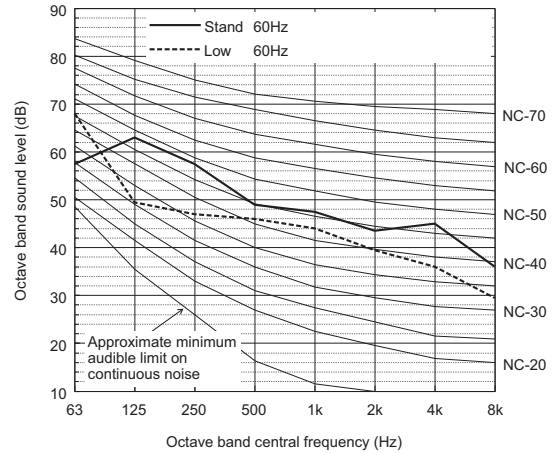
Sound level of PQRY-P144TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

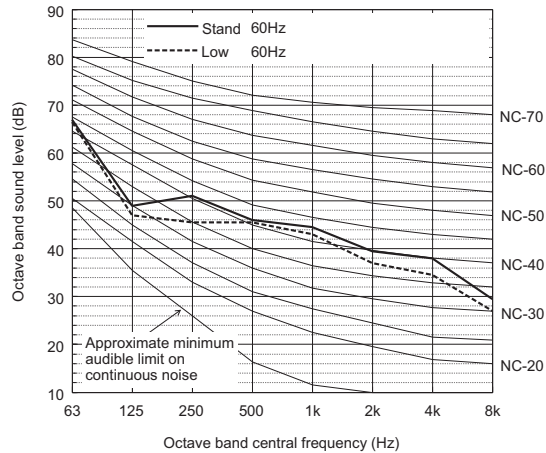
Sound level of PQRY-P216TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	29.5	49.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

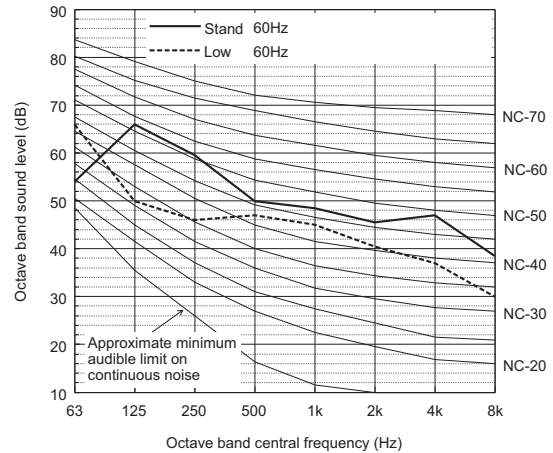
Sound level of PQRY-P168TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P240TSLMU-A1/YSLMU-A1



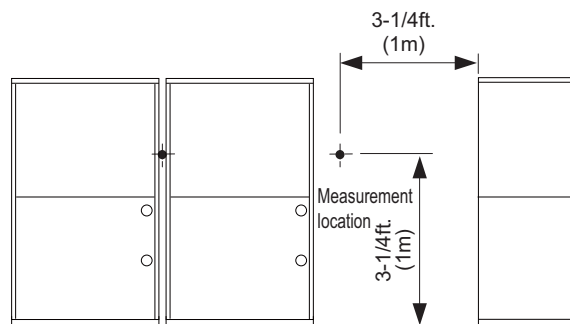
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

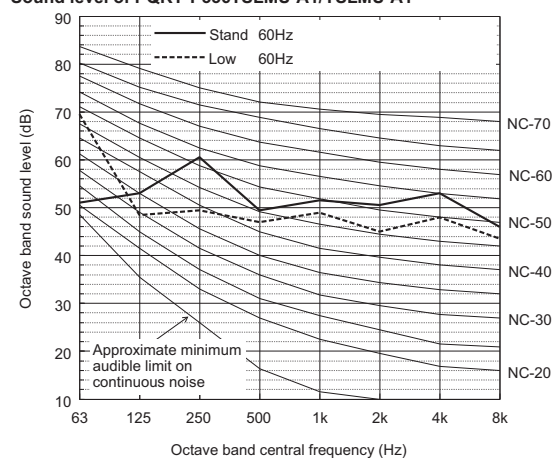
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition PQRY-P288, 312, 336TSLMU-A1/YSLMU-A1



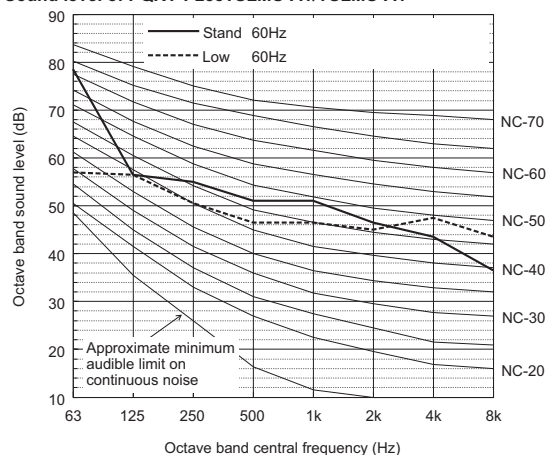
Sound level of PQRY-P336TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	53.0	60.5	49.5	51.5	50.5	53.0	46.0	59.0
Low noise mode	60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

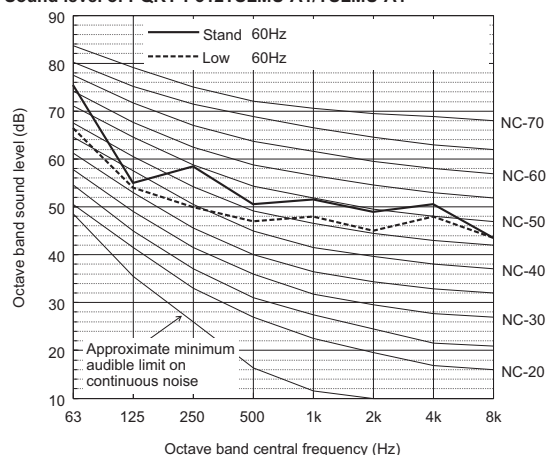
Sound level of PQRY-P288TSLMU-A1/YSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	78.5	56.5	55.0	51.0	51.0	46.5	43.5	36.5	57.0
Low noise mode	60Hz	57.0	56.5	50.5	46.5	46.5	45.0	47.5	43.5	53.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P312TSLMU-A1/YSLMU-A1



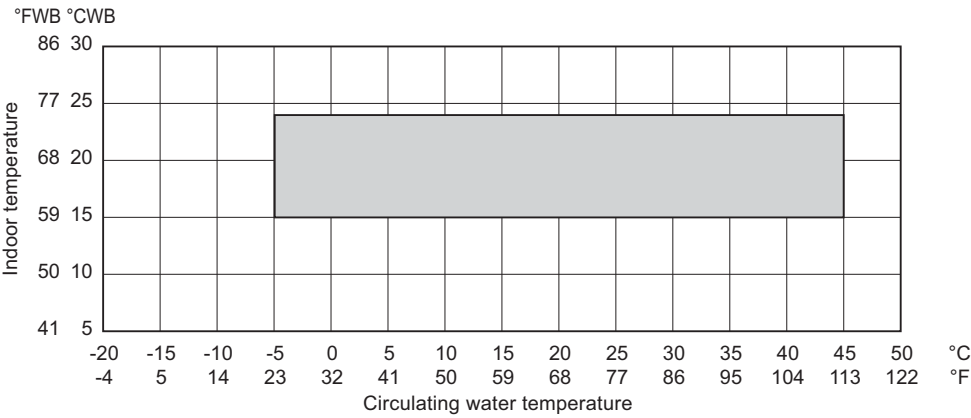
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	55.0	58.5	50.5	51.5	49.0	50.5	43.5	58.0
Low noise mode	60Hz	66.5	54.0	50.0	47.0	48.0	45.0	48.0	43.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

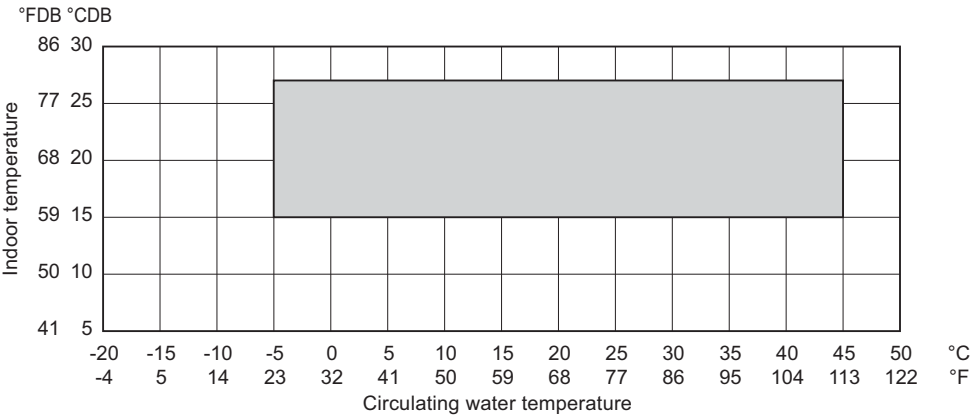
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
- For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating



Combination of cooling/heating operation (Cooling main or Heating main)

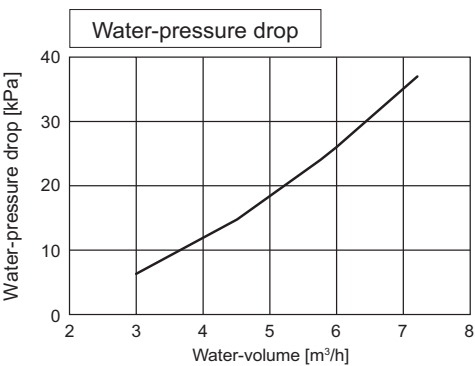
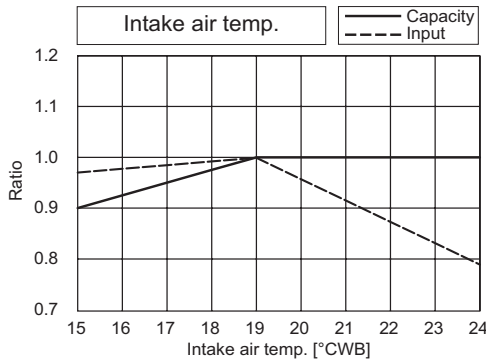
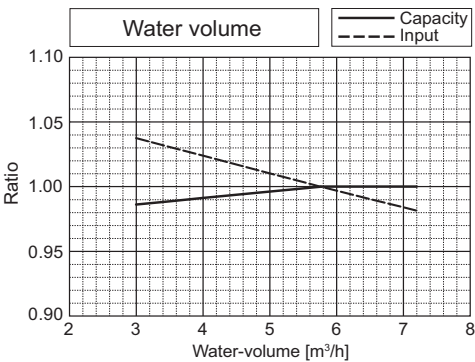
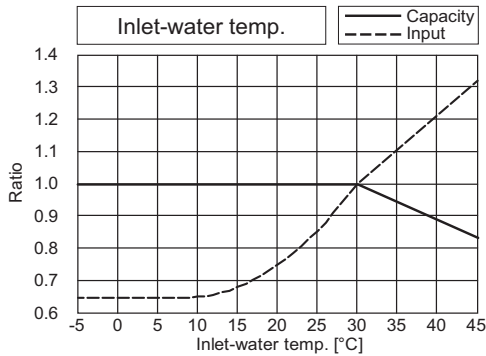
Water temperature	Indoor temperature	
	Cooling	Heating
-5 to 45°C (23 to 113°F)	15 to 24°CWB (59 to 75°FWB)	15 to 27°CDB (59 to 81°FDB)

7. CAPACITY TABLES

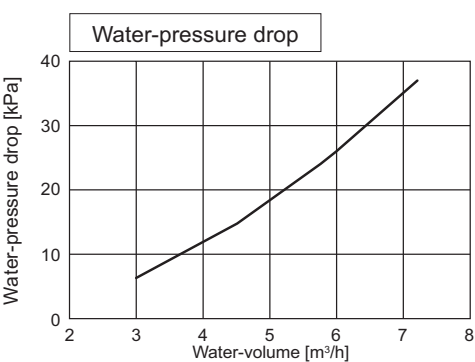
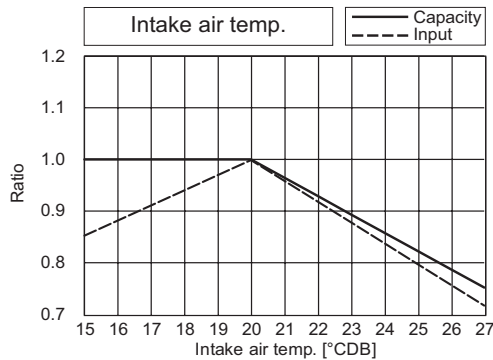
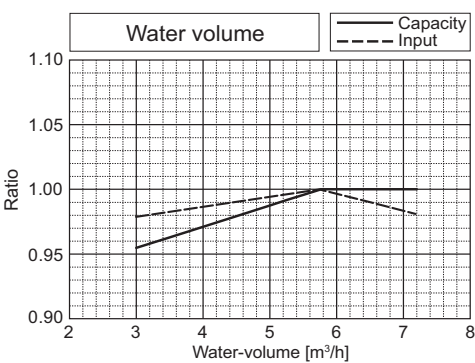
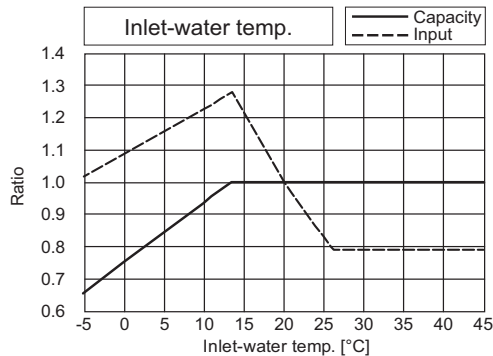
7-1. Correction by temperature

CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

PQRY-			P72TLMU/YLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12

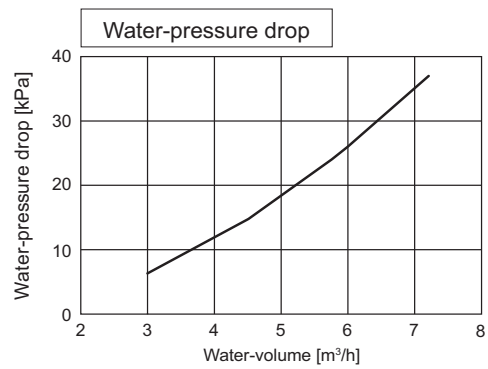
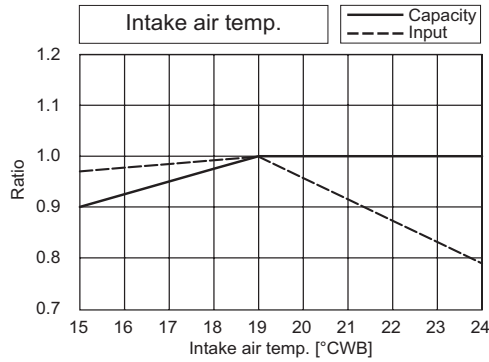
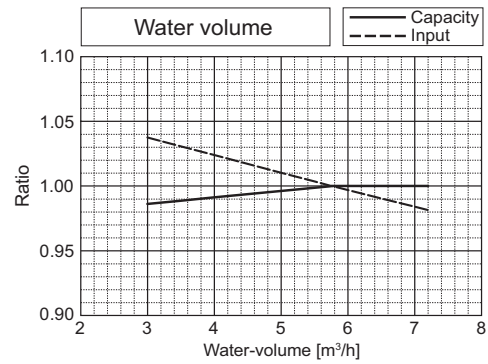
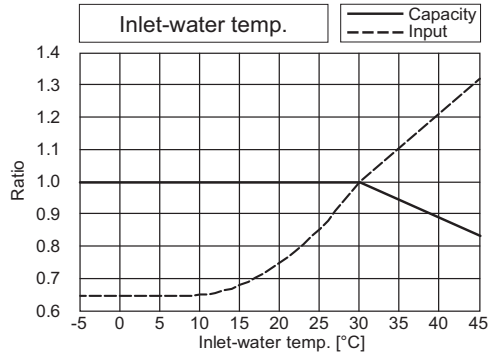


PQRY-			P72TLMU/YLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36

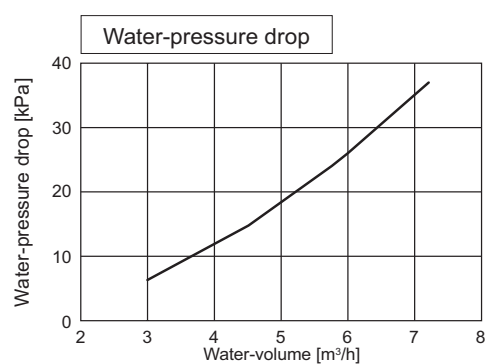
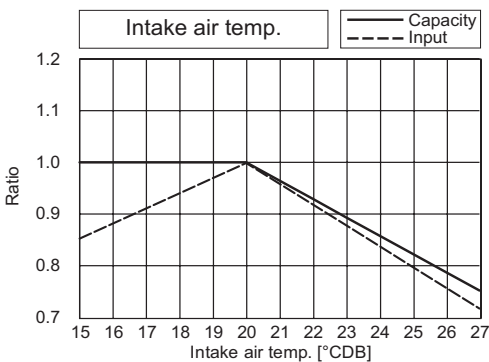
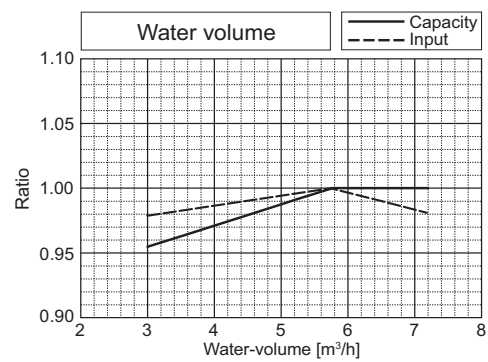
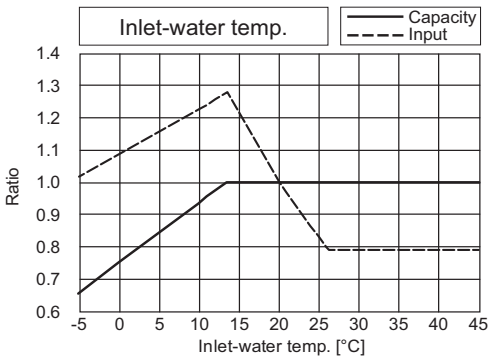


7. CAPACITY TABLES

PQRY-			P96TLMU/YLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19

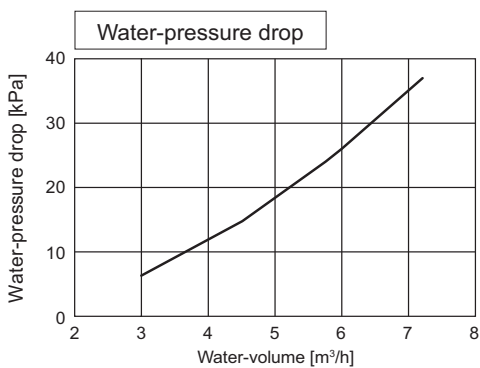
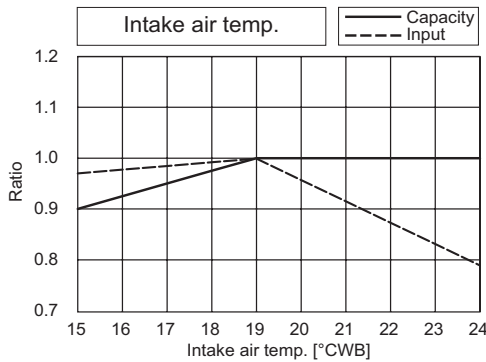
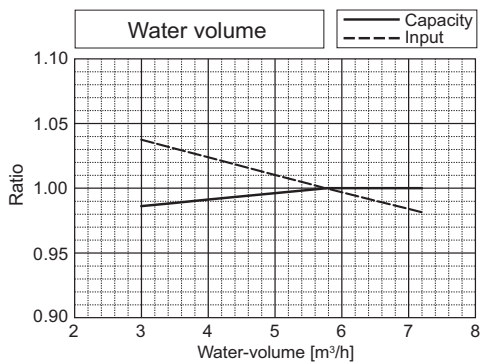
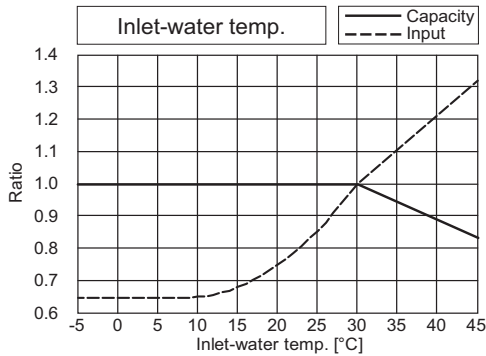


PQRY-			P96TLMU/YLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48

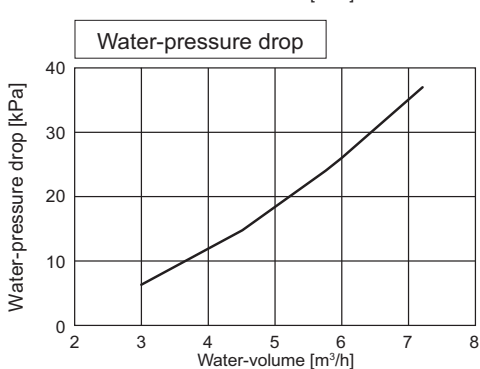
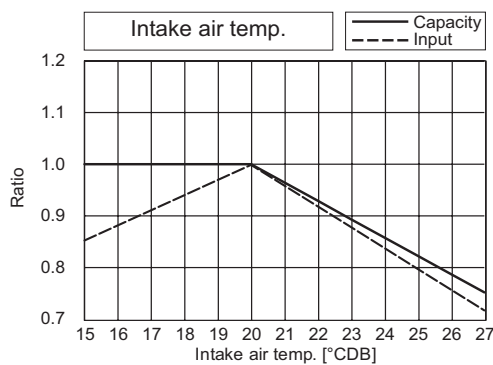
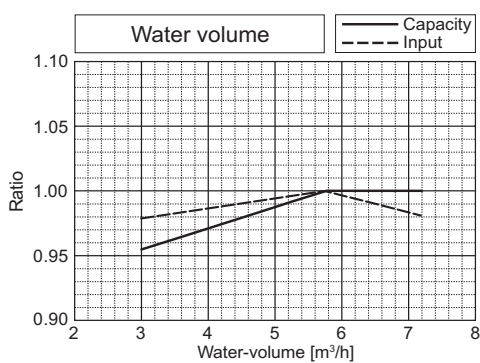
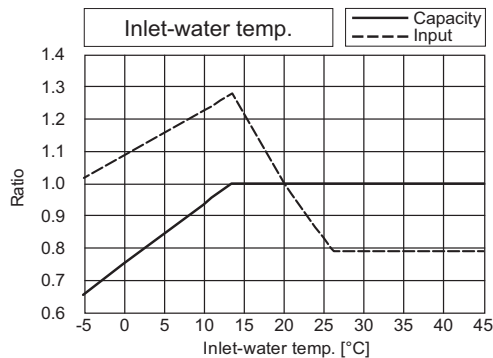


7. CAPACITY TABLES

PQRY-			P120TLMU/YLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

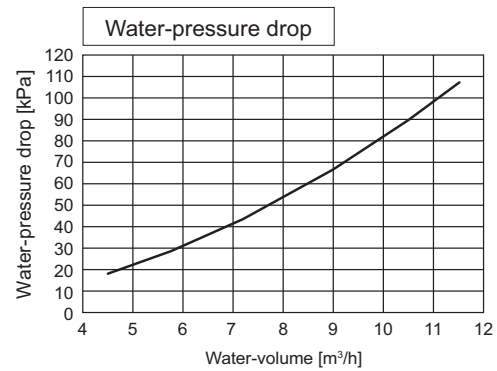
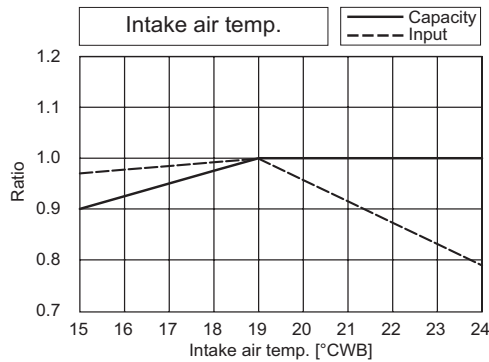
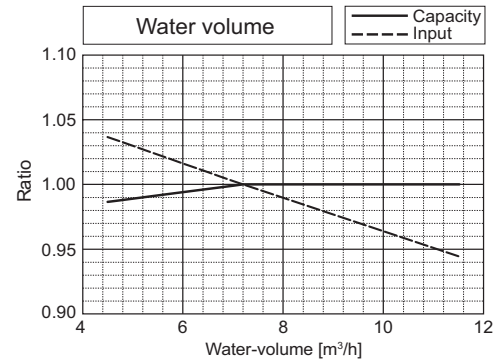
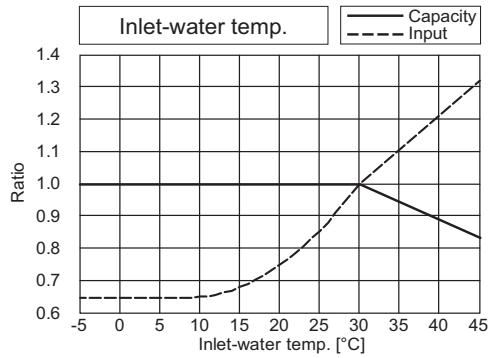


PQRY-			P120TLMU/YLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

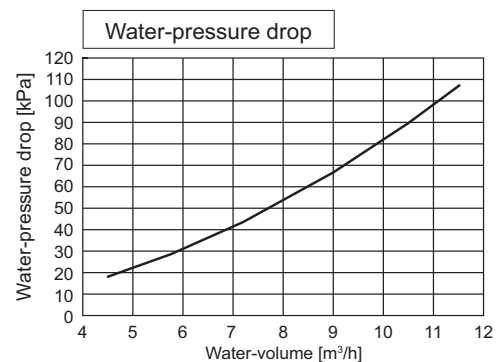
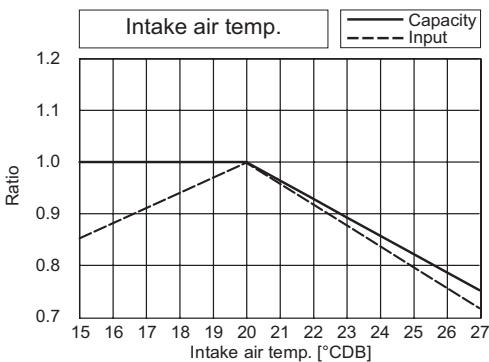
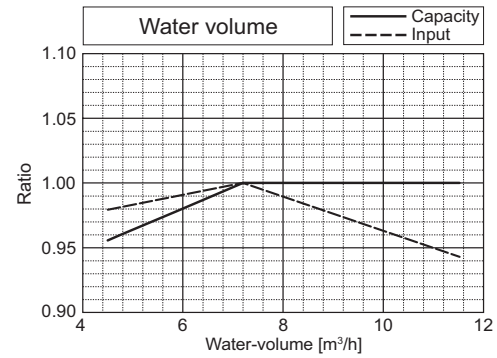
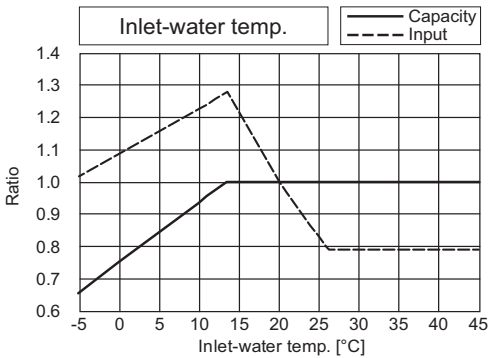


7. CAPACITY TABLES

PQRY-			P144TLMU/YLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98

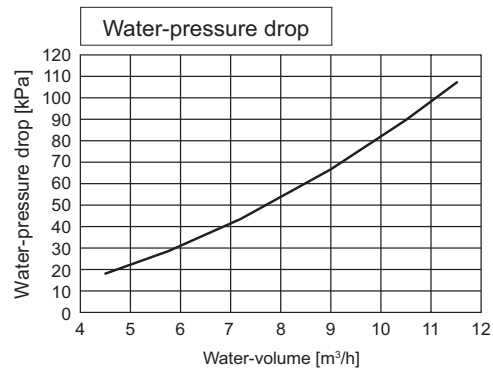
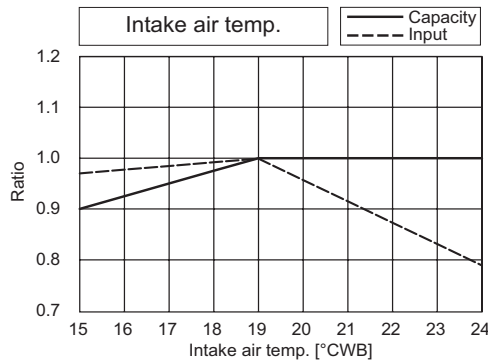
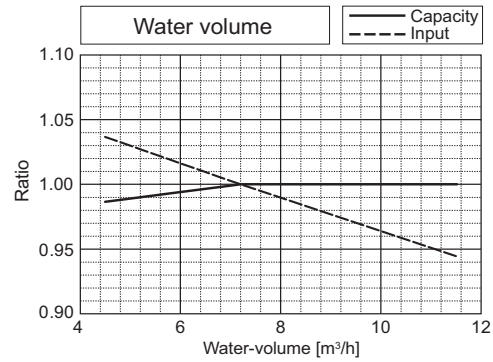
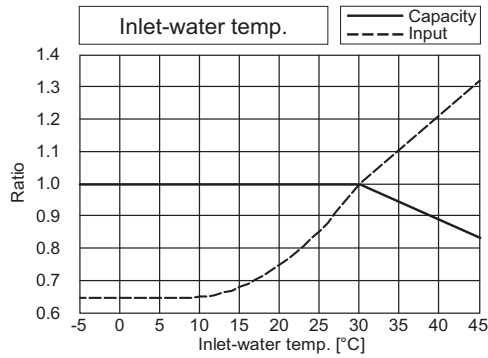


PQRY-			P144TLMU/YLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90

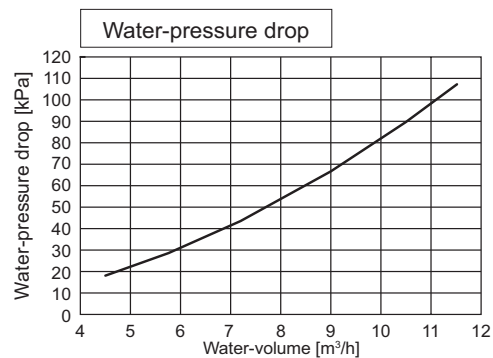
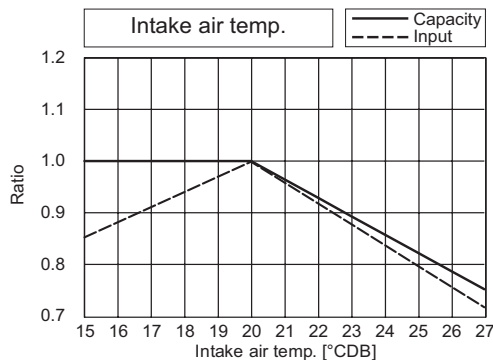
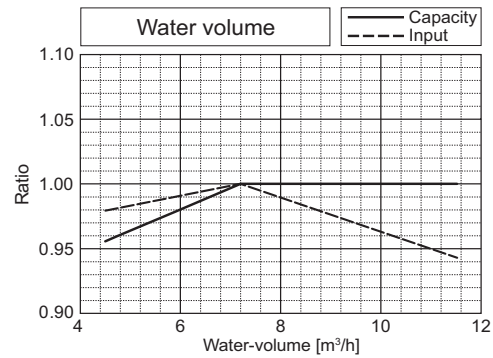
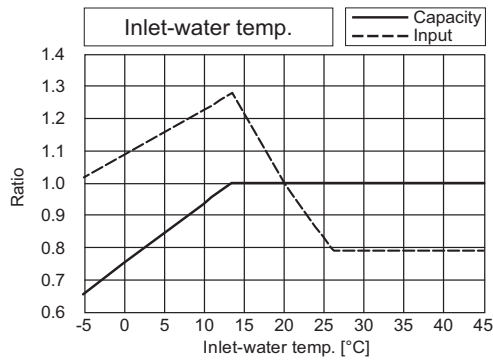


7. CAPACITY TABLES

PQRY-			P168TLMU/YLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88

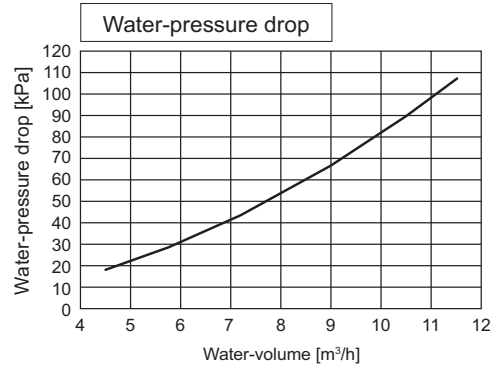
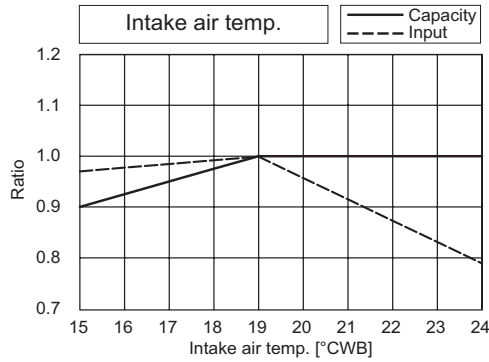
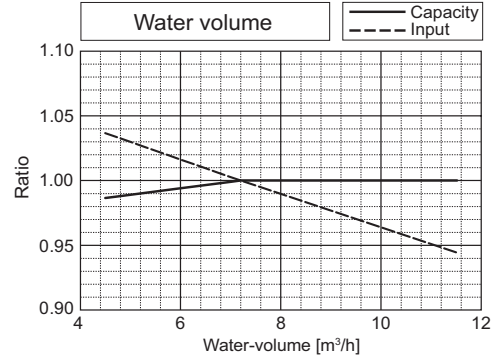
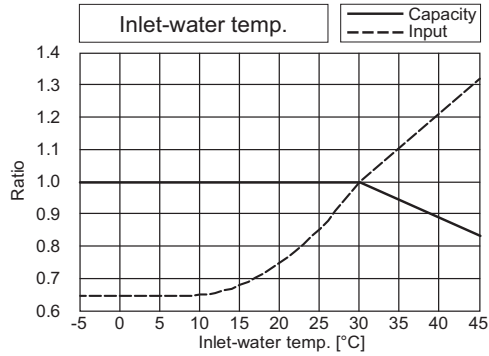


PQRY-			P168TLMU/YLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72

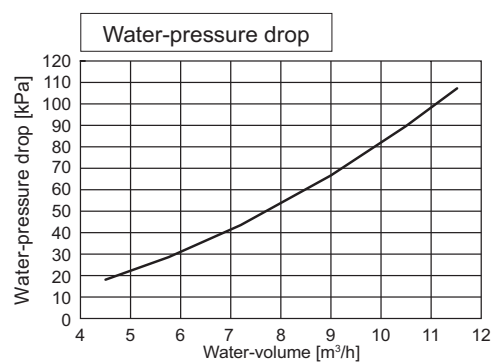
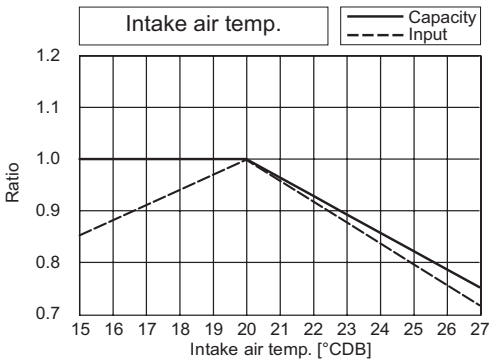
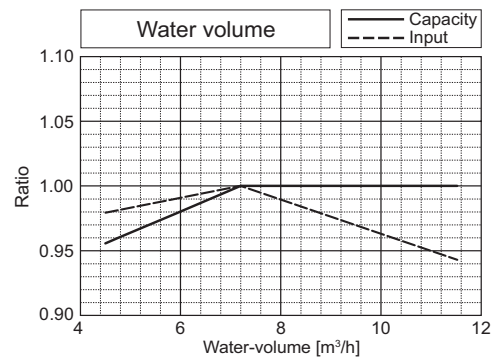
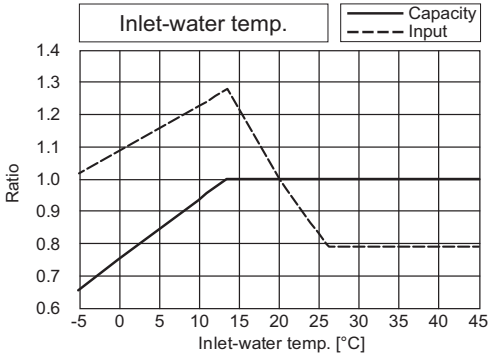


7. CAPACITY TABLES

PQRY-			P192TLMU/YLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19

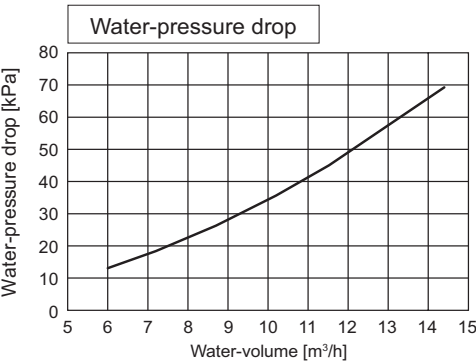
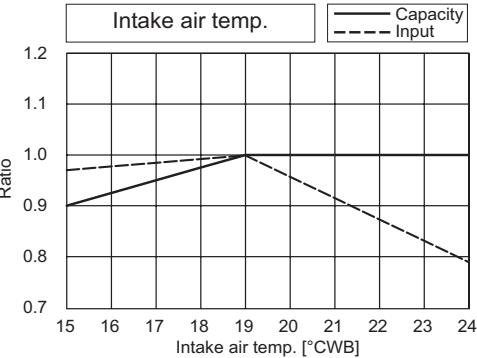
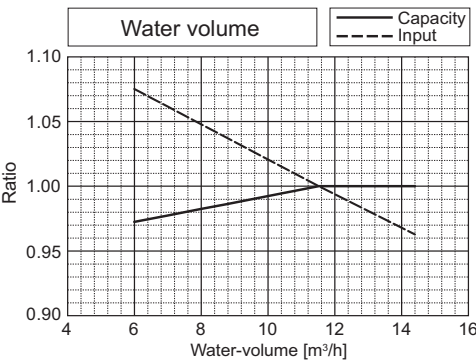
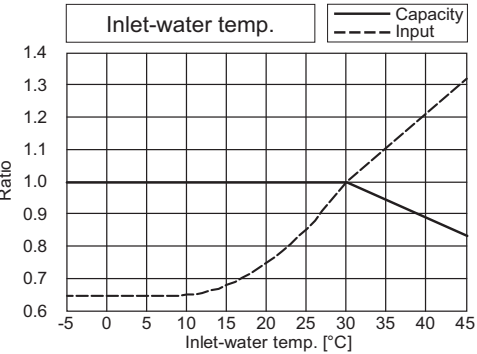


PQRY-			P192TLMU/YLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56

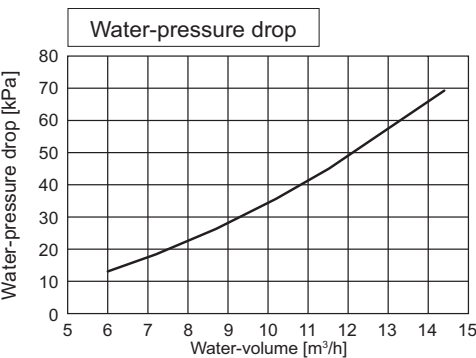
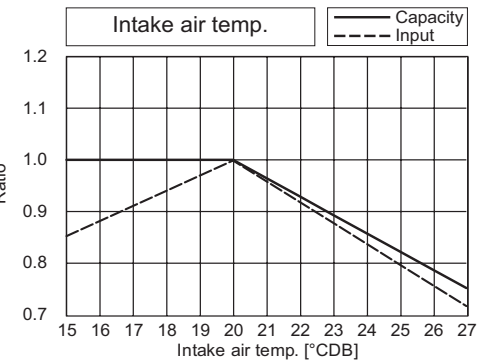
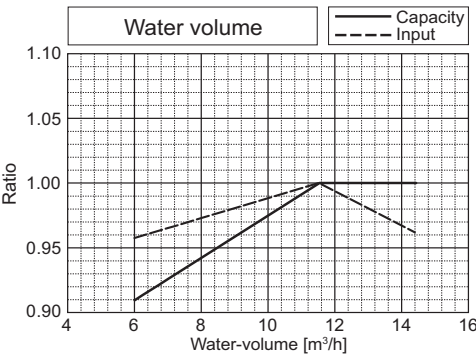
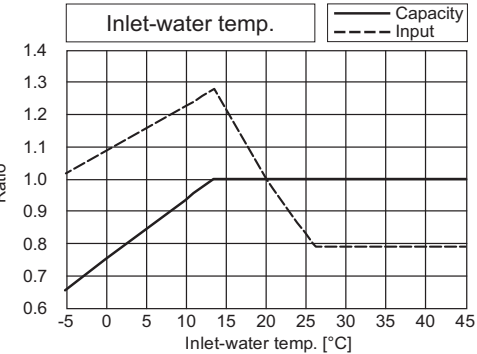


7. CAPACITY TABLES

PQRY-			P216TLMU/YLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	19.23	Input	kW	(Non-Ducted) 17.72 (Ducted) 16.10

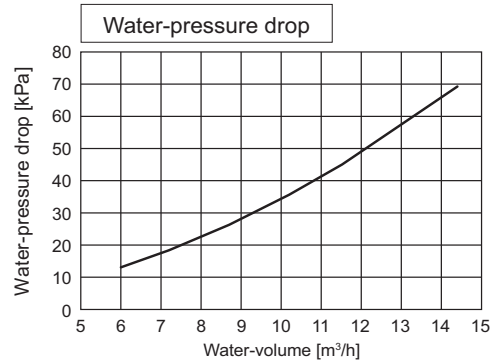
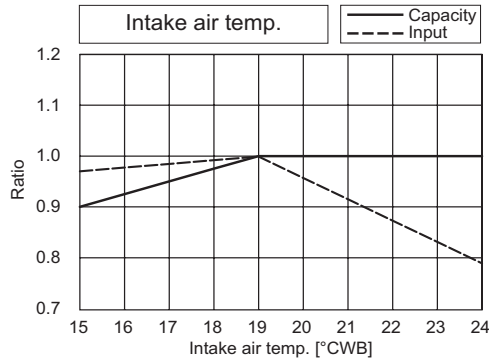
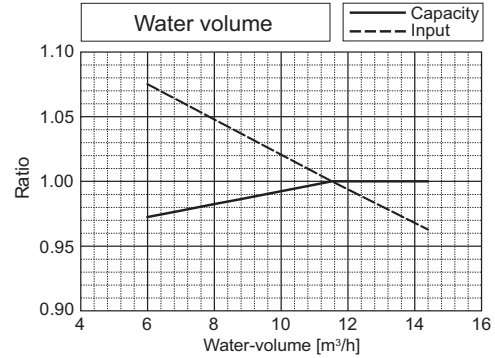
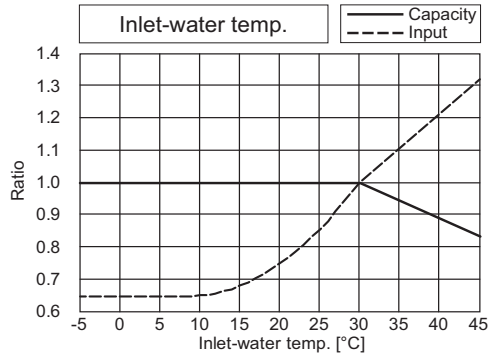


PQRY-			P216TLMU/YLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	13.04	Input	kW	(Non-Ducted) 12.01 (Ducted) 12.34

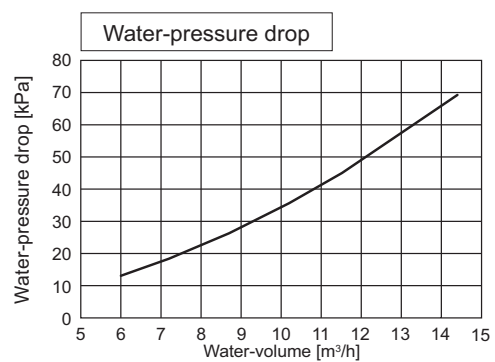
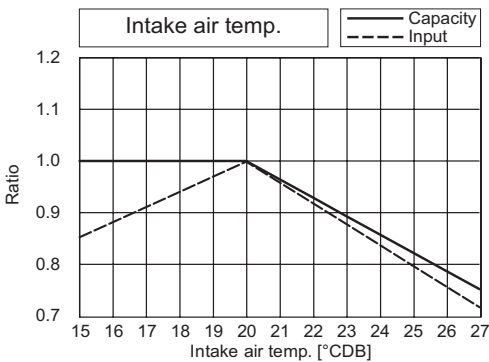
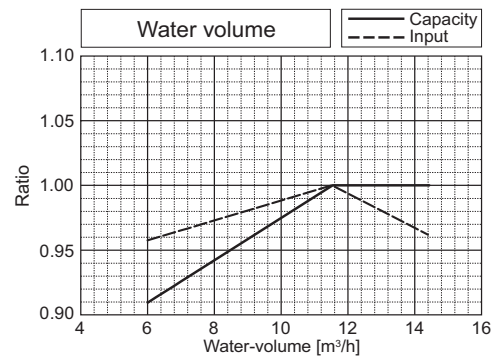
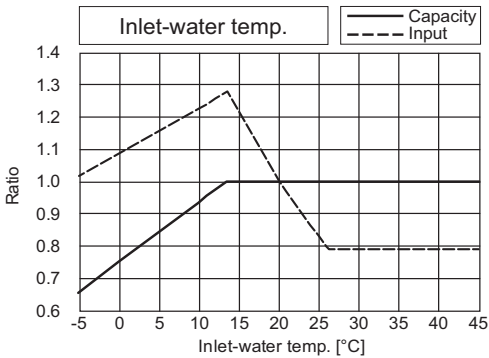


7. CAPACITY TABLES

PQRY-			P240TLMU/YLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	21.14	Input	kW	(Non-Ducted) 19.49 (Ducted) 18.74



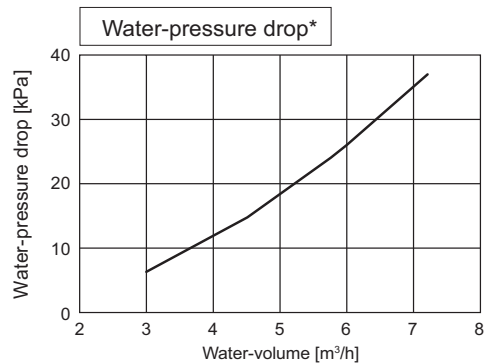
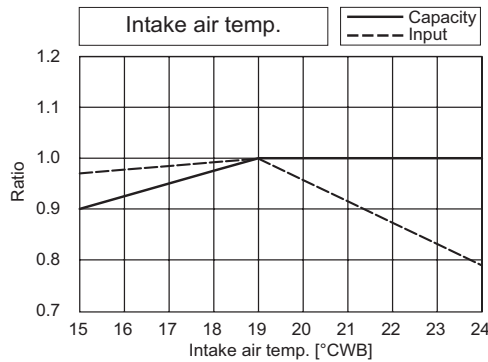
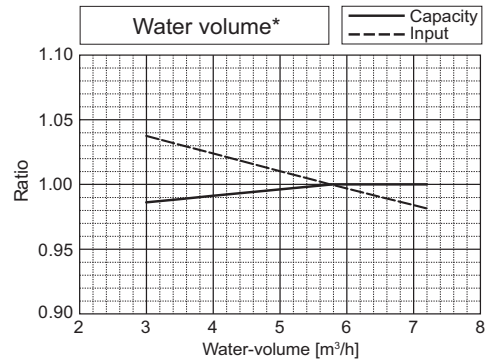
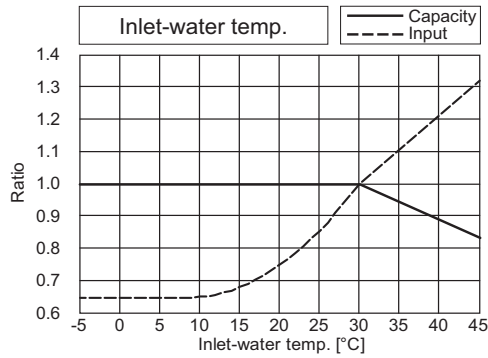
PQRY-			P240TLMU/YLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	15.12	Input	kW	(Non-Ducted) 13.93 (Ducted) 14.62



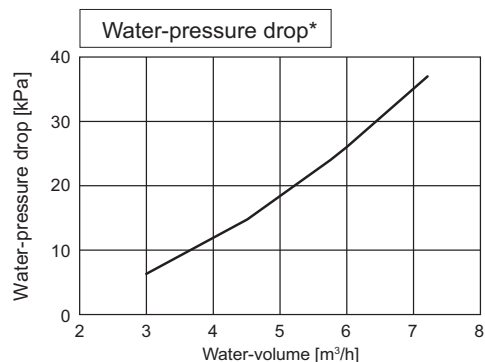
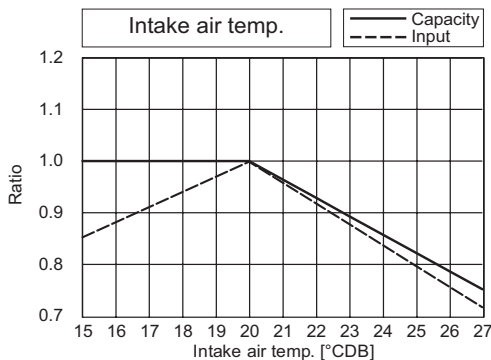
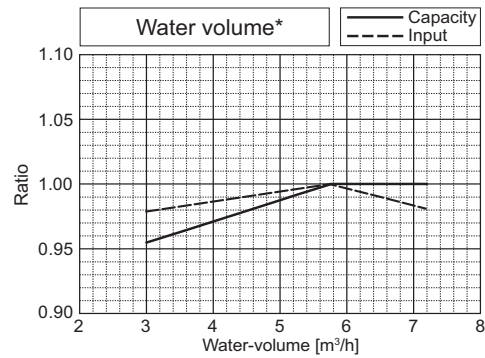
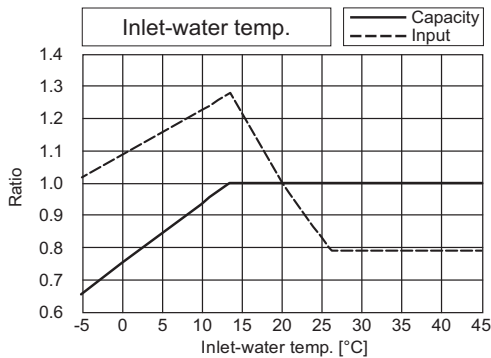
7. CAPACITY TABLES

PQRY-			P144TSLMU/YSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72

*The drawing indicates characteristic per unit.

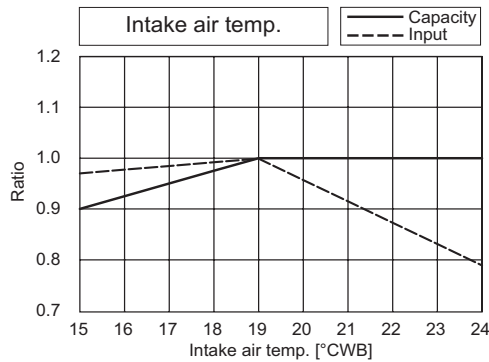
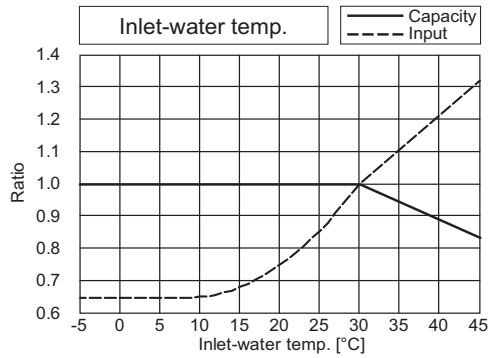


PQRY-			P144TSLMU/YSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22

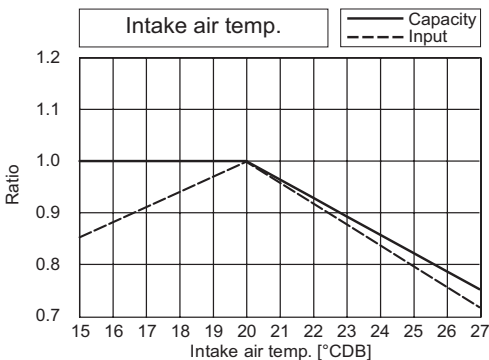
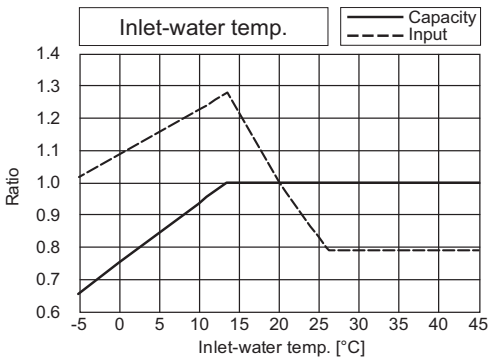


7. CAPACITY TABLES

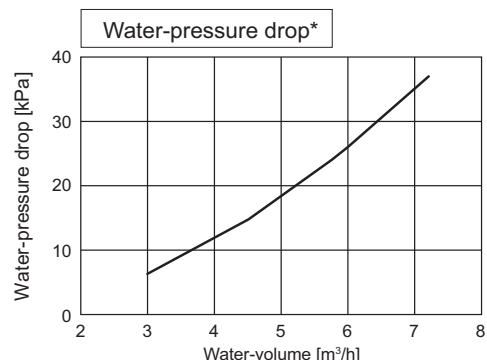
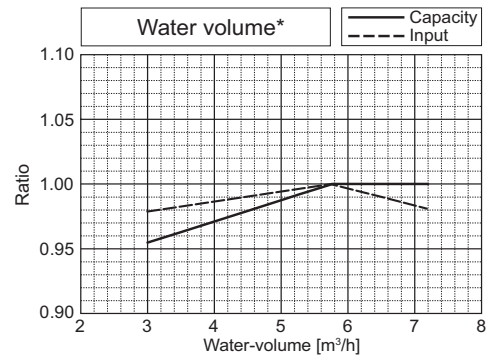
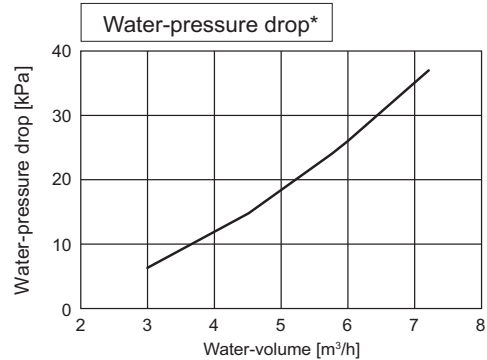
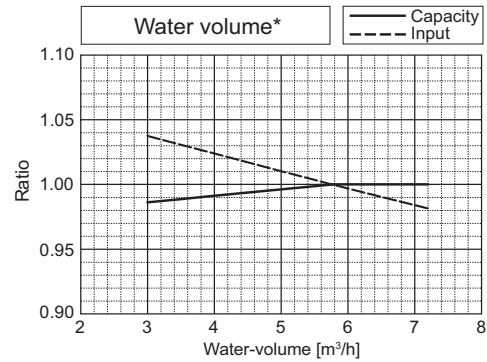
PQRY-			P168TSLMU/YSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22



PQRY-			P168TSLMU/YSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03



*The drawing indicates characteristic per unit.

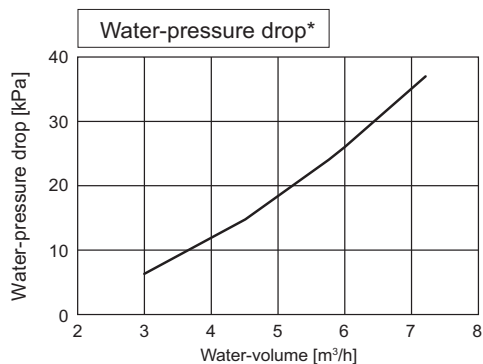
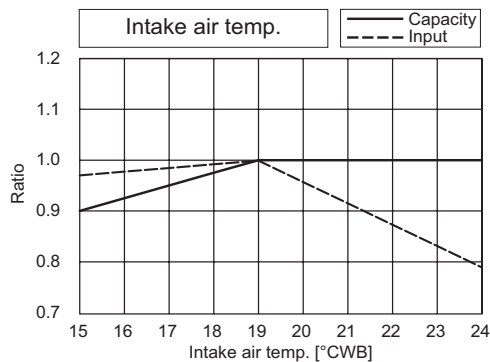
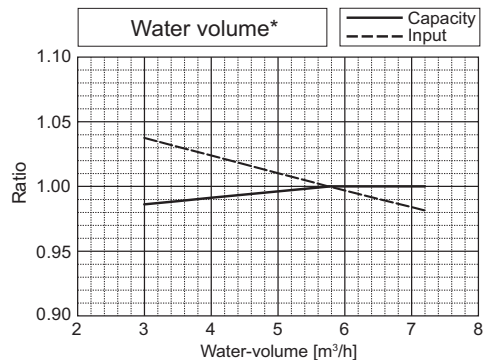
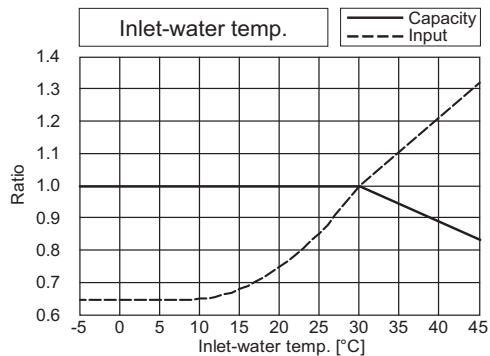


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

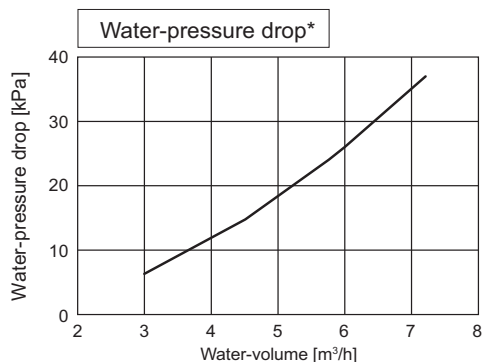
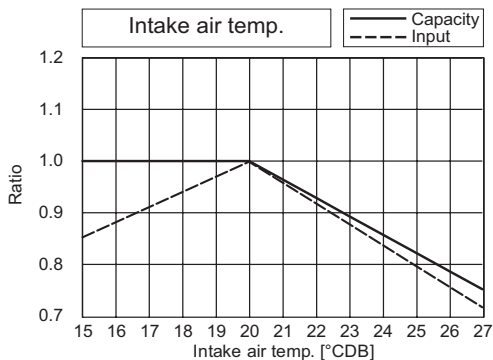
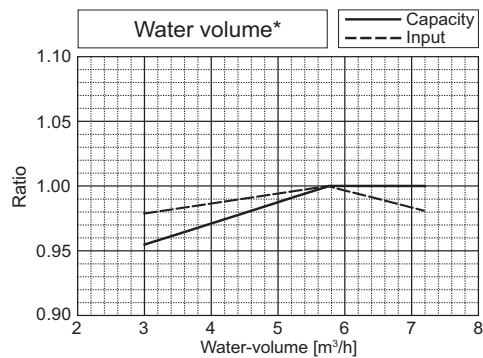
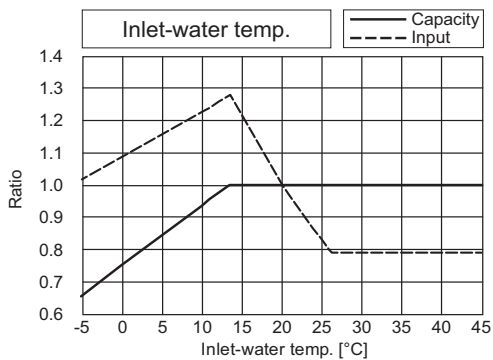
7. CAPACITY TABLES

PQRY-			P192TSLMU/YSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98

*The drawing indicates characteristic per unit.

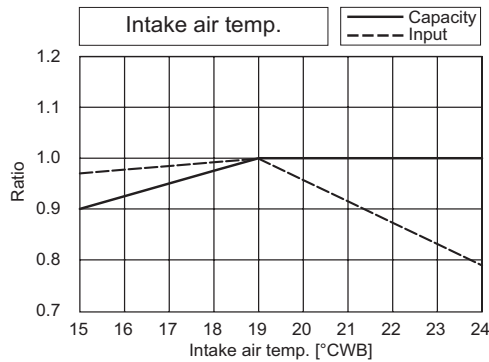
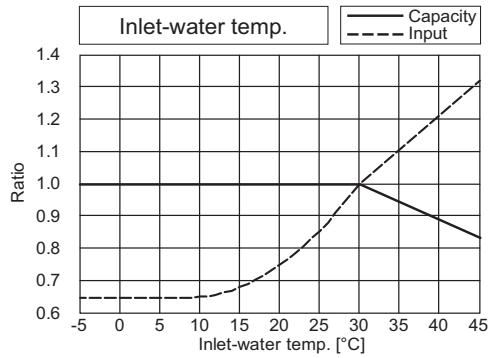


PQRY-			P192TSLMU/YSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90

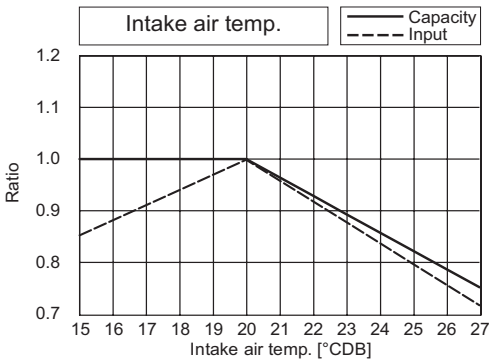
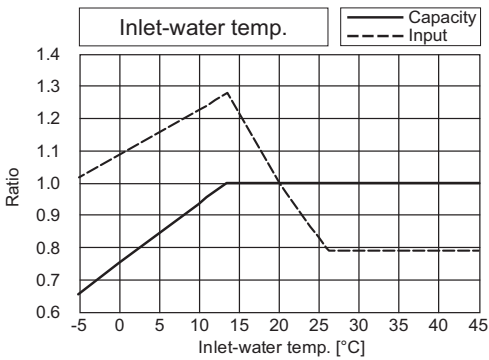


7. CAPACITY TABLES

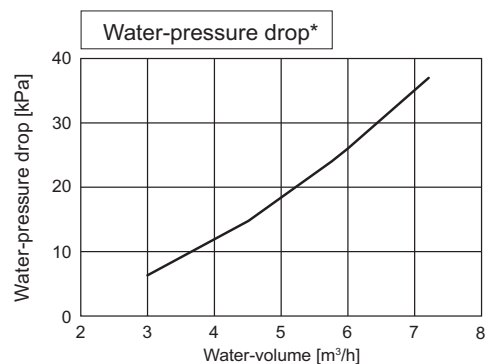
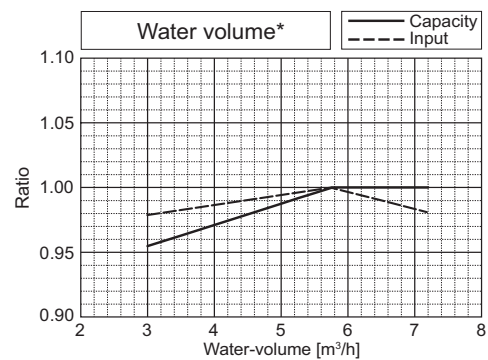
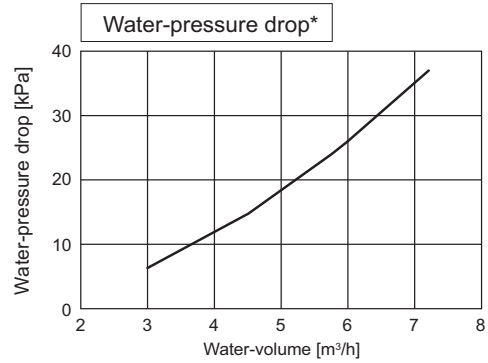
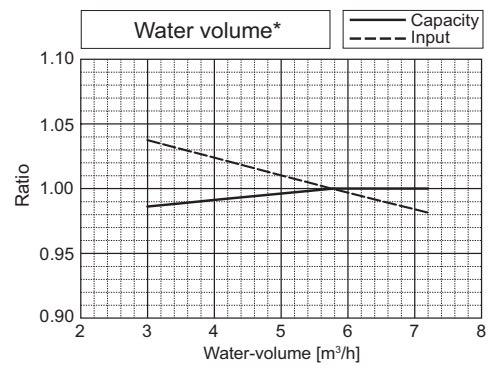
PQRY-			P216TSLMU/YSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24



PQRY-			P216TSLMU/YSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35



*The drawing indicates characteristic per unit.

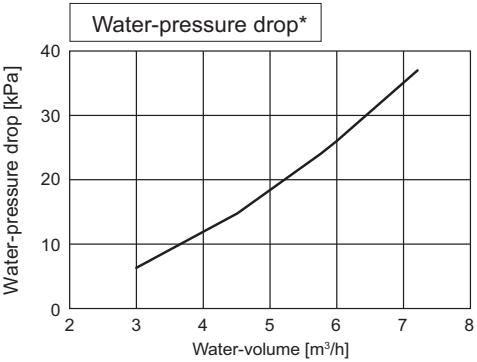
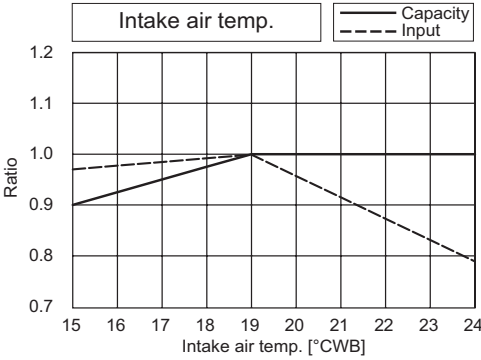
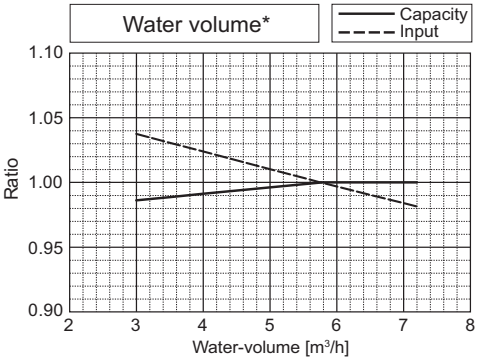
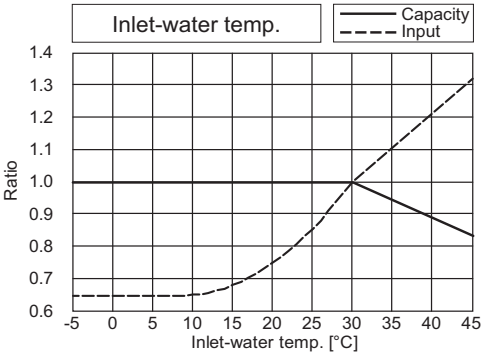


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

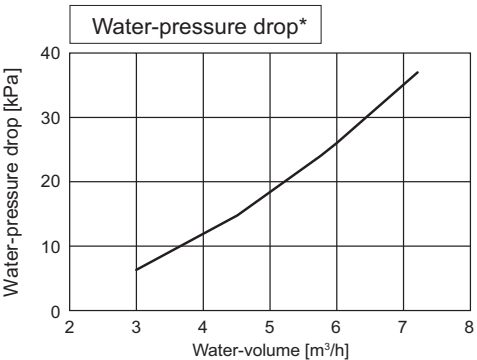
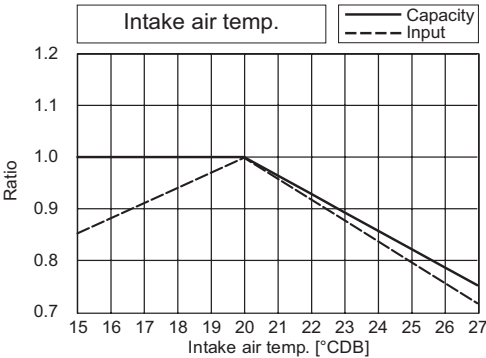
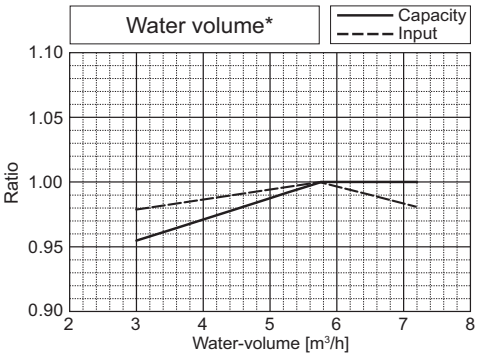
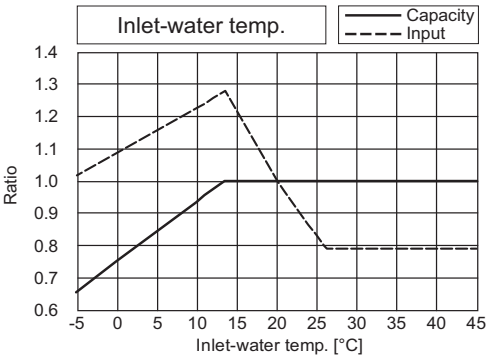
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQRY-			P240TSLMU/YSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15

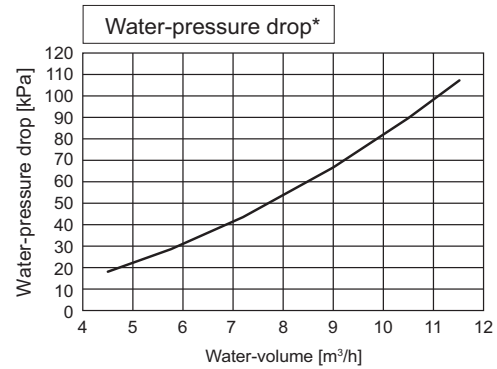
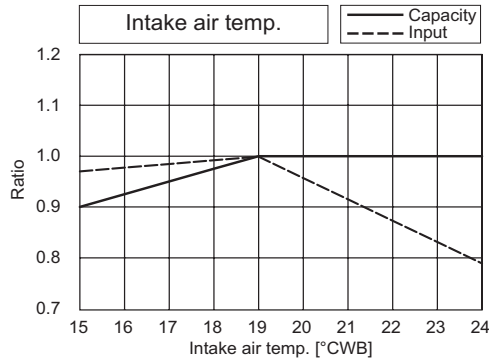
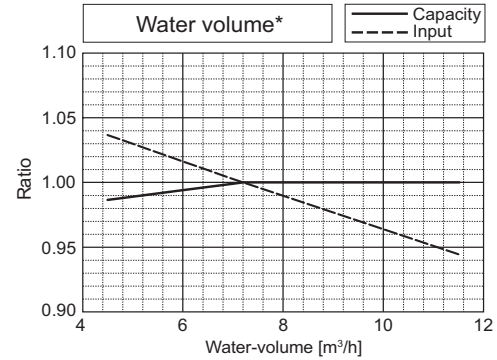
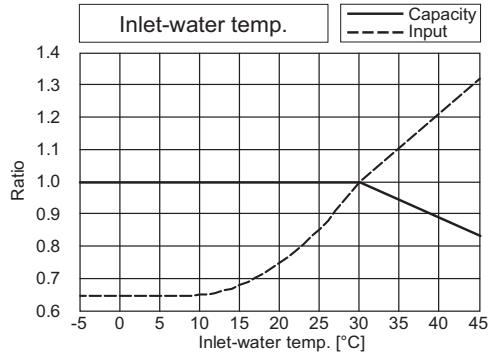


PQRY-			P240TSLMU/YSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02

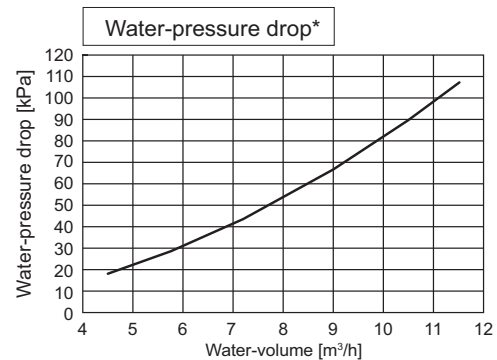
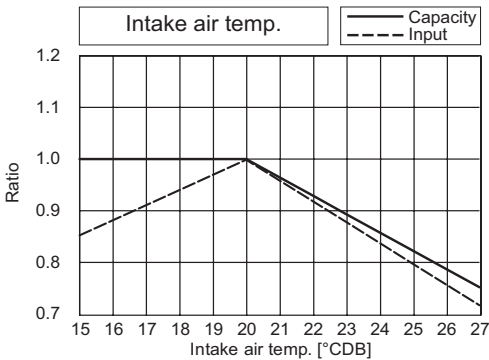
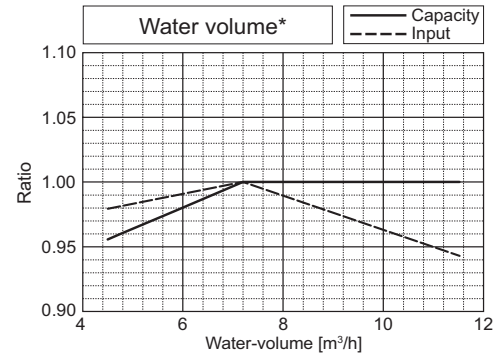
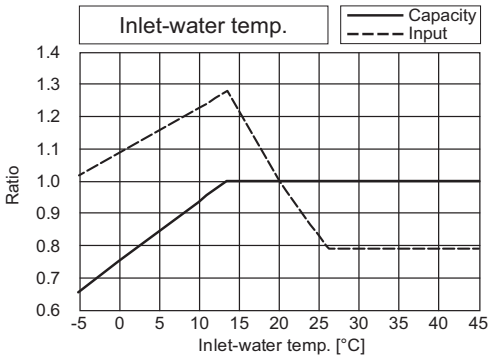


7. CAPACITY TABLES

PQRY-			P288TSLMU/YSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43



PQRY-			P288TSLMU/YSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05

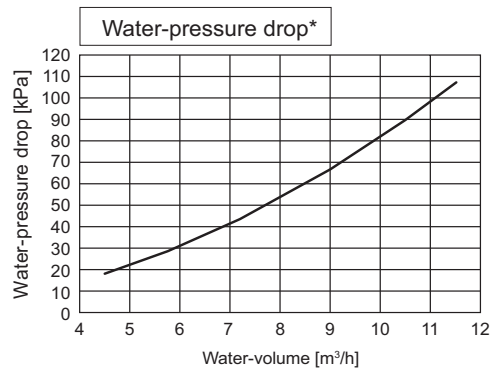
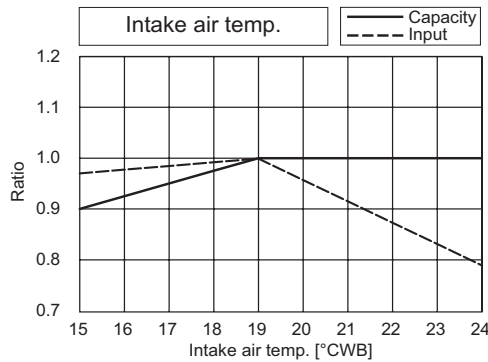
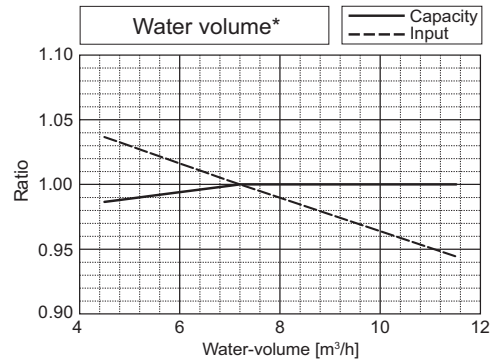
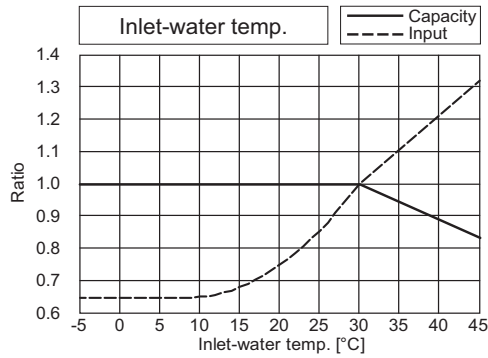


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

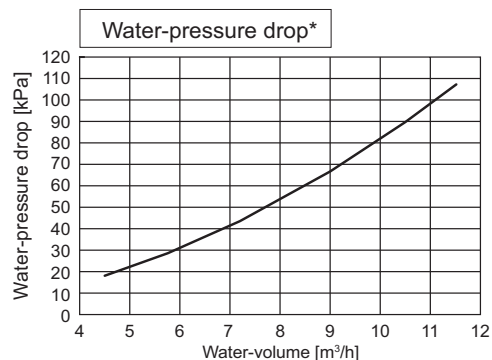
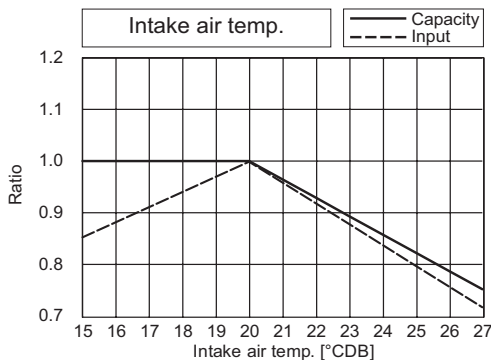
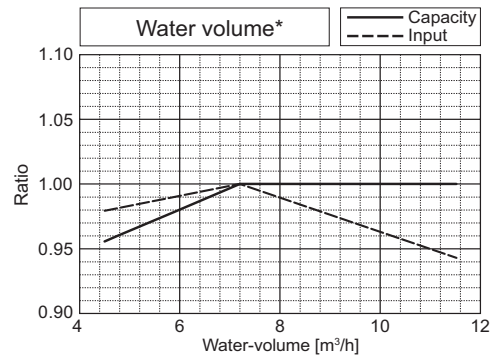
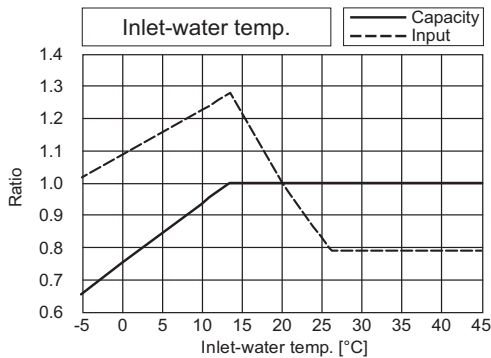
7. CAPACITY TABLES

PQRY-			P312TSLMU/YSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67

*The drawing indicates characteristic per unit.



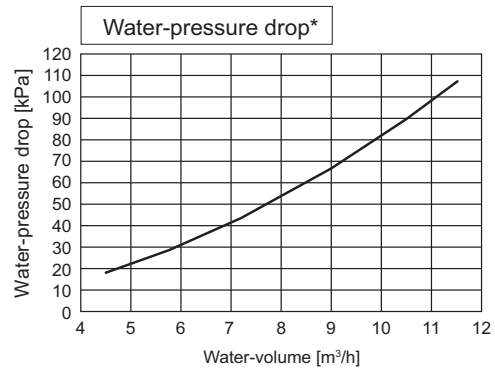
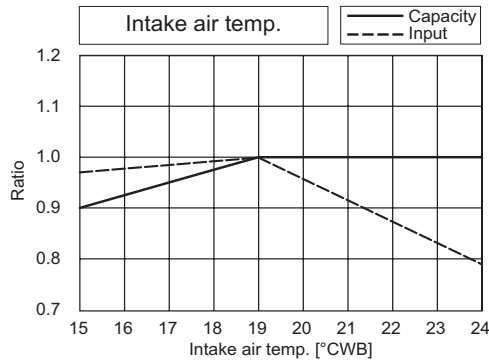
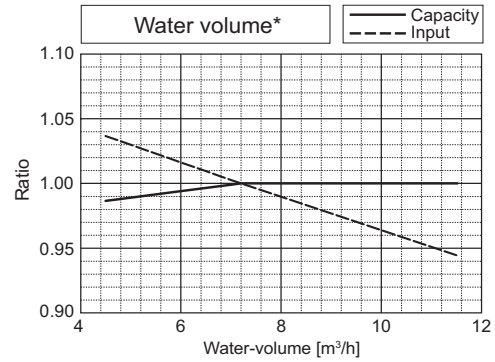
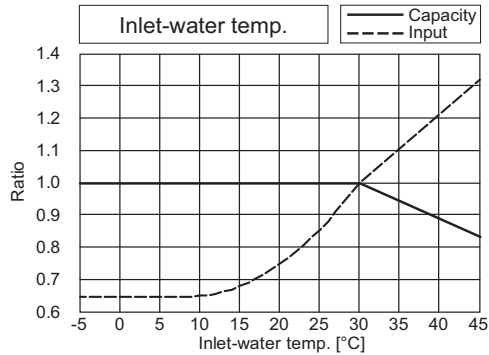
PQRY-			P312TSLMU/YSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96



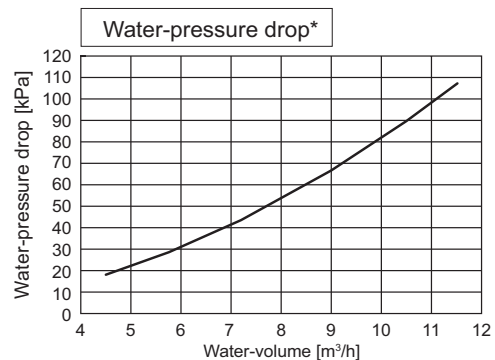
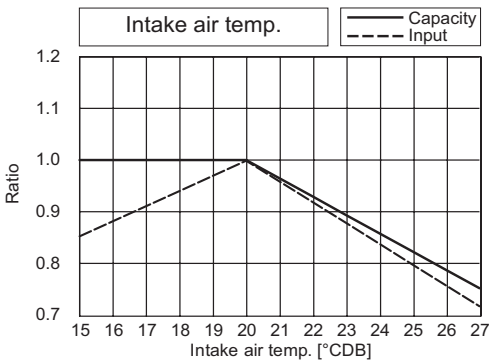
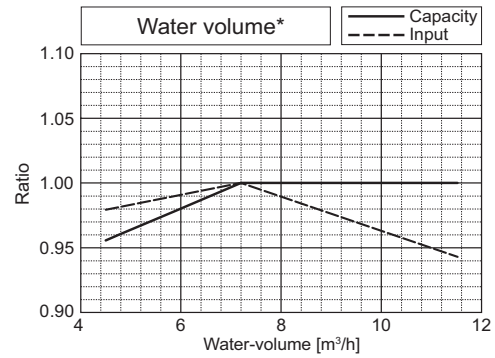
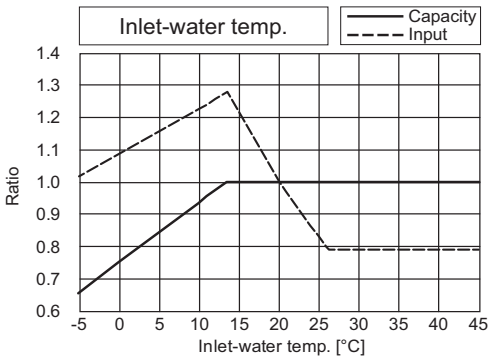
7. CAPACITY TABLES

PQRY-			P336TSLMU/YSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85

*The drawing indicates characteristic per unit.



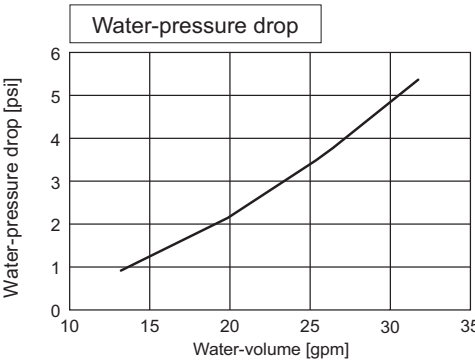
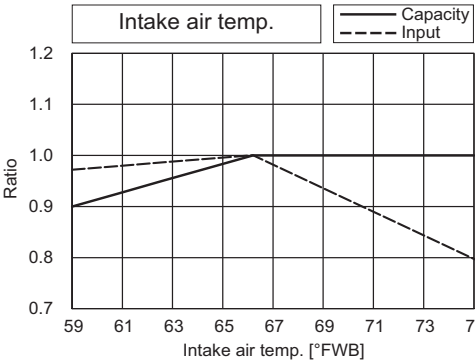
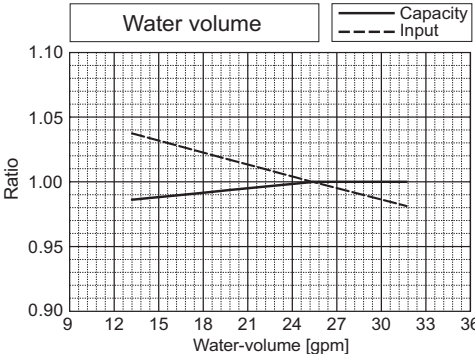
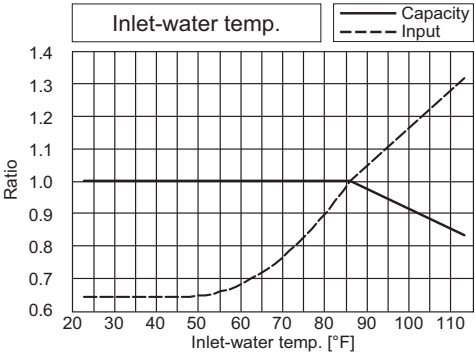
PQRY-			P336TSLMU/YSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05



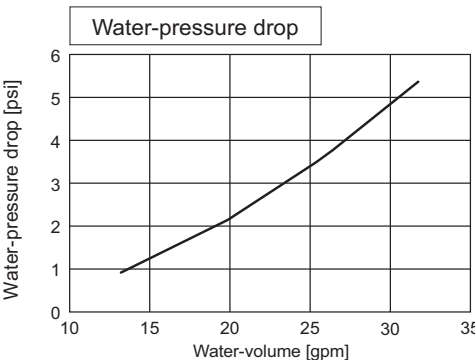
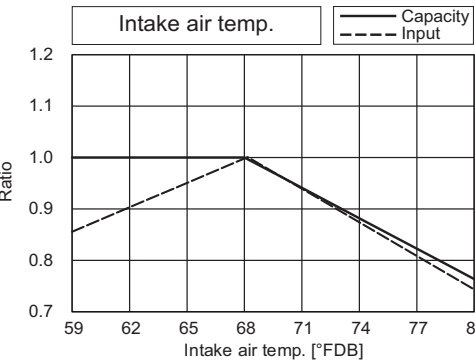
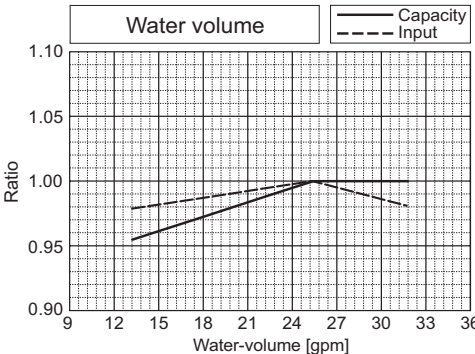
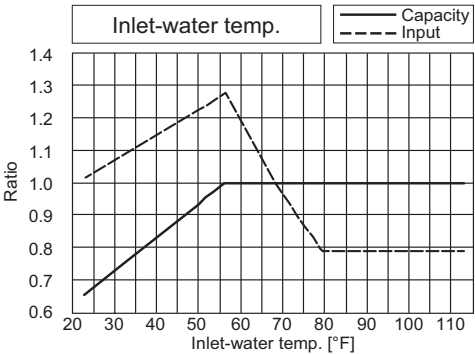
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P72TLMU/YLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12

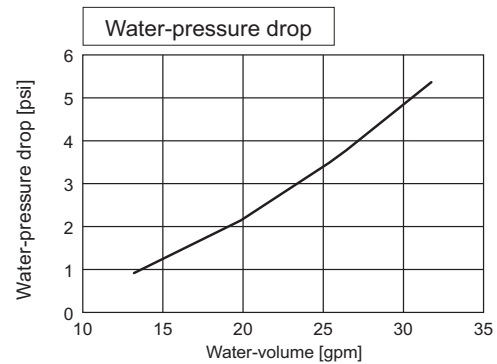
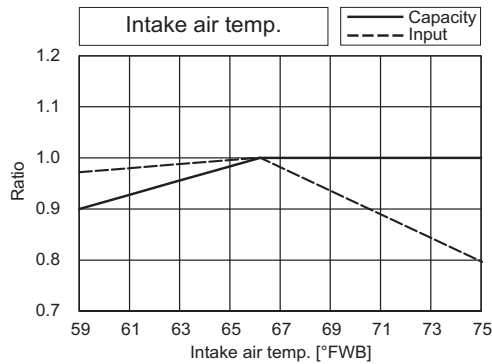
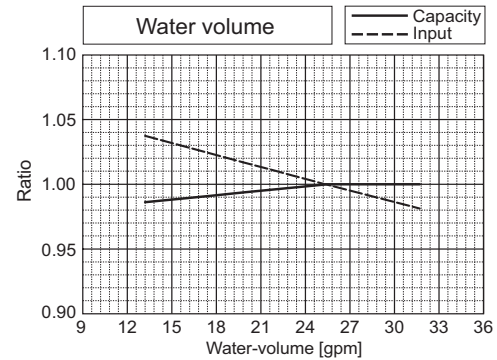
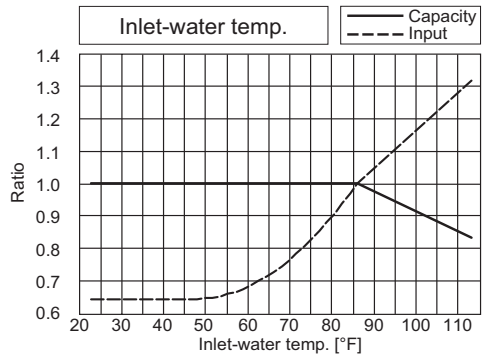


PQRY-			P72TLMU/YLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36

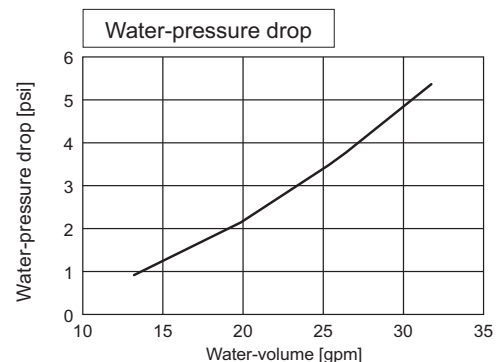
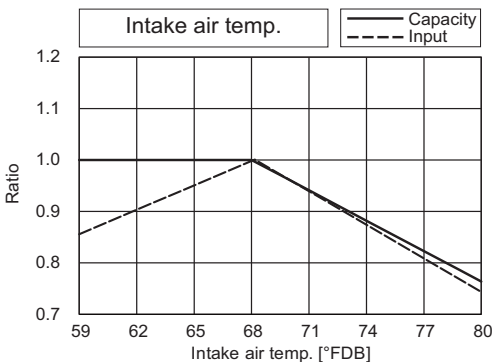
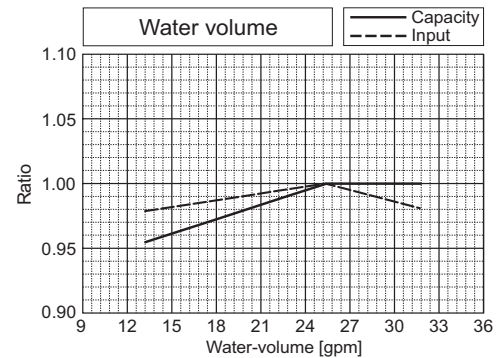
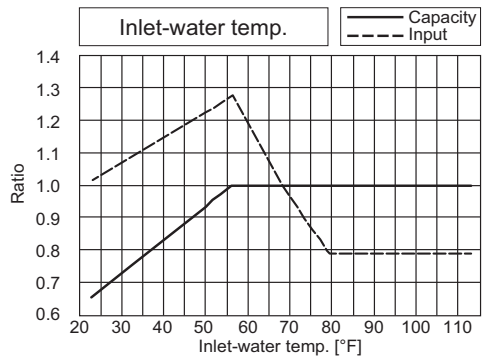


7. CAPACITY TABLES

PQRY-			P96TLMU/YLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19



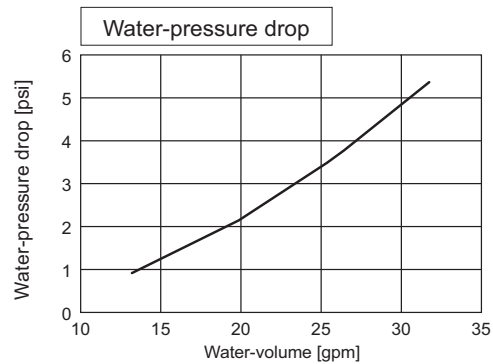
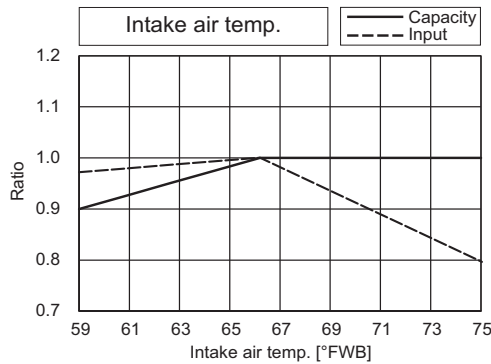
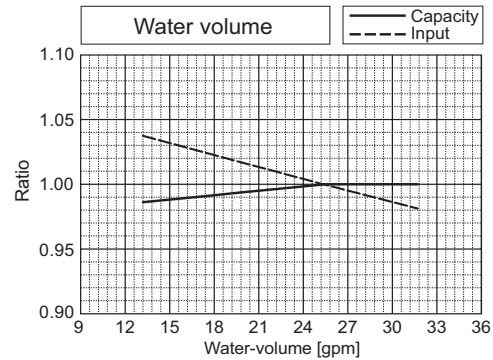
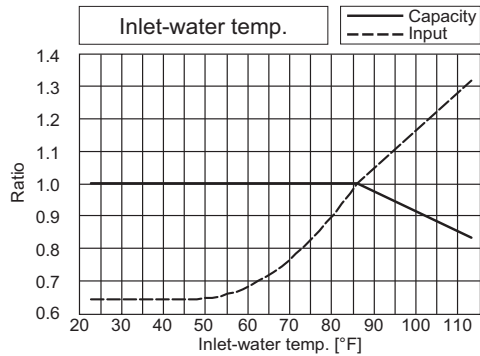
PQRY-			P96TLMU/YLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48



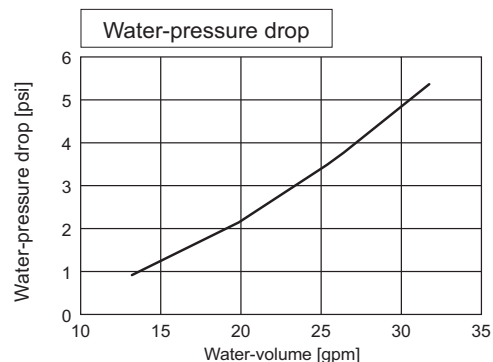
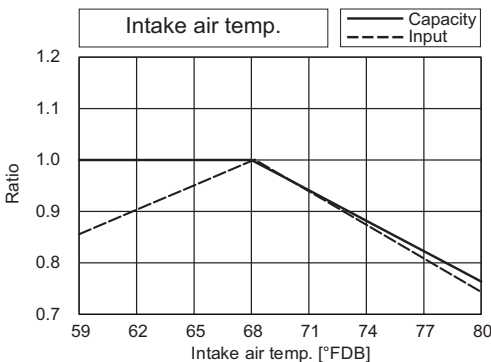
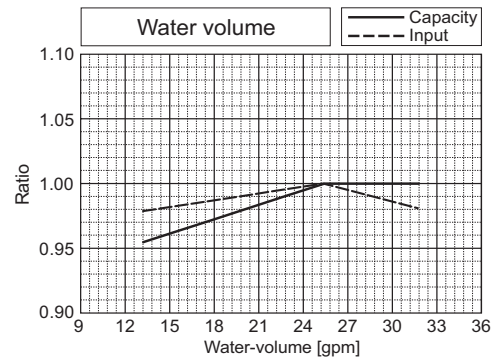
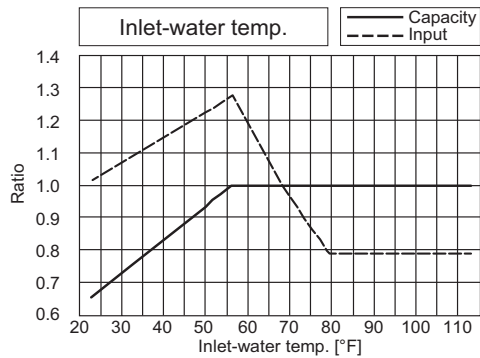
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P120TLMU/YLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

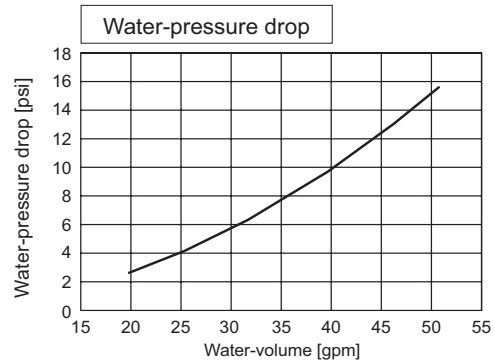
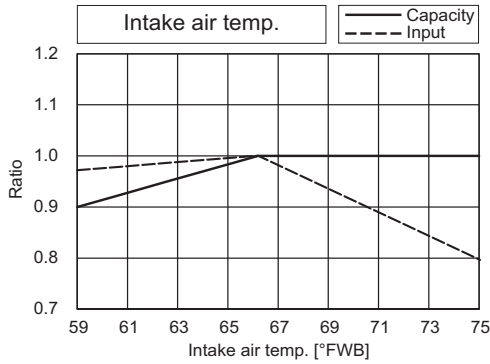
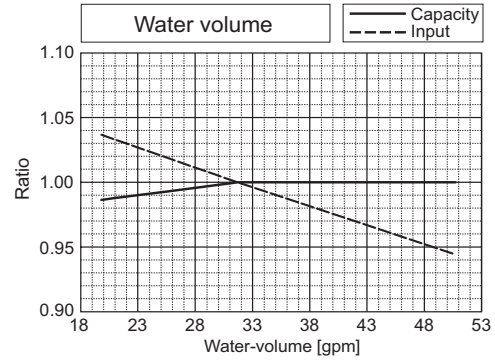
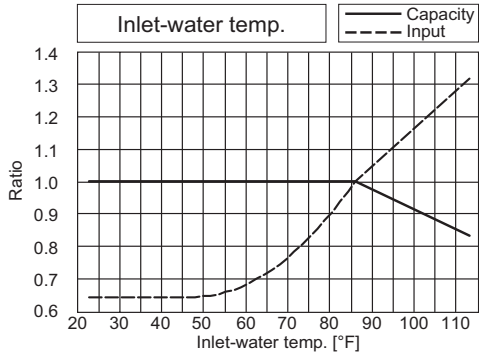


PQRY-			P120TLMU/YLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

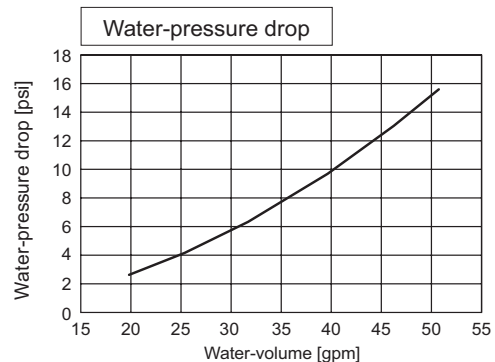
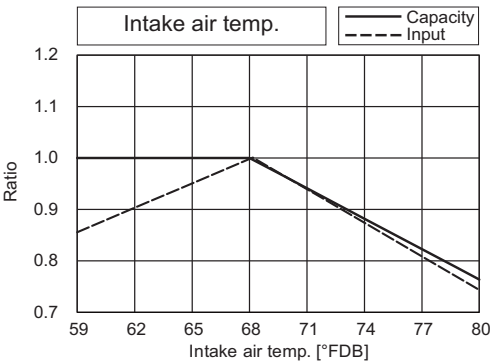
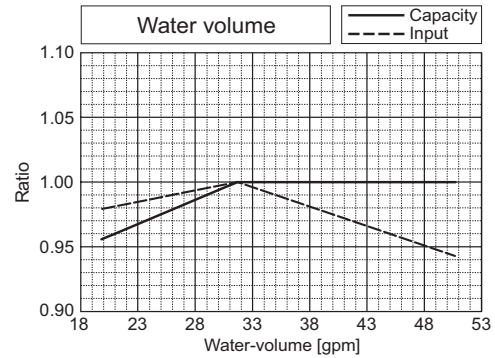
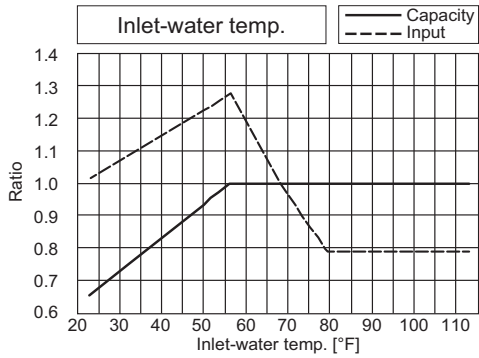


7. CAPACITY TABLES

PQRY-			P144TLMU/YLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98



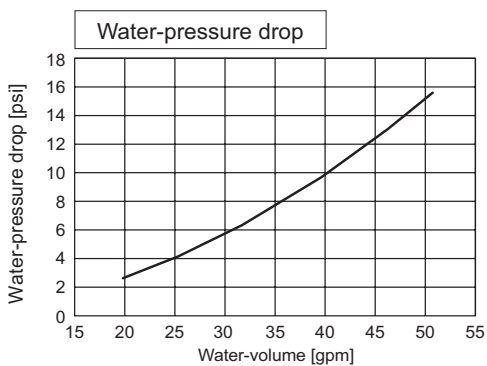
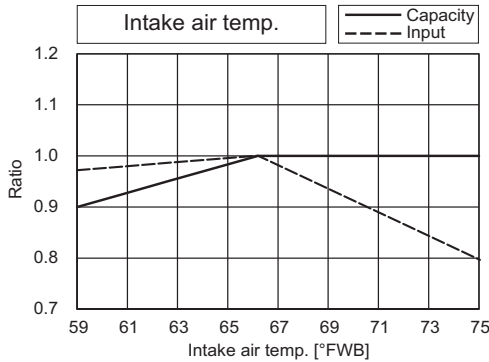
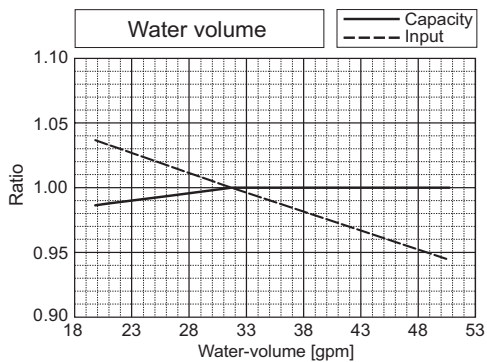
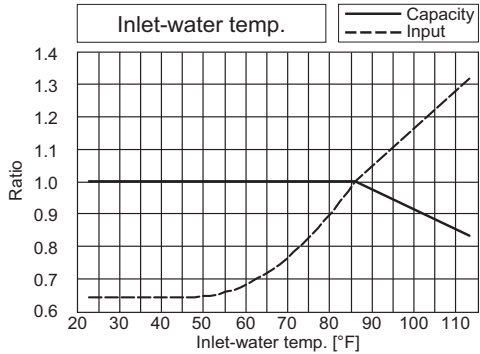
PQRY-			P144TLMU/YLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90



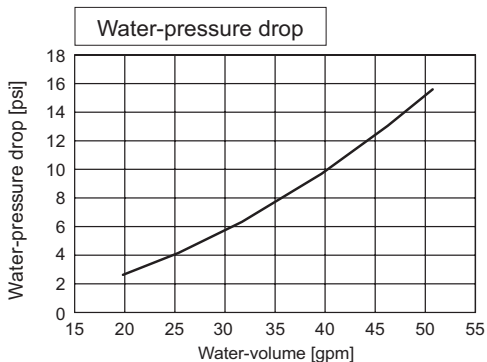
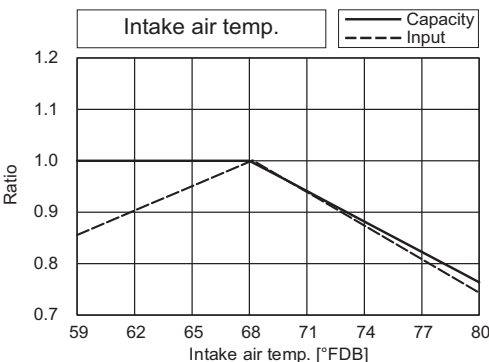
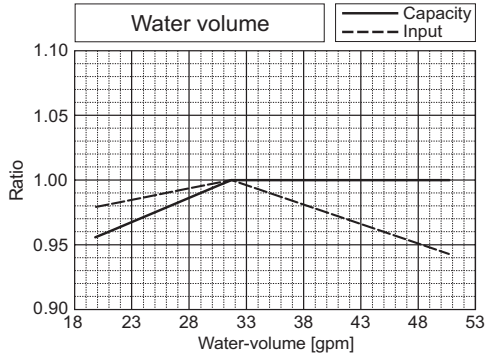
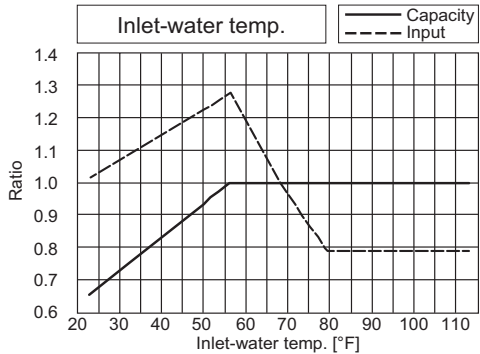
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P168TLMU/YLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88

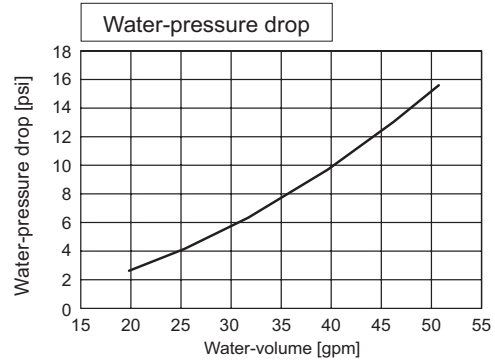
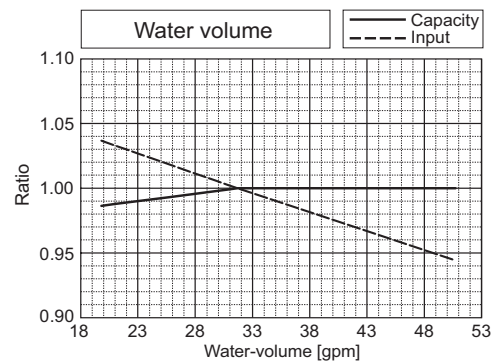
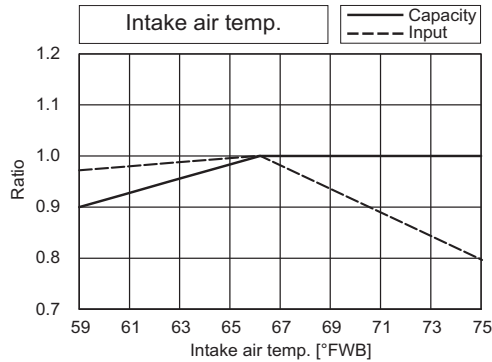
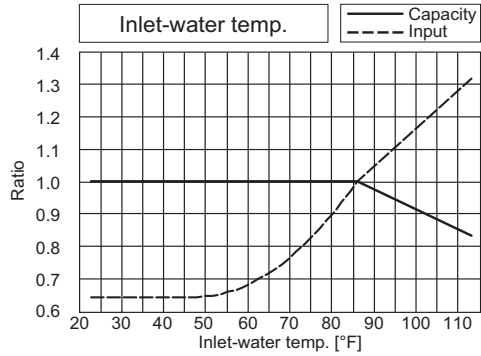


PQRY-			P168TLMU/YLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72

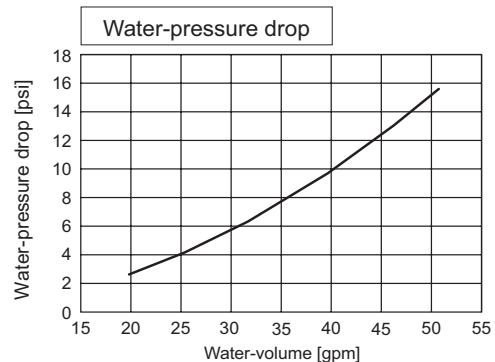
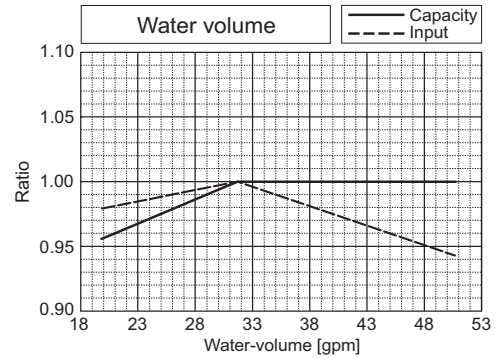
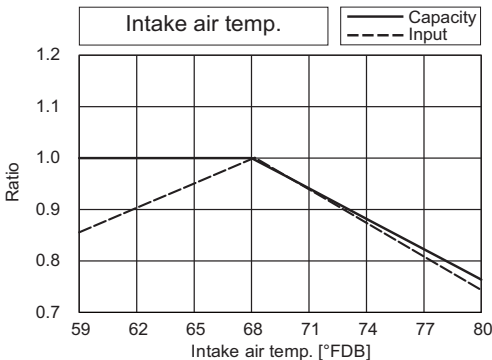
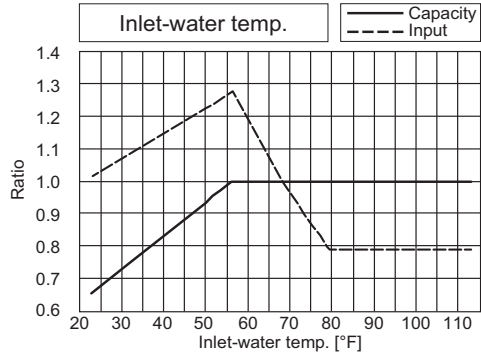


7. CAPACITY TABLES

PQRY-			P192TLMU/YLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19



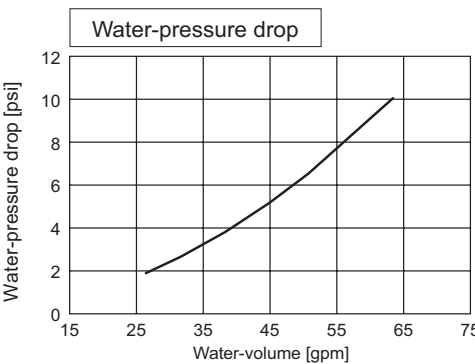
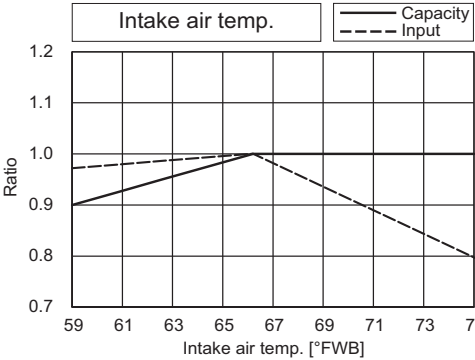
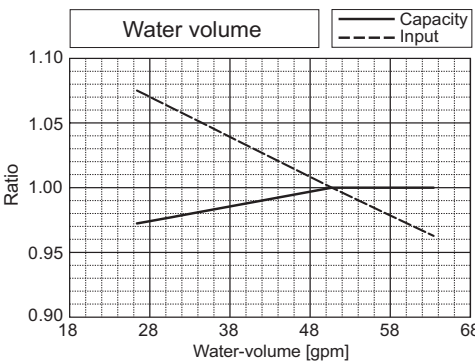
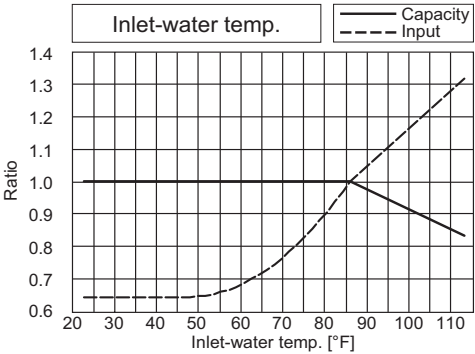
PQRY-			P192TLMU/YLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56



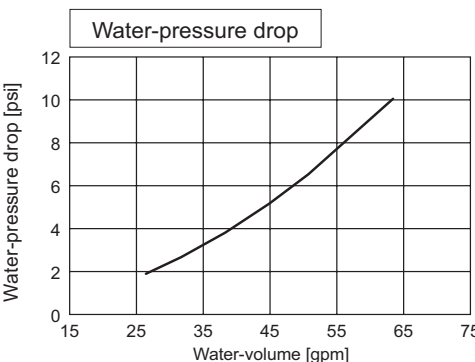
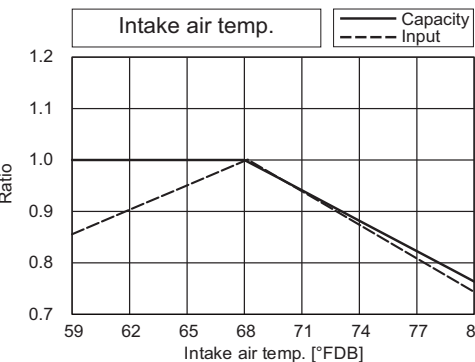
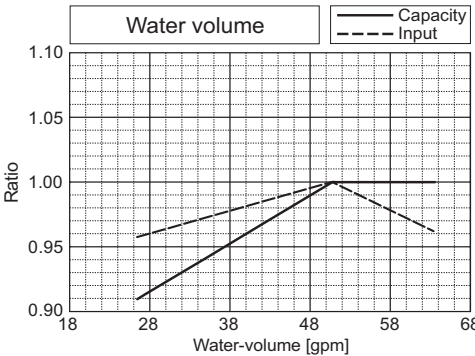
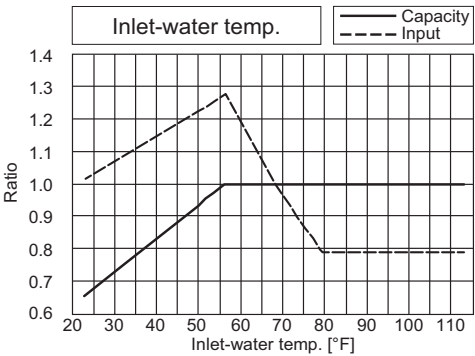
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P216TLMU/YLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	19.23	Input	kW	(Non-Ducted) 17.72 (Ducted) 16.10

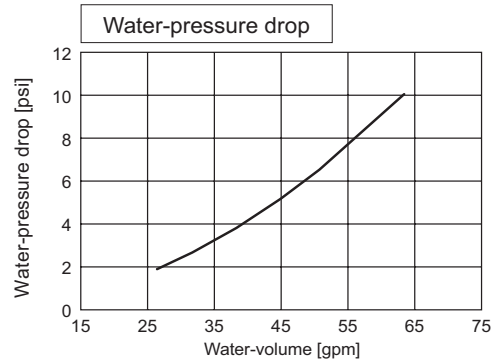
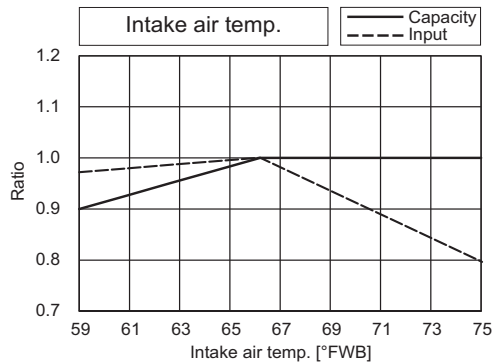
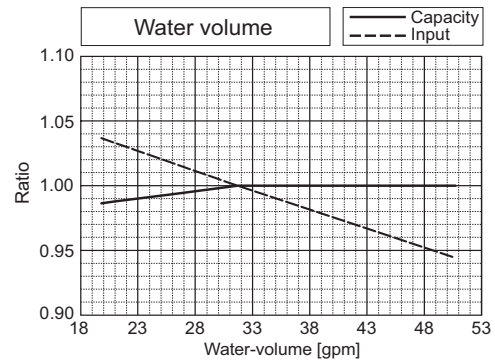
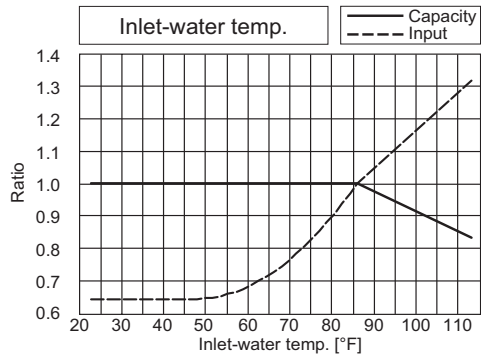


PQRY-			P216TLMU/YLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	13.04	Input	kW	(Non-Ducted) 12.01 (Ducted) 12.34

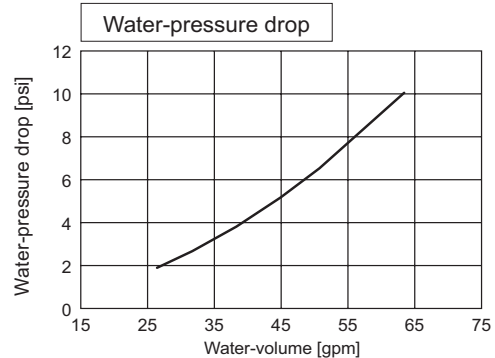
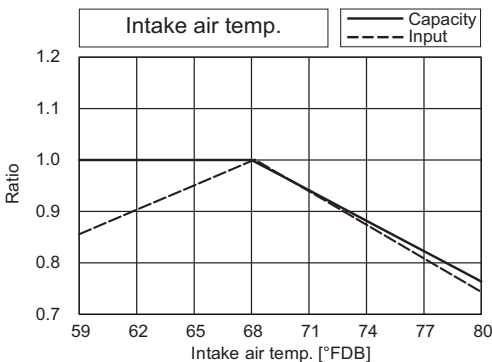
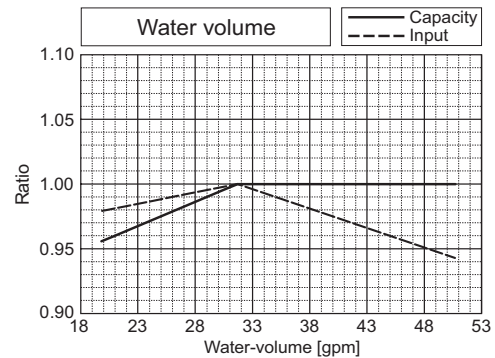
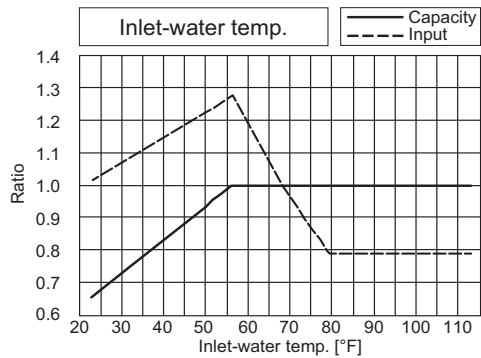


7. CAPACITY TABLES

PQRY-			P240TLMU/YLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	21.14	Input	kW	(Non-Ducted) 19.49 (Ducted) 18.74



PQRY-			P240TLMU/YLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	15.12	Input	kW	(Non-Ducted) 13.93 (Ducted) 14.62

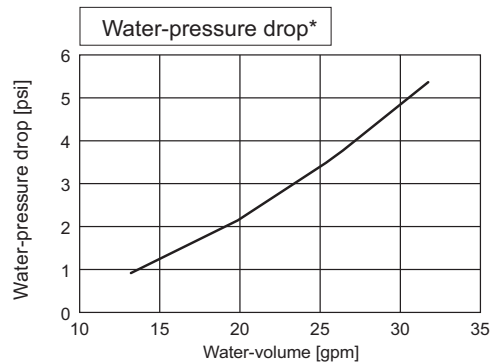
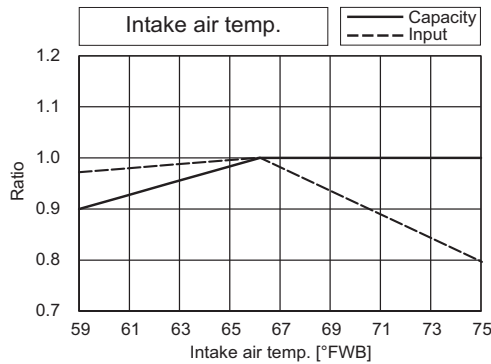
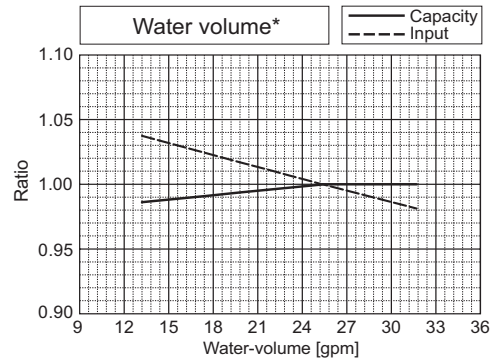
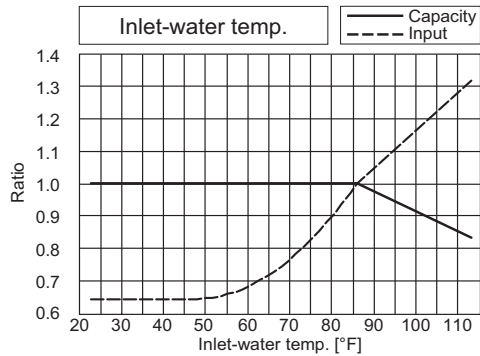


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

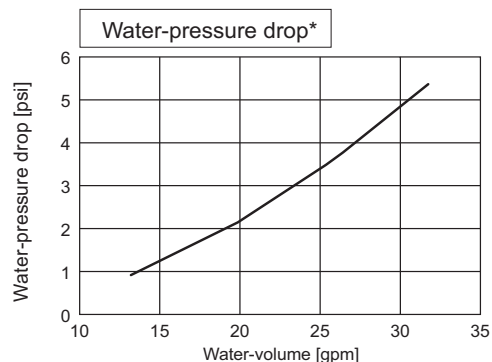
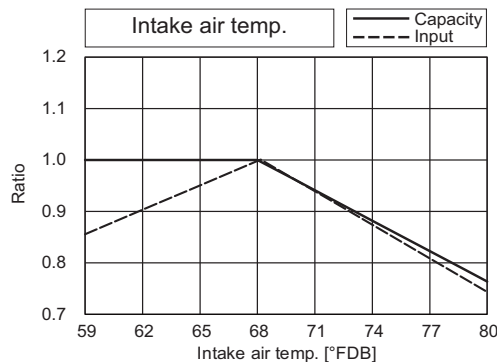
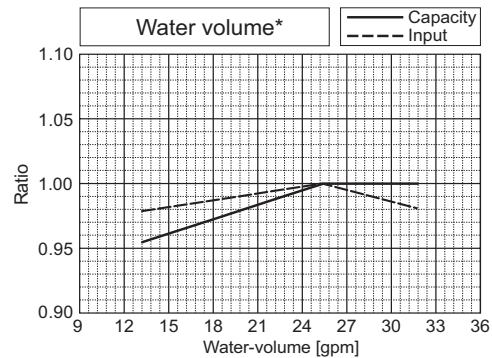
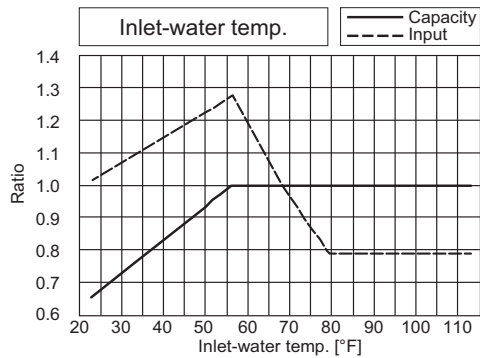
7. CAPACITY TABLES

PQRY-			P144TSLMU/YSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72

*The drawing indicates characteristic per unit.

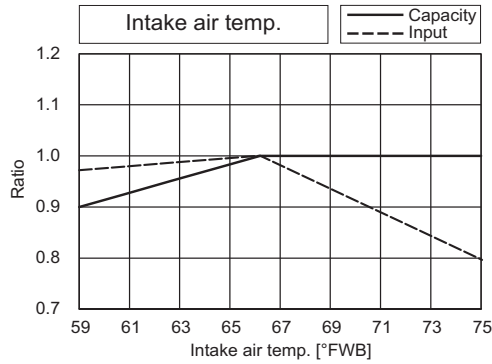
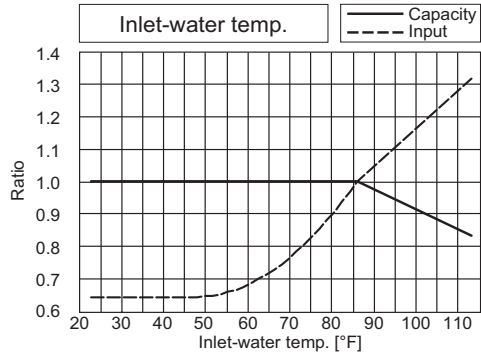


PQRY-			P144TSLMU/YSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22

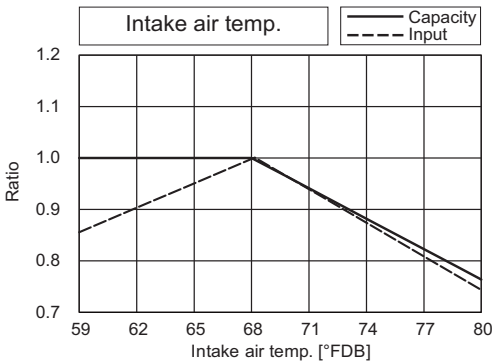
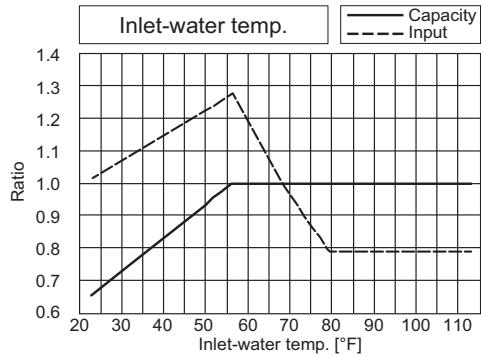


7. CAPACITY TABLES

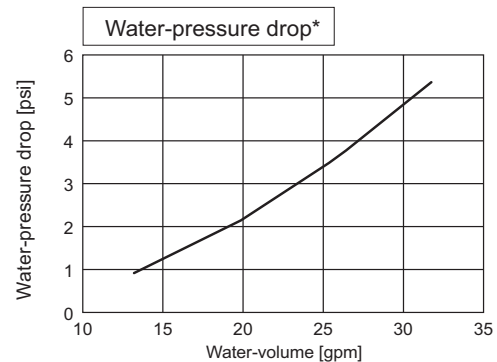
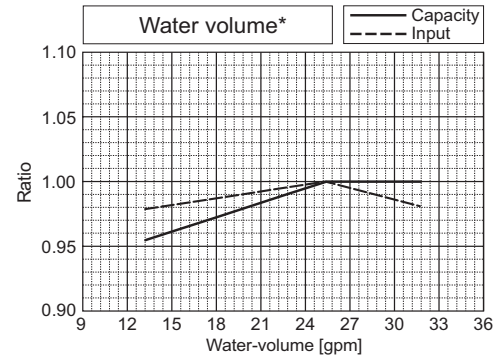
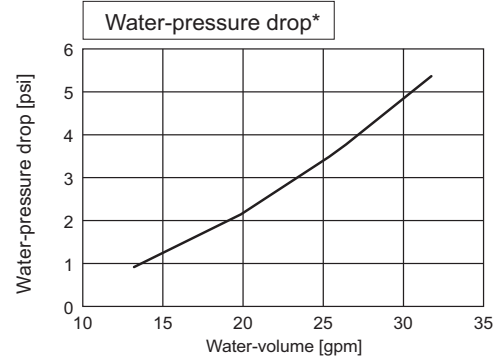
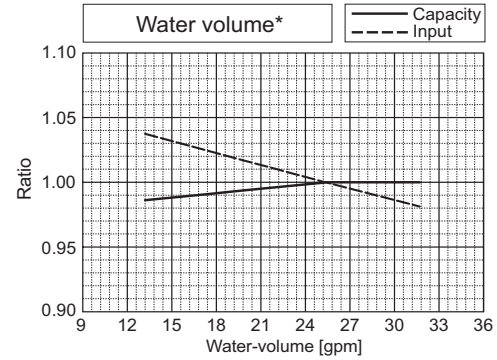
PQRY-			P168TSLMU/YSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22



PQRY-			P168TSLMU/YSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03



*The drawing indicates characteristic per unit.

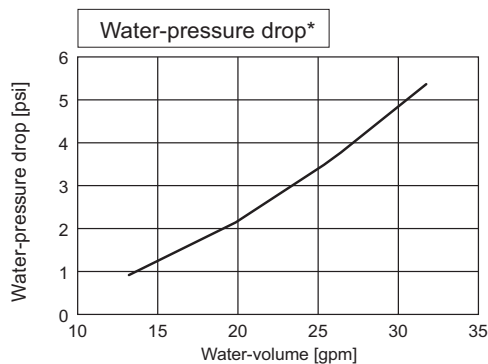
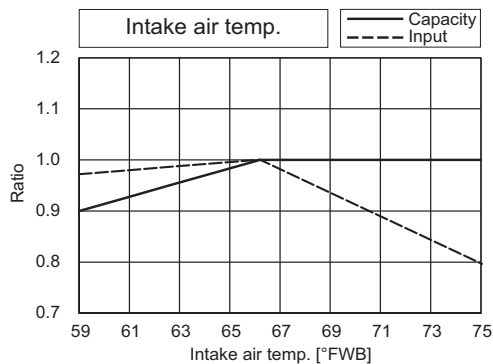
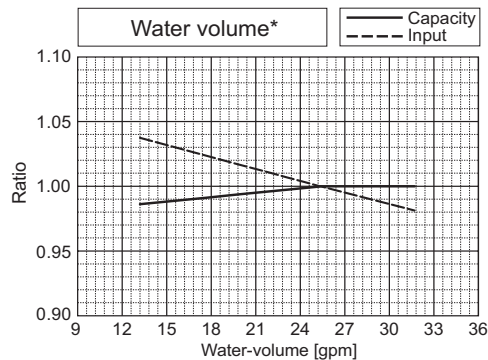
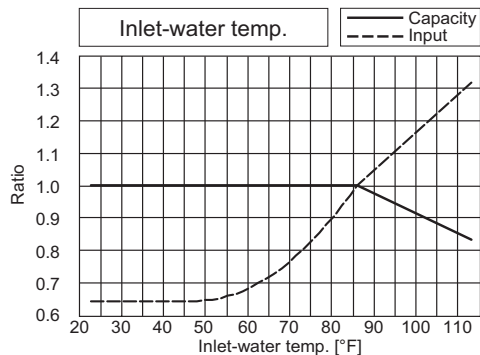


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

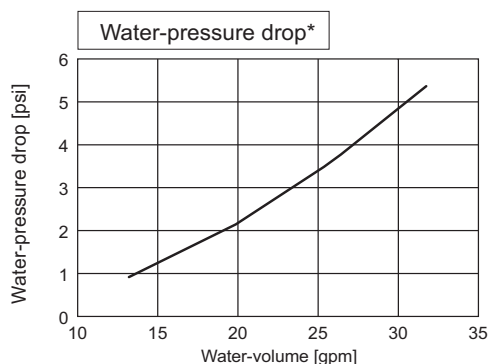
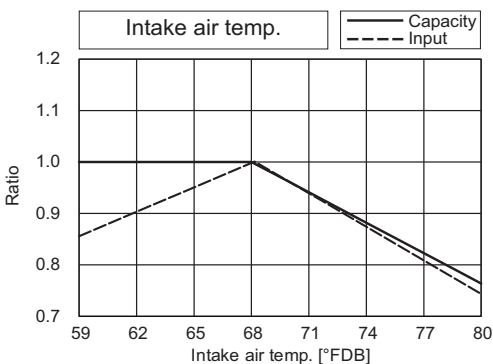
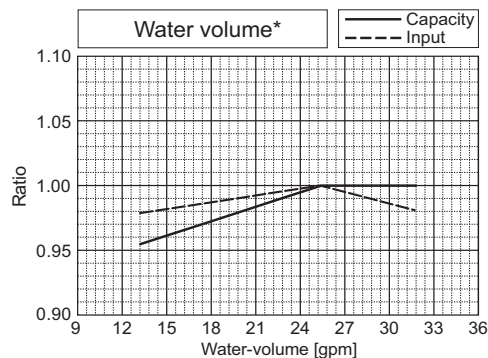
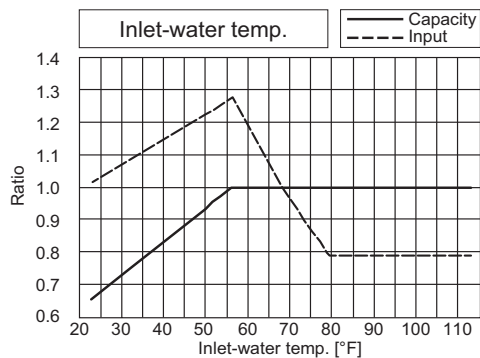
7. CAPACITY TABLES

PQRY-			P192TSLMU/YSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98

*The drawing indicates characteristic per unit.

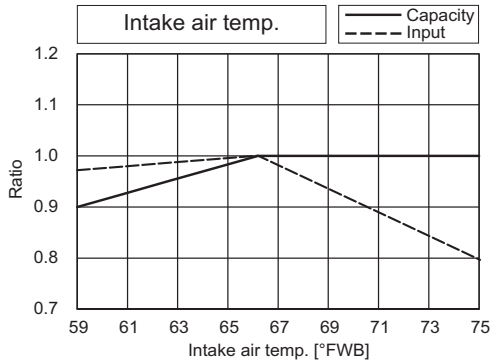
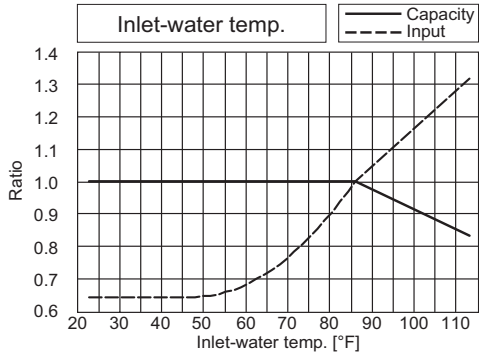


PQRY-			P192TSLMU/YSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90

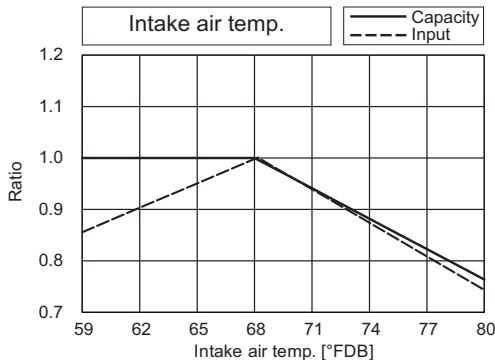
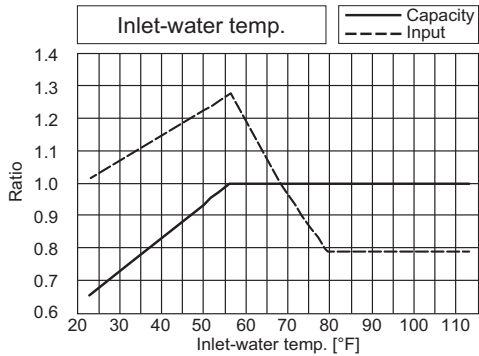


7. CAPACITY TABLES

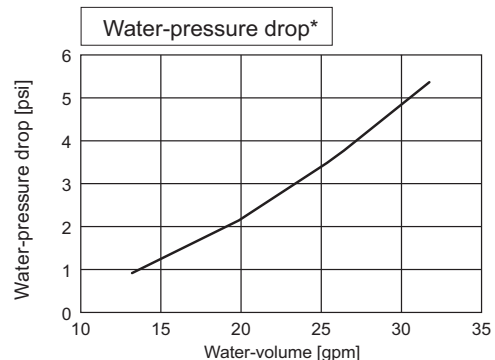
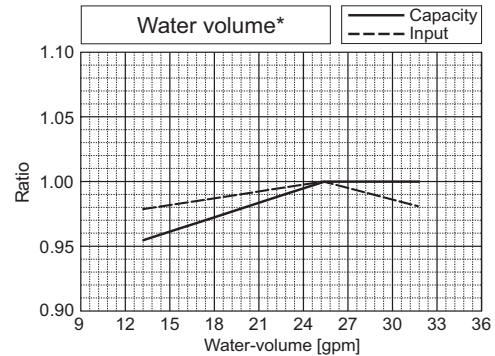
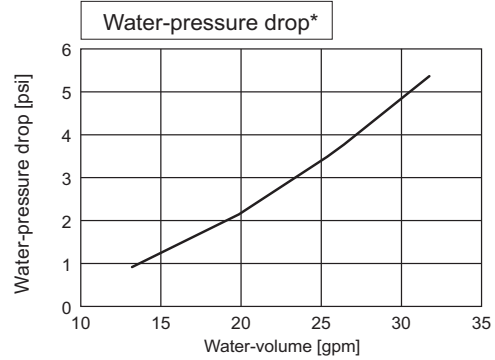
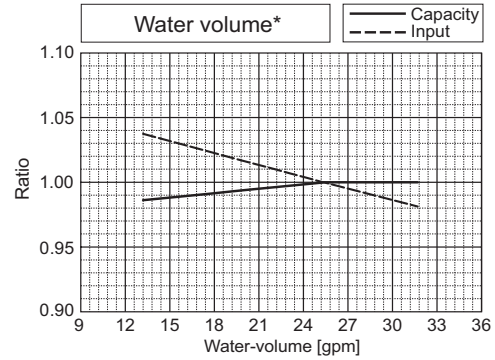
PQRY-			P216TSLMU/YSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24



PQRY-			P216TSLMU/YSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35



*The drawing indicates characteristic per unit.

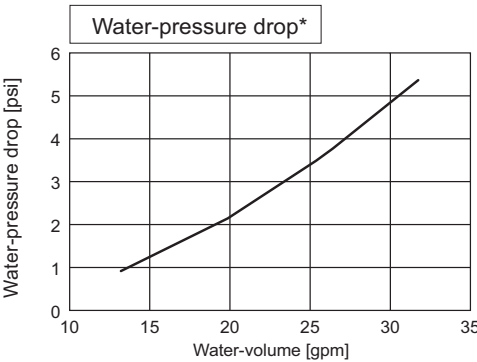
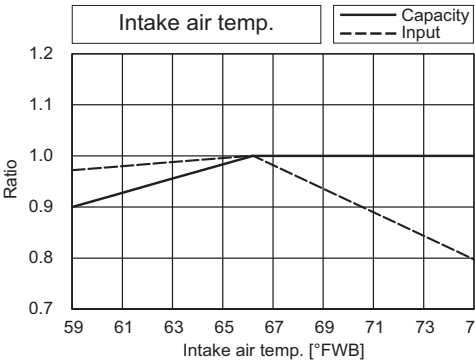
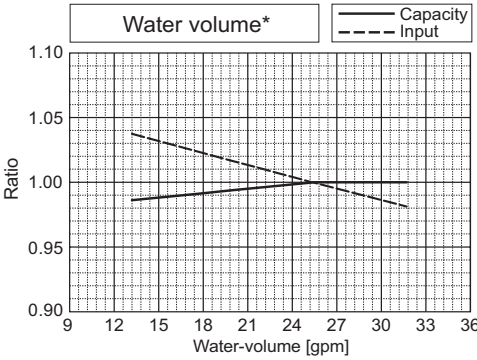
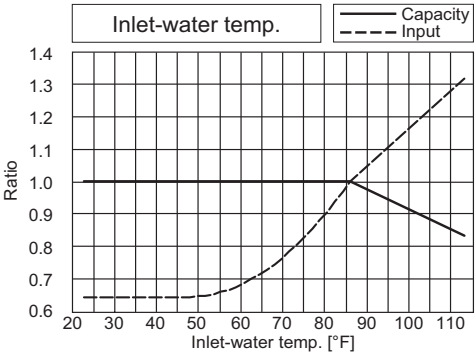


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

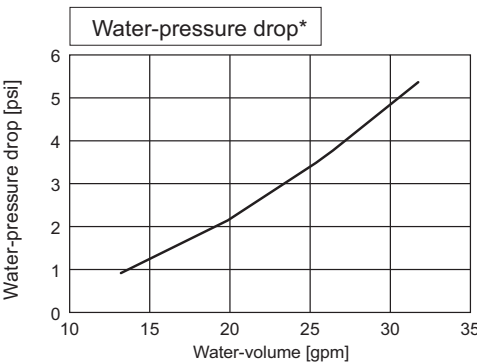
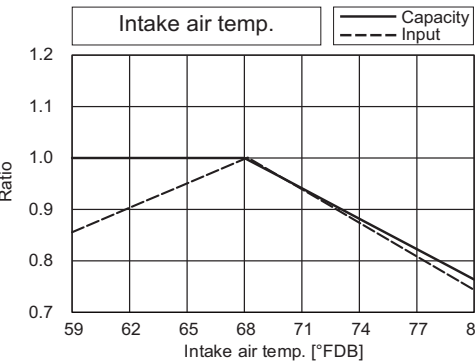
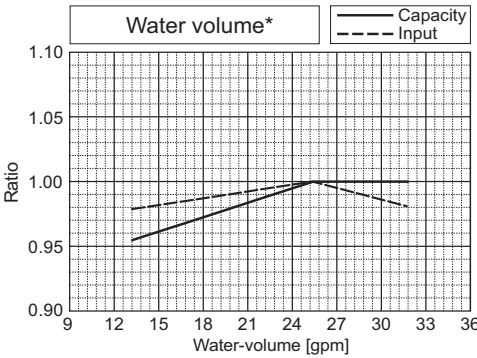
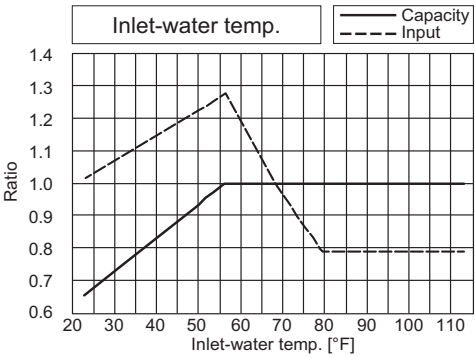
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQRY-			P240TSLMU/YSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15

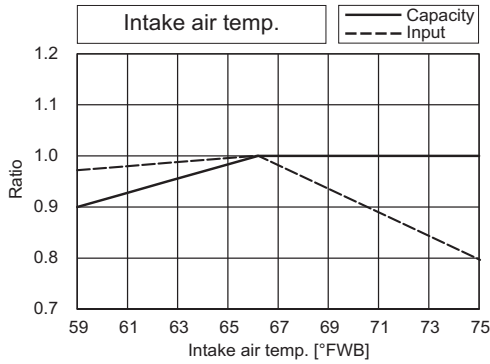
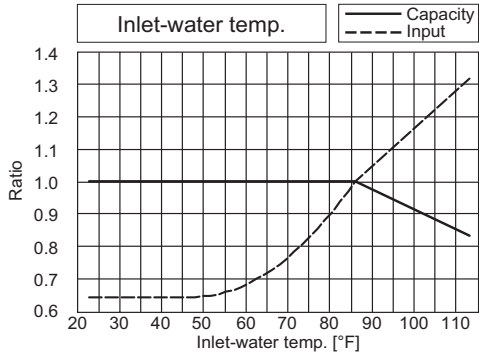


PQRY-			P240TSLMU/YSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02

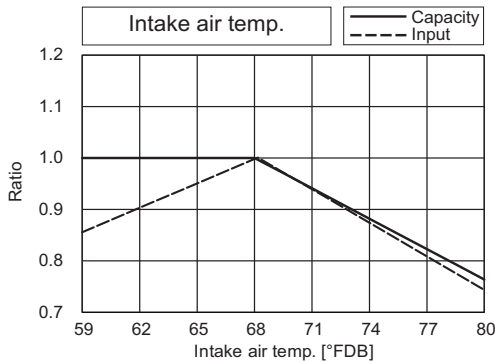
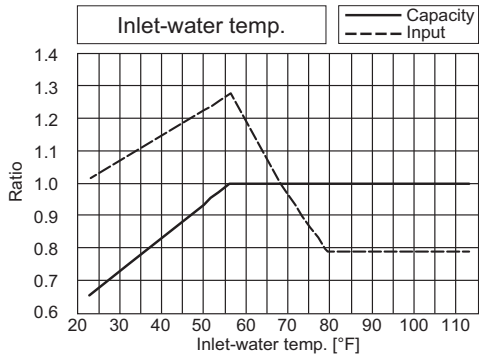


7. CAPACITY TABLES

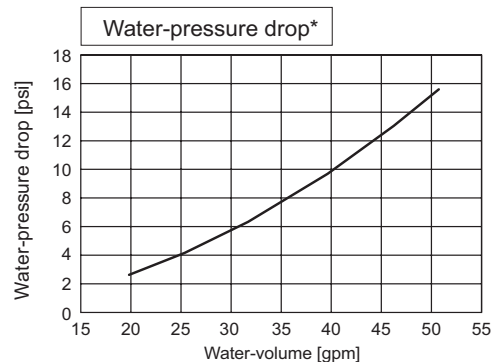
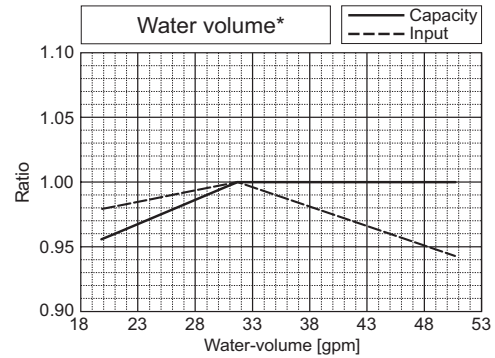
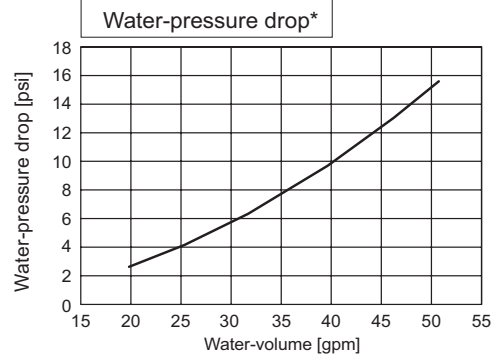
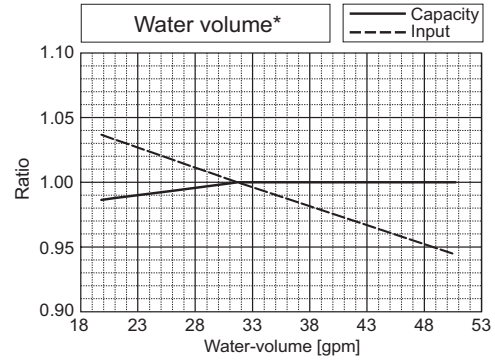
PQRY-			P288TSLMU/YSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43



PQRY-			P288TSLMU/YSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05



*The drawing indicates characteristic per unit.

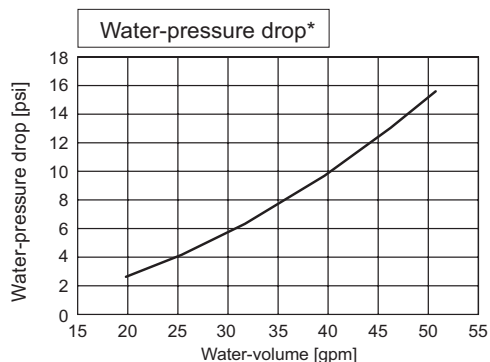
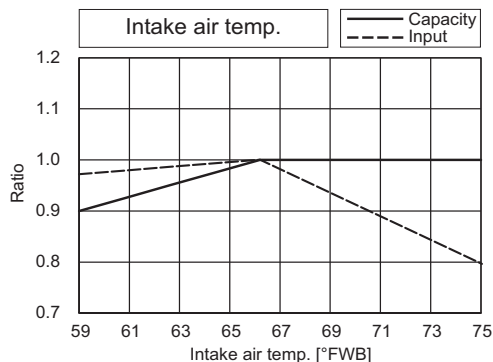
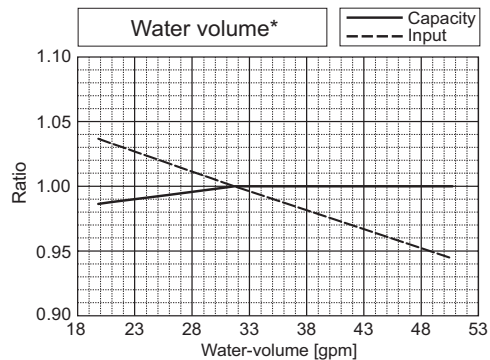
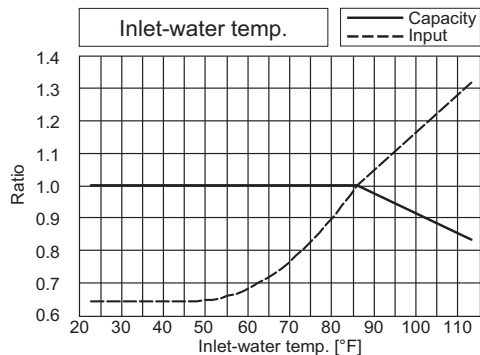


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

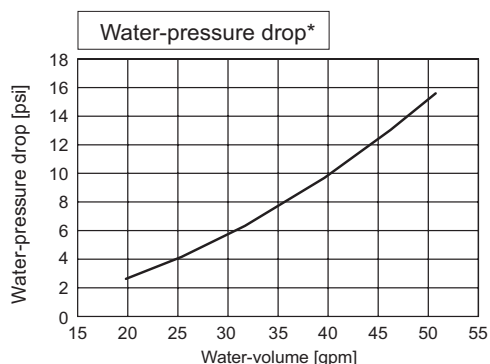
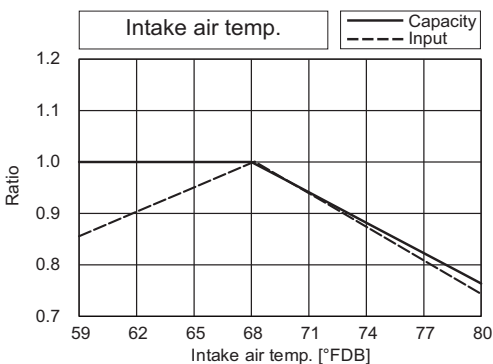
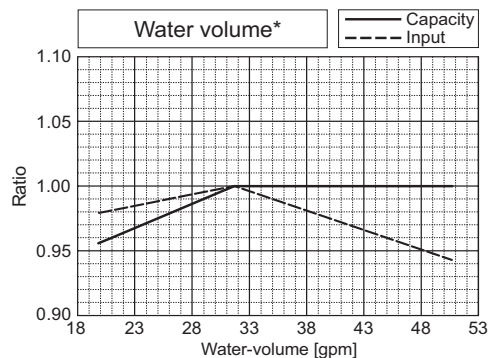
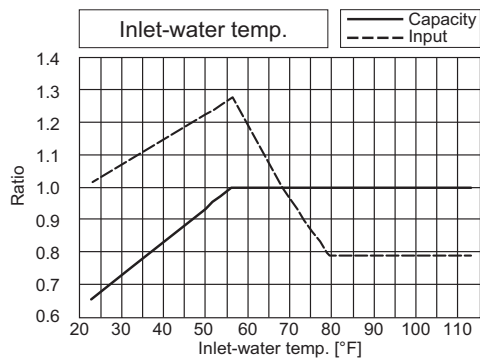
7. CAPACITY TABLES

PQRY-			P312TSLMU/YSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67

*The drawing indicates characteristic per unit.

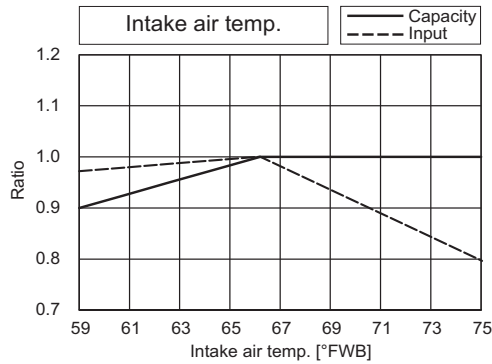
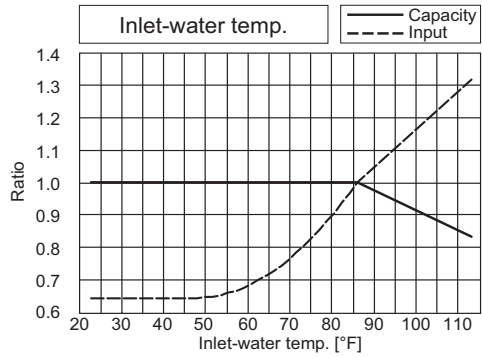


PQRY-			P312TSLMU/YSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96

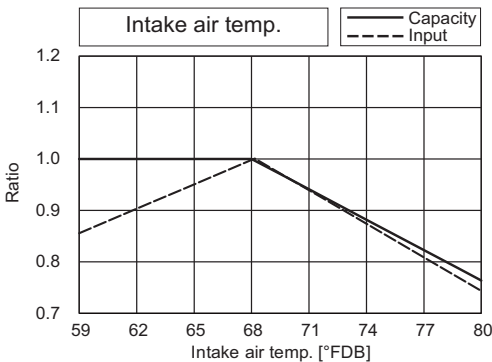
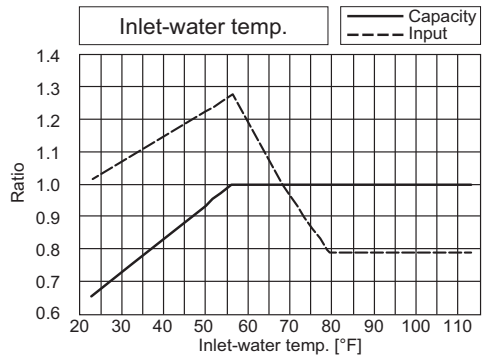


7. CAPACITY TABLES

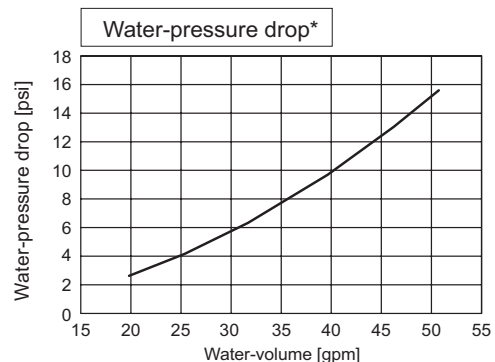
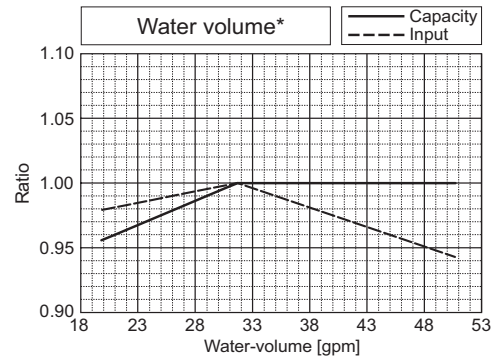
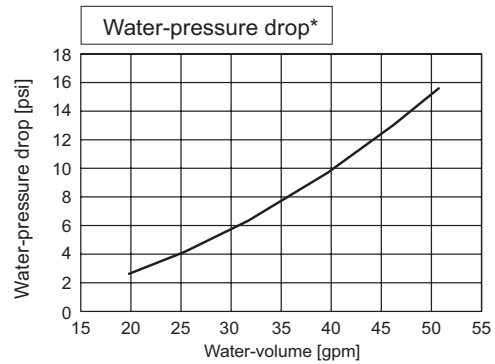
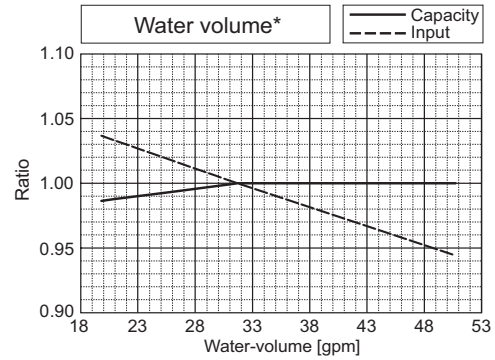
PQRY-			P336TSLMU/YSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85



PQRY-			P336TSLMU/YSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05



*The drawing indicates characteristic per unit.



PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

7-2. Correction by total indoor

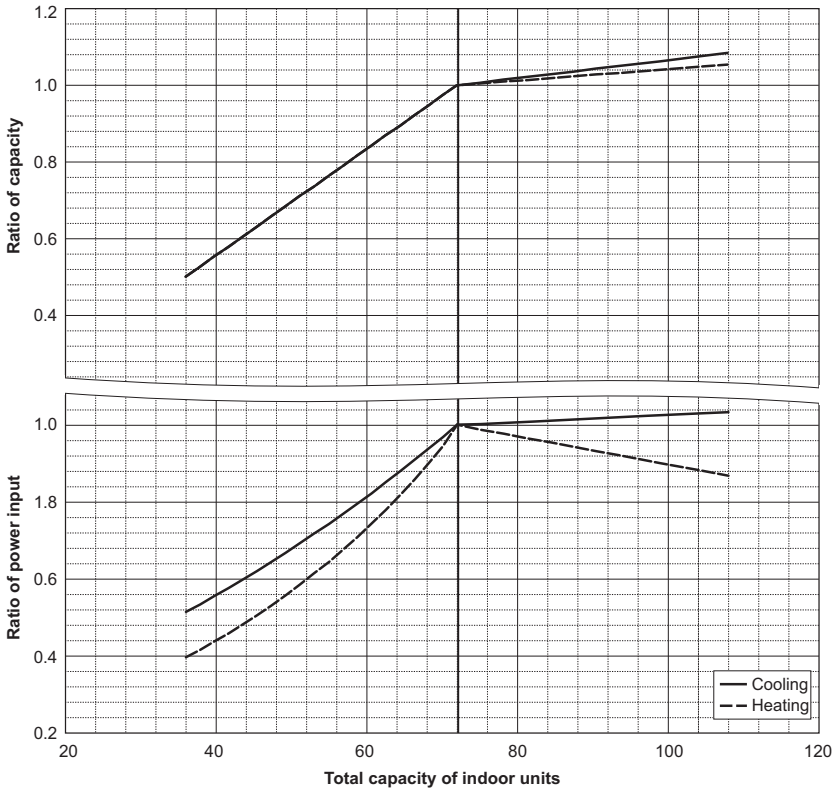
CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

PQRY-		P72TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	72,000	
	kW	21.1	
	Input kW	3.23	
Rated cooling capacity	BTU/h	69,000	
	kW	20.2	
	Input kW	2.96	3.12

PQRY-		P72TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	80,000	
	kW	23.4	
	Input kW	3.63	
Rated Heating capacity	BTU/h	76,000	
	kW	22.3	
	Input kW	3.34	3.36

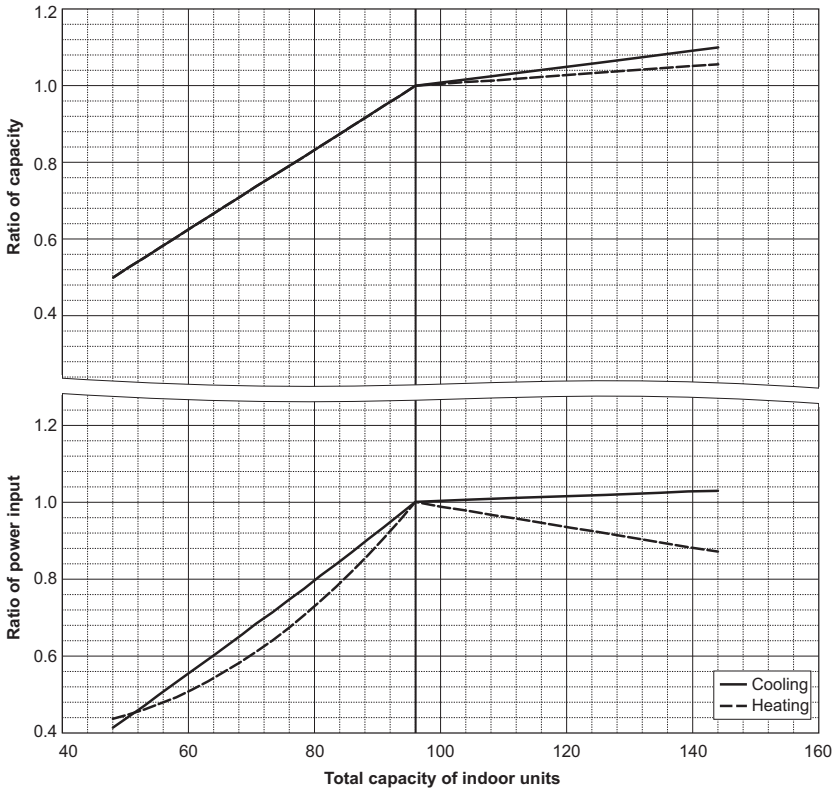
PQRY-P72TLMU/YLMU-A1



PQRY-		P96TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	96,000	
	kW	28.1	
	Input kW	4.65	
Rated cooling capacity	BTU/h	92,000	
	kW	27.0	
	Input kW	4.26	5.19

PQRY-		P96TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	108,000	
	kW	31.7	
	Input kW	5.05	
Rated Heating capacity	BTU/h	103,000	
	kW	30.2	
	Input kW	4.65	4.48

PQRY-P96TLMU/YLMU-A1

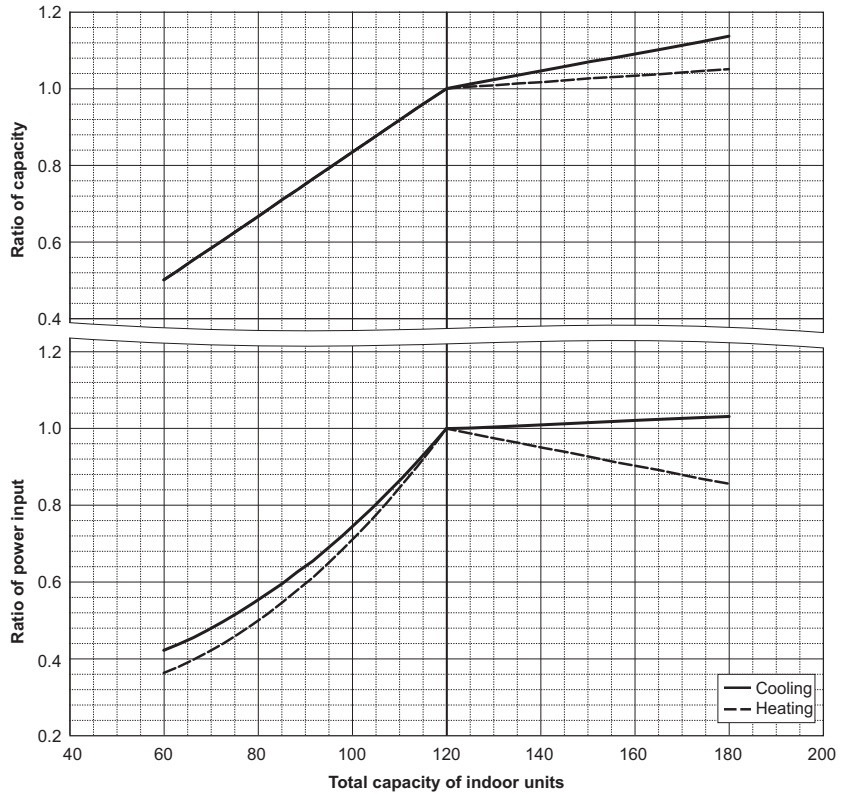


7. CAPACITY TABLES

PQRY-		P120TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	120,000	
	kW	35.2	
	Input kW	7.24	
Rated cooling capacity	BTU/h	114,000	
	kW	33.4	
	Input kW	6.66	7.35

PQRY-		P120TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	135,000	
	kW	39.6	
	Input kW	6.83	
Rated Heating capacity	BTU/h	129,000	
	kW	37.8	
	Input kW	6.29	5.92

PQRY-P120TLMU/YLMU-A1



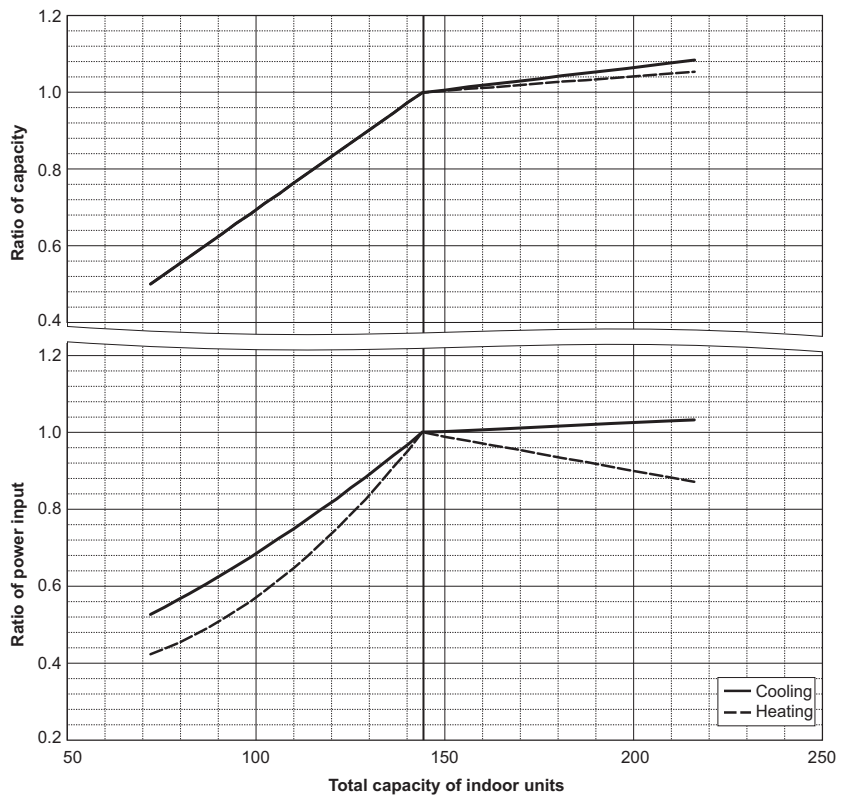
PQRY-		P144TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	8.78	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	8.07	9.98

PQRY-		P144TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	8.11	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	7.47	7.90

PQRY-		P144TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	7.11	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	6.53	7.72

PQRY-		P144TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	7.45	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	6.86	7.22

PQRY-P144T(S)LMU/Y(S)LMU-A1



PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

PQRY-		P168TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	12.05	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	11.10	11.88

PQRY-		P168TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.86	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	9.09	9.72

PQRY-		P168TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	9.33	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	8.58	9.22

PQRY-		P168TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.34	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	8.60	8.03

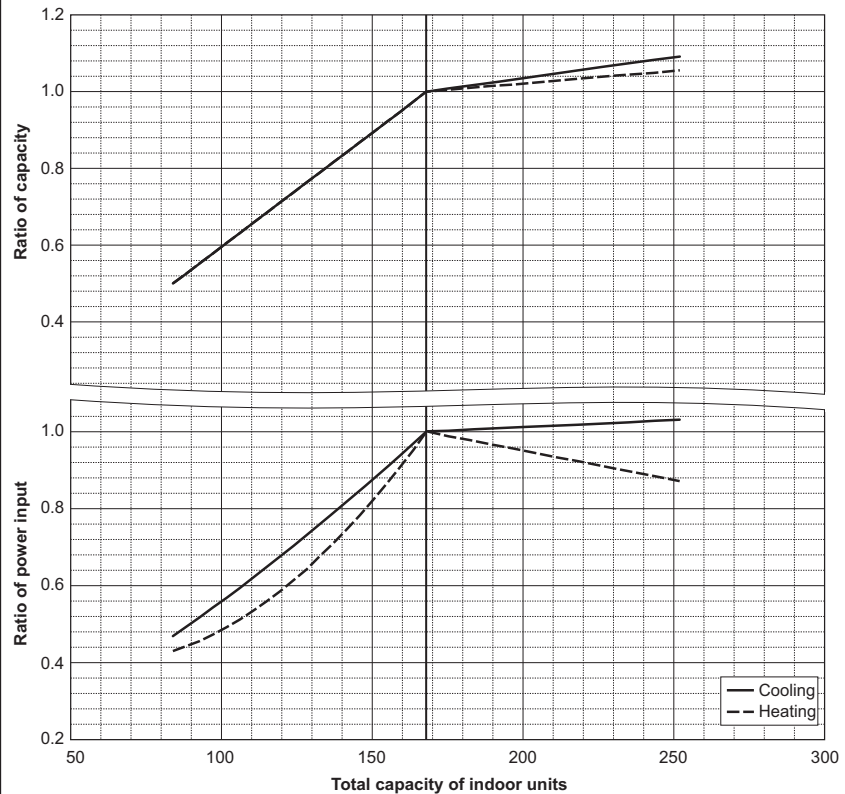
PQRY-		P192TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	15.05	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	13.87	14.19

PQRY-		P192TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.90	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.97	11.56

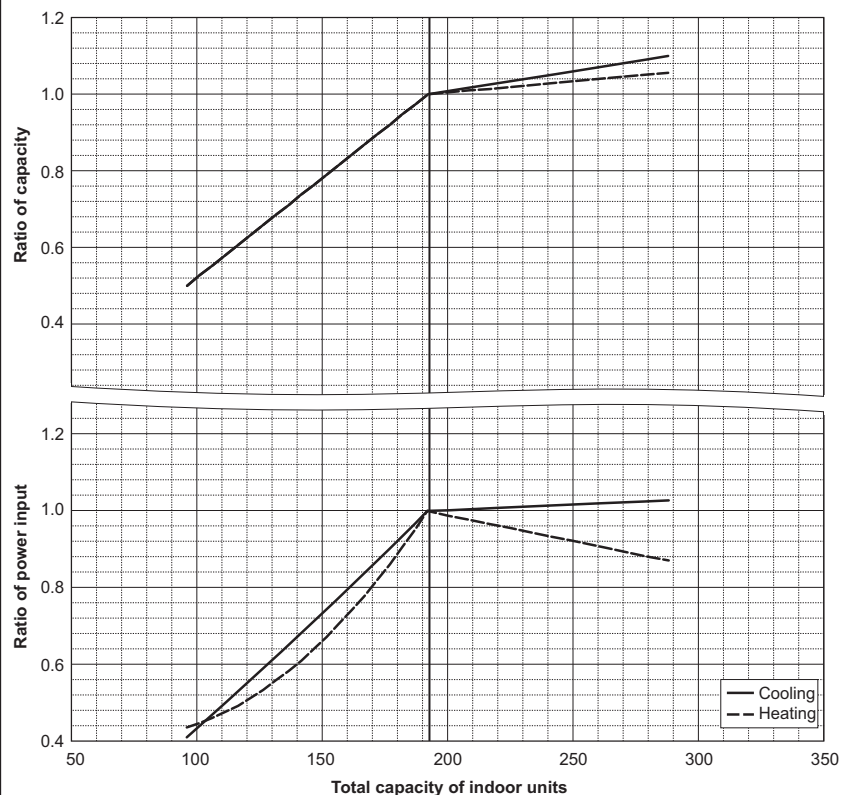
PQRY-		P192TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	11.30	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	10.40	10.98

PQRY-		P192TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.02	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.16	8.90

PQRY-P168T(S)LMU/Y(S)LMU-A1



PQRY-P192T(S)LMU/Y(S)LMU-A1



7. CAPACITY TABLES

PQRY-		P216TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	216,000	
	kW	63.3	
	Input kW	19.23	
Rated cooling capacity	BTU/h	206,000	
	kW	60.4	
	Input kW	17.72	16.10

PQRY-		P216TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	243,000	
	kW	71.2	
	Input kW	13.04	
Rated Heating capacity	BTU/h	232,000	
	kW	68.0	
	Input kW	12.01	12.34

PQRY-		P216TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	216,000	
	kW	63.3	
	Input kW	14.03	
Rated cooling capacity	BTU/h	206,000	
	kW	60.4	
	Input kW	12.93	13.24

PQRY-		P216TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	243,000	
	kW	71.2	
	Input kW	12.88	
Rated Heating capacity	BTU/h	232,000	
	kW	68.0	
	Input kW	11.88	10.35

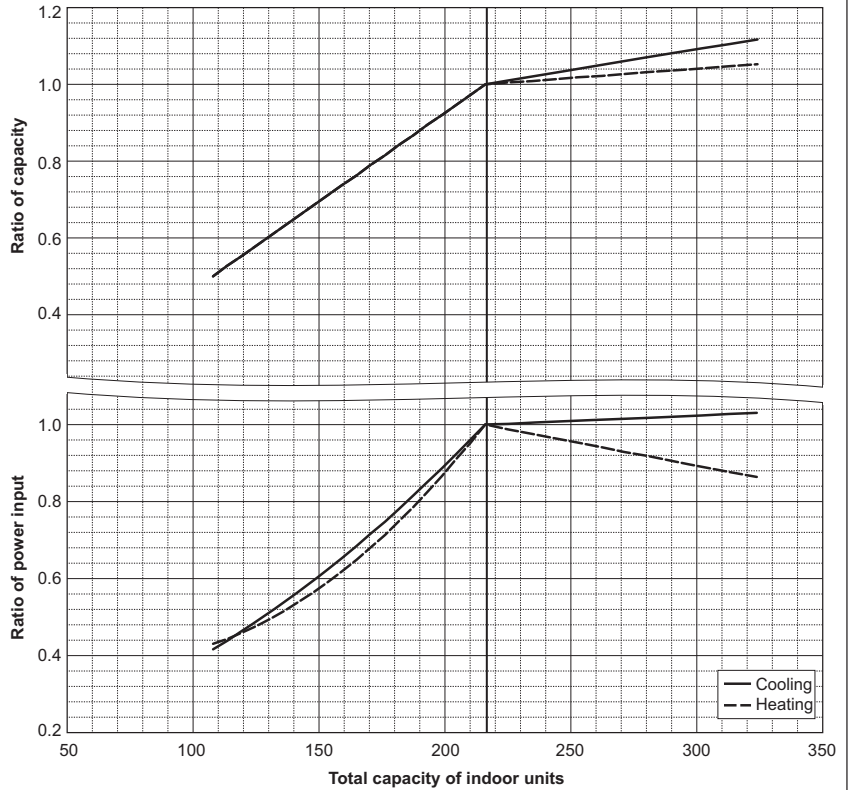
PQRY-		P240TLMU/YLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	240,000	
	kW	70.3	
	Input kW	21.14	
Rated cooling capacity	BTU/h	228,000	
	kW	66.8	
	Input kW	19.49	18.74

PQRY-		P240TLMU/YLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	270,000	
	kW	79.1	
	Input kW	15.12	
Rated Heating capacity	BTU/h	258,000	
	kW	75.6	
	Input kW	13.93	14.62

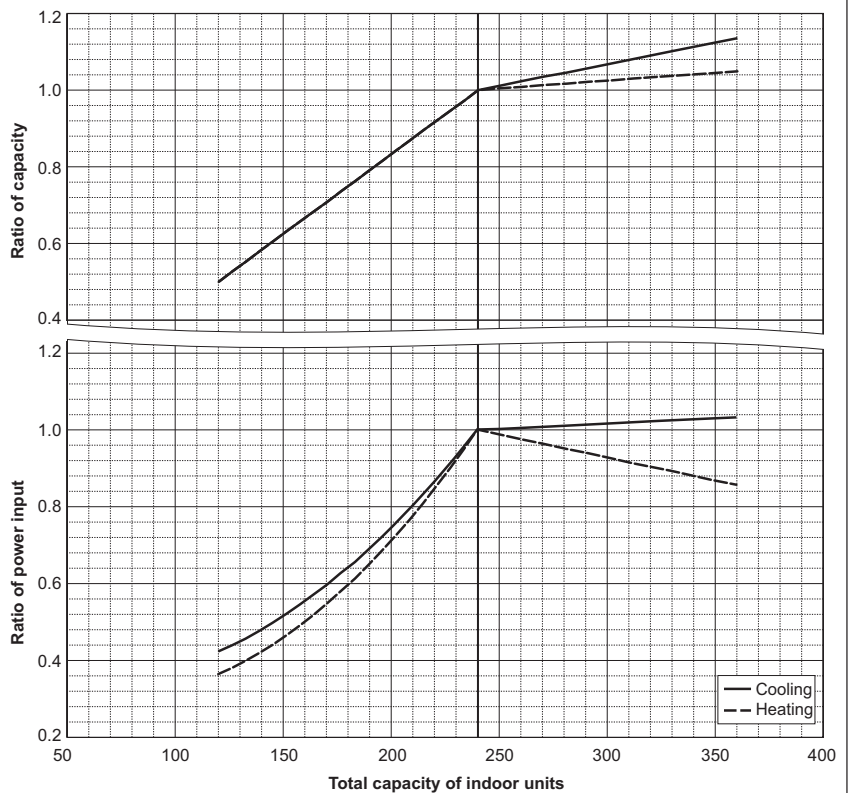
PQRY-		P240TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	240,000	
	kW	70.3	
	Input kW	16.89	
Rated cooling capacity	BTU/h	228,000	
	kW	66.8	
	Input kW	15.57	16.15

PQRY-		P240TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	270,000	
	kW	79.1	
	Input kW	14.58	
Rated Heating capacity	BTU/h	258,000	
	kW	75.6	
	Input kW	13.45	12.02

PQRY-P216T(S)LMU/Y(S)LMU-A1



PQRY-P240T(S)LMU/Y(S)LMU-A1



PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

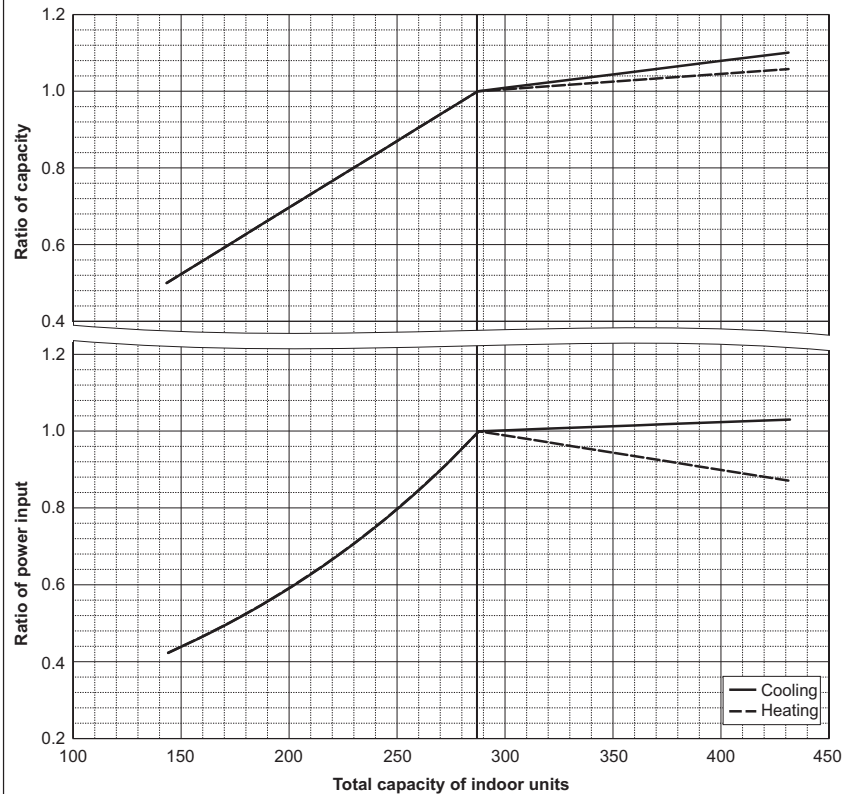
7. CAPACITY TABLES

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

PQRY-		P288TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	288,000	
	kW	84.4	
	Input kW	20.42	
Rated cooling capacity	BTU/h	275,000	
	kW	80.6	
	Input kW	18.82	21.43

PQRY-		P288TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	323,000	
	kW	94.7	
	Input kW	17.50	
Rated Heating capacity	BTU/h	308,000	
	kW	90.3	
	Input kW	16.13	16.05

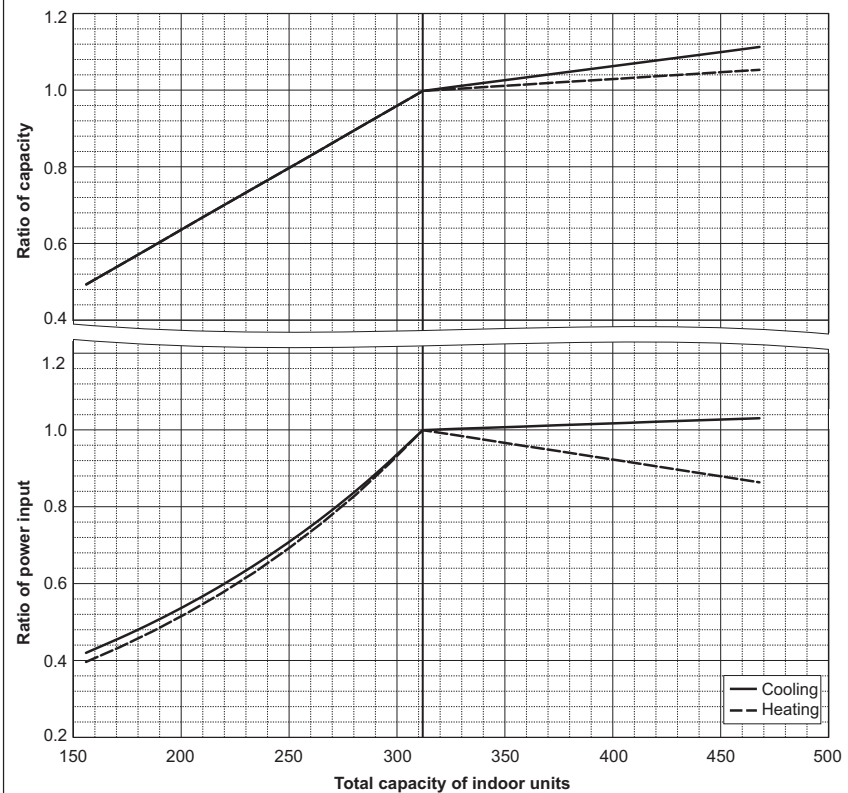
PQRY-P288TSLMU/YSLMU-A1



PQRY-		P312TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	312,000	
	kW	91.4	
	Input kW	23.41	
Rated cooling capacity	BTU/h	297,000	
	kW	87.0	
	Input kW	21.59	23.67

PQRY-		P312TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	350,000	
	kW	102.6	
	Input kW	19.11	
Rated Heating capacity	BTU/h	334,000	
	kW	97.9	
	Input kW	17.62	17.96

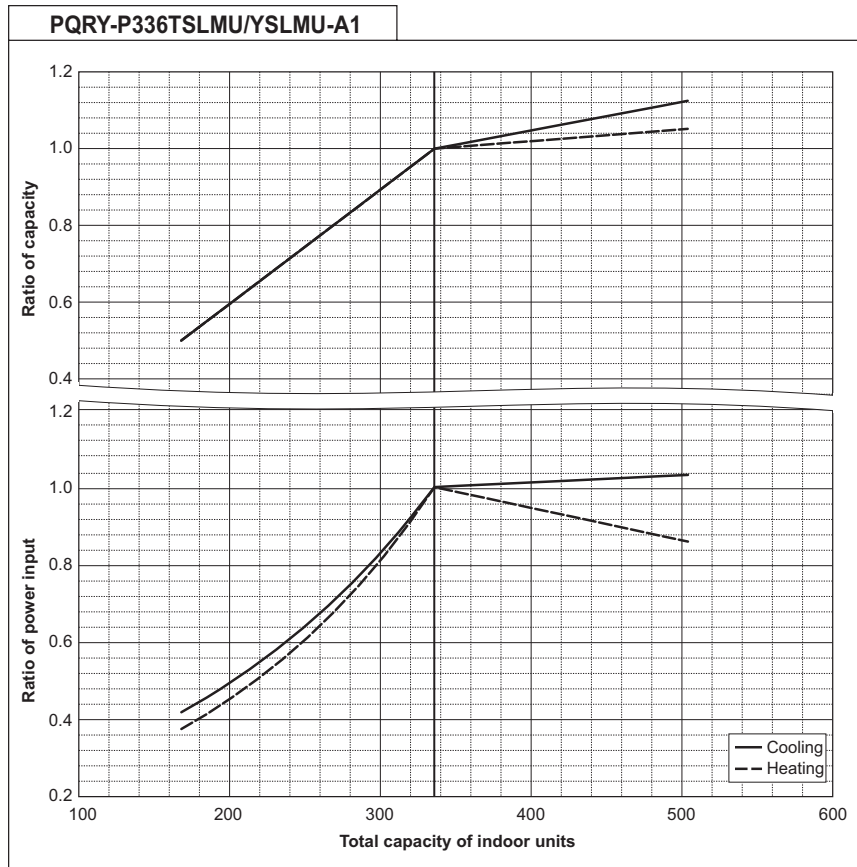
PQRY-P312TSLMU/YSLMU-A1



7. CAPACITY TABLES

PQRY-		P336TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	336,000	
	kW	98.5	
	Input kW	26.84	
Rated cooling capacity	BTU/h	320,000	
	kW	93.8	
	Input kW	24.76	25.85

PQRY-		P336TSLMU/YSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	378,000	
	kW	110.8	
	Input kW	20.77	
Rated Heating capacity	BTU/h	361,000	
	kW	105.8	
	Input kW	19.16	20.05



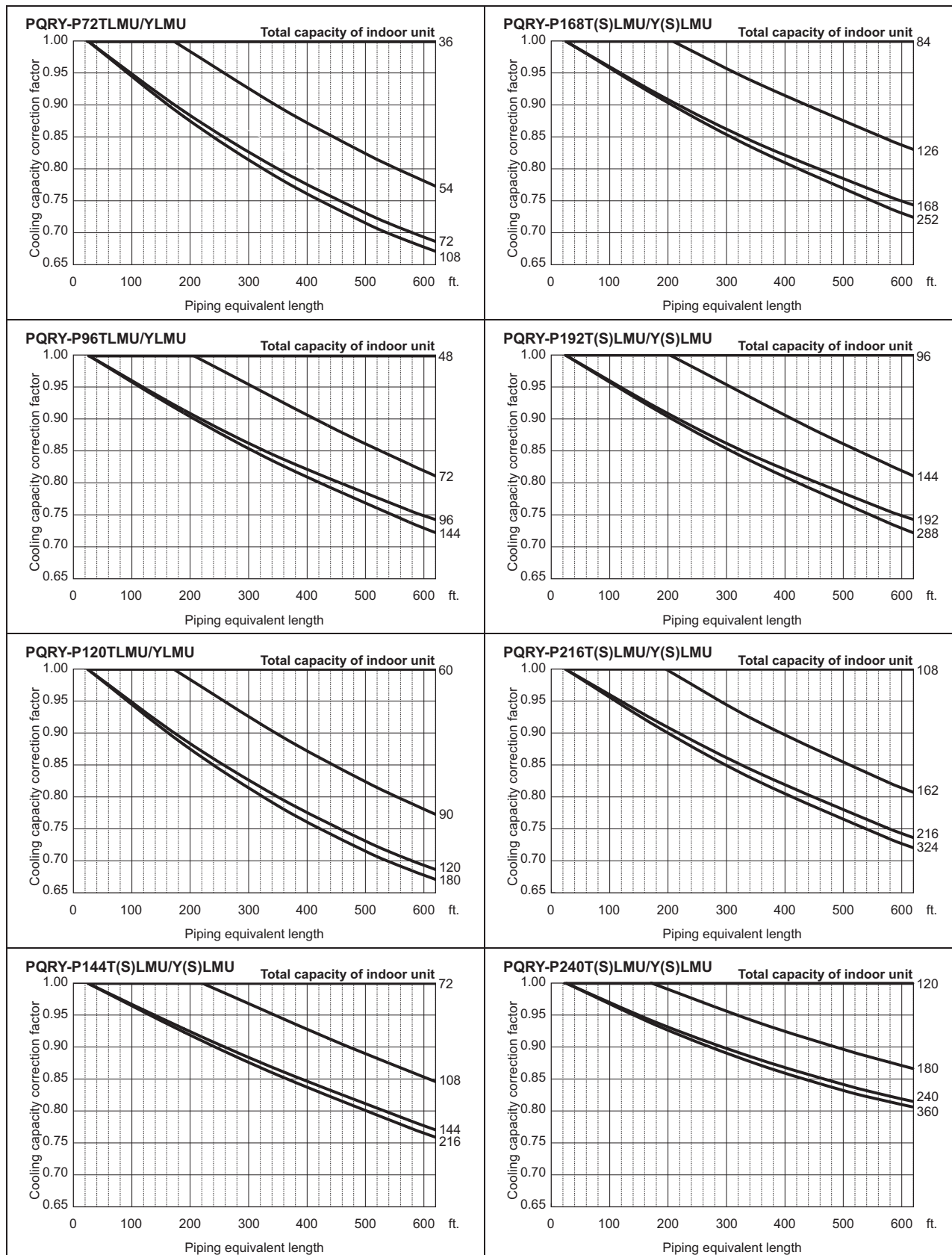
PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

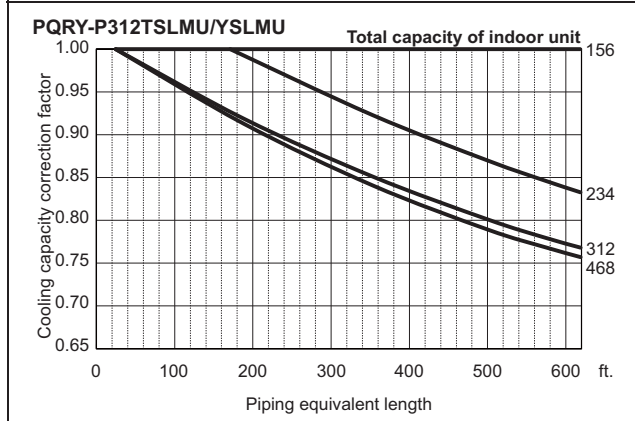
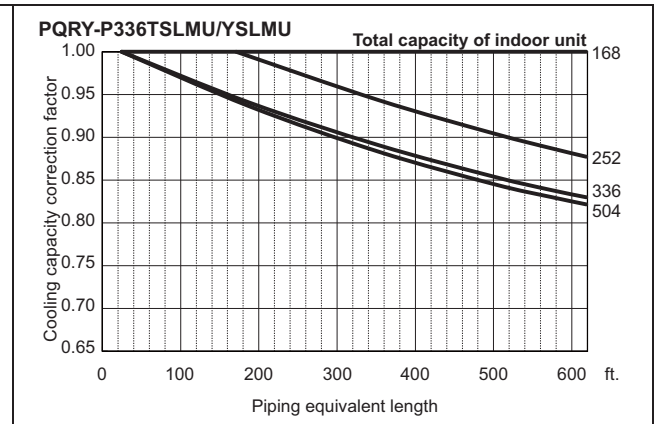
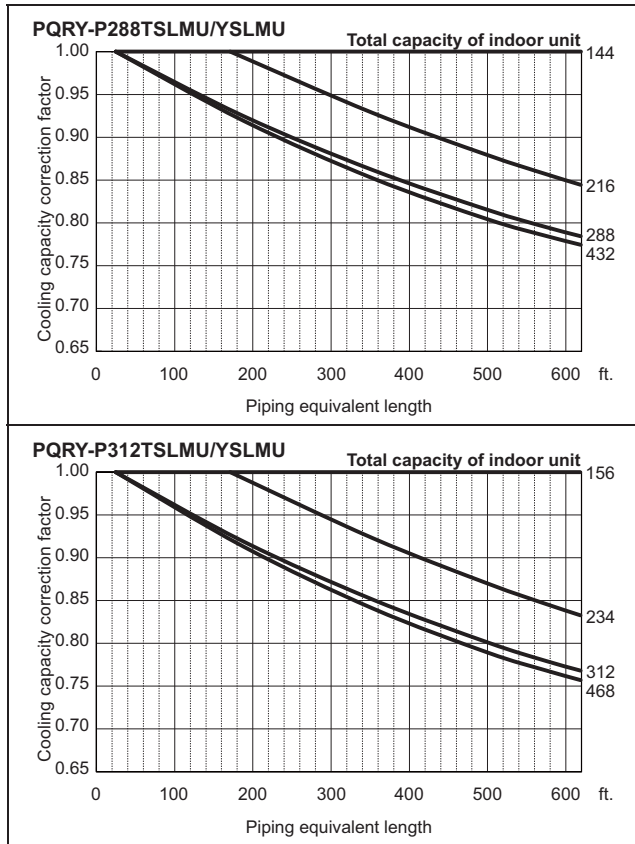
7-3. Correction by refrigerant piping length

CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

7-3-1. Cooling capacity correction



7. CAPACITY TABLES

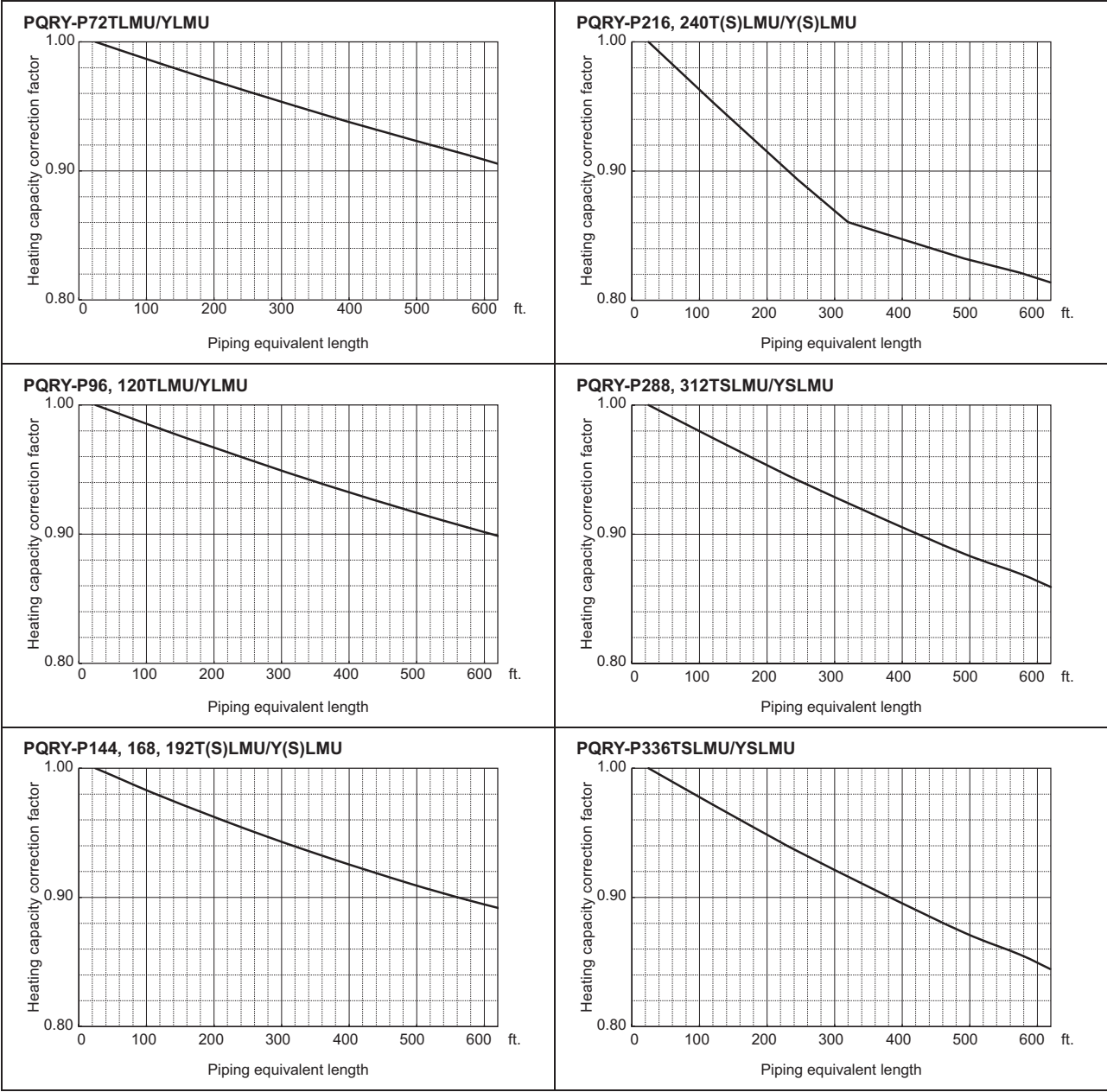


PQRY-P-T(S)LMU-A1, Y(S)LMU-A1

7. CAPACITY TABLES

7-3-2. Heating capacity correction

PQRY-P-T(S)LMU-A1, Y(S)LMU-A1



7. CAPACITY TABLES

7-3-3. How to obtain the equivalent piping length

1. PQRY-P72TLMU/YLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.15 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) [m]

2. PQRY-P96TLMU/YLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.38 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) [m]

3. PQRY-P120TLMU/YLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.54 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 x number of bent on the piping) [m]

4. PQRY-P144, 168, 192, 216, 240T(S)LMU/Y(S)LMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.64 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) [m]

5. PQRY-P288, 312TSLMU/YSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.29 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 x number of bent on the piping) [m]

6. PQRY-P336TSLMU/YSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.70 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 x number of bent on the piping) [m]

PQRY-P-Z(S)LMU-A1

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1. SPECIFICATIONS

Heat Source Model			PQRY-P72ZLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	72,000		
		kW	21.1		
	(575)	Power input	3.23		
		Current input	3.6		
	(Rated)	BTU/h	69,000		
		kW	20.2		
	(575)	Power input	2.96	3.12	
		Current input	3.3	3.4	
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	80,000		
		kW	23.4		
	(575)	Power input	3.63		
		Current input	4.0		
	(Rated)	BTU/h	76,000		
		kW	22.3		
	(575)	Power input	3.34	3.36	
		Current input	3.7	3.7	
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/1~18			
Sound pressure level (measured in anechoic room)		dB <A>	46.0		
Refrigerant piping diameter	High pressure	in. (mm)	5/8 (15.88) Brazed		
	Low pressure	in. (mm)	3/4 (19.05) Brazed		
Minimum Circuit Ampacity		A	5		
Maximum Overcurrent Protection		A	15		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
	Pressure drop	psi	3.48		
		kPa	24		
	Operating volume range	G/h	793 ~ 1,902		
		G/min (gpm)	13.2 ~ 31.7		
		m³/h	3.0 ~ 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	4.3		
	Case heater	kW	-		
	Lubricant	MEL32			
External finish		Galvanized steel sheets			
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16			
		mm			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	411 (186)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
		psi	290		
	Water pressure Max.	MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing	External		KL94C247		
	Wiring		KE94G421		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P96ZLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)		*1, 2	BTU/h	
			96,000	
			kW	
			28.1	
			kW	
			4.65	
			A	
			5.1	
			BTU/h	
			92,000	
			kW	
			27.0	
			kW	
			4.26	
			A	
			4.7	
			5.19	
			5.7	
Temp. range of cooling		Indoor	W.B.	
		Circulating water	°F	
			59-75°F (15-24°C)	
			23-113°F (-5-45°C)	
Heating capacity (Nominal)		*3, 4, 5	BTU/h	
			108,000	
			kW	
			31.7	
			kW	
			5.05	
			A	
			5.6	
			BTU/h	
			103,000	
			kW	
			30.2	
			kW	
			4.65	
			A	
			5.1	
			4.48	
			4.9	
Temp. range of heating		Indoor	D.B.	
		Circulating water	°F	
			59-81°F (15-27°C)	
			23-113°F (-5-45°C)	
Indoor unit connectable		Total capacity	50-150% of heat source unit capacity	
		Model/Quantity	P06-P96/1-24	
Sound pressure level (measured in anechoic room)			dB <A>	
			48.0	
Refrigerant piping diameter		High pressure	in. (mm)	
			3/4 (19.05) Brazed	
		Low pressure	in. (mm)	
			7/8 (22.2) Brazed	
Minimum Circuit Ampacity		A	7	
Maximum Overcurrent Protection		A	15	
Circulating water		Water flow rate	G/h	
			1,522	
		G/min (gpm)	25.4	
		m³/h	5.76	
		L/min	96	
		cfm	3.4	
		Pressure drop	psi	
			3.48	
		kPa	24	
		Operating volume range	G/h	
			793 ~ 1,902	
			G/min (gpm)	
			13.2 ~ 31.7	
			m³/h	
			3.0 ~ 7.2	
Compressor		Type x Quantity	Inverter scroll hermetic compressor x 1	
		Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
		Starting method	Inverter	
		Motor output	kW	
			6.0	
		Case heater	kW	
			-	
		Lubricant	MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550	
Protection devices		High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
		Inverter circuit	Over-heat protection, Over-current protection	
		Compressor	Over-heat protection	
Refrigerant		Type x original charge	R410A x 11 lbs + 1 oz (5.0 kg)	
		Control	Indoor LEV and BC controller	
Net weight		lbs (kg)	411 (186)	
Heat exchanger			plate type	
		Water volume in plate	G	
			1.32	
		l	5.0	
		Water pressure Max.	psi	
			290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)			-	
Drawing		External	KL94C247	
		Wiring	KE94G421	
Standard attachment		Document	Installation Manual	
		Accessory	Details refer to External Drw	
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.	

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P120ZLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2		BTU/h	120,000	
			kW	35.2	
	(575)	Power input	kW	7.24	
		Current input	A	8.0	
	(Rated)		BTU/h	114,000	
			kW	33.4	
	(575)	Power input	kW	6.66	7.35
		Current input	A	7.4	8.2
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5		BTU/h	135,000	
			kW	39.6	
	(575)	Power input	kW	6.83	
		Current input	A	7.6	
	(Rated)		BTU/h	129,000	
			kW	37.8	
	(575)	Power input	kW	6.29	5.92
		Current input	A	7.0	6.6
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
	Model/Quantity		P06~P96/1~30		
Sound pressure level (measured in anechoic room)		dB <A>	54.0		
Refrigerant	High pressure	in. (mm)	3/4 (19.05) Brazed		
piping diameter	Low pressure	in. (mm)	7/8 (22.2) Brazed		
Minimum Circuit Ampacity		A	11		
Maximum Overcurrent Protection		A	15		
Circulating water	Water flow rate	G/h	1,522		
		G/min (gpm)	25.4		
		m³/h	5.76		
		L/min	96		
		cfm	3.4		
	Pressure drop	psi	3.48		
		kPa	24		
	Operating volume range	G/h	793 ~ 1,902		
G/min (gpm)		13.2 ~ 31.7			
m³/h		3.0 ~ 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	7.7		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D	in.	43-5/16 x 34-11/16 x 21-11/16			
	mm	1,100 x 880 x 550			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	411 (186)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
		psi	290		
	Water pressure Max.	MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)			-		
Drawing	External		KL94C247		
	Wiring		KE94G421		
Standard attachment	Document		Installation Manual		
Optional parts	Accessory		Details refer to External Drw		
			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016NU-G1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3,412
2.<PWFY-P36/72NNU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NNU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NNU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P144ZLMU-A1 < For Ground source >			
Indoor Model			Non-Ducted	Ducted		
Power source			3-phase 3-wire 575 V ±10% 60 Hz			
Cooling capacity (Nominal)	*1, 2		BTU/h		144,000	
			kW		42.2	
	(575)	Power input	kW		8.78	
		Current input	A		9.7	
	(Rated)			BTU/h		137,000
				kW		40.2
	(575)	Power input	kW		8.07	9.98
		Current input	A		9.0	
	Temp. range of cooling	Indoor		W.B.		59~75°F (15~24°C)
		Circulating water		°F		23~113°F (-5~45°C)
Heating capacity (Nominal)	*3, 4, 5		BTU/h		160,000	
			kW		46.9	
	(575)	Power input	kW		8.11	
		Current input	A		9.0	
	(Rated)			BTU/h		152,000
				kW		44.5
	(575)	Power input	kW		7.47	7.90
		Current input	A		8.3	
	Temp. range of heating	Indoor		D.B.		59~81°F (15~27°C)
		Circulating water		°F		23~113°F (-5~45°C)
Indoor unit connectable	Total capacity				50~150% of heat source unit capacity	
	Model/Quantity				P06~P96/1~36	
Sound pressure level (measured in anechoic room)			dB <A>		54.0	
Refrigerant piping diameter	High pressure		in. (mm)		7/8 (22.2) Brazed	
	Low pressure		in. (mm)		1-1/8 (28.58) Brazed	
Minimum Circuit Ampacity			A		13	
Maximum Overcurrent Protection			A		20	
Circulating water	Water flow rate	G/h		1,902		
		G/min (gpm)		31.7		
		m³/h		7.20		
		L/min		120		
		cfm		4.2		
		Pressure drop	psi		6.38	
	kPa		44			
	Operating volume range	G/h		1,189 ~ 3,054		
		G/min (gpm)		19.8 ~ 50.9		
		m³/h		4.5 ~ 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter			
	Motor output	kW	9.5			
	Case heater	kW	-			
	Lubricant	MEL32				
External finish			Galvanized steel sheets			
External dimension H x W x D			in.		57-1/8 x 34-11/16 x 21-11/16	
			mm		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)			
	Control		Indoor LEV and BC controller			
Net weight			lbs (kg)		512 (232)	
Heat exchanger			plate type			
	Water volume in plate	G	1.32			
		l	5.0			
	Water pressure Max.	psi	290			
		MPa	2.0			
HIC circuit (HIC: Heat Inter-Changer)					-	
Drawing	External		KL94C248			
	Wiring		KE94G421			
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

PQRY-P-Z(S)LMU-A1

Heat Source Model			PQRY-P168ZLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	168,000		
		kW	49.2		
	(575)	Power input	kW	12.05	
		Current input	A	13.4	
	(Rated)	BTU/h	161,000		
		kW	47.2		
	(575)	Power input	kW	11.10	11.88
		Current input	A	12.3	13.2
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	188,000		
		kW	55.1		
	(575)	Power input	kW	9.86	
		Current input	A	11.0	
	(Rated)	BTU/h	179,000		
		kW	52.5		
	(575)	Power input	kW	9.09	9.72
		Current input	A	10.1	10.8
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/1~42			
Sound pressure level (measured in anechoic room)		dB <A>	56.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	16		
Maximum Overcurrent Protection		A	25		
Circulating water	Water flow rate	G/h	1,902		
		G/min (gpm)	31.7		
		m³/h	7.20		
		L/min	120		
		cfm	4.2		
		Pressure drop	psi	6.38	
	Operating volume range	kPa	44		
		G/h	1,189 ~ 3,054		
		G/min (gpm)	19.8 ~ 50.9		
		m³/h	4.5 ~ 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	11.0		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	512 (232)		
Heat exchanger	Water volume in plate		plate type		
			G	1.32	
	I	5.0			
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		-			
Drawing	External	KL94C248			
	Wiring	KE94G421			
Standard attachment	Document	Installation Manual			
	Accessory	Details refer to External Drw			
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P192ZLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	192,000		
		kW	56.3		
	(575)	Power input	15.05		
		Current input	16.7		
	(Rated)	BTU/h	183,000		
		kW	53.6		
	(575)	Power input	13.87	14.19	
		Current input	15.4	15.8	
	Temp. range of cooling	Indoor	W.B. 59~75°F (15~24°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	215,000		
		kW	63.0		
	(575)	Power input	11.90		
		Current input	13.2		
	(Rated)	BTU/h	205,000		
		kW	60.1		
	(575)	Power input	10.97	11.56	
		Current input	12.2	12.8	
	Temp. range of heating	Indoor	D.B. 59~81°F (15~27°C)		
		Circulating water	°F 23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/1~48			
Sound pressure level (measured in anechoic room)		dB <A>	58.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Minimum Circuit Ampacity		A	20		
Maximum Overcurrent Protection		A	30		
Circulating water	Water flow rate	G/h	1,902		
		G/min (gpm)	31.7		
		m³/h	7.20		
		L/min	120		
		cfm	4.2		
	Pressure drop	psi	6.38		
		kPa	44		
	Operating volume range	G/h	1,189 ~ 3,054		
		G/min (gpm)	19.8 ~ 50.9		
		m³/h	4.5 ~ 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	12.4		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		
		mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	512 (232)		
Heat exchanger			plate type		
	Water volume in plate	G	1.32		
		l	5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
HIC circuit (HIC: Heat Inter-Changer)		-			
Drawing	External		KL94C248		
	Wiring		KE94G421		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1			
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.			

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3,412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P144ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	144,000	
		kW	42.2	
	(575)	Power input	7.11	
		Current input	7.9	
	(Rated)	BTU/h	137,000	
		kW	40.2	
	(575)	Power input	6.53	7.72
		Current input	7.2	8.6
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	160,000	
		kW	46.9	
	(575)	Power input	7.45	
		Current input	8.3	
	(Rated)	BTU/h	152,000	
		kW	44.5	
	(575)	Power input	6.86	7.22
		Current input	7.6	8.0
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	
	Model/Quantity		P06~P96/1~36	
Sound pressure level (measured in anechoic room)		dB <A>	49.0	
Refrigerant piping diameter	High pressure		7/8 (22.2) Brazed	
	Low pressure		1-1/8 (28.58) Brazed	

Set Model			PQRY-P72ZLMU-A1 < For Ground source >		PQRY-P72ZLMU-A1 < For Ground source >	
Model						
Minimum Circuit Ampacity		A	5		5	
Maximum Overcurrent Protection		A	15		15	
Circulating water	Water flow rate	G/h	1,522 + 1,522			
		G/min (gpm)	25.4 + 25.4			
		m³/h	5.76 + 5.76			
		L/min	96 + 96			
		cfm	3.4 + 3.4			
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902			
G/min (gpm)		13.2 + 13.2 ~ 31.7 + 31.7				
m³/h		3.0 + 3.0 ~ 7.2 + 7.2				
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	4.3		4.3	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	411 (186)		411 (186)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		I	1.32		1.32	
			5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		-		-		
Pipe between unit and distributor	High pressure	in. (mm)	5/8 (15.88) Brazed		5/8 (15.88) Brazed	
	Low pressure	in. (mm)	-		3/4 (19.05) Brazed	
Drawing	External		KL94C251			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P168ZSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	168,000		
		kW	49.2		
	(575)	Power input	kW	9.33	
		Current input	A	10.4	
	(Rated)	BTU/h	161,000		
		kW	47.2		
	(575)	Power input	kW	8.58	9.22
		Current input	A	9.5	10.2
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	188,000		
		kW	55.1		
	(575)	Power input	kW	9.34	
		Current input	A	10.4	
	(Rated)	BTU/h	179,000		
		kW	52.5		
	(575)	Power input	kW	8.60	8.03
		Current input	A	9.5	8.9
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)		
	Circulating water	°F	23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		
Sound pressure level (measured in anechoic room)	Model/Quantity		P06~P96/1~42		
Refrigerant	High pressure		in. (mm)		
piping diameter	Low pressure		in. (mm)		
Set Model					
Model			PQRY-P96ZLMU-A1 < For Ground source >		
Minimum Circuit Ampacity			A		
Maximum Overcurrent Protection			A		
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
	Pressure drop	psi	3.48	3.48	
		kPa	24	24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		
G/min (gpm)		13.2 + 13.2 ~ 31.7 + 31.7			
m³/h		3.0 + 3.0 ~ 7.2 + 7.2			
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	6.0		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish			Galvanized steel sheets		
External dimension H x W x D	in.		43-5/16 x 34-11/16 x 21-11/16		
	mm		1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	411 (186)		
Heat exchanger	Water volume in plate	G	plate type		
		I	1.32		
			5.0		
	Water pressure Max.	psi	290		
		MPa	2.0		
H/C circuit (H/C: Heat Inter-Changer)			-		
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed		
	Low pressure	in. (mm)	-		
Drawing	External		KL94C251		
	Wiring		KE94G421		
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (10°C), and turn DipSW4 (773) ON before power ON. The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P192ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	192,000	
		kW	56.3	
	(575)	Power input	11.30	
		Current input	12.6	
	(Rated)	BTU/h	183,000	
		kW	53.6	
	(575)	Power input	10.40	10.98
		Current input	11.6	12.2
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	215,000	
		kW	63.0	
	(575)	Power input	11.02	
		Current input	12.2	
	(Rated)	BTU/h	205,000	
		kW	60.1	
	(575)	Power input	10.16	8.90
		Current input	11.3	9.9
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	
	Model/Quantity		P06~P96/1~48	
Sound pressure level (measured in anechoic room)		dB <A>	51.0	
Refrigerant piping diameter	High pressure		7/8 (22.2) Brazed	
	Low pressure		1-1/8 (28.58) Brazed	

Set Model			PQRY-P96ZLMU-A1 < For Ground source >		PQRY-P96ZLMU-A1 < For Ground source >	
Model			7		7	
Minimum Circuit Ampacity		A	15		15	
Maximum Overcurrent Protection		A				
Circulating water	Water flow rate	G/h	1,522 + 1,522		1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4		25.4 + 25.4	
		m³/h	5.76 + 5.76		5.76 + 5.76	
		L/min	96 + 96		96 + 96	
		cfm	3.4 + 3.4		3.4 + 3.4	
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume range	G/h	793 + 793 ~ 1,902 + 1,902		793 + 793 ~ 1,902 + 1,902	
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		13.2 + 13.2 ~ 31.7 + 31.7	
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter		Inverter	
	Motor output	kW	6.0		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550		1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	411 (186)		411 (186)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		I	1.32		1.32	
		I	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
H/C circuit (H/C: Heat Inter-Changer)		-		-		
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed		3/4 (19.05) Brazed	
	Low pressure	in. (mm)	-		7/8 (22.2) Brazed	
Drawing	External		KL94C251		KL94C251	
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P216ZSLMU-A1 < For Ground source >		
Indoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575 V ±10% 60 Hz		
Cooling capacity (Nominal)	*1, 2	BTU/h	216,000		
		kW	63.3		
	(Rated)	Power input	kW	14.03	
		(575) Current input	A	15.6	
		(575)	BTU/h	206,000	
			kW	60.4	
	(575)	Power input	kW	12.93	13.24
		Current input	A	14.4	14.7
	Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	243,000		
		kW	71.2		
	(Rated)	Power input	kW	12.88	
		(575) Current input	A	14.3	
		(575)	BTU/h	232,000	
			kW	68.0	
	(575)	Power input	kW	11.88	10.35
		Current input	A	13.2	11.5
	Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
		Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity			
	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)			
Sound pressure level (measured in anechoic room)		dB <A>	55.0		
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)		
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed		
Set Model					
Model			PQRY-P120ZLMU-A1 < For Ground source >	PQRY-P96ZLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	11	7	
Maximum Overcurrent Protection		A	15	15	
Circulating water	Water flow rate	G/h	1,522 + 1,522		
		G/min (gpm)	25.4 + 25.4		
		m³/h	5.76 + 5.76		
		L/min	96 + 96		
		cfm	3.4 + 3.4		
		Pressure drop	psi	3.48	3.48
	Operating volume range	kPa	24	24	
		G/h	793 + 793 ~ 1,902 + 1,902		
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7		
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	7.7		
	Case heater	kW	-		
	Lubricant		MEL32		
External finish		Galvanized steel sheets			
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16		
		mm	1,100 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		
	Control		Indoor LEV and BC controller		
Net weight		lbs (kg)	411 (186)	411 (186)	
Heat exchanger	Water volume in plate	G	plate type	plate type	
		l	1.32	1.32	
		l	5.0	5.0	
	Water pressure Max.	psi	290	290	
		MPa	2.0	2.0	
HIC circuit (HIC: Heat Inter-Changer)					
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed		
	Low pressure	in. (mm)	-		
Drawing	External		KL94C251		
	Wiring		KE94G421	KE94G421	
Standard attachment	Document		Installation Manual		
	Accessory		Details refer to External Drw		
Optional parts			Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F D.B. (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P240ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	240,000	
		kW	70.3	
		Power input	16.89	
		(575) Current input	18.8	
		(Rated)		
	(575)	BTU/h	228,000	
		kW	66.8	
		Power input	15.57	16.15
		(575) Current input	17.3	18.0
		(Rated)		
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	270,000	
		kW	79.1	
		Power input	14.58	
		(575) Current input	16.2	
		(Rated)		
	(575)	BTU/h	258,000	
		kW	75.6	
		Power input	13.45	12.02
		(575) Current input	15.0	13.4
		(Rated)		
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Circulating water	°F	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity		
	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>		57.0
Refrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	
piping diameter	Low pressure	in. (mm)	1-3/8 (34.93) Brazed	
Set Model				
Model		PQRY-P120ZLMU-A1 < For Ground source >		PQRY-P120ZLMU-A1 < For Ground source >
Minimum Circuit Ampacity		A	11	11
Maximum Overcurrent Protection		A	15	15
Circulating water	Water flow rate	G/h	1,522 + 1,522	
		G/min (gpm)	25.4 + 25.4	
		m³/h	5.76 + 5.76	
		L/min	96 + 96	
		cfm	3.4 + 3.4	
		Pressure drop	3.48	3.48
	Operating volume range	kPa	24	24
		G/h	793 + 793 ~ 1,902 + 1,902	
		G/min (gpm)	13.2 + 13.2 ~ 31.7 + 31.7	
		m³/h	3.0 + 3.0 ~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	7.7	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish		Galvanized steel sheets		Galvanized steel sheets
External dimension H x W x D		in.	43-5/16 x 34-11/16 x 21-11/16	
		mm	1,100 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	411 (186)	411 (186)
Heat exchanger	Water volume in plate		plate type	
		G	1.32	
		l	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HIC circuit (HIC: Heat Inter-Changer)		-		-
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed	
	Low pressure	in. (mm)	7/8 (22.2) Brazed	
Drawing	External	KL94C251		
	Wiring	KE94G421	KE94G421	
Standard attachment	Document	Installation Manual		
	Accessory	Details refer to External Drw		
Optional parts		Heat Source Twinning kit: CMY-Q100CBK2 joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1013, 1016NU-GA1, 108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks	Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F DB. (40°C DB.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less. When the high pressure piping length is 65 m or less, use 7/8 (22.2) pipe. When the high pressure piping length exceeds 65 m, use 7/8 (22.2) pipe until 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.			

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F DB/66°F WB. (27°C DB/19°C WB.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F DB. (20°C DB.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	
	*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P288ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	288,000	
		kW	84.4	
		kW	20.42	
		A	22.7	
	(Rated)	BTU/h	275,000	
		kW	80.6	
		kW	18.82	21.43
		A	20.9	23.9
Temp. range of cooling	Indoor	W.B. 59~75°F (15~24°C)		
	Circulating water	°F 23~113°F (-5~45°C)		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	323,000	
		kW	94.7	
		kW	17.50	
		A	19.5	
	(Rated)	BTU/h	308,000	
		kW	90.3	
		kW	16.13	16.05
		A	17.9	17.9
Temp. range of heating	Indoor	D.B. 59~81°F (15~27°C)		
	Circulating water	°F 23~113°F (-5~45°C)		
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity		
	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Sound pressure level (measured in anechoic room)		dB <A>	57.0	
Refrigerant	High pressure	in. (mm)	1-1/8 (28.58) Brazed	
piping diameter	Low pressure	in. (mm)	1-3/8 (34.93) Brazed	
Set Model				
Model			PQRY-P144ZLMU-A1 < For Ground source >	
Minimum Circuit Ampacity			A 13	13
Maximum Overcurrent Protection			A 20	20
Circulating water	Water flow rate	G/h	1,902 + 1,902	
		G/min (gpm)	31.7 + 31.7	
		m³/h	7.20 + 7.20	
		L/min	120 + 120	
		cfm	4.2 + 4.2	
	Pressure drop	psi	6.38	6.38
		kPa	44	44
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054	
G/min (gpm)		19.8 + 19.8 ~ 50.9 + 50.9		
m³/h		4.5 + 4.5 ~ 11.6 + 11.6		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	9.5	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x W x D	in.	57-1/8 x 34-11/16 x 21-11/16		
	mm	1,450 x 880 x 550		
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit	Over-heat protection, Over-current protection		
	Compressor	Over-heat protection		
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	512 (232)	512 (232)
Heat exchanger	Water volume in plate	G	plate type	plate type
		l	1.32	1.32
			5.0	5.0
	Water pressure Max.	psi	290	290
		MPa	2.0	2.0
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed
	Low pressure	in. (mm)	-	1-1/8 (28.58) Brazed
Drawing	External	KL94C252		
	Wiring	KE94G421		
Standard attachment	Document	Installation Manual		
	Accessory	Details refer to External Drw		
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1		
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F (40°C). (40°C D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230)		BTU/h =kW x 3,412
Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		cfm =m³/min x 35.31
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions		lbs =kg/0.4536
Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230)		
Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions		
Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

1. SPECIFICATIONS

Heat Source Model			PQRY-P312ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	312,000	
		kW	91.4	
	(575)	Power input	23.41	
		Current input	26.1	
	(Rated)	BTU/h	297,000	
		kW	87.0	
	(575)	Power input	21.59	23.67
		Current input	24.0	26.4
	Temp. range of cooling	Indoor	59~75°F (15~24°C)	
		Circulating water	23~113°F (-5~45°C)	
Heating capacity (Nominal)	*3, 4, 5	BTU/h	350,000	
		kW	102.6	
	(575)	Power input	19.11	
		Current input	21.3	
	(Rated)	BTU/h	334,000	
		kW	97.9	
	(575)	Power input	17.62	17.96
		Current input	19.6	20.0
	Temp. range of heating	Indoor	59~81°F (15~27°C)	
		Circulating water	23~113°F (-5~45°C)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity	
	Model/Quantity		P06~P96/2~50 (Connectable branch pipe number is max. 48.)	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant piping diameter	High pressure		1-1/8 (28.58) Brazed	
	Low pressure		1-3/8 (34.93) Brazed	

Set Model						
Model			PQRY-P168ZLMU-A1 < For Ground source >		PQRY-P144ZLMU-A1 < For Ground source >	
Minimum Circuit Ampacity		A	16		13	
Maximum Overcurrent Protection		A	25		20	
Circulating water	Water flow rate	G/h	1,902 + 1,902			
		G/min (gpm)	31.7 + 31.7			
		m³/h	7.20 + 7.20			
		L/min	120 + 120			
		cfm	4.2 + 4.2			
	Pressure drop	psi	6.38		6.38	
		kPa	44		44	
	Operating volume range	G/h	1,189 + 1,189 ~ 3,054 + 3,054			
		G/min (gpm)	19.8 + 19.8 ~ 50.9 + 50.9			
m³/h		4.5 + 4.5 ~ 11.6 + 11.6				
Compressor	Type x Quantity	Inverter scroll hermetic compressor x 1		Inverter scroll hermetic compressor x 1		
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method	Inverter		Inverter		
	Motor output	kW	11.0		9.5	
	Case heater	kW	-		-	
	Lubricant	MEL32		MEL32		
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension H x W x D		in.	57-1/8 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
		mm	1,450 x 880 x 550		1,450 x 880 x 550	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		R410A x 13 lbs + 4 oz (6.0 kg)	
	Control		Indoor LEV and BC controller			
Net weight		lbs (kg)	512 (232)		512 (232)	
Heat exchanger	Water volume in plate	G	plate type		plate type	
		l	1.32		1.32	
		5.0	5.0		5.0	
	Water pressure Max.	psi	290		290	
		MPa	2.0		2.0	
HIC circuit (HIC: Heat Inter-Changer)		-		-		
Pipe between unit and distributor	High pressure	in. (mm)	7/8 (22.2) Brazed		7/8 (22.2) Brazed	
	Low pressure	in. (mm)	-		1-1/8 (28.58) Brazed	
Drawing	External		KL94C252			
	Wiring		KE94G421		KE94G421	
Standard attachment	Document		Installation Manual			
	Accessory		Details refer to External Drw			
Optional parts		Heat Source Twinning kit: CMY-Q200CBK joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-Y202S-G2, CMY-Y302S-G2, CMY-R160-J1 Main BC controller: CMB-P108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104, 108NU-GB1, CMB-P1016NU-HB1				
Remarks		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the Heat Source Unit needs to be kept below 104°F.D.B. (40°C.D.B.) The ambient relative humidity of the Heat Source Unit needs to be kept below 80%. The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the low pressure side of the heat source unit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual. Add brine to circulating water when a unit is operating at water temperature below 50°F (10°C), and turn DipSW4 (773) ON before power ON. It is recommended to set the brine concentration to a percentage that will keep the freezing temperature at -15°C or less.				

Notes:	Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F.D.B./66°F.W.B. (27°C.D.B./19°C.W.B.), Water temperature: 86°F (30°C), Brine concentration 0%	BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%	cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F.D.B. (20°C.D.B.), Water temperature: 68°F (20°C), Brine concentration 0%	lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%	*Above specification data is subject to rounding variation.
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%	

1. SPECIFICATIONS

Heat Source Model			PQRY-P336ZSLMU-A1 < For Ground source >	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1, 2	BTU/h	336,000	
		kW	98.5	
		kW	26.84	
		A	29.9	
	(Rated)	BTU/h	320,000	
		kW	93.8	
		kW	24.76	25.85
		A	27.6	28.8
Temp. range of cooling	Indoor	W.B.		
	Circulating water	°F		
Heating capacity (Nominal)	*3, 4, 5	BTU/h	378,000	
		kW	110.8	
		kW	20.77	
		A	23.1	
	(Rated)	BTU/h	361,000	
		kW	105.8	
		kW	19.16	20.05
		A	21.3	22.3
Temp. range of heating	Indoor	D.B.		
	Circulating water	°F		
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity		
Sound pressure level (measured in anechoic room)	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Refrigerant piping diameter	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
Refrigerant piping diameter	Model/Quantity	P06~P96/2~50 (Connectable branch pipe number is max. 48.)		
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Refrigerant piping diameter	Model/Quantity	P06~P96/2~50 (		

Notes:		Unit converter
1.<Standard CITY MULTI indoor unit> Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°F D.B./66°F W.B. (27°C D.B./19°C W.B.), Water temperature: 86°F (30°C), Brine concentration 0%		BTU/h =kW x 3.412
2.<PWFY-P36/72NMU-E2-AU> Nominal cooling conditions Circulating water Temp.: 86°F (30°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 73°F (23°C), Water flow rate: 1.93 m³/h (8.3 gpm) <P36>/3.86 m³/h (16.6 gpm) <P72>, Brine concentration 0%		cfm =m³/min x 35.31
3.<Standard CITY MULTI indoor unit> Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°F D.B. (20°C D.B.), Water temperature: 68°F (20°C), Brine concentration 0%		lbs =kg/0.4536
4.<PWFY-P36/72NMU-E2-AU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 86°F (30°C), Water flow rate: 2.15 m³/h (9.2 gpm) <P36>/4.30 m³/h (18.5 gpm) <P72>, Brine concentration 0%		
5.<PWFY-P36NMU-E-BU> Nominal heating conditions Circulating water Temp.: 68°F (20°C), Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m), Inlet water Temp.: 149°F (65°C), Water flow rate: 2.15 m³/h (9.2 gpm), Brine concentration 0%		
		*Above specification data is subject to rounding variation.

2. EXTERNAL DIMENSIONS

PQRY-P72, 96, 120ZLMU-A1

Unit: mm(in)

PQRY-P-Z(S)LMU-A1

Note 1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control wiring and unused knockout holes with the putty etc. so as not to infiltrate rain water etc. (field erection work)

Note 2. At the time of product shipment, the front side piping specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing corks, and attach a front side.

Note 3. Ensure there is no leak after the attachment has been fitted.

Note 4. Take notice of service space as Fig.A. (In case of single installation, 600mm(23-5/8) or more of back space as front space makes easier access when servicing the unit from rear side.)

Note 5. If water pipes or refrigerant pipes stretch upward, required space for service and maintenance due to replacement of control box is shown in Fig.B.

Note 6. Environmental condition for installation; -20~40°C(DB) (-4~104 °F) as indoor installation.

Note 7. In case the temperature around the heat source unit has possibility to drop under 0°C(32°F) or the inlet-water temp. drops under 10°C(50°F), be careful for the following point to prevent the pipe burst by the water pipe freeze-up.

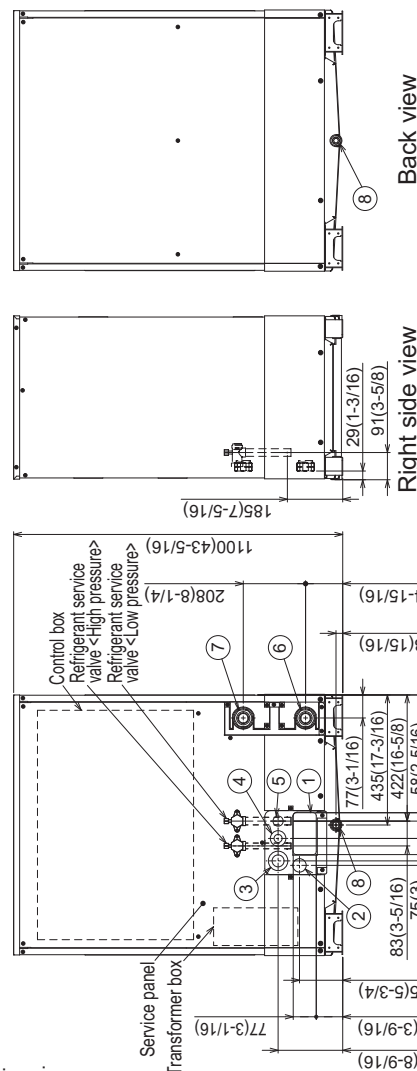
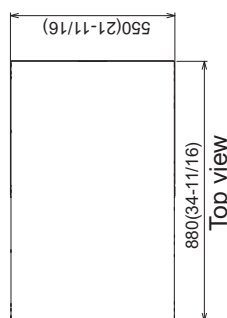
- Add brine to water circuit.
- Circulate the water all the time even if the heat source unit is not in operation.
- Drain the water from inside of the heat source unit when the heat source unit will not operate for a long term.

Note 8. Ensure that the drain piping is downward with a pitch of more than 1/100.

Note 9. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F).

<Accessories>

- Refrigerant (high pressure) conn. pipe.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Refrigerant (low pressure) conn. elbow.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Water stopper.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for water stopper.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure).....1pc. each
(P72/P96/P120 : Packaged in the accessory kit)
- Sealing material for drain socket.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)
- Pipe cover for low pressure.....1pc.
(P72/P96/P120 : Packaged in the accessory kit)



Back view

Right side view

NO.	Usage	Specifications
①	For pipes	Front through hole (5-9/16) (3-1/16)
②		Front through hole (Uses when twinning kit (optional parts) is mounted.) (1-13/16)
③	For wires	Front through hole (2-1/2) (1-3/8)
④		Front through hole (1-3/4) (7/8)
⑤	For transmission cables	Front through hole (1-3/8)
⑥	Water pipe inlet	NPT1-1/2 Screw
⑦	Water pipe outlet	NPT1-1/2 Screw
⑧	Drain pipe	Rc3/4 Screw

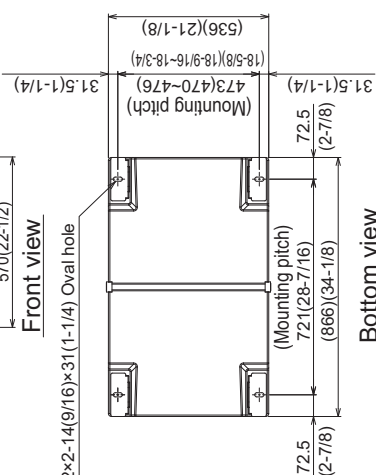


Fig.A

Fig.B

Connecting pipe specifications

Model	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PQRY-P72ZLMU-A1	ø15.88 Braze (5/8) *1 *2	ø19.05 Braze (3/4) *1 *2	ø19.05 Braze (3/4)	ø25.4 (1)
PQRY-P96ZLMU-A1	ø19.05 Braze (3/4) *1	ø22.2 Braze (7/8) *1 *2		

*1. Connected by using the connecting pipes and elbow that are supplied.

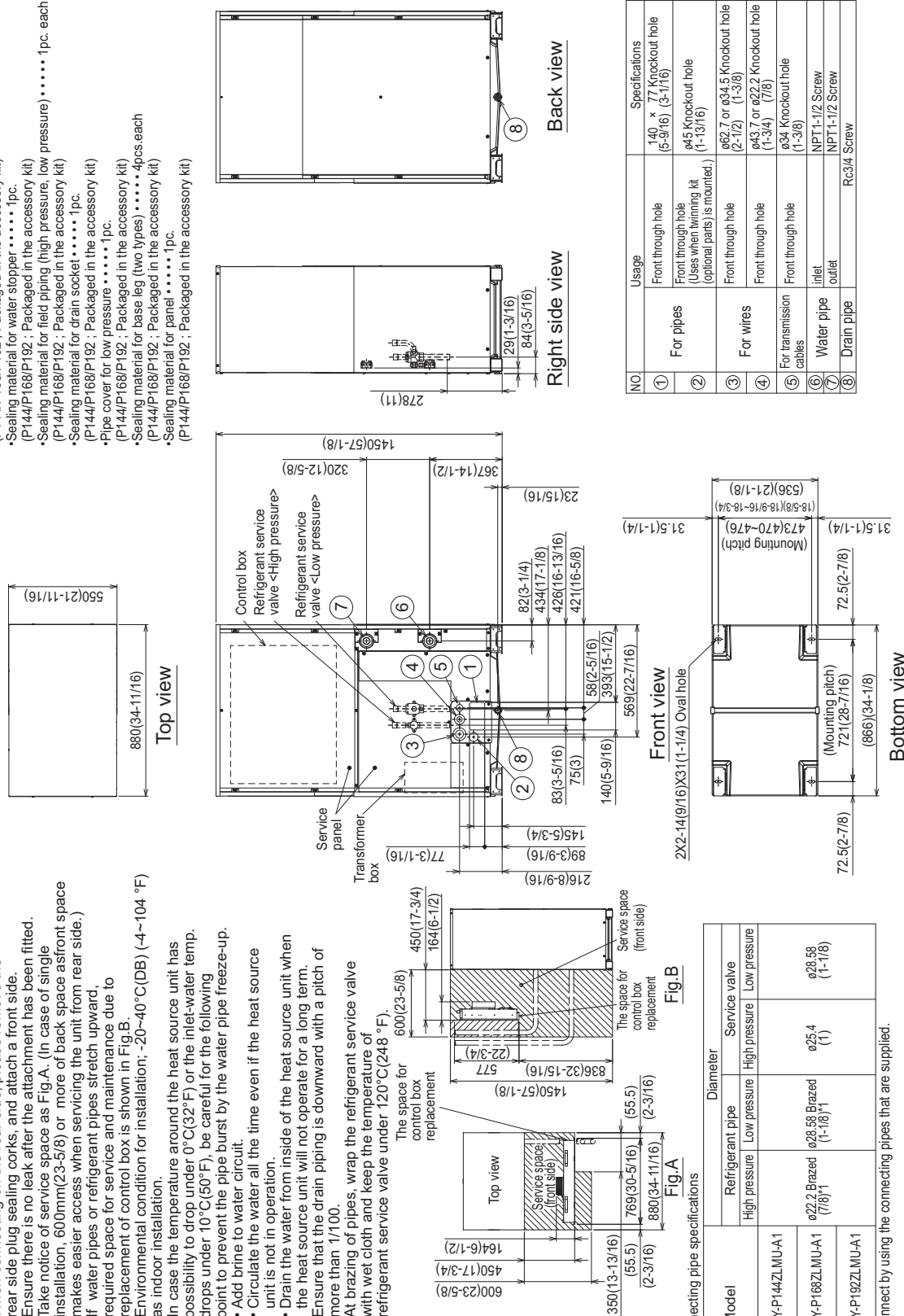
*2. Use the pipe joint (field supply) and connect to the refrigerant service valve piping.

PQRY-P144, 168, 192ZLMU-A1

PQRY-P-Z(S)LMU-A1

-Accessories>

- Refrigerant (high pressure) conn. pipe 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Refrigerant (low pressure) conn. pipe 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Water stopper 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Sealing material for water stopper 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Sealing material for field piping (high pressure, low pressure) 1pc. each
(P144/P168/P192; Packaged in the accessory kit)
- Sealing material for drain socket 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Pipe cover for low pressure 1pc.
(P144/P168/P192; Packaged in the accessory kit)
- Sealing material for base leg (two types) 4pcs each
(P144/P168/P192; Packaged in the accessory kit)
- Sealing material for panel 1pc.
(P144/P168/P192; Packaged in the accessory kit)

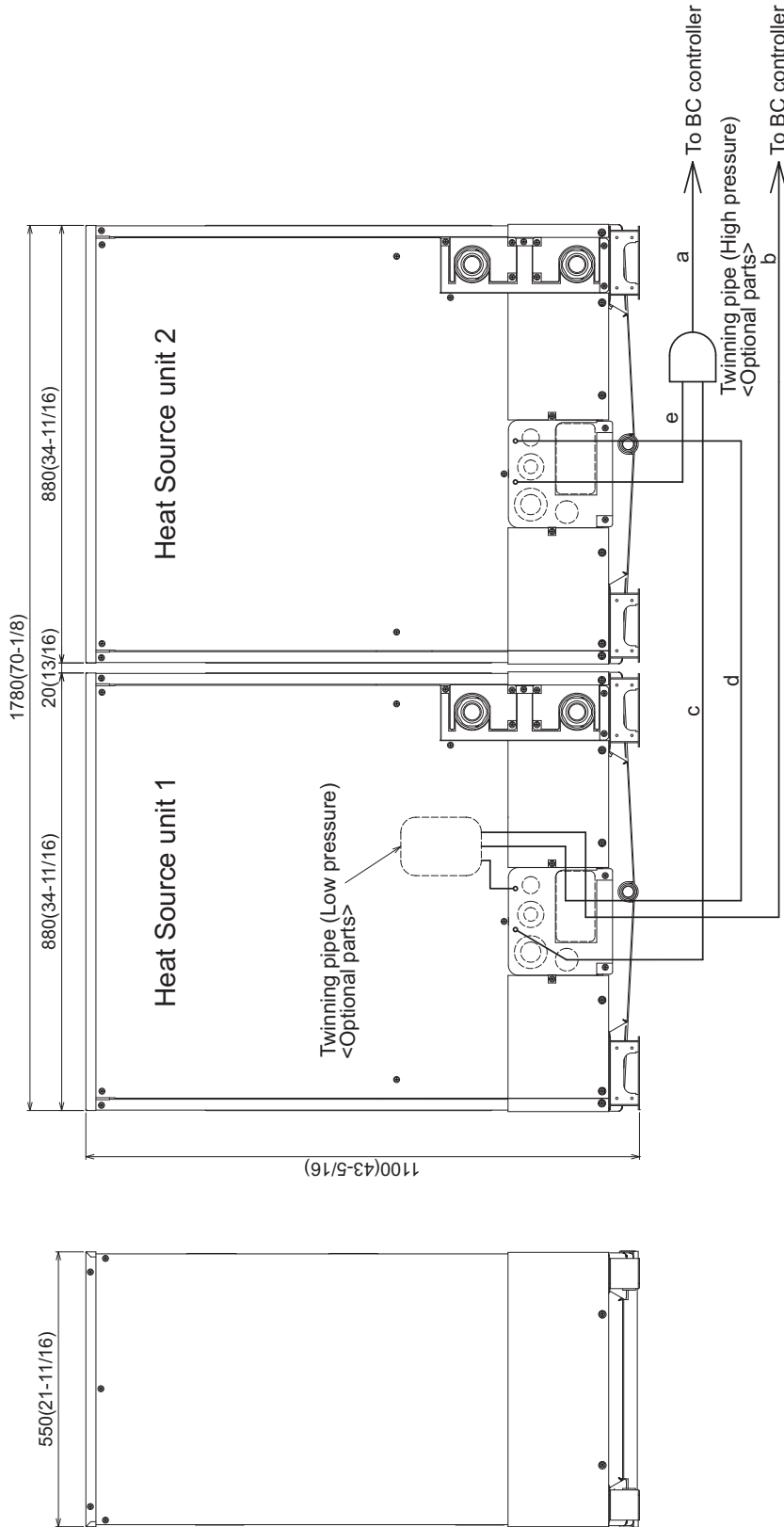


1. Connect by using the connecting pipes that are supplied.

2. EXTERNAL DIMENSIONS

PQRY-P144, 168, 192, 216, 240ZSLMU-A1

Unit: mm(in)



Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).

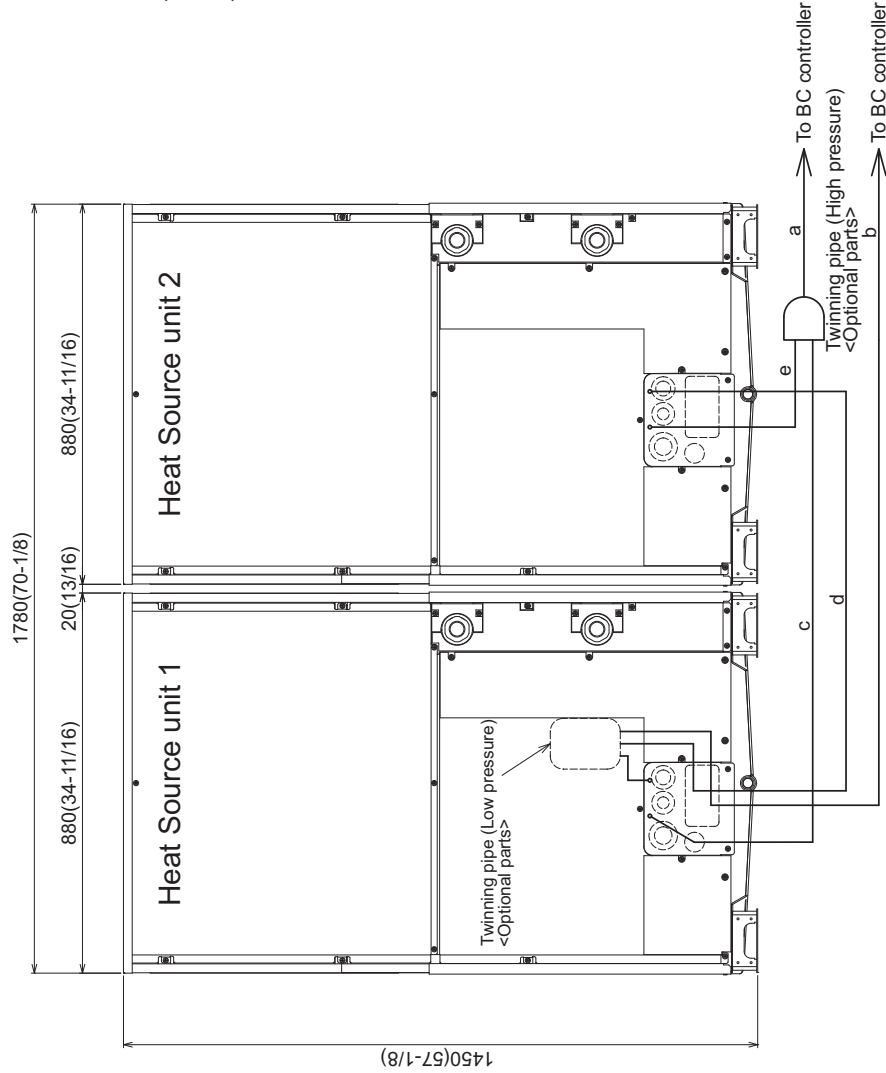
Twinning pipe connection size

Twinning pipe connection size	Package unit name		PQRY-P144ZSLMU-A1		PQRY-P168ZSLMU-A1		PQRY-P192ZSLMU-A1		PQRY-P216ZSLMU-A1		PQRY-P240ZSLMU-A1	
	Heat Source unit 1	Heat Source unit 2	PQRY-P72ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	
Component unit name	Heat Source unit 2		PQRY-P72ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	
Twinning pipe Kit(optional parts)			PQRY-P72ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P96ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	PQRY-P120ZSLMU-A1	
BC controller~Twinning pipe	High pressure	a	ø22.7(1/8)		ø22.7(1/8)		ø22.7(1/8)		ø22.7(1/8)		ø34.9(1-3/8)	
	Low pressure	b										

2. EXTERNAL DIMENSIONS

PQRY-P288, 312, 336ZSLMU-A1

Unit: mm(in)



Note 1. Connect the pipes as shown in the figure above. Refer to the table below for the pipe size.
2. Twinning pipe (High pressure) should not be tilted more than 15 degrees from the horizontal plane.
3. See the Installation Manual for the details of Twinning pipe installation.
4. Only use the Twinning pipe by Mitsubishi (optional parts).

Twinning pipe connection size

Package unit name		PQRY-P288ZSLMU-A1	PQRY-P312ZSLMU-A1	PQRY-P336ZSLMU-A1
Component unit name	Heat Source unit 1	PQRY-P144ZSLMU-A1	PQRY-P168ZSLMU-A1	PQRY-P168ZSLMU-A1
	Heat Source unit 2	PQRY-P144ZSLMU-A1	PQRY-P144ZSLMU-A1	PQRY-P168ZSLMU-A1
Twinning pipe Kit (optional parts)		CMY-Q200CBK		
BC controller~Twinning pipe	High pressure	ø28.58(1-1/8)		
	Low pressure	ø34.93(1-3/8)		

Unit model	High pressure core	Low pressure core
	d	d
P144	ø22.2(7/8)	ø28.58(1-1/8)
P168		

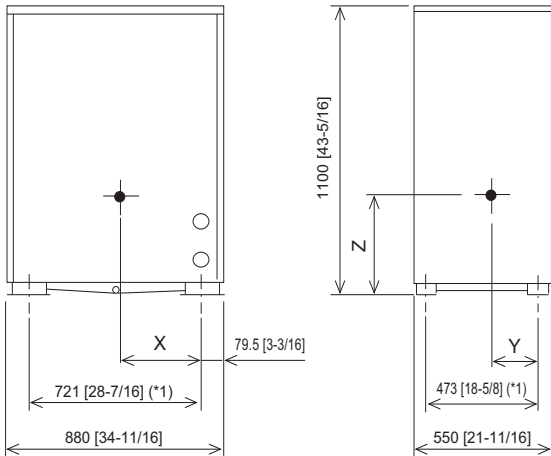
PQRY-P-Z(S)LMU-A1

3. CENTER OF GRAVITY

PQRY-P-Z(S)LMU-A1

PQRY-P72, 96, 120ZLMU-A1

Unit: mm [in.]

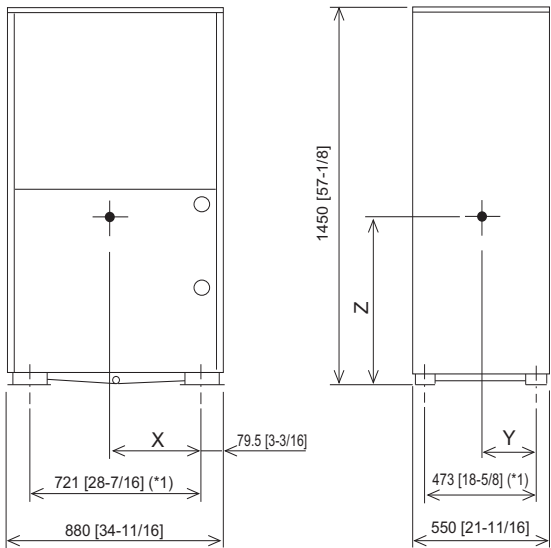


Model	X	Y	Z
PQRY-P72ZLMU-A1	373 [14-11/16]	228 [9]	428 [16-7/8]
PQRY-P96ZLMU-A1	373 [14-11/16]	228 [9]	428 [16-7/8]
PQRY-P120ZLMU-A1	373 [14-11/16]	228 [9]	428 [16-7/8]

*1 Mounting Pitch

PQRY-P144, 168, 192ZLMU-A1

Unit: mm [in.]

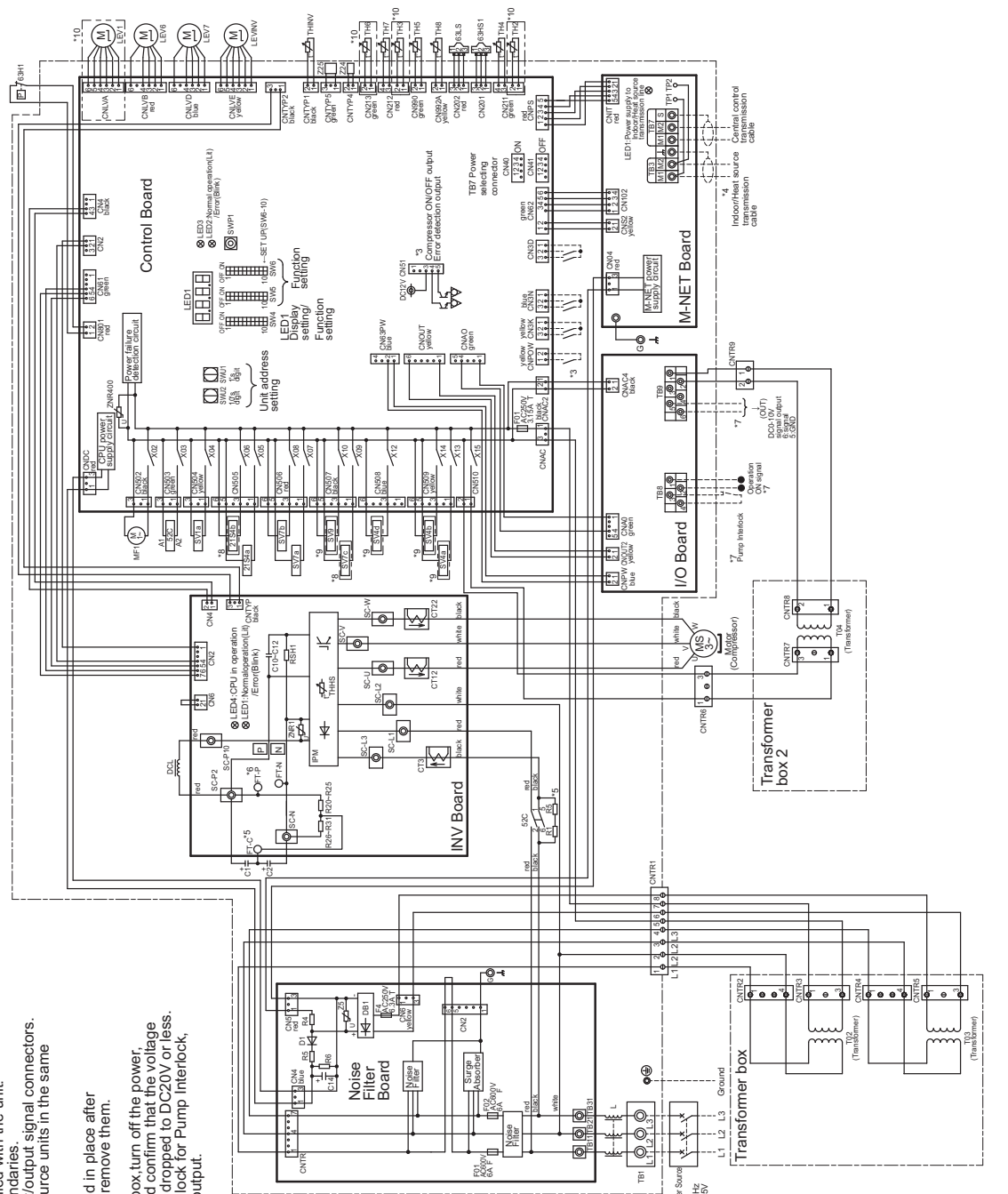


Model	X	Y	Z
PQRY-P144ZLMU-A1	387 [15-1/4]	232 [9-3/16]	616 [24-5/16]
PQRY-P168ZLMU-A1	387 [15-1/4]	232 [9-3/16]	616 [24-5/16]
PQRY-P192ZLMU-A1	387 [15-1/4]	232 [9-3/16]	616 [24-5/16]

*1 Mounting Pitch

4. ELECTRICAL WIRING DIAGRAMS

PQRY-P72, 96, 120, 144, 168, 192ZLMU-A1



- *1 Single-dotted lines indicate wiring not supplied with the unit.
- *2 Dotted lines indicate the control box boundaries.
- *3 Refer to the Data book for connecting input/output signal connectors.
- *4 Daisy-chain terminals (TB3) on the heat source units in the same refrigerant system together.
- *5 Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to remove them.
- *6 Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm the voltage between F1-P and F1-N on INV Board has dropped to DC20V or less.
- *7 Refer to the Data book for wiring terminal block for Pump Interlock, Operation ON signal and DC0-10V signal output.
- *8 Difference of appliance.

Model name	Appliance
P72/96/120	*8 do not exist
P144/168/192	*8 exist

*9 Difference of appliance.

Model name	Appliance
PQRY	*9 do not exist
PQRY	*9 exist

*10 Difference of appliance.

Model name	Appliance
PQRY	*10 exist
PQRY	*10 do not exist

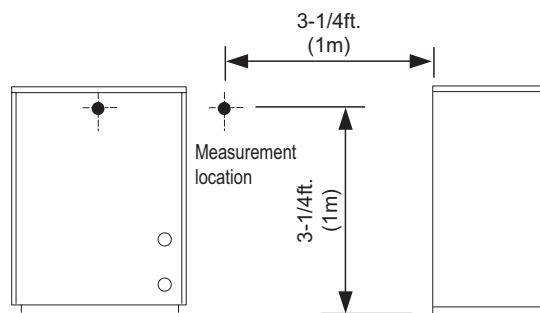
<Symbol explanation>

Symbol	Explanation
21S4a	4-way valve
21S4b	Heat exchanger capacity control
63H1	Pressure switch
63H1	High pressure protection for the heat source unit
63S1	Pressure switch
63S1	High pressure protection for the load unit
52C	Magnetic contactor (inverter main circuit)
52C	Magnetic contactor (inverter main circuit)
CT1.2	Current sensor (AC)
DCR	DC reactor
L	Choke coil (for high frequency noise)
LEV1	Linear expansion valve
LEV6	HIC bypass Controls refrigerant flow in HIC circuit
LEV7	Heat exchanger capacity control
LEV7	Heat exchanger capacity control
RT.5	Resistor
SV1a	Fan motor (condenser fan)
SV1a	For opening/closing the bypass circuit under the O/S
SV1a	Solenoid valve
SV1a.b.d	Heat exchanger capacity control
SV1a.b.c	Heat exchanger capacity control
SV9	For opening/closing the bypass circuit
TB1	Terminal block
TB3	Indoor/Heat source transmission cable
TB7	Control control transmission cable
TB8	Operation ON signal, Pump Interlock
TB9	Power input and signal output for variable water flow valve
TH2	Subcool bypass outlet temperature
TH3	Pipe temperature
TH4	Subcool bypass inlet temperature
TH5	ACC inlet pipe temperature
TH6	Subcooled liquid refrigerant temperature
TH7	Water inlet temperature
TH8	Water outlet temperature
TH9V	Water inlet temperature for heat exchanger for inverter
THHS	IPM temperature
Z24.25	Function setting connector

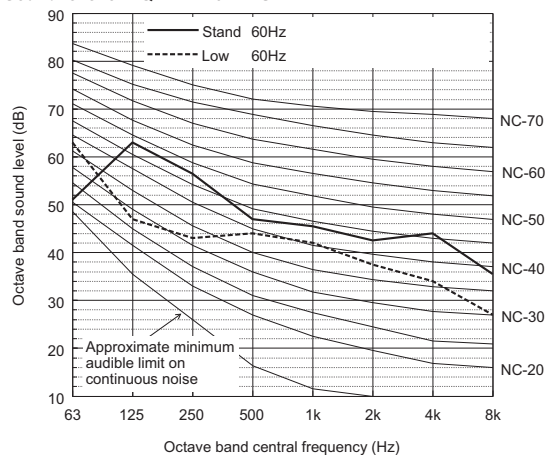
PQRY-P-Z(S)LMU-A1

5. SOUND LEVELS

Measurement condition PQRY-P72, 96, 120ZLMU-A1



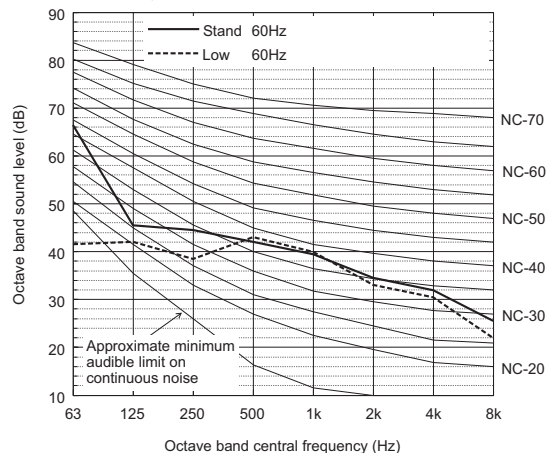
Sound level of PQRY-P120ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	63.0	56.5	47.0	45.5	42.5	44.0	35.5	54.0
Low noise mode	60Hz	63.0	47.0	43.0	44.0	42.0	37.5	34.0	27.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

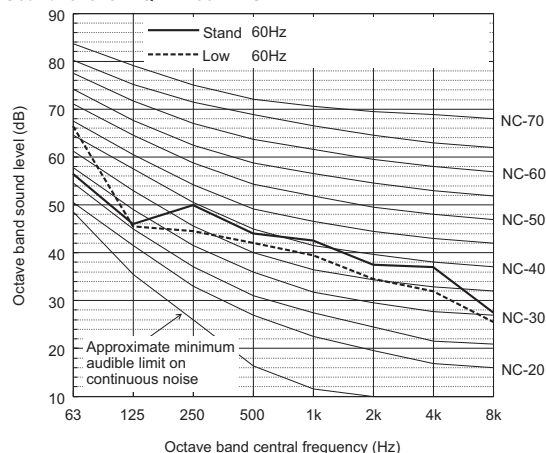
Sound level of PQRY-P72ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0
Low noise mode	60Hz	41.5	42.0	38.5	43.0	40.0	33.0	30.5	22.0	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P96ZLMU-A1



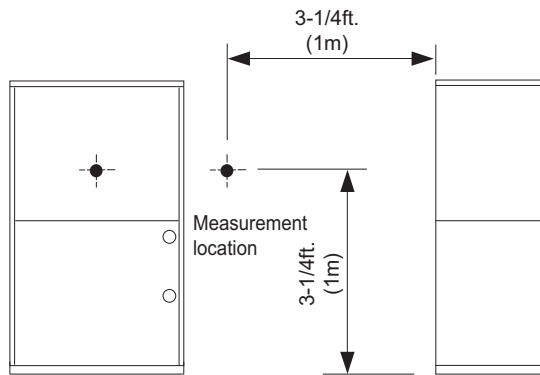
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	56.5	46.0	50.0	44.0	42.5	37.5	37.0	27.5	48.0
Low noise mode	60Hz	66.5	45.5	44.5	42.0	39.5	34.5	32.0	25.5	46.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

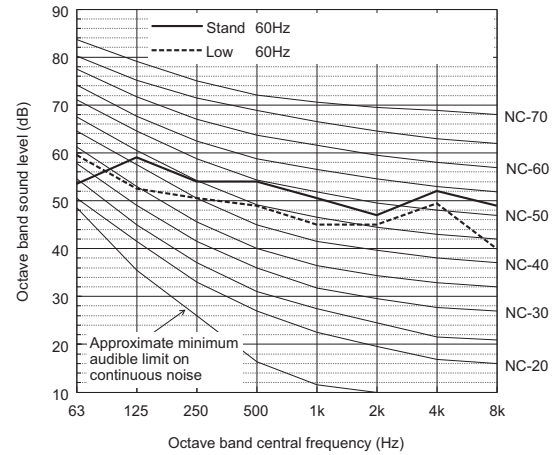
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
- For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition PQRY-P144, 168, 192ZLMU-A1



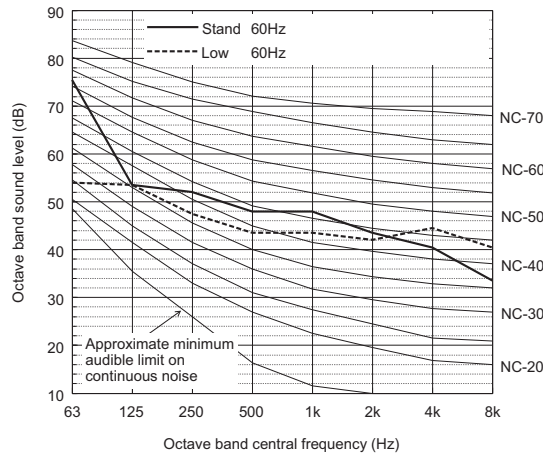
Sound level of PQRY-P192ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	53.5	59.0	54.0	54.0	50.5	47.0	52.0	49.0	58.0
Low noise mode	60Hz	59.5	52.5	50.5	49.0	45.0	45.0	49.5	40.0	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

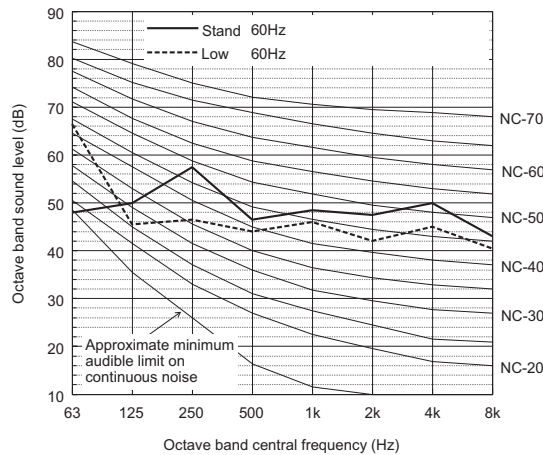
Sound level of PQRY-P144ZLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	53.5	52.0	48.0	48.0	43.5	40.5	33.5	54.0
Low noise mode	60Hz	54.0	53.5	47.5	43.5	43.5	42.0	44.5	40.5	50.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P168ZLMU-A1



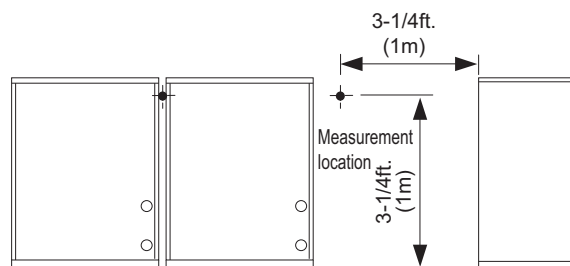
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	48.0	50.0	57.5	46.5	48.5	47.5	50.0	43.0	56.0
Low noise mode	60Hz	66.5	45.5	46.5	44.0	46.0	42.0	45.0	40.5	51.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

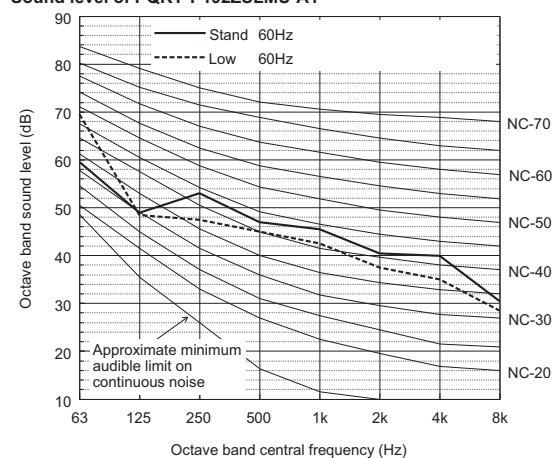
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition PQRY-P144, 168, 192, 216, 240ZSLMU-A1



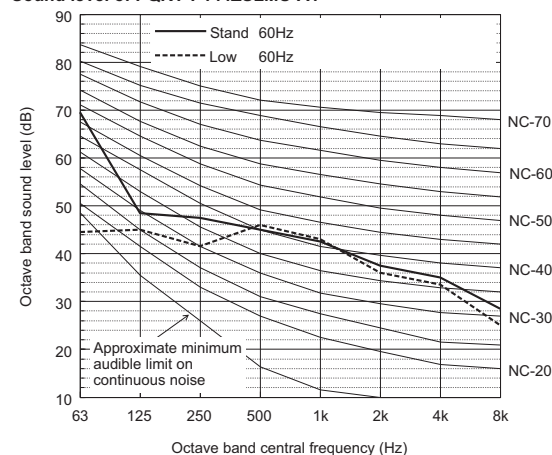
Sound level of PQRY-P192ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	59.5	49.0	53.0	47.0	45.5	40.5	40.0	30.5	51.0
Low noise mode	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

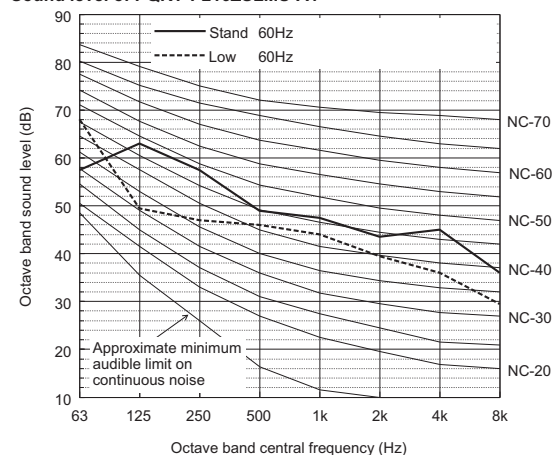
Sound level of PQRY-P144ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	69.5	48.5	47.5	45.0	42.5	37.5	35.0	28.5	49.0
Low noise mode	60Hz	44.5	45.0	41.5	46.0	43.0	36.0	33.5	25.0	47.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

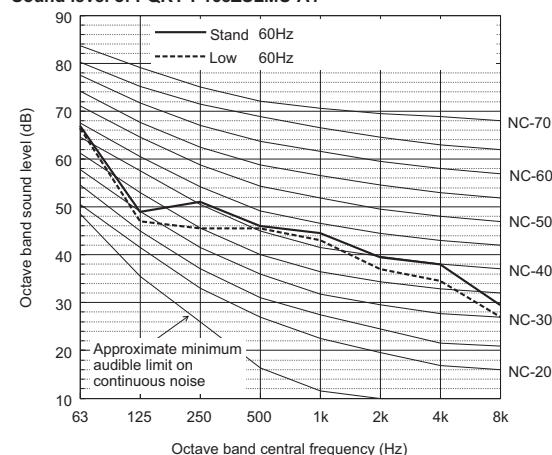
Sound level of PQRY-P216ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	57.5	63.0	57.5	49.0	47.5	43.5	45.0	36.0	55.0
Low noise mode	60Hz	68.0	49.5	47.0	46.0	44.0	39.5	36.0	29.5	49.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

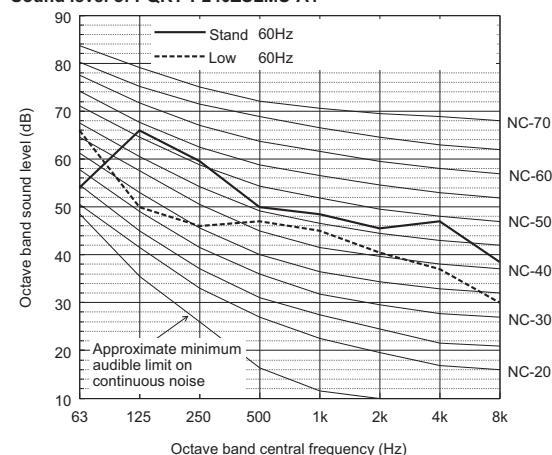
Sound level of PQRY-P168ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	67.0	49.0	51.0	46.0	44.5	39.5	38.0	29.5	50.0
Low noise mode	60Hz	66.5	47.0	45.5	45.5	43.0	37.0	34.5	27.0	48.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P240ZSLMU-A1



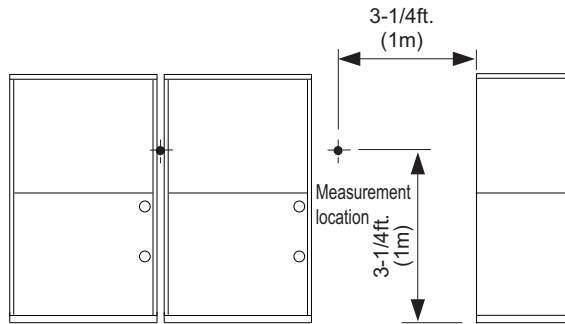
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	54.0	66.0	59.5	50.0	48.5	45.5	47.0	38.5	57.0
Low noise mode	60Hz	66.0	50.0	46.0	47.0	45.0	40.5	37.0	30.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

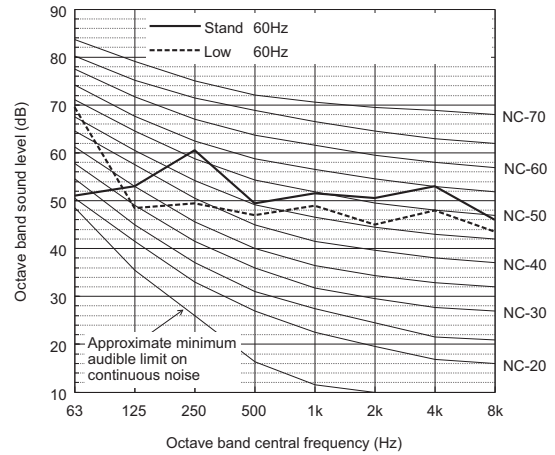
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.
- For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

5. SOUND LEVELS

Measurement condition PQRY-P288, 312, 336ZSLMU-A1



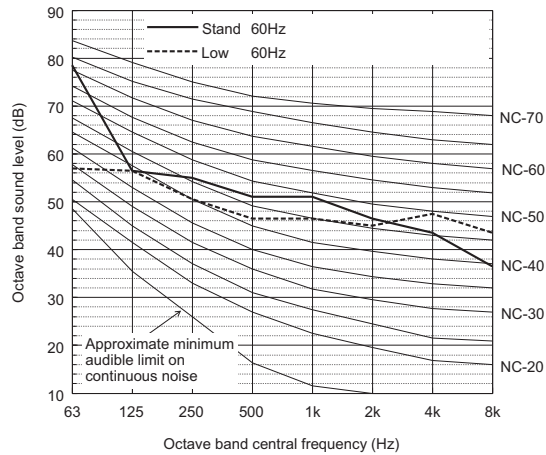
Sound level of PQRY-P336ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	51.0	53.0	60.5	49.5	51.5	50.5	53.0	46.0	59.0
Low noise mode	60Hz	69.5	48.5	49.5	47.0	49.0	45.0	48.0	43.5	54.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

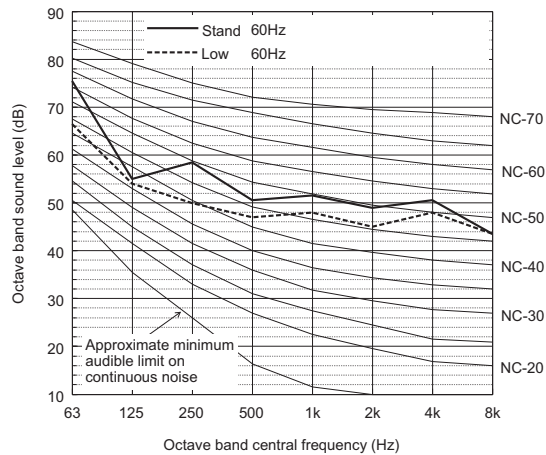
Sound level of PQRY-P288ZSLMU-A1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	78.5	56.5	55.0	51.0	51.0	46.5	43.5	36.5	57.0
Low noise mode	60Hz	57.0	56.5	50.5	46.5	46.5	45.0	47.5	43.5	53.5

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PQRY-P312ZSLMU-A1



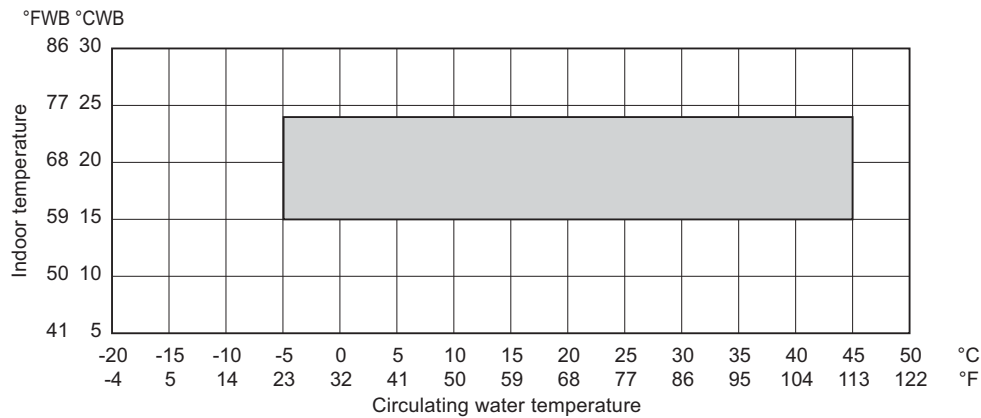
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	75.5	55.0	58.5	50.5	51.5	49.0	50.5	43.5	58.0
Low noise mode	60Hz	66.5	54.0	50.0	47.0	48.0	45.0	48.0	43.5	54.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

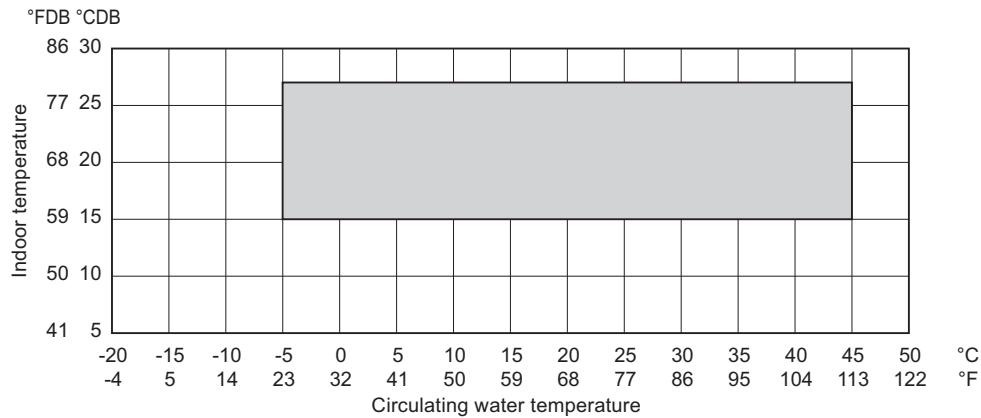
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

6. OPERATION TEMPERATURE RANGE

Cooling



Heating



Combination of cooling/heating operation (Cooling main or Heating main)

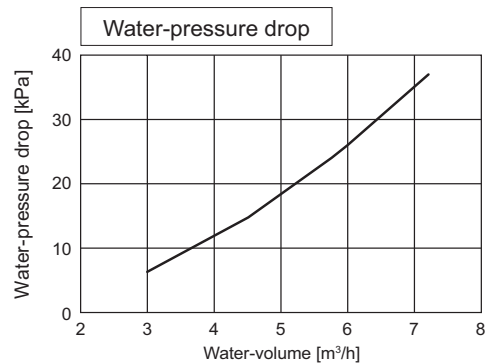
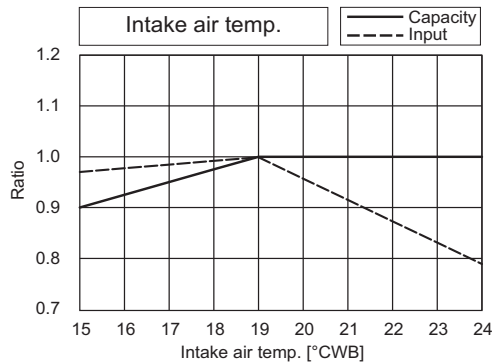
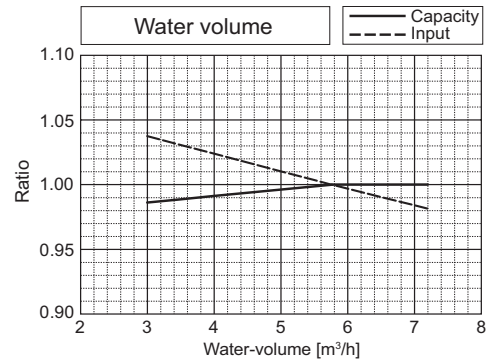
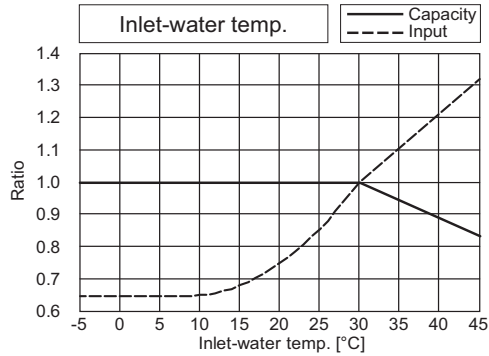
Water temperature	Indoor temperature	
	Cooling	Heating
-5 to 45°C (23 to 113°F)	15 to 24°CWB (59 to 75°FWB)	15 to 27°CDB (59 to 81°FDB)

7. CAPACITY TABLES

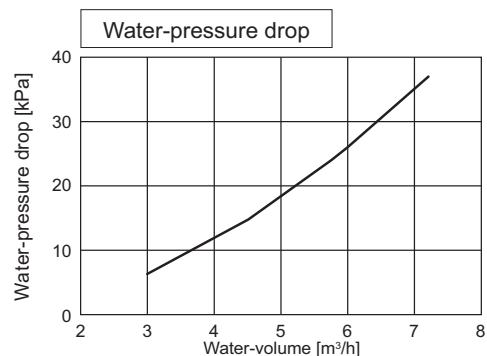
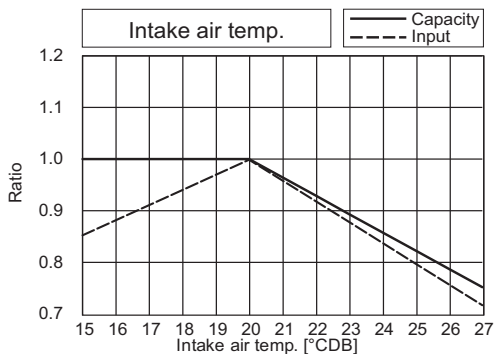
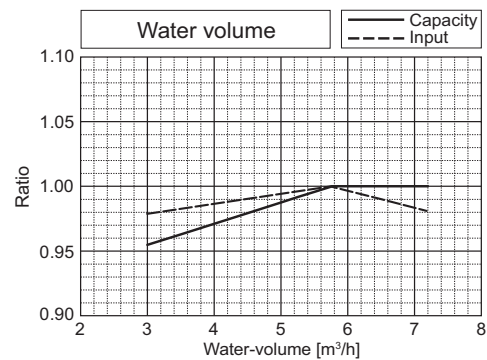
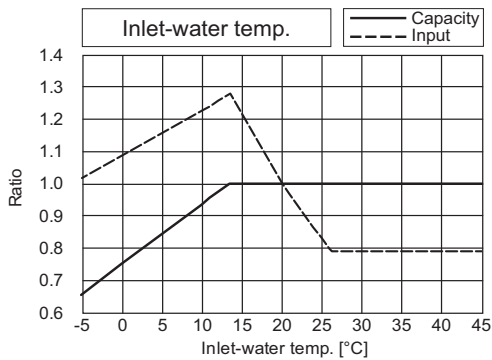
7-1. Correction by temperature

CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

PQRY-			P72ZLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12



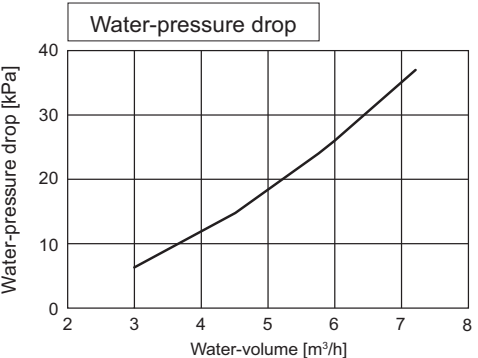
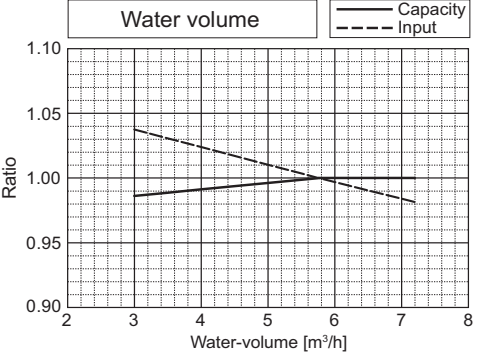
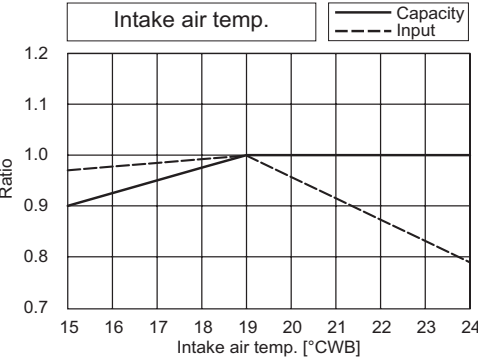
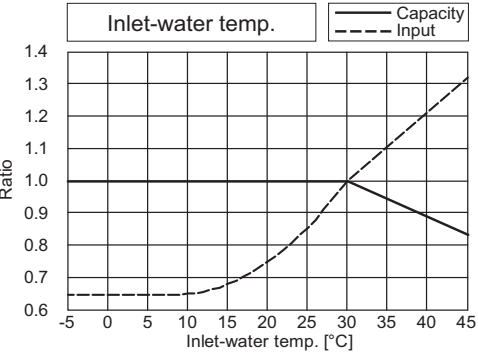
PQRY-			P72ZLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36



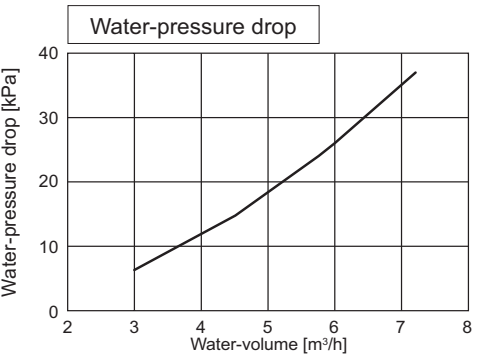
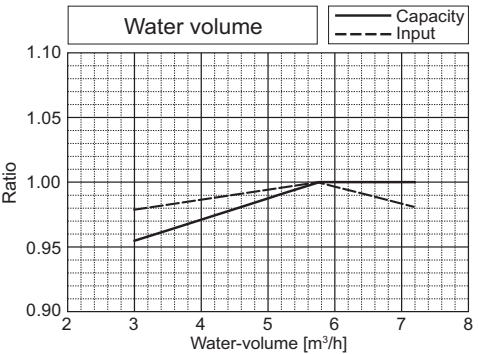
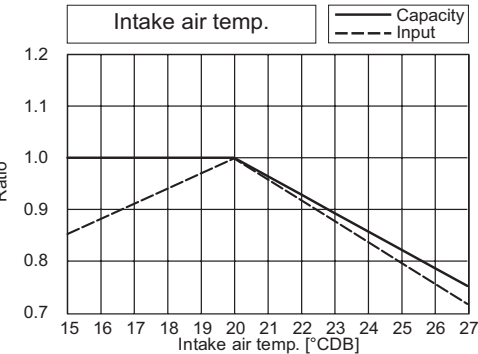
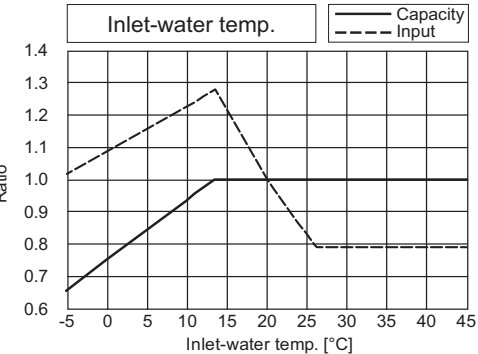
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P96ZLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19

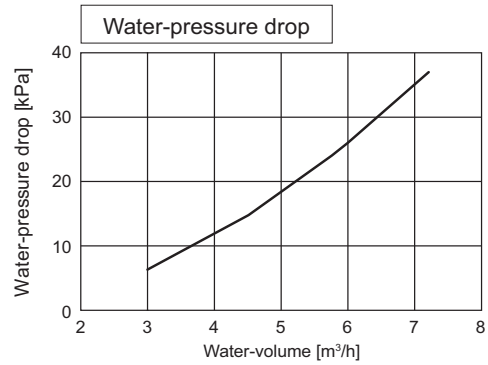
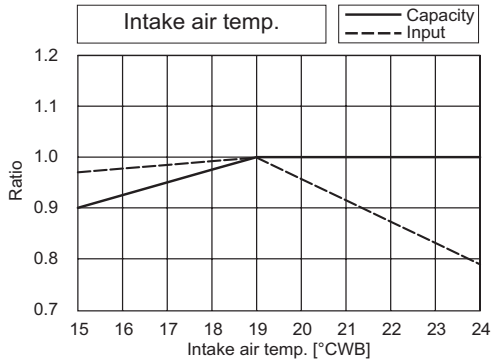
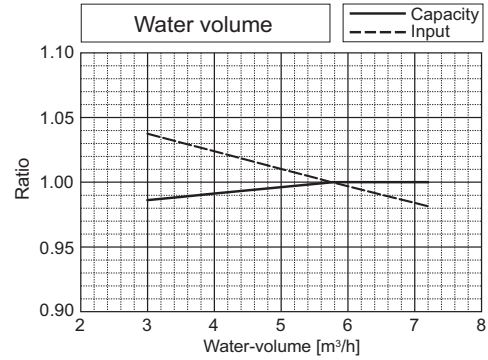
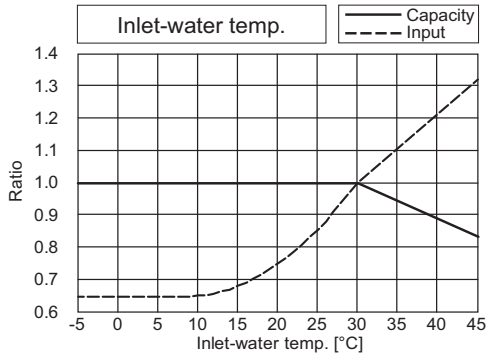


PQRY-			P96ZLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48

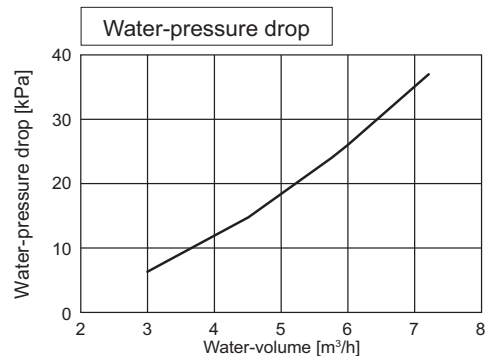
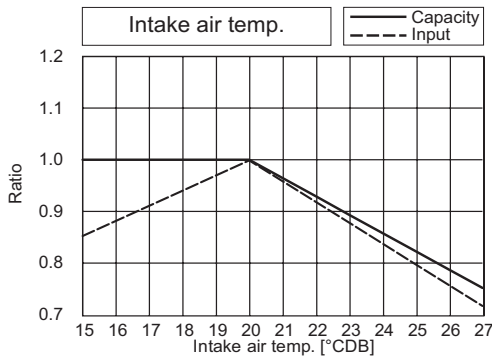
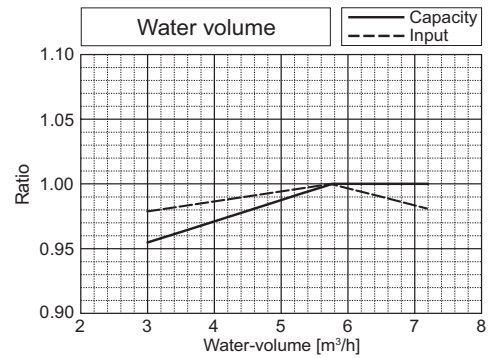
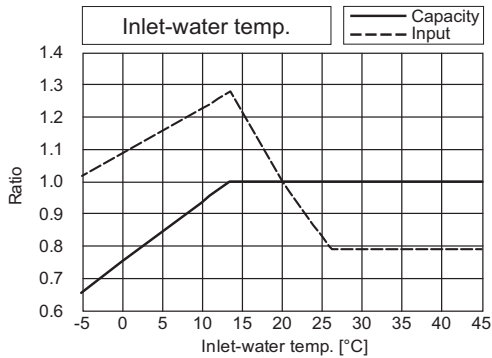


7. CAPACITY TABLES

PQRY-			P120ZLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

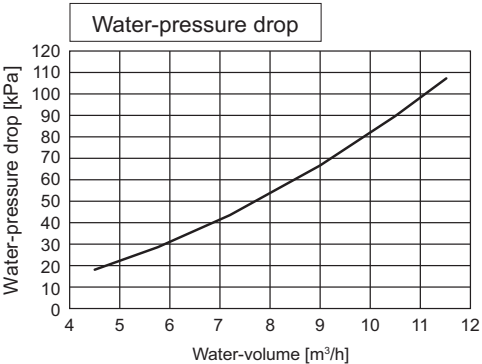
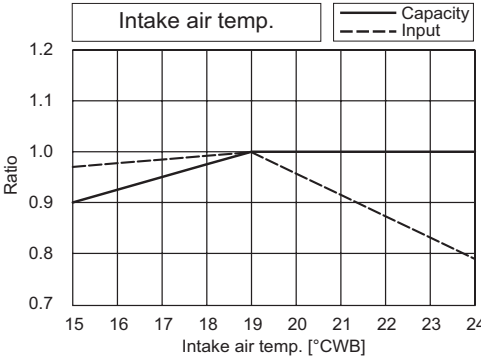
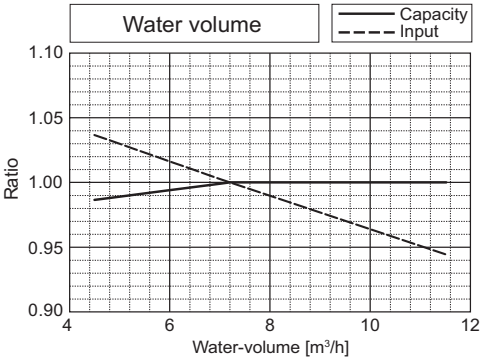
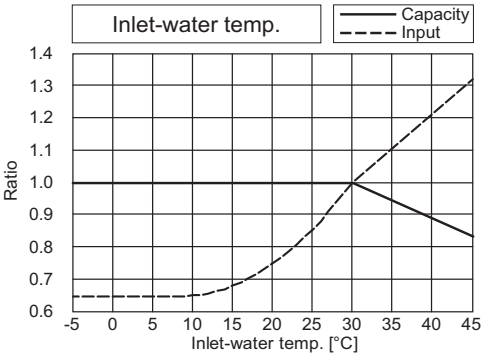


PQRY-			P120ZLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

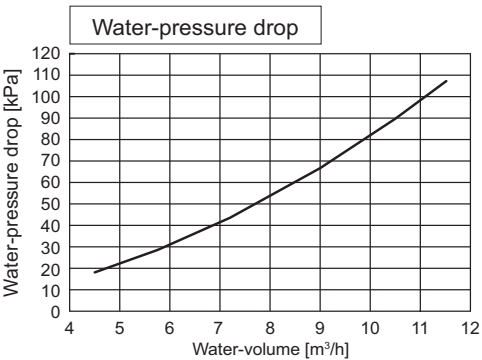
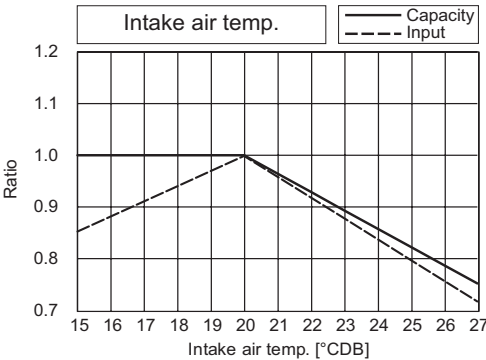
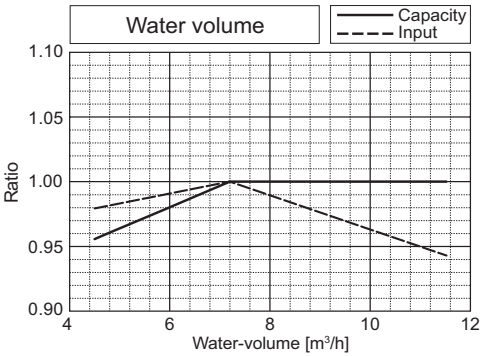
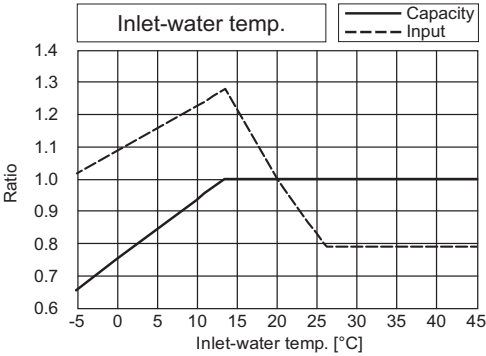


7. CAPACITY TABLES

PQRY-			P144ZLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98

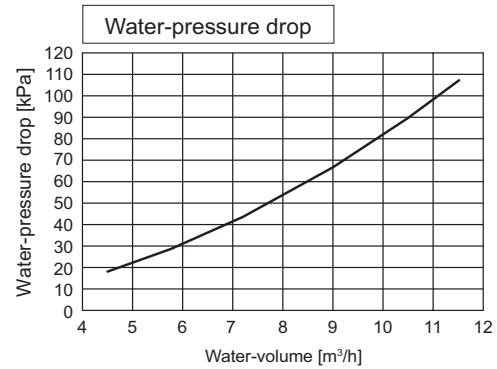
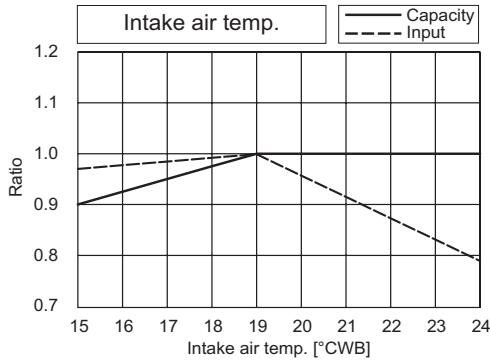
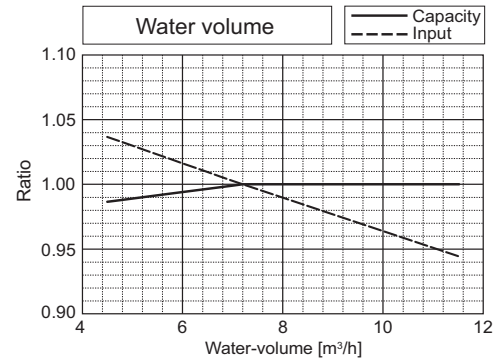
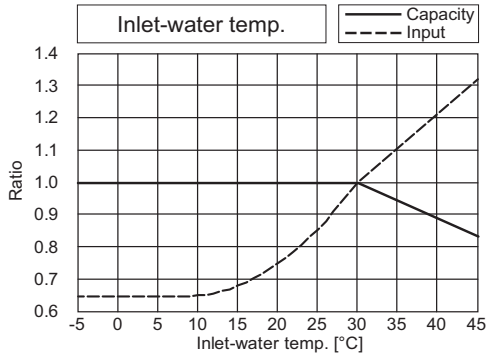


PQRY-			P144ZLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90

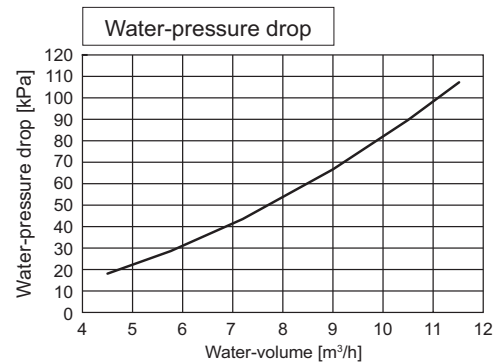
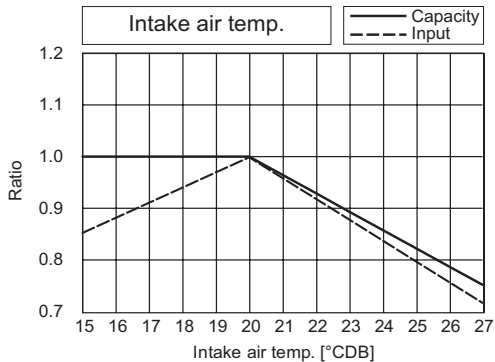
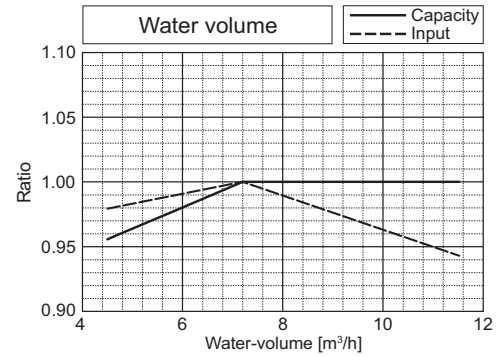
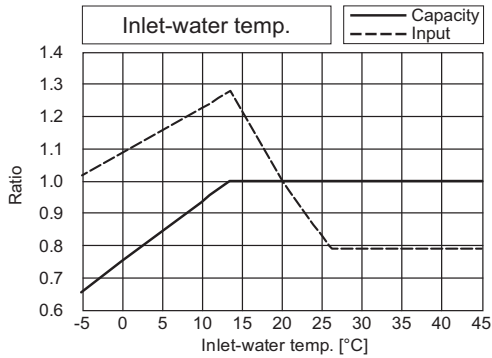


7. CAPACITY TABLES

PQRY-			P168ZLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88

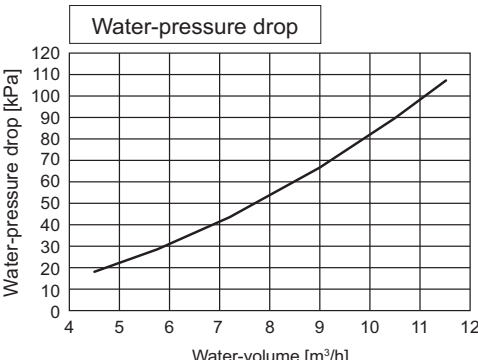
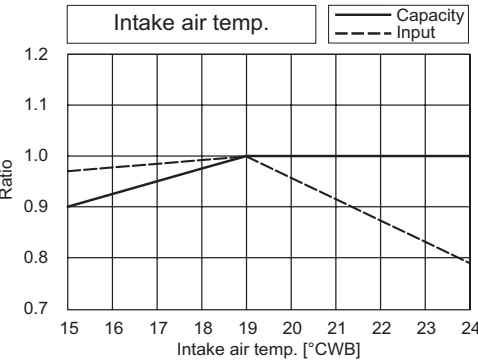
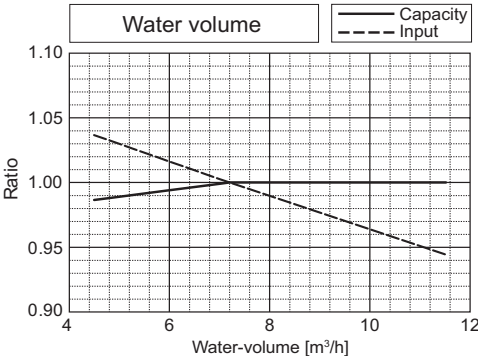
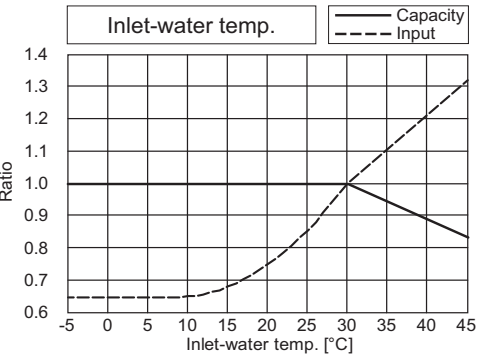


PQRY-			P168ZLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72

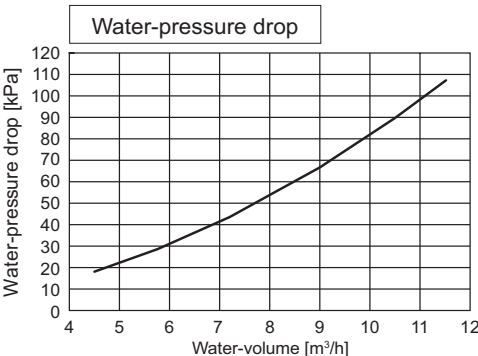
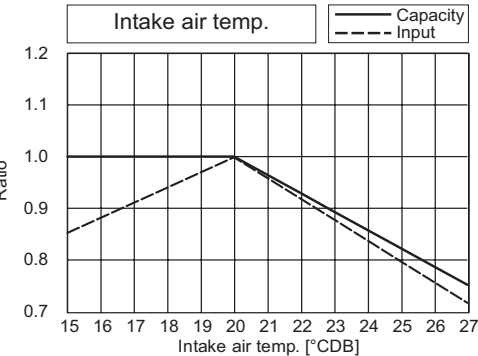
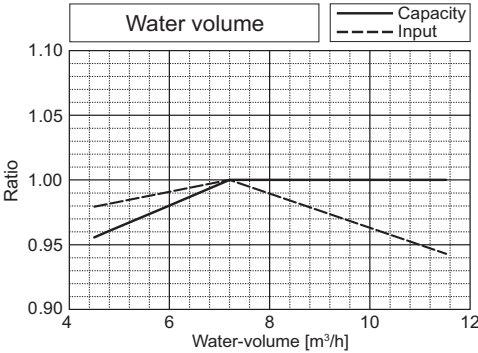
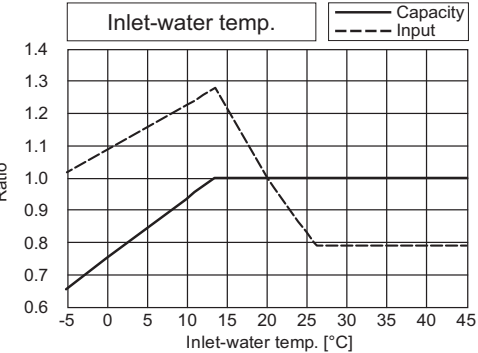


7. CAPACITY TABLES

PQRY-			P192ZLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19

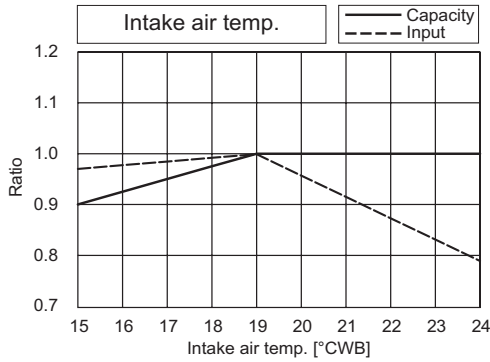
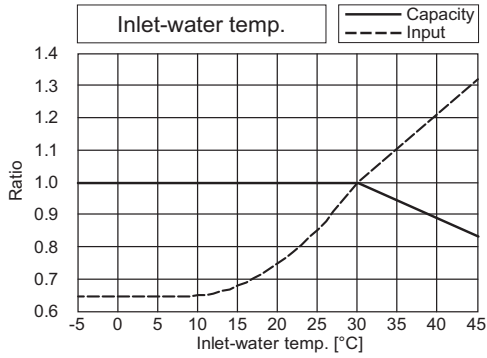


PQRY-			P192ZLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56

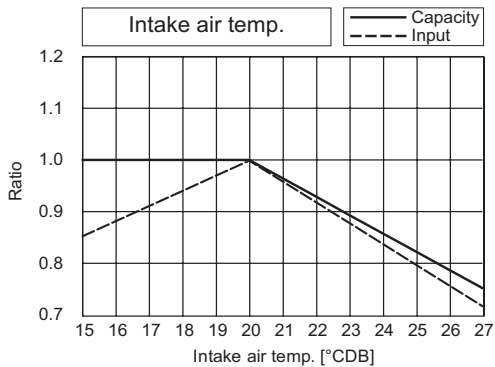
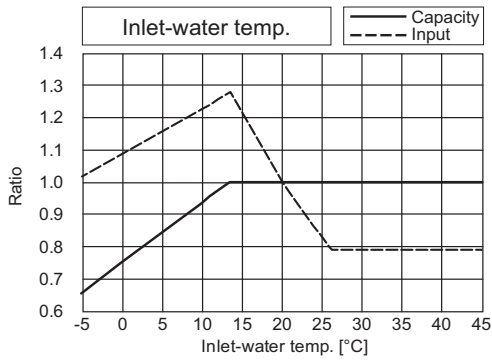


7. CAPACITY TABLES

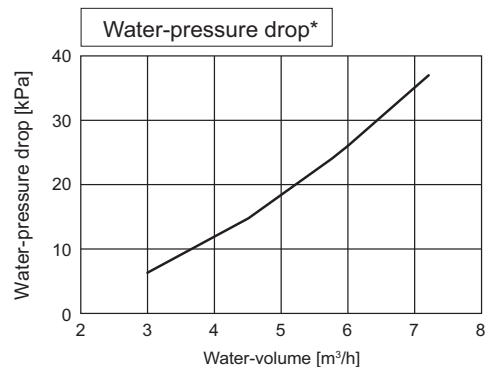
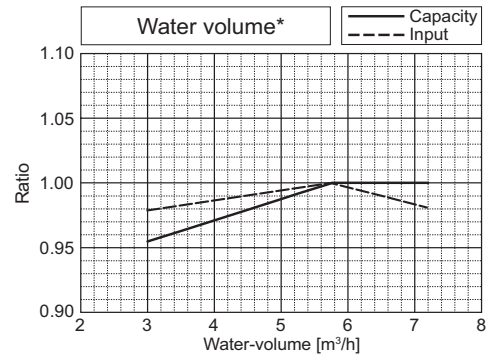
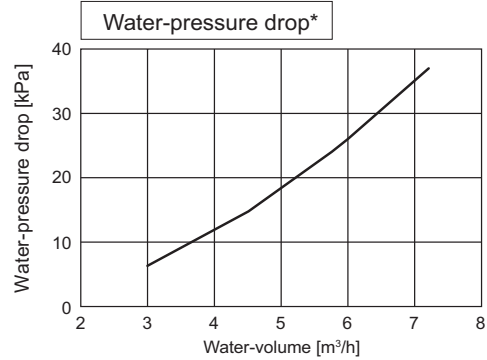
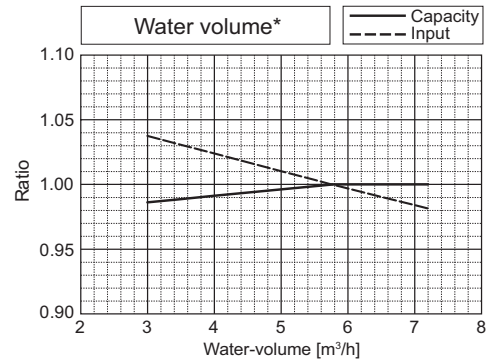
PQRY-			P144ZSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72



PQRY-			P144ZSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22



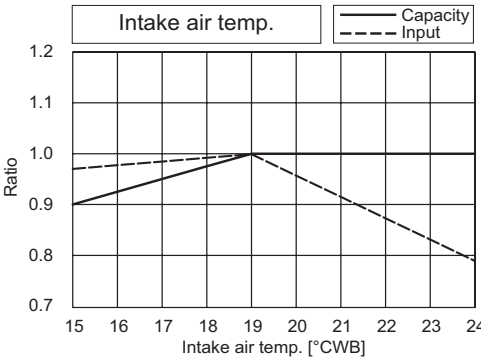
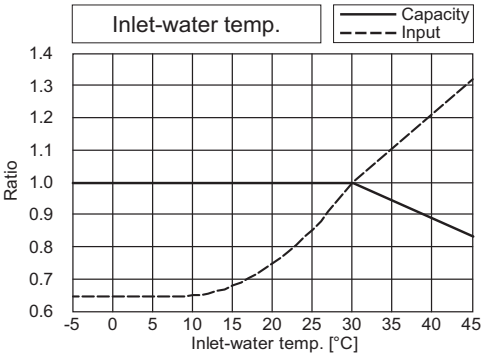
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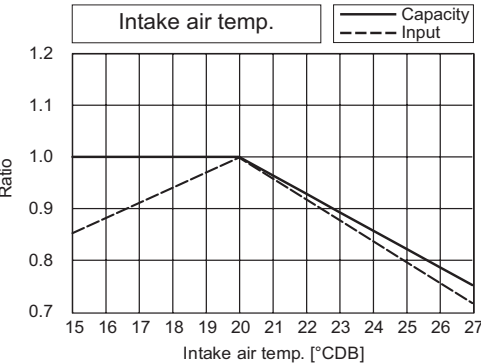
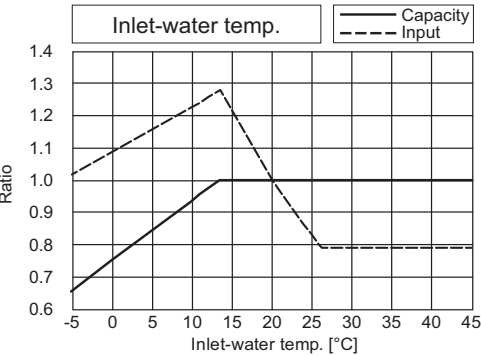
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

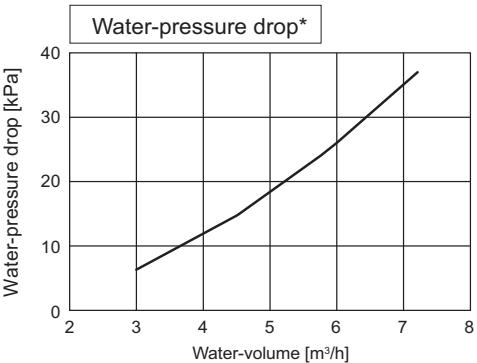
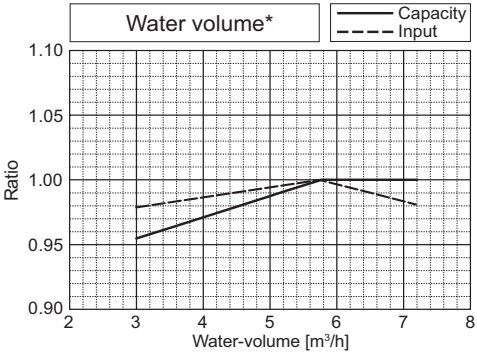
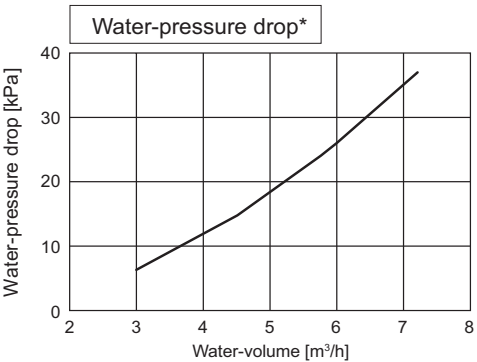
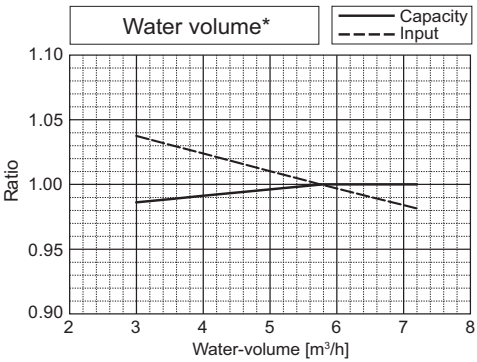
PQRY-			P168ZSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22



PQRY-			P168ZSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03

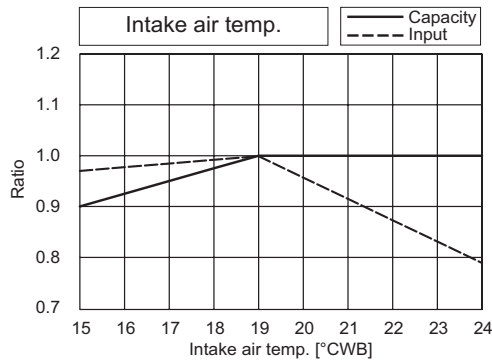
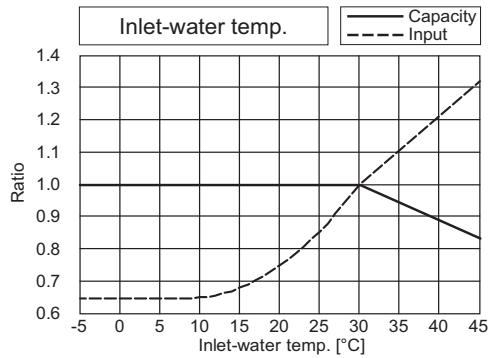


*The drawing indicates characteristic per unit.

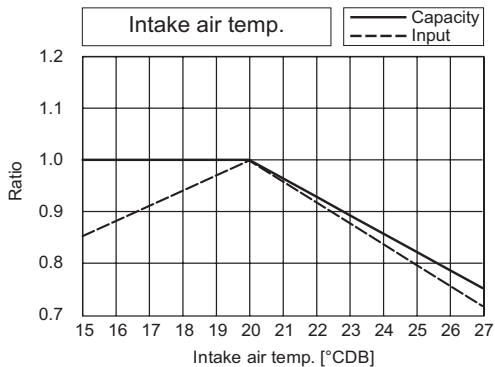
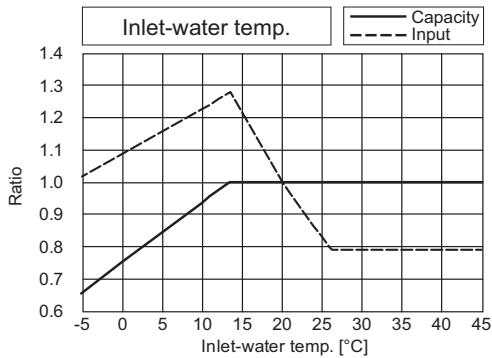


7. CAPACITY TABLES

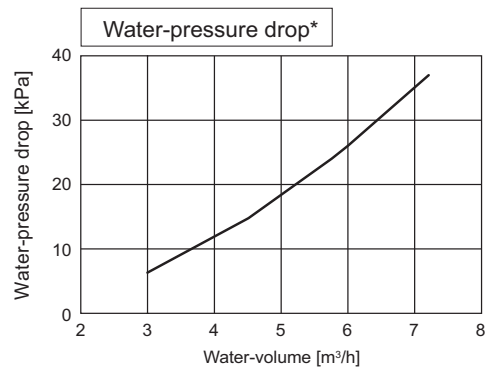
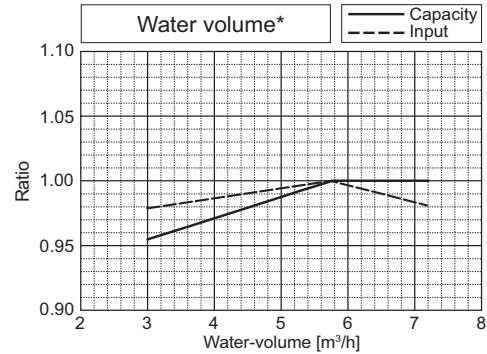
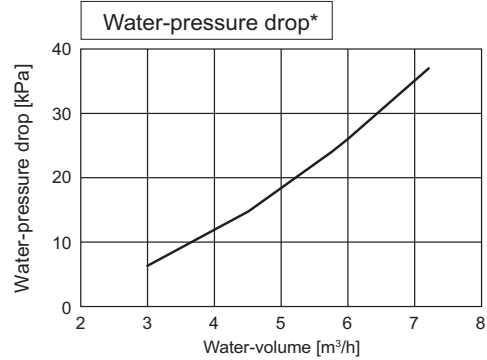
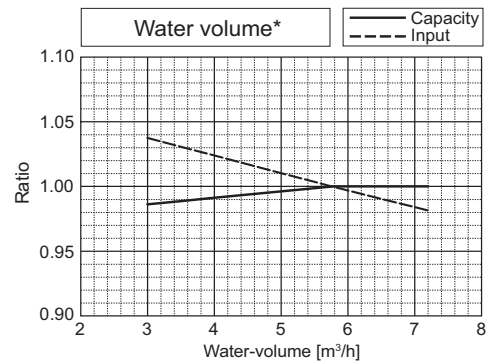
PQRY-			P192ZSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98



PQRY-			P192ZSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90



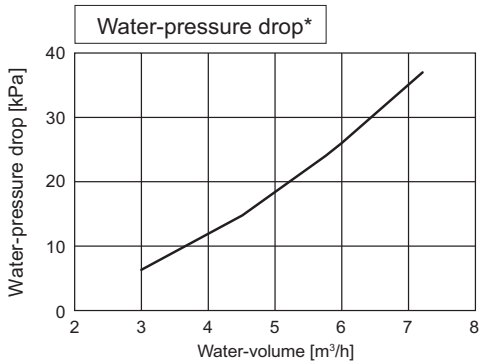
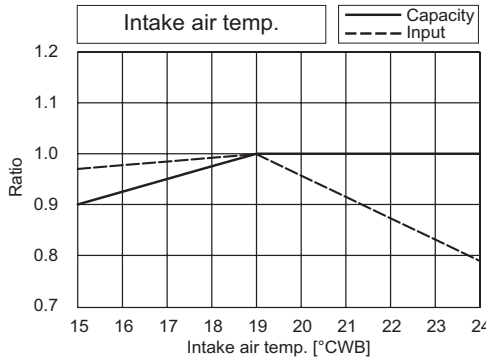
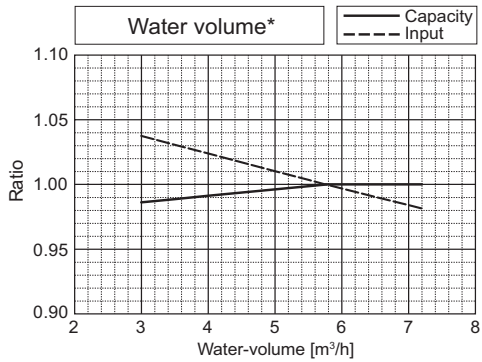
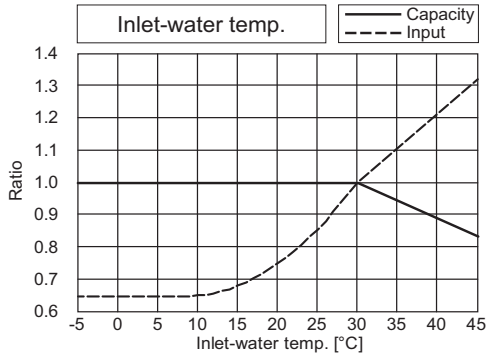
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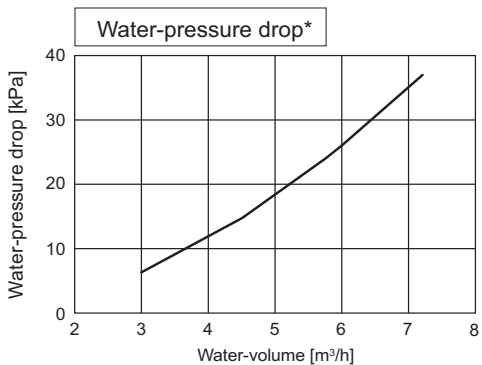
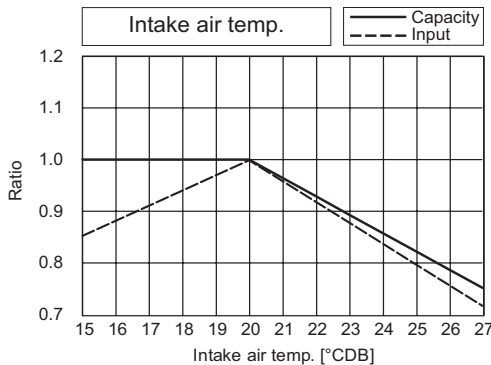
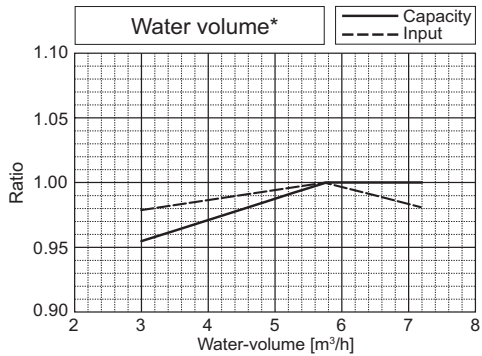
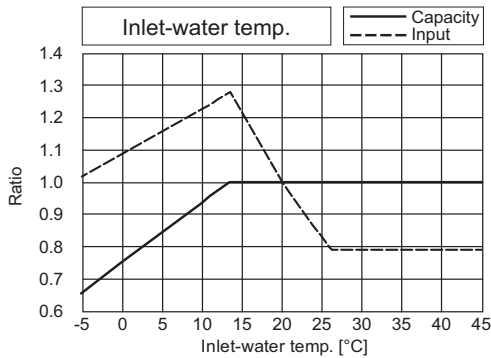
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P216ZSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24



PQRY-			P216ZSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35

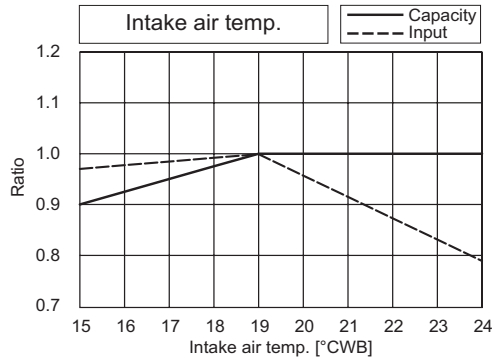
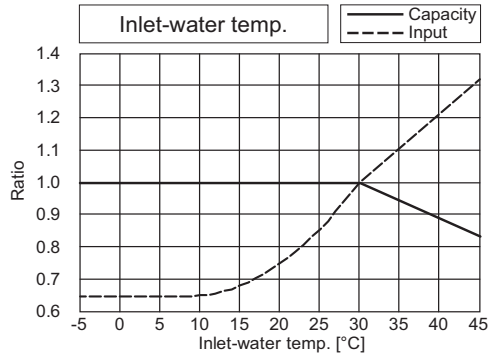


*The drawing indicates characteristic per unit.

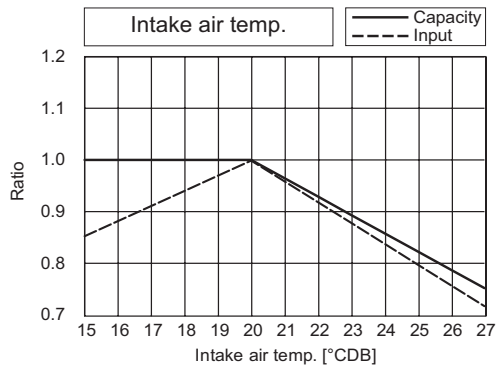
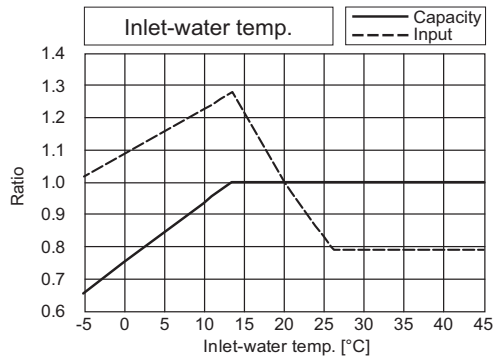
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

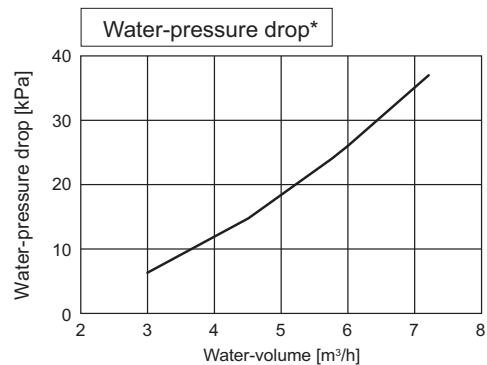
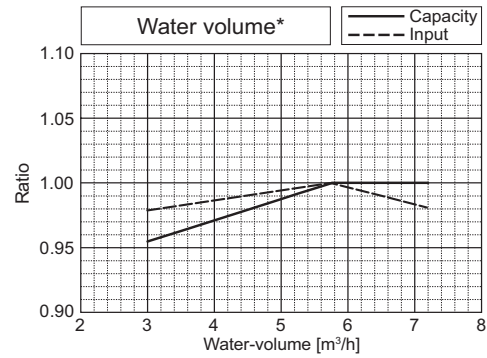
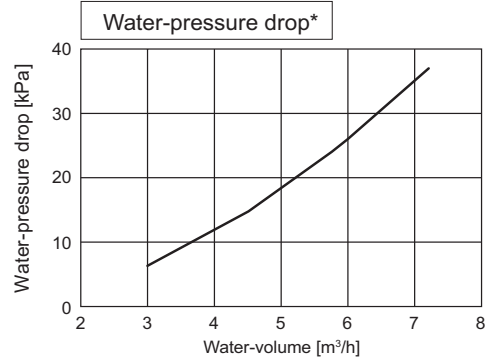
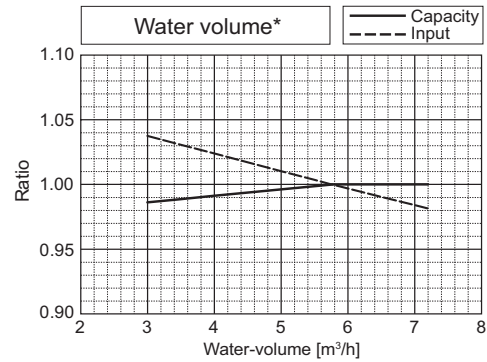
PQRY-			P240ZSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15



PQRY-			P240ZSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02



*The drawing indicates characteristic per unit.

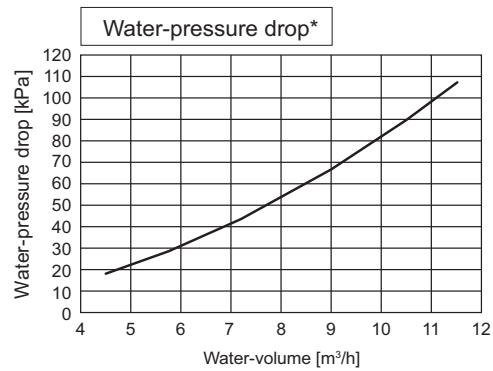
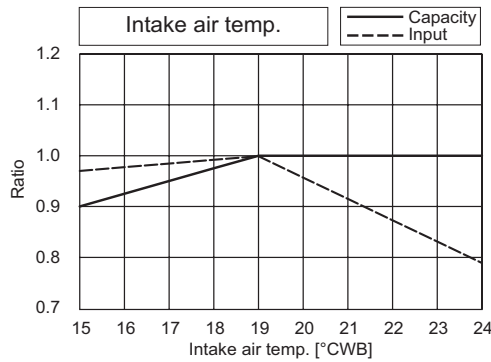
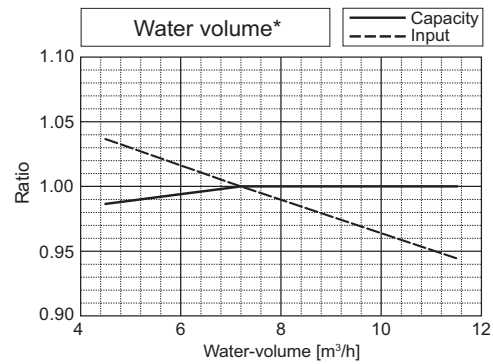
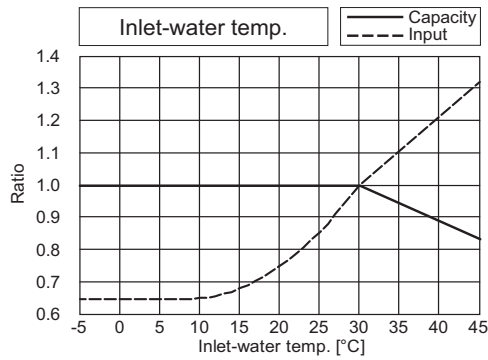


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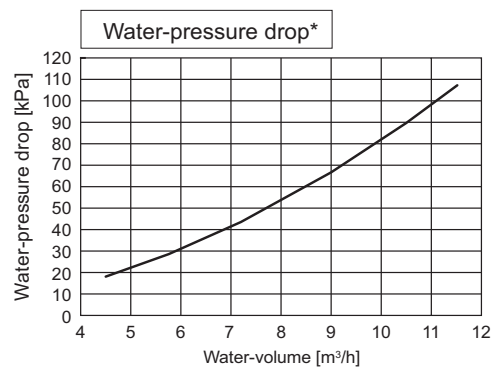
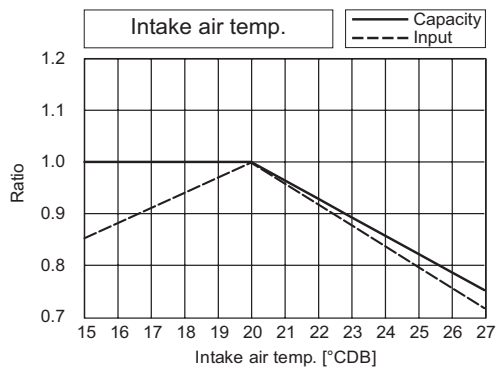
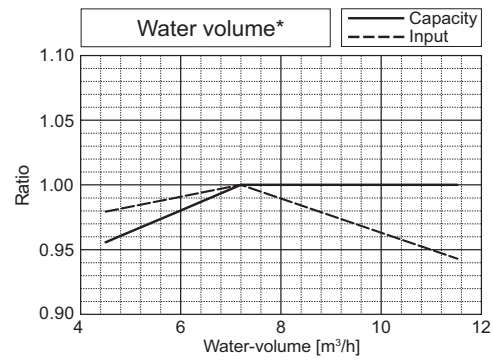
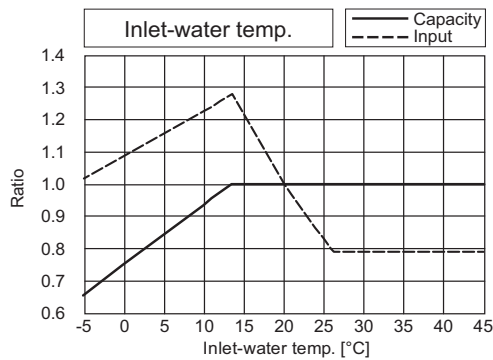
7. CAPACITY TABLES

PQRY-			P288ZSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43

*The drawing indicates characteristic per unit.

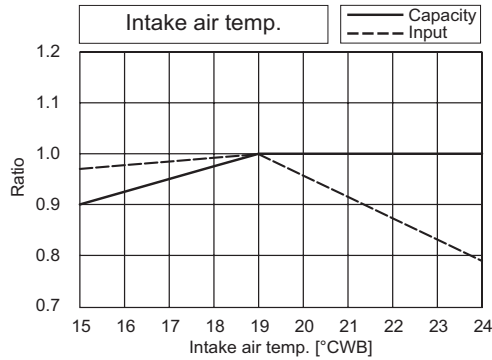
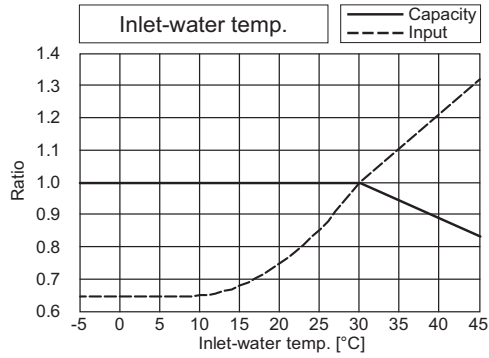


PQRY-			P288ZSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05

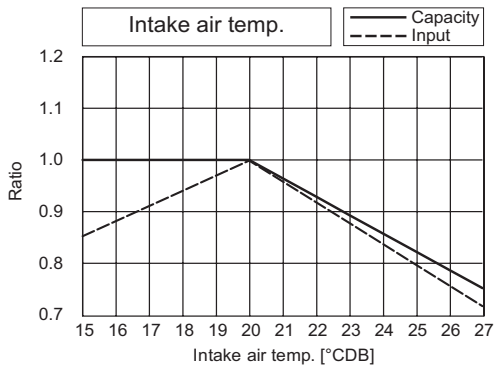
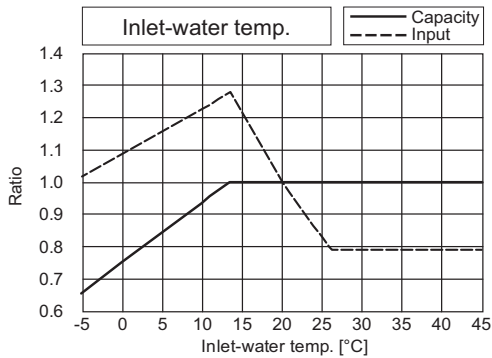


7. CAPACITY TABLES

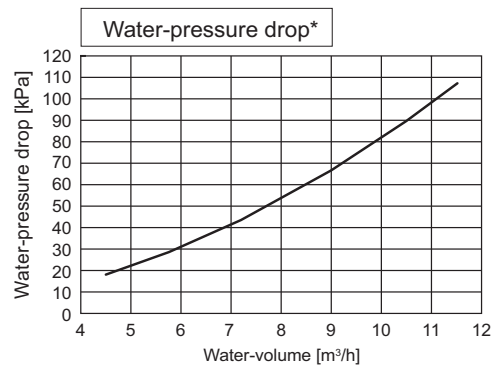
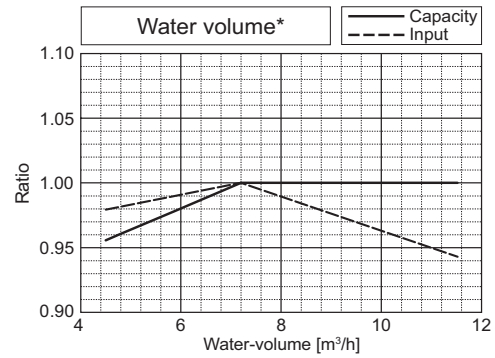
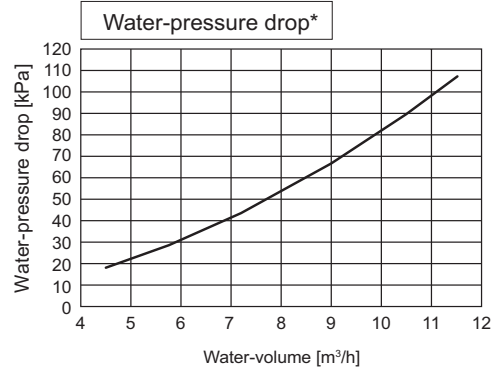
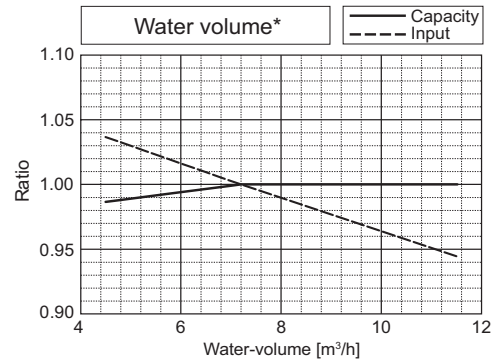
PQRY-			P312ZSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67



PQRY-			P312ZSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96



*The drawing indicates characteristic per unit.

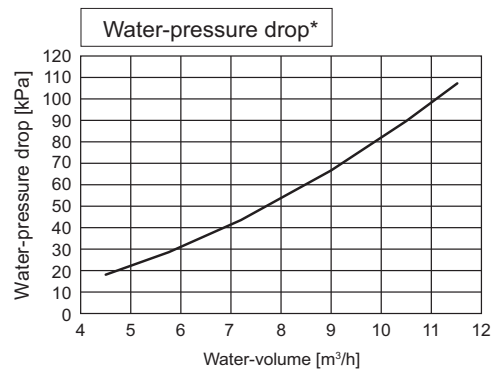
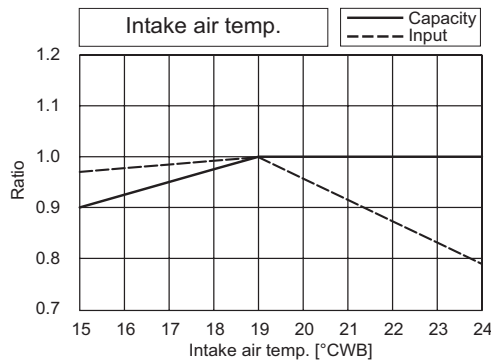
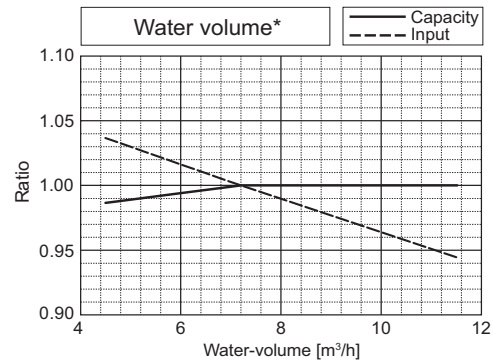
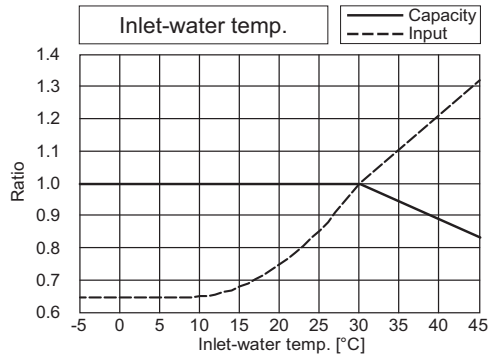


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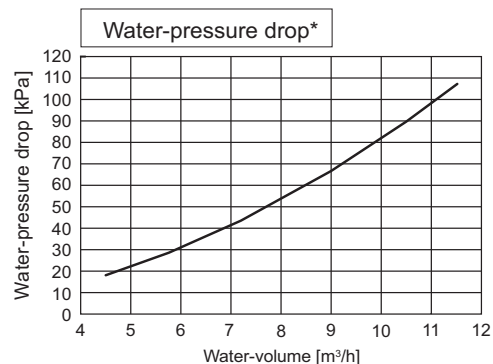
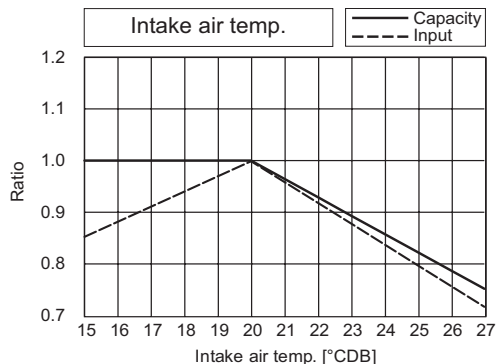
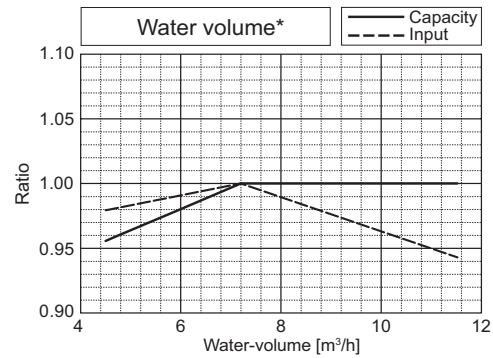
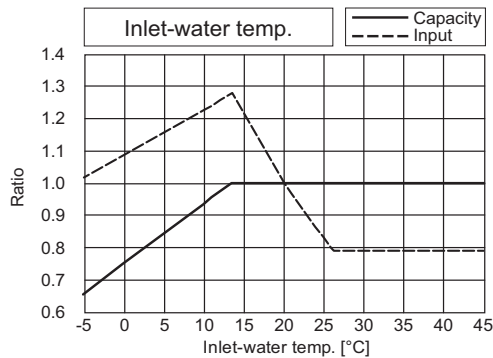
7. CAPACITY TABLES

PQRY-			P336ZSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85

*The drawing indicates characteristic per unit.

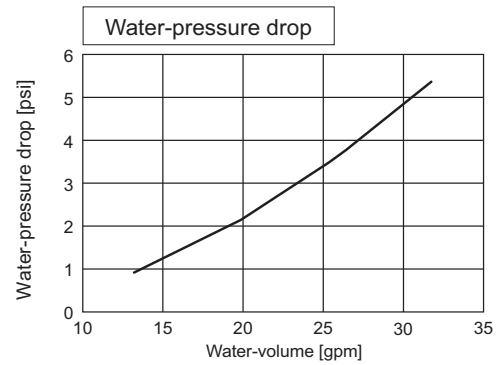
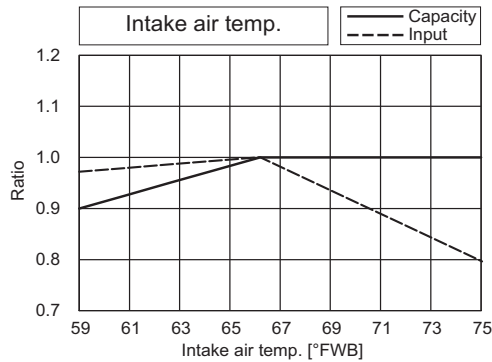
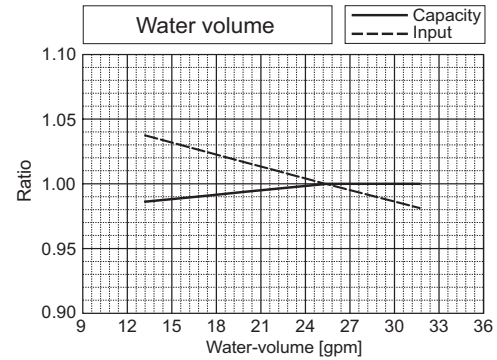
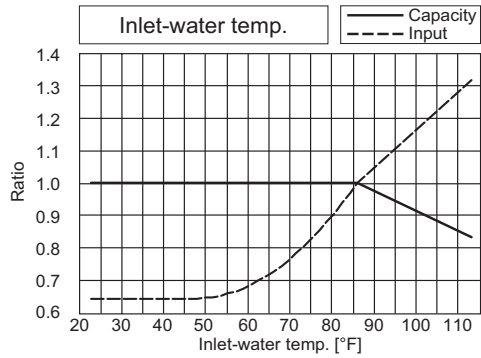


PQRY-			P336ZSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05

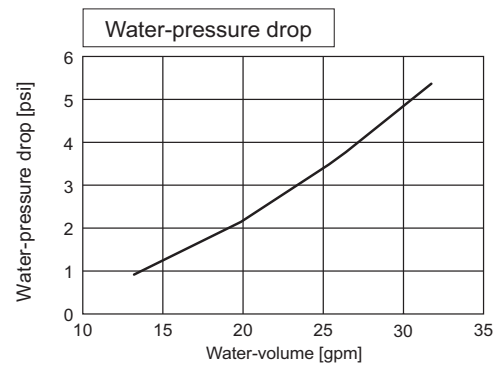
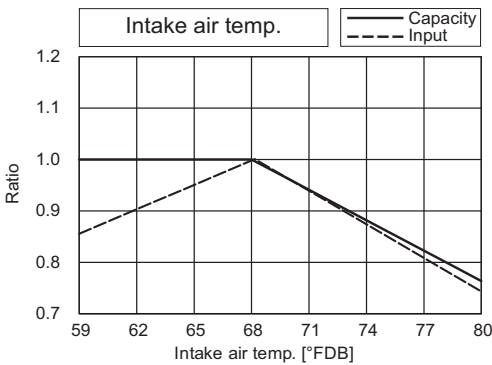
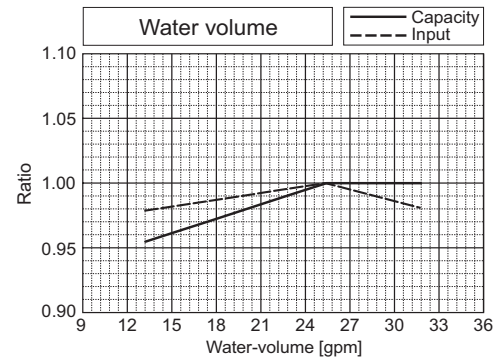
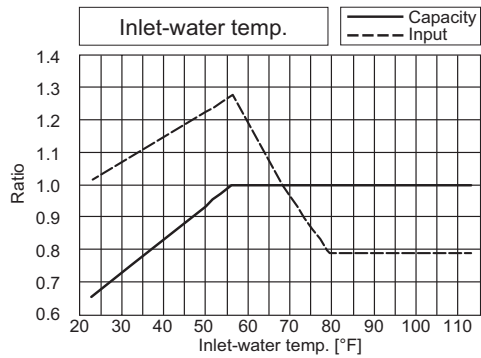


7. CAPACITY TABLES

PQRY-			P72ZLMU		
Nominal Cooling Capacity	kW	21.1	Rated Cooling Capacity	kW	20.2
	BTU/h	72,000		BTU/h	69,000
Input	kW	3.23	Input	kW	(Non-Ducted) 2.96 (Ducted) 3.12



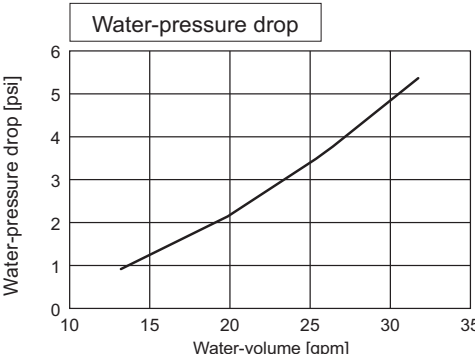
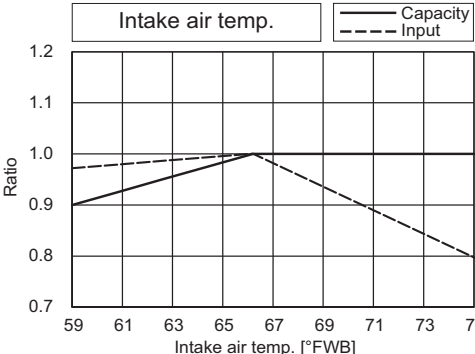
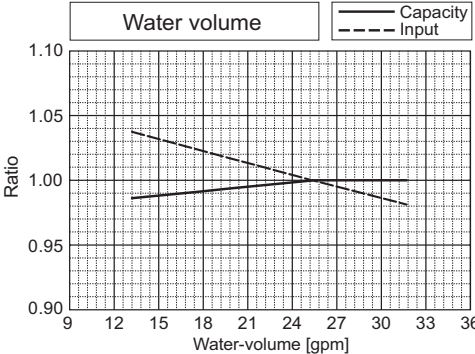
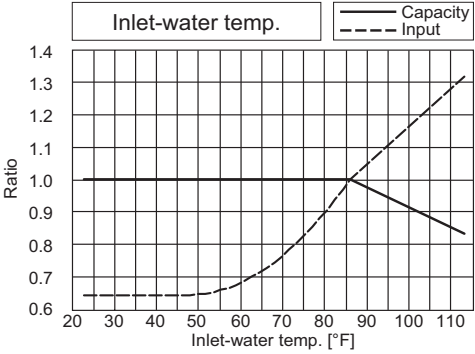
PQRY-			P72ZLMU		
Nominal Heating Capacity	kW	23.4	Rated Heating Capacity	kW	22.3
	BTU/h	80,000		BTU/h	76,000
Input	kW	3.63	Input	kW	(Non-Ducted) 3.34 (Ducted) 3.36



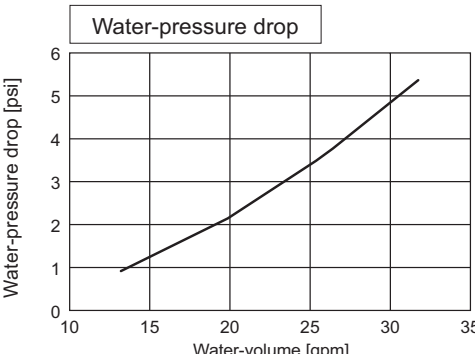
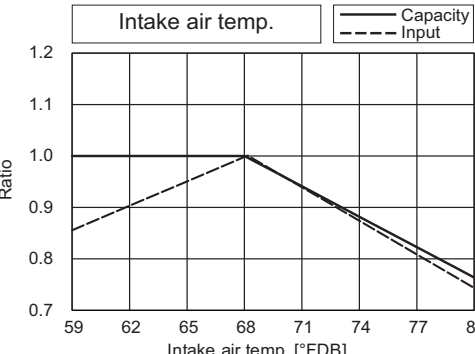
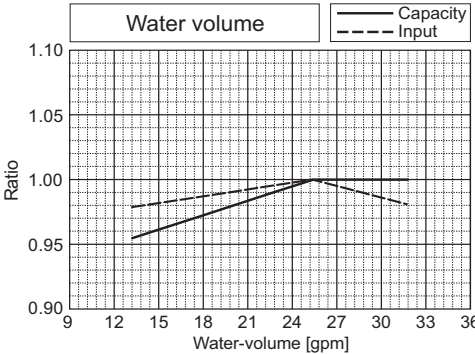
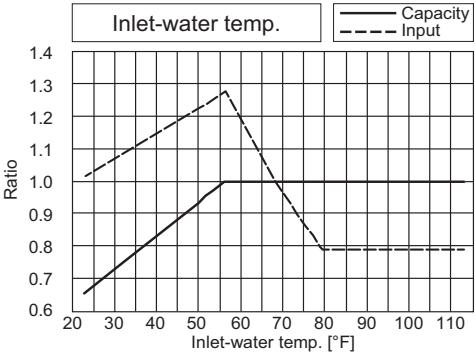
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P96ZLMU		
Nominal Cooling Capacity	kW	28.1	Rated Cooling Capacity	kW	27.0
	BTU/h	96,000		BTU/h	92,000
Input	kW	4.65	Input	kW	(Non-Ducted) 4.26 (Ducted) 5.19

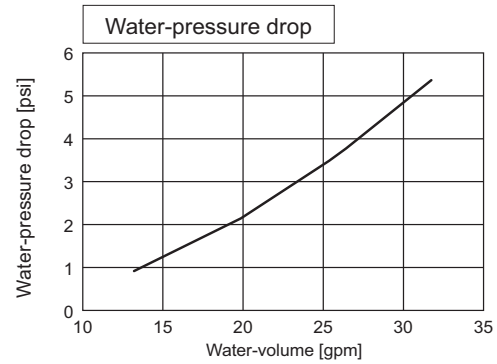
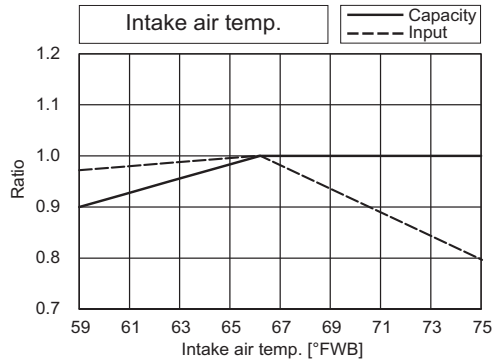
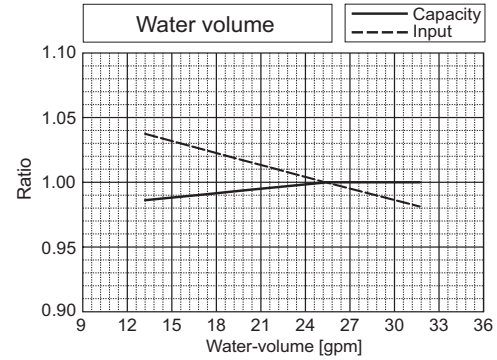
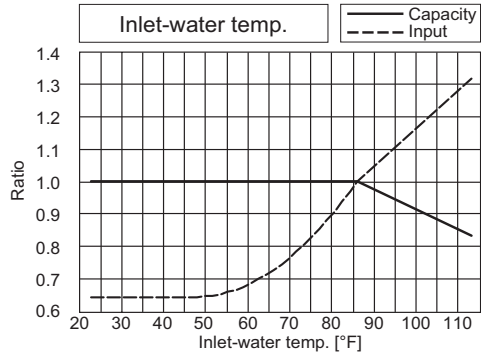


PQRY-			P96ZLMU		
Nominal Heating Capacity	kW	31.7	Rated Heating Capacity	kW	30.2
	BTU/h	108,000		BTU/h	103,000
Input	kW	5.05	Input	kW	(Non-Ducted) 4.65 (Ducted) 4.48

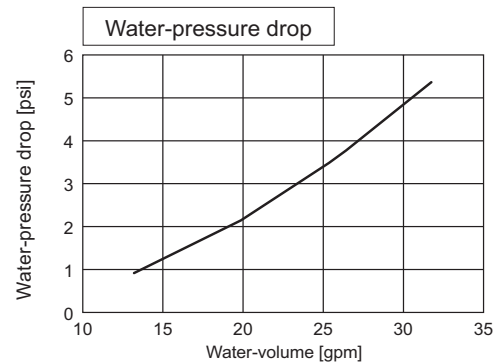
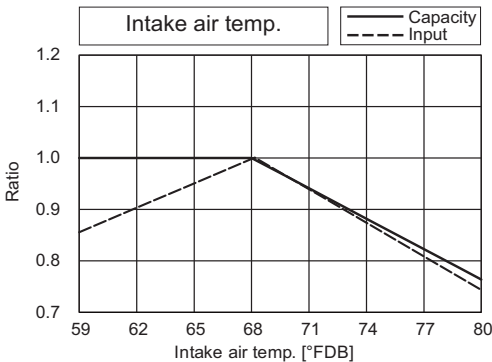
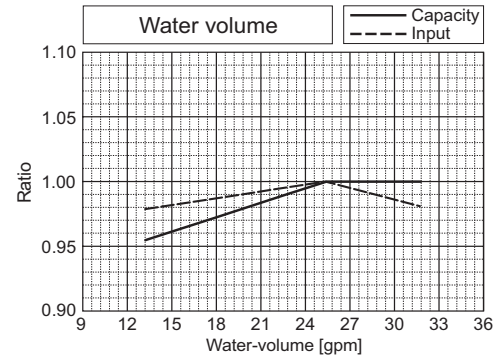
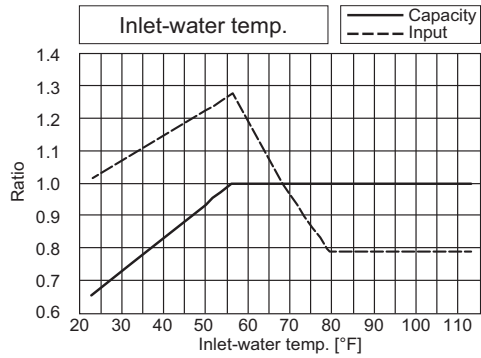


7. CAPACITY TABLES

PQRY-			P120ZLMU		
Nominal Cooling Capacity	kW	35.2	Rated Cooling Capacity	kW	33.4
	BTU/h	120,000		BTU/h	114,000
Input	kW	7.24	Input	kW	(Non-Ducted) 6.66 (Ducted) 7.35

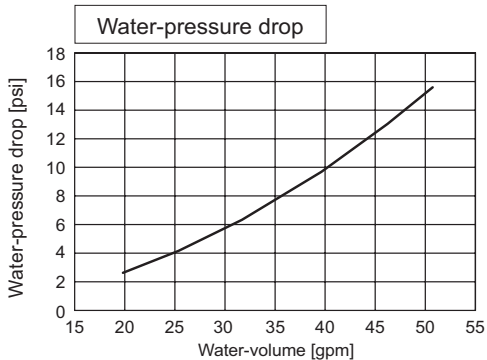
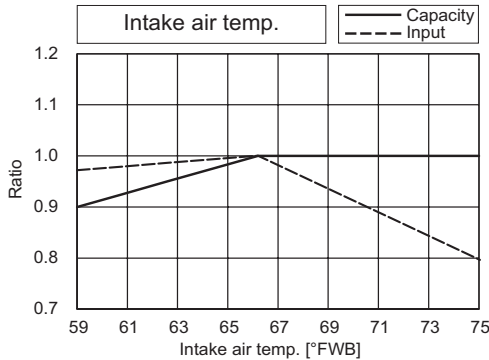
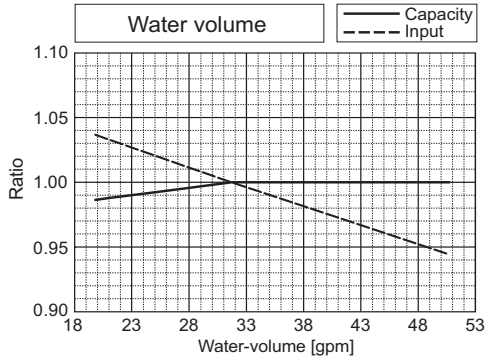
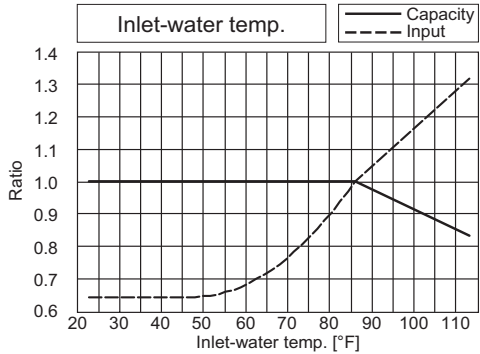


PQRY-			P120ZLMU		
Nominal Heating Capacity	kW	39.6	Rated Heating Capacity	kW	37.8
	BTU/h	135,000		BTU/h	129,000
Input	kW	6.83	Input	kW	(Non-Ducted) 6.29 (Ducted) 5.92

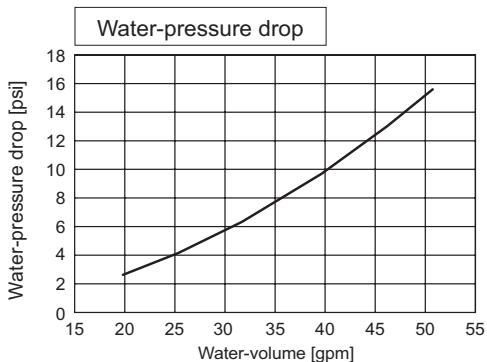
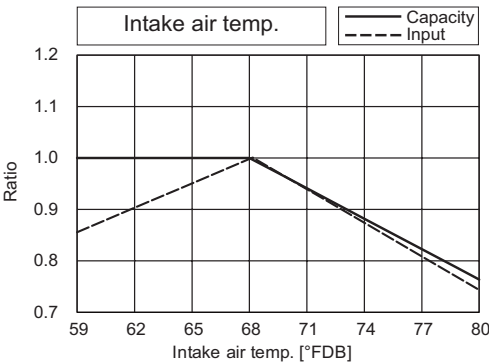
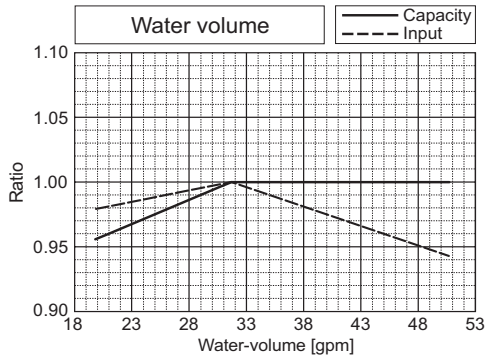
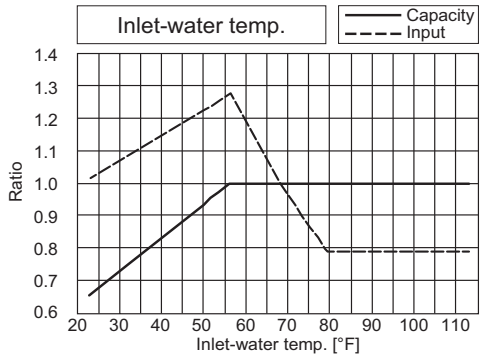


7. CAPACITY TABLES

PQRY-			P144ZLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	8.78	Input	kW	(Non-Ducted) 8.07 (Ducted) 9.98

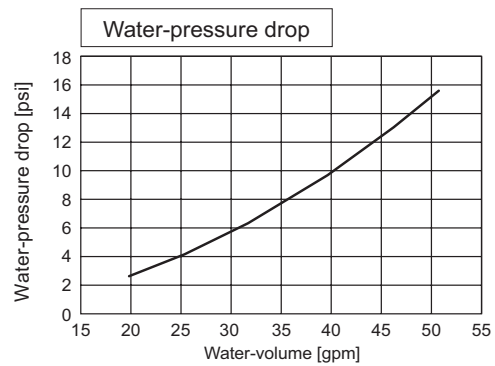
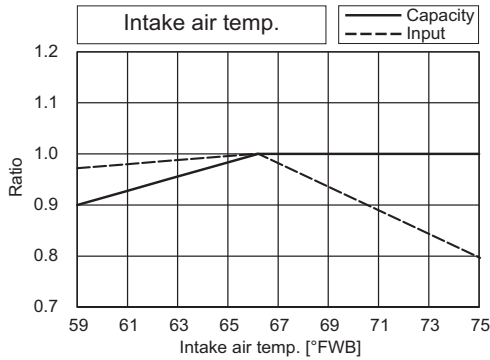
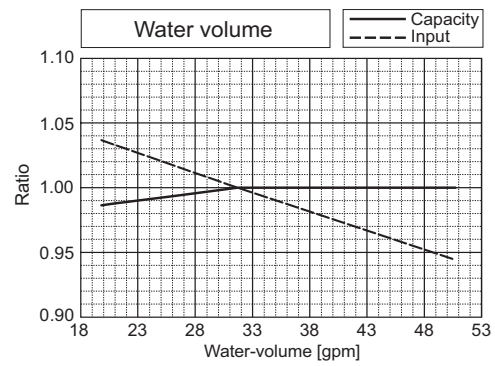
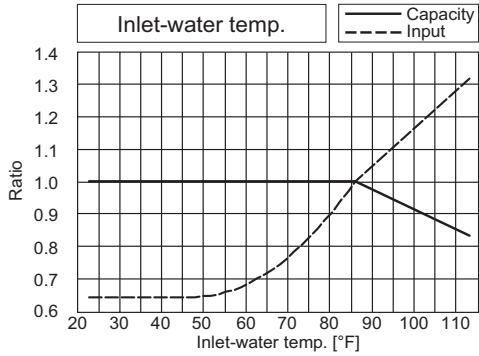


PQRY-			P144ZLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	8.11	Input	kW	(Non-Ducted) 7.47 (Ducted) 7.90

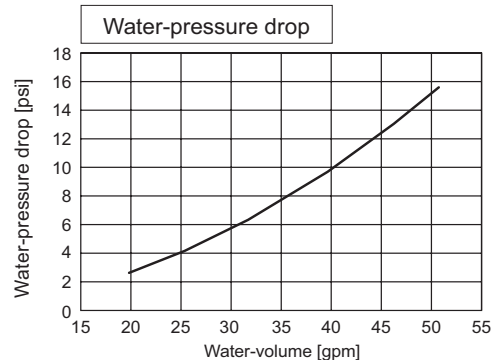
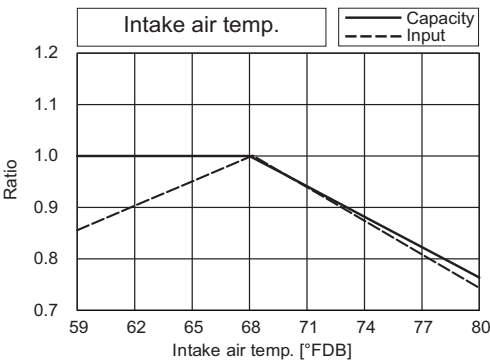
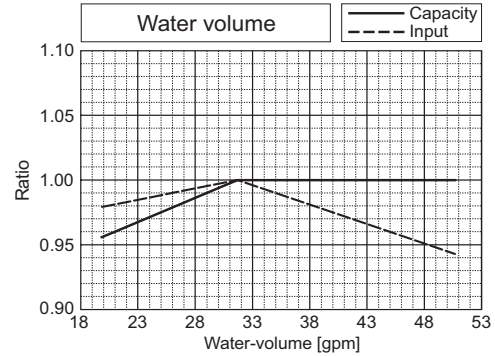
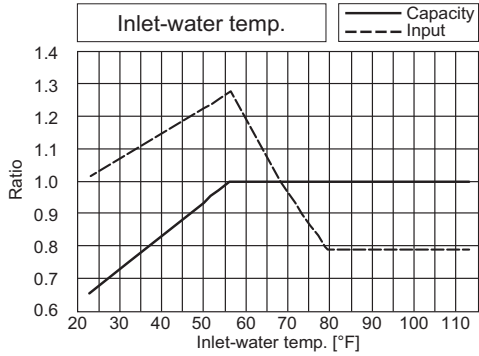


7. CAPACITY TABLES

PQRY-			P168ZLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	12.05	Input	kW	(Non-Ducted) 11.10 (Ducted) 11.88



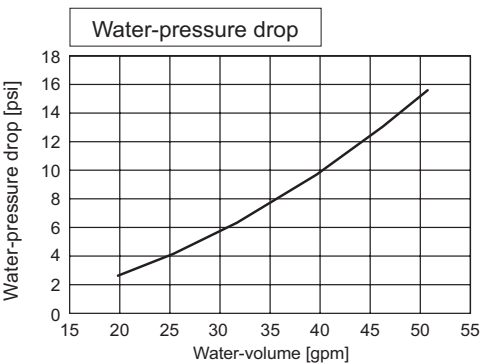
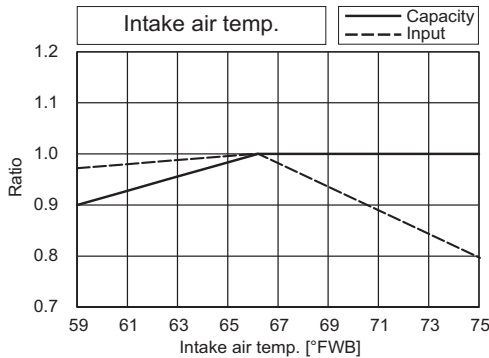
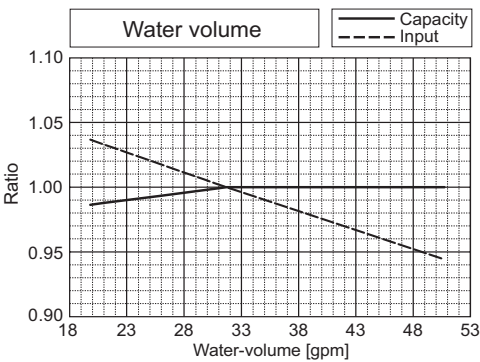
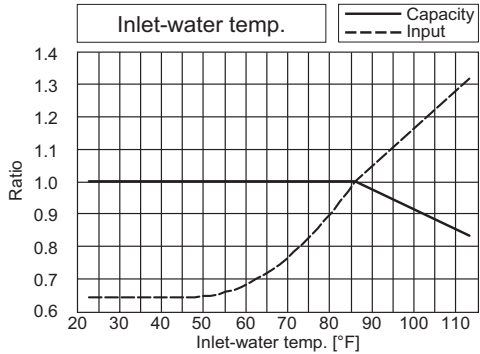
PQRY-			P168ZLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.86	Input	kW	(Non-Ducted) 9.09 (Ducted) 9.72



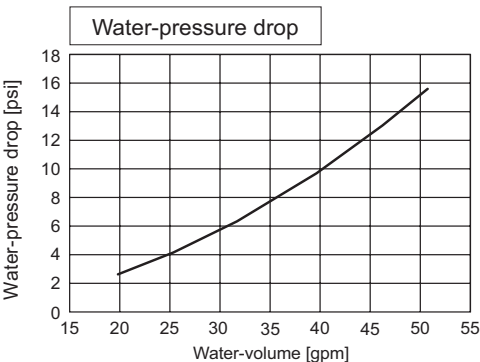
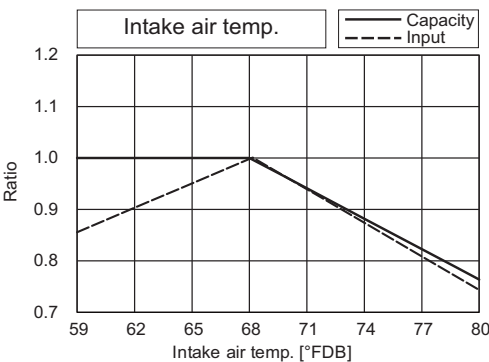
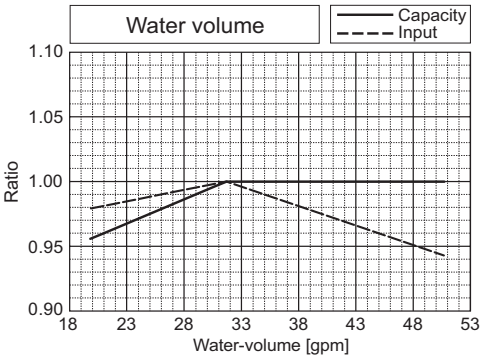
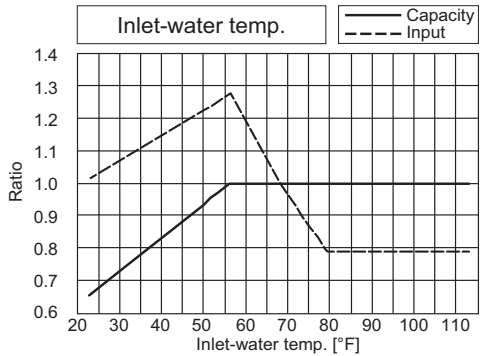
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQRY-			P192ZLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	15.05	Input	kW	(Non-Ducted) 13.87 (Ducted) 14.19

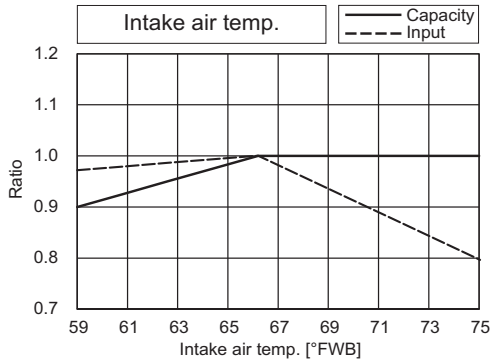
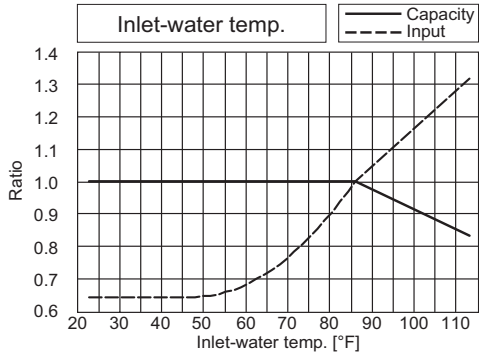


PQRY-			P192ZLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.90	Input	kW	(Non-Ducted) 10.97 (Ducted) 11.56

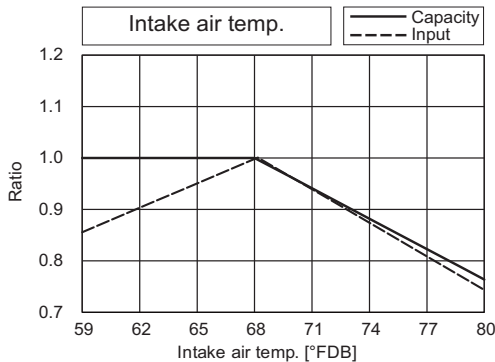
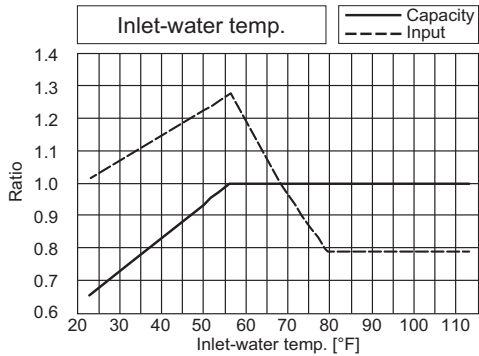


7. CAPACITY TABLES

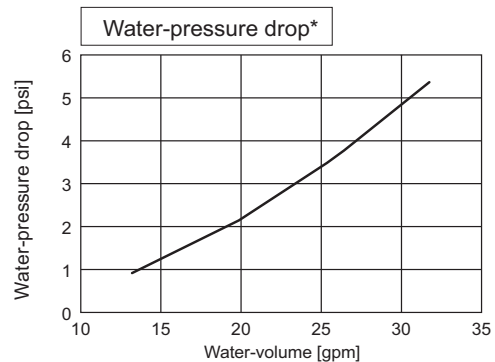
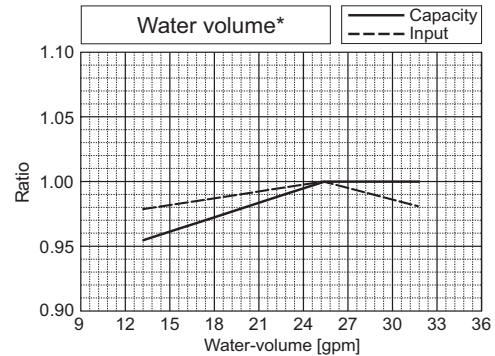
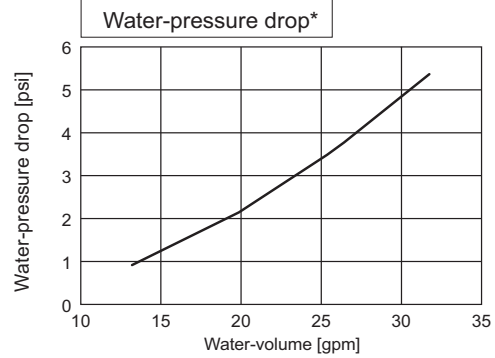
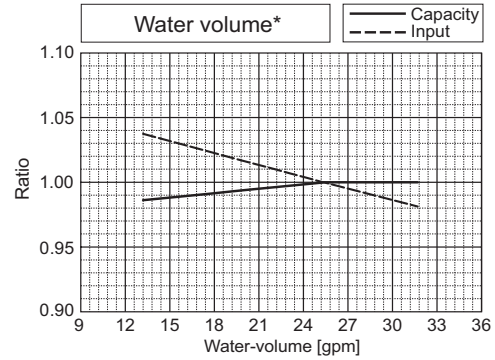
PQRY-			P144ZSLMU		
Nominal Cooling Capacity	kW	42.2	Rated Cooling Capacity	kW	40.2
	BTU/h	144,000		BTU/h	137,000
Input	kW	7.11	Input	kW	(Non-Ducted) 6.53 (Ducted) 7.72



PQRY-			P144ZSLMU		
Nominal Heating Capacity	kW	46.9	Rated Heating Capacity	kW	44.5
	BTU/h	160,000		BTU/h	152,000
Input	kW	7.45	Input	kW	(Non-Ducted) 6.86 (Ducted) 7.22



*The drawing indicates characteristic per unit.

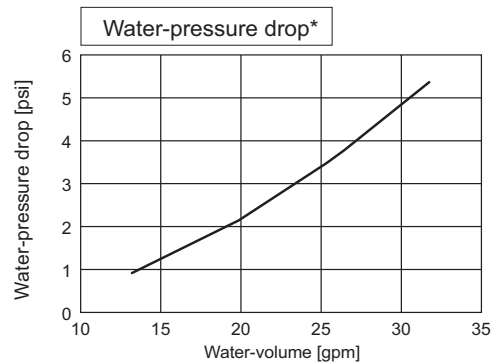
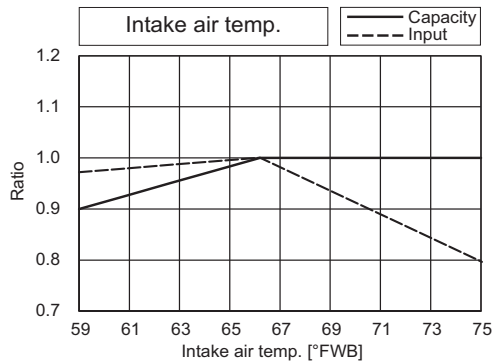
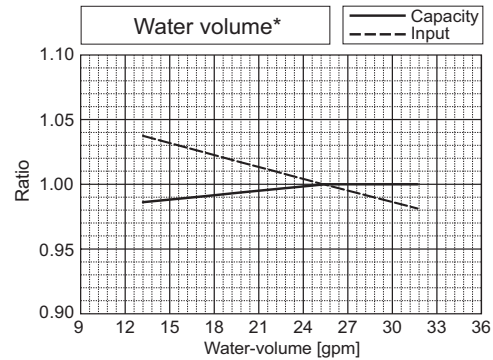
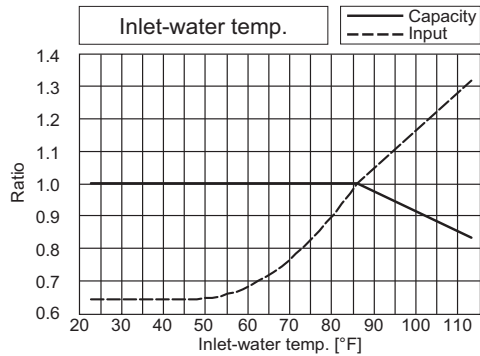


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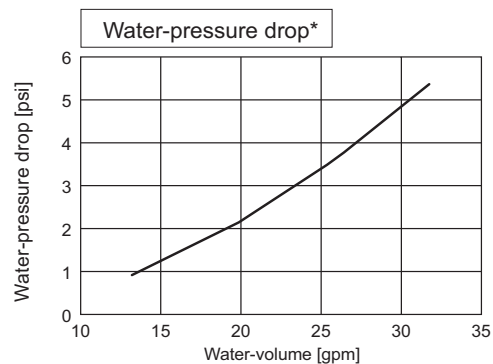
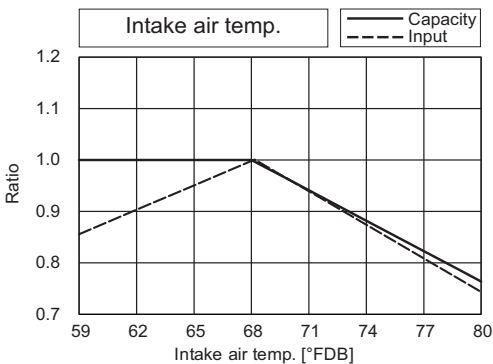
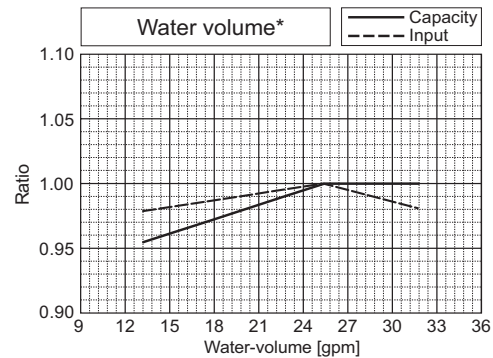
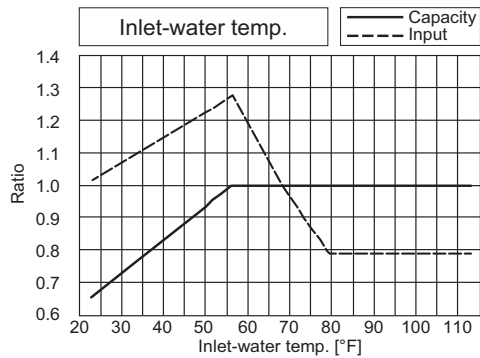
7. CAPACITY TABLES

PQRY-			P168ZSLMU		
Nominal Cooling Capacity	kW	49.2	Rated Cooling Capacity	kW	47.2
	BTU/h	168,000		BTU/h	161,000
Input	kW	9.33	Input	kW	(Non-Ducted) 8.58 (Ducted) 9.22

*The drawing indicates characteristic per unit.

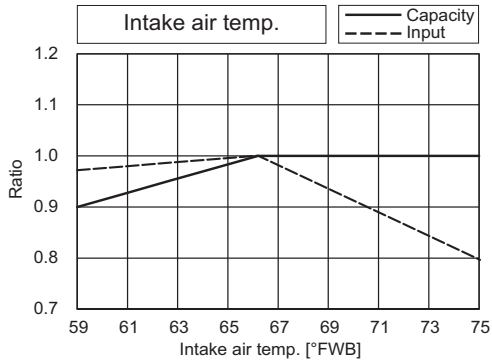
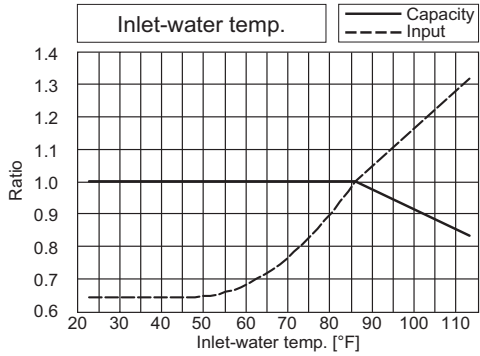


PQRY-			P168ZSLMU		
Nominal Heating Capacity	kW	55.1	Rated Heating Capacity	kW	52.5
	BTU/h	188,000		BTU/h	179,000
Input	kW	9.34	Input	kW	(Non-Ducted) 8.60 (Ducted) 8.03

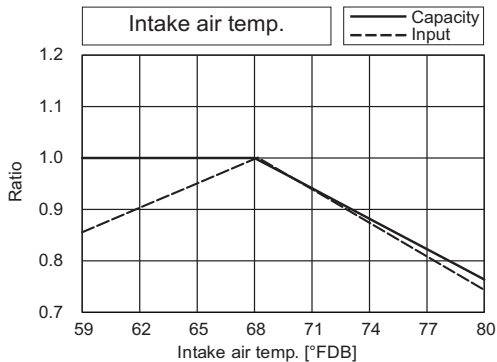
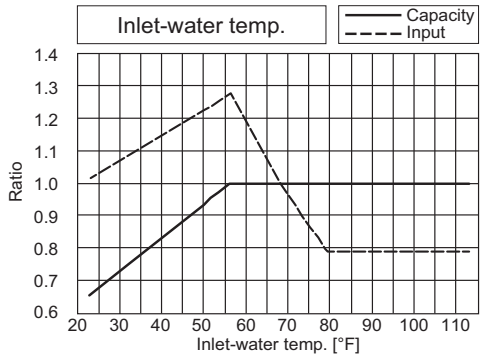


7. CAPACITY TABLES

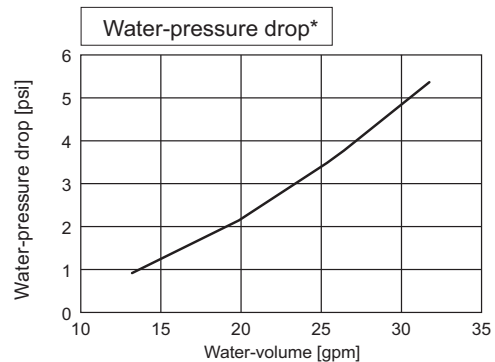
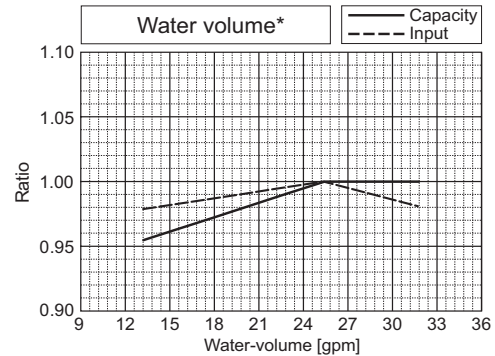
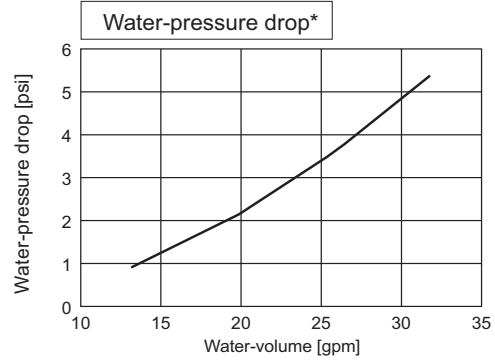
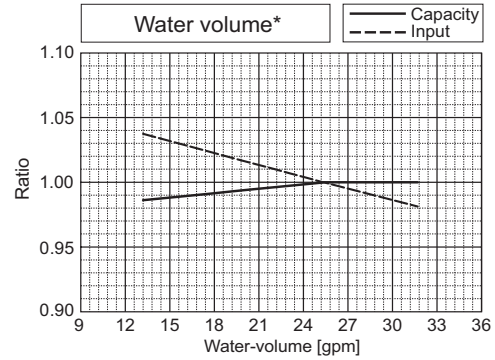
PQRY-			P192ZSLMU		
Nominal Cooling Capacity	kW	56.3	Rated Cooling Capacity	kW	53.6
	BTU/h	192,000		BTU/h	183,000
Input	kW	11.30	Input	kW	(Non-Ducted) 10.40 (Ducted) 10.98



PQRY-			P192ZSLMU		
Nominal Heating Capacity	kW	63.0	Rated Heating Capacity	kW	60.1
	BTU/h	215,000		BTU/h	205,000
Input	kW	11.02	Input	kW	(Non-Ducted) 10.16 (Ducted) 8.90



*The drawing indicates characteristic per unit.

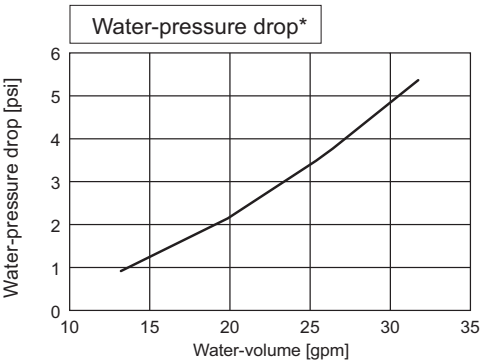
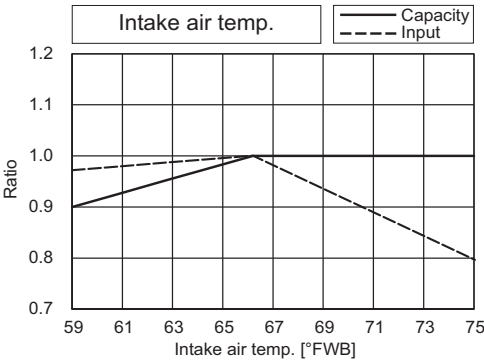
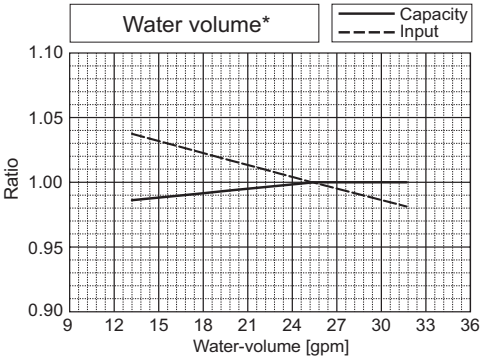
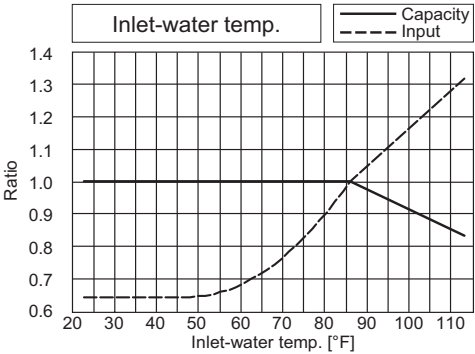


PQRY-P-Z(S)LMU-A1

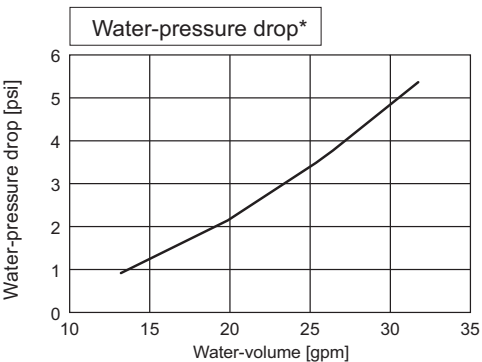
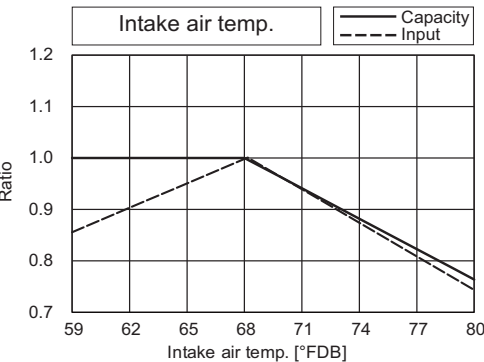
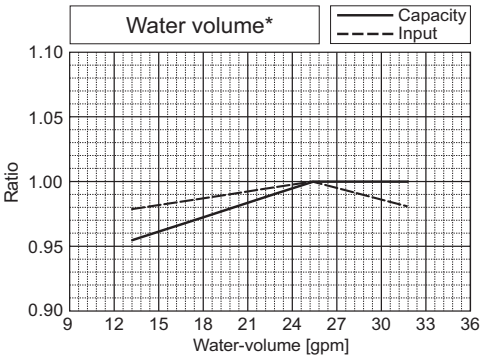
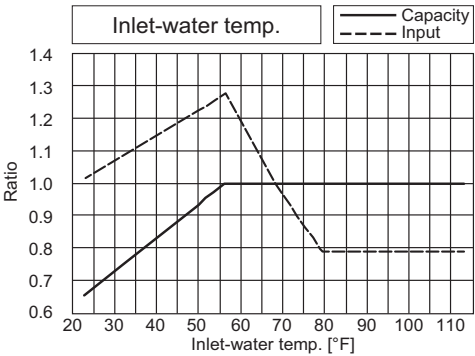
7. CAPACITY TABLES

*The drawing indicates characteristic per unit.

PQRY-			P216ZSLMU		
Nominal Cooling Capacity	kW	63.3	Rated Cooling Capacity	kW	60.4
	BTU/h	216,000		BTU/h	206,000
Input	kW	14.03	Input	kW	(Non-Ducted) 12.93 (Ducted) 13.24

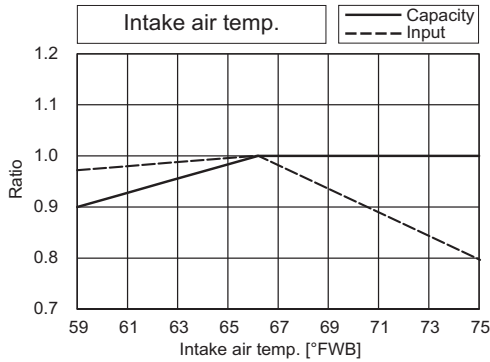
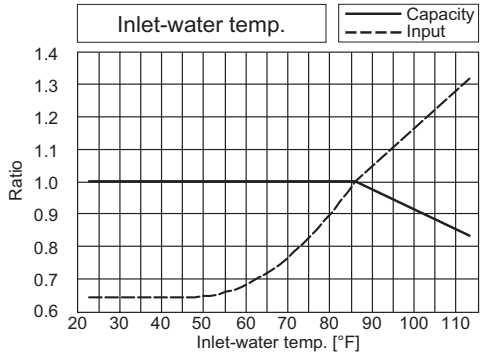


PQRY-			P216ZSLMU		
Nominal Heating Capacity	kW	71.2	Rated Heating Capacity	kW	68.0
	BTU/h	243,000		BTU/h	232,000
Input	kW	12.88	Input	kW	(Non-Ducted) 11.88 (Ducted) 10.35

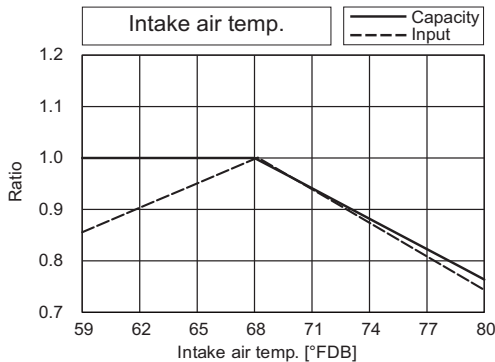
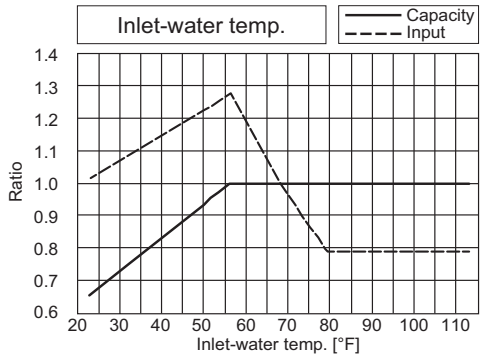


7. CAPACITY TABLES

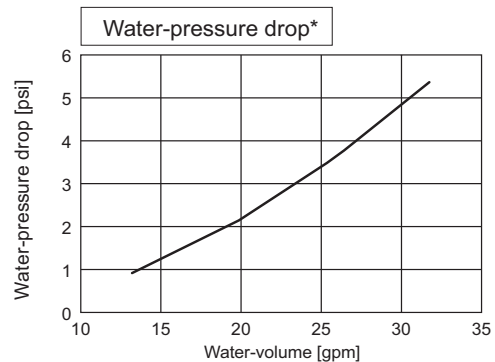
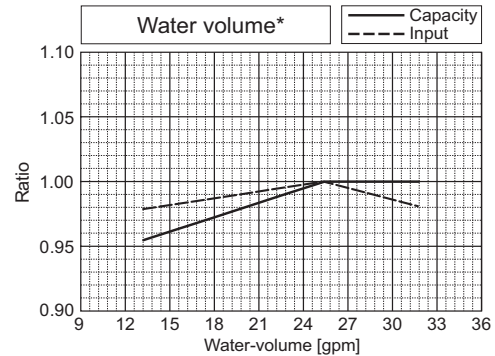
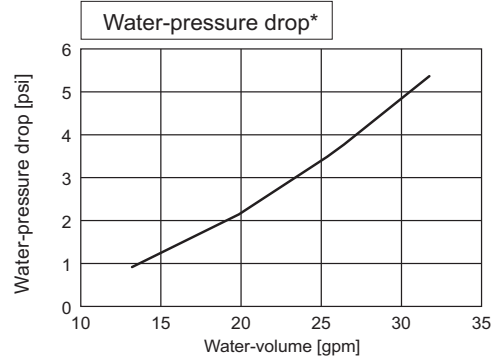
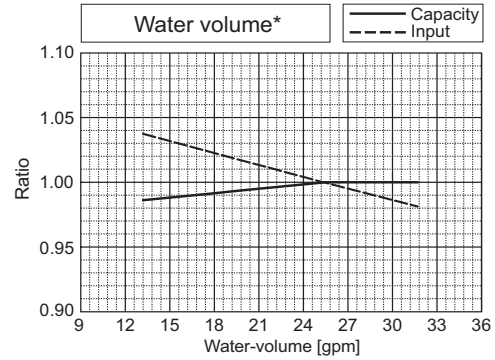
PQRY-			P240ZSLMU		
Nominal Cooling Capacity	kW	70.3	Rated Cooling Capacity	kW	66.8
	BTU/h	240,000		BTU/h	228,000
Input	kW	16.89	Input	kW	(Non-Ducted) 15.57 (Ducted) 16.15



PQRY-			P240ZSLMU		
Nominal Heating Capacity	kW	79.1	Rated Heating Capacity	kW	75.6
	BTU/h	270,000		BTU/h	258,000
Input	kW	14.58	Input	kW	(Non-Ducted) 13.45 (Ducted) 12.02



*The drawing indicates characteristic per unit.

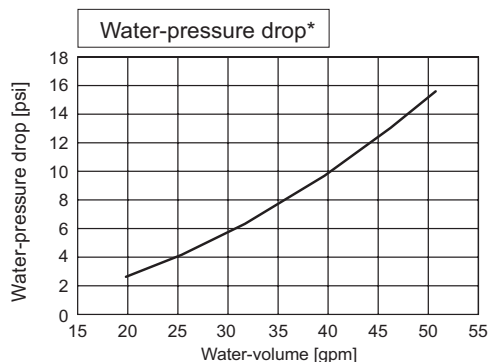
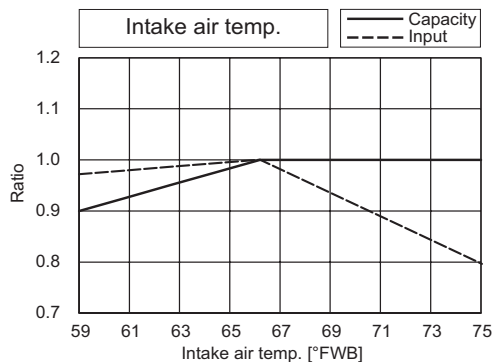
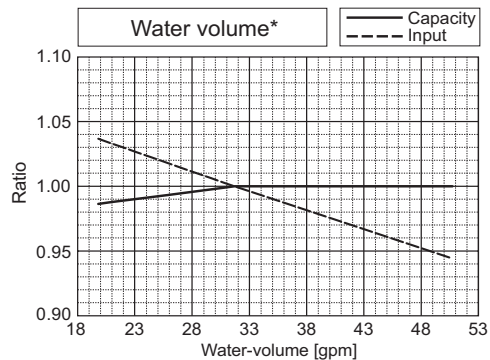
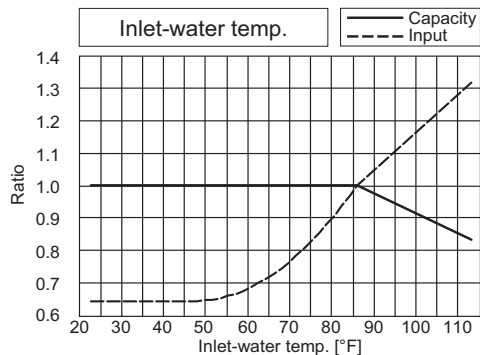


PQRY-P-Z(S)LMU-A1

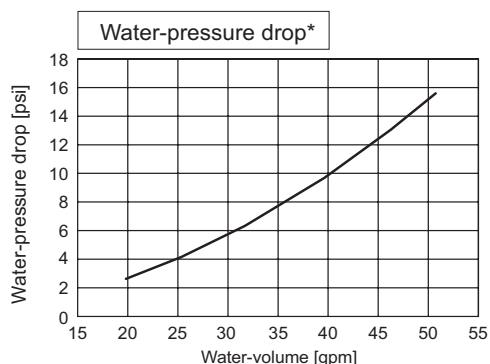
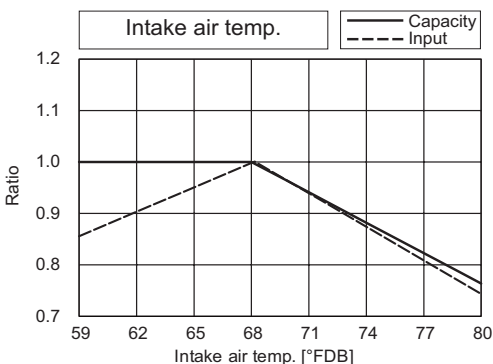
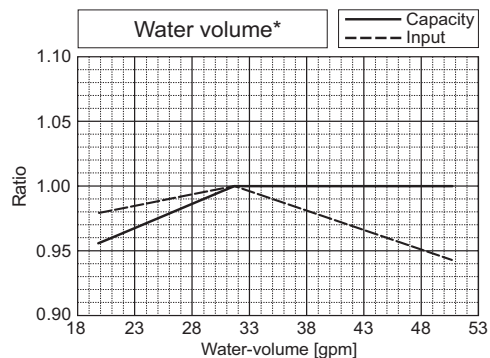
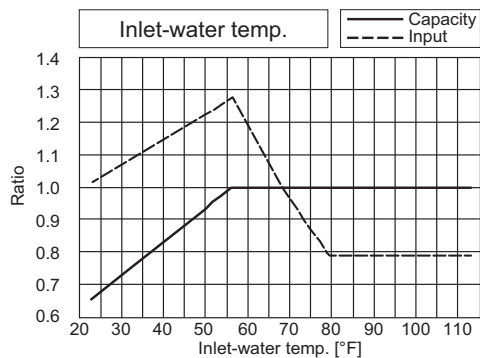
7. CAPACITY TABLES

PQRY-			P288ZSLMU		
Nominal Cooling Capacity	kW	84.4	Rated Cooling Capacity	kW	80.6
	BTU/h	288,000		BTU/h	275,000
Input	kW	20.42	Input	kW	(Non-Ducted) 18.82 (Ducted) 21.43

*The drawing indicates characteristic per unit.



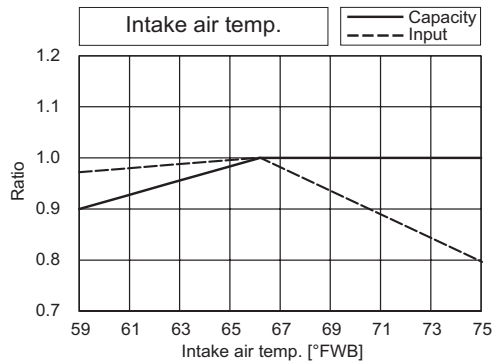
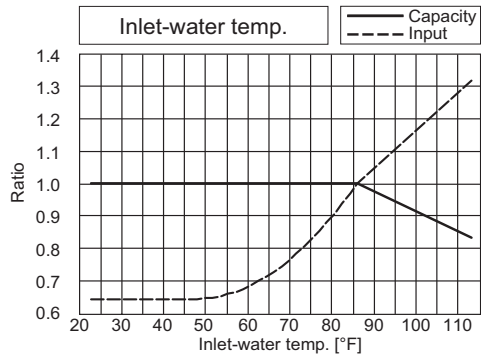
PQRY-			P288ZSLMU		
Nominal Heating Capacity	kW	94.7	Rated Heating Capacity	kW	90.3
	BTU/h	323,000		BTU/h	308,000
Input	kW	17.50	Input	kW	(Non-Ducted) 16.13 (Ducted) 16.05



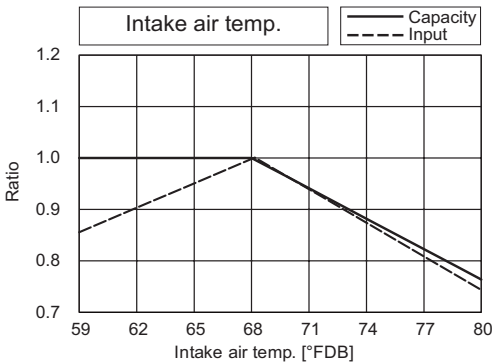
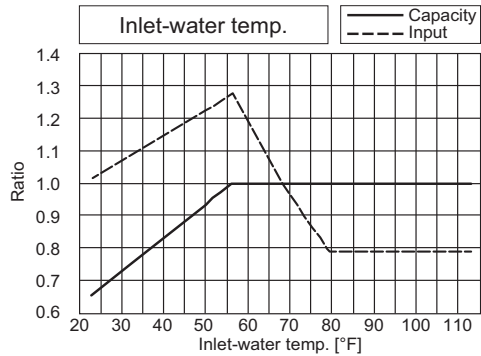
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

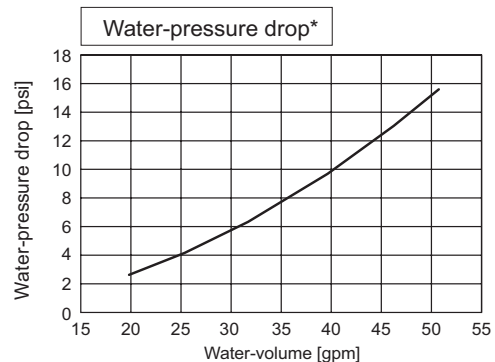
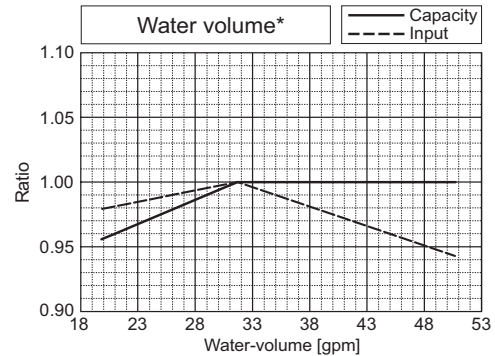
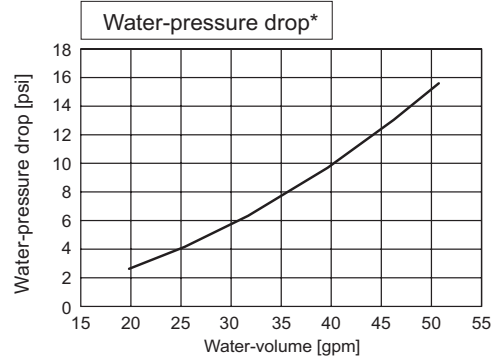
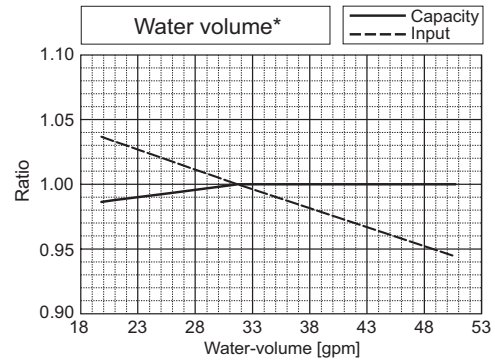
PQRY-			P312ZSLMU		
Nominal Cooling Capacity	kW	91.4	Rated Cooling Capacity	kW	87.0
	BTU/h	312,000		BTU/h	297,000
Input	kW	23.41	Input	kW	(Non-Ducted) 21.59 (Ducted) 23.67



PQRY-			P312ZSLMU		
Nominal Heating Capacity	kW	102.6	Rated Heating Capacity	kW	97.9
	BTU/h	350,000		BTU/h	334,000
Input	kW	19.11	Input	kW	(Non-Ducted) 17.62 (Ducted) 17.96



*The drawing indicates characteristic per unit.

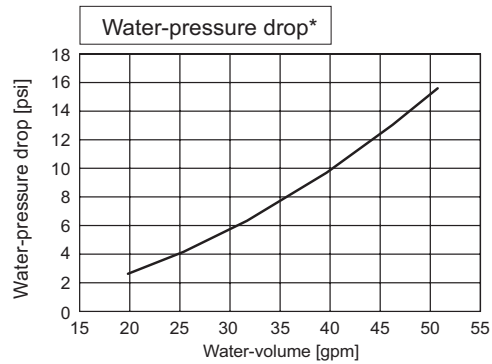
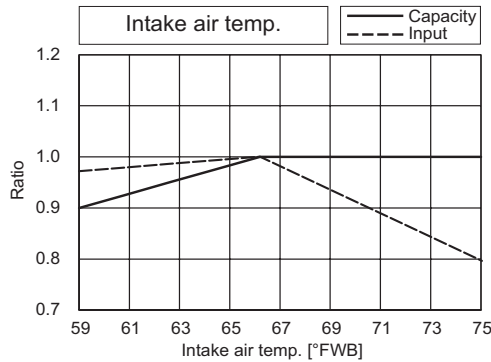
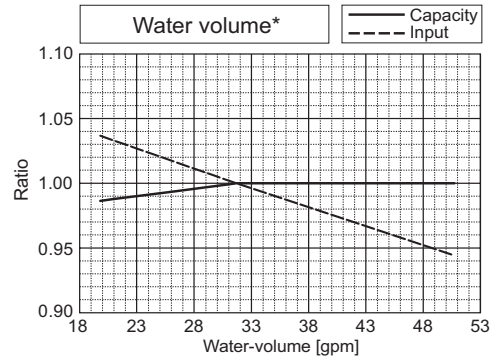
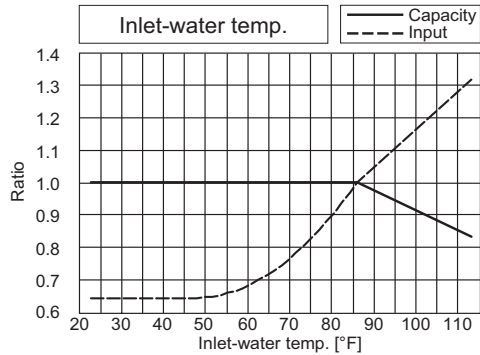


PQRY-P-Z(S)LMU-A1

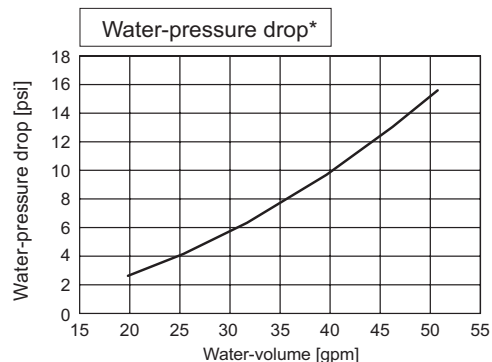
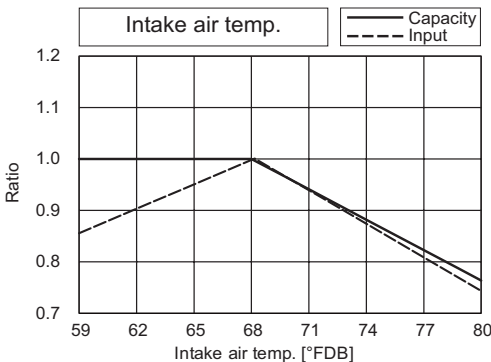
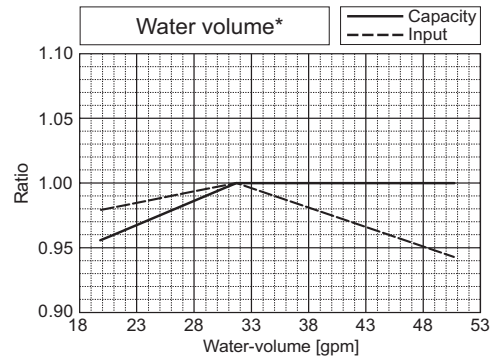
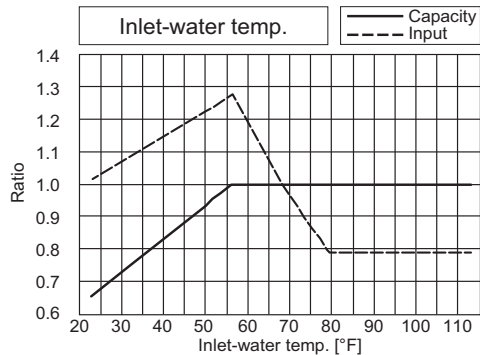
7. CAPACITY TABLES

PQRY-			P336ZSLMU		
Nominal Cooling Capacity	kW	98.5	Rated Cooling Capacity	kW	93.8
	BTU/h	336,000		BTU/h	320,000
Input	kW	26.84	Input	kW	(Non-Ducted) 24.76 (Ducted) 25.85

*The drawing indicates characteristic per unit.



PQRY-			P336ZSLMU		
Nominal Heating Capacity	kW	110.8	Rated Heating Capacity	kW	105.8
	BTU/h	378,000		BTU/h	361,000
Input	kW	20.77	Input	kW	(Non-Ducted) 19.16 (Ducted) 20.05



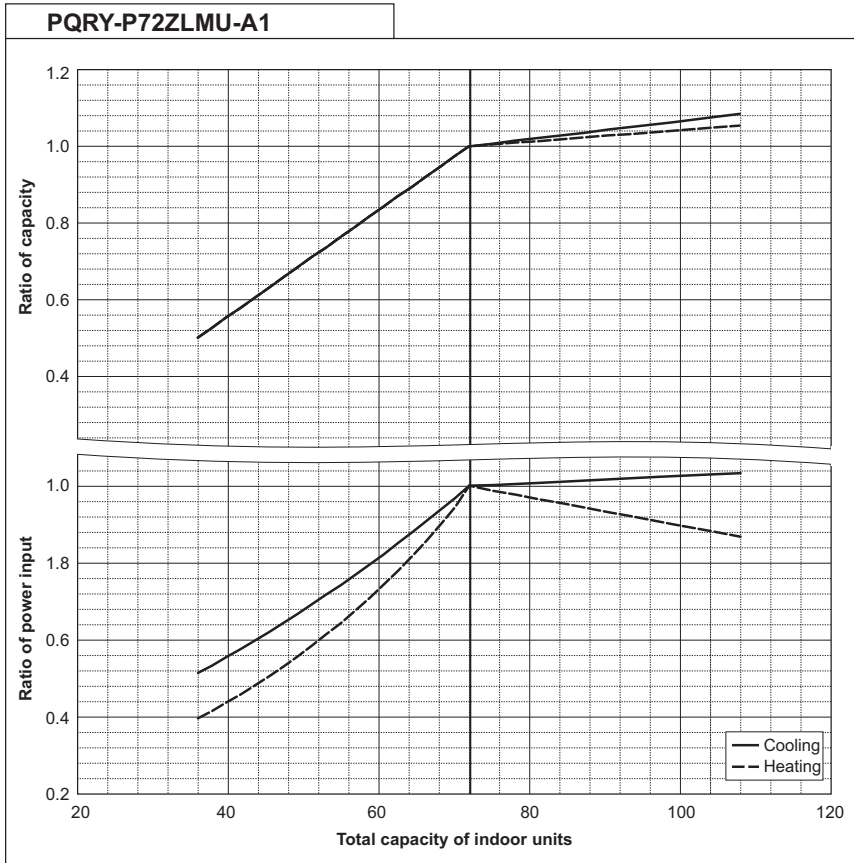
7. CAPACITY TABLES

7-2. Correction by total indoor

CITY MULTI system have different capacities and inputs when many combinations of indoor units with different total capacities are connected. Using following tables, the maximum capacity can be found to ensure the system is installed with enough capacity for a particular application.

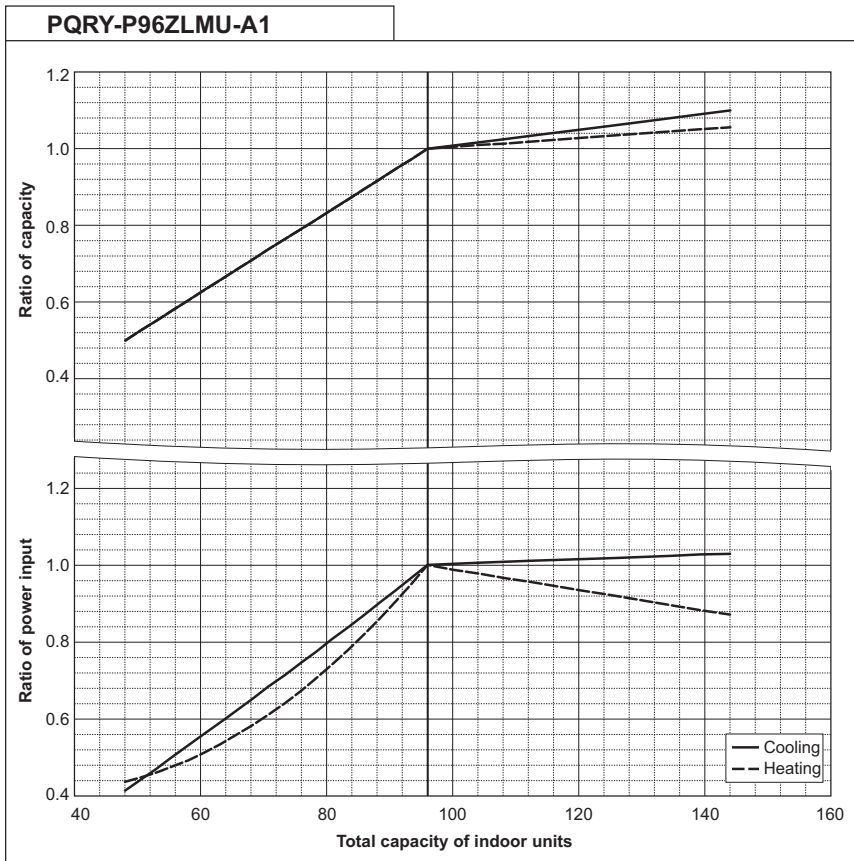
PQRY-		P72ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	72,000	
	kW	21.1	
	Input kW	3.23	
Rated cooling capacity	BTU/h	69,000	
	kW	20.2	
	Input kW	2.96	3.12

PQRY-		P72ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	80,000	
	kW	23.4	
	Input kW	3.63	
Rated Heating capacity	BTU/h	76,000	
	kW	22.3	
	Input kW	3.34	3.36



PQRY-		P96ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	96,000	
	kW	28.1	
	Input kW	4.65	
Rated cooling capacity	BTU/h	92,000	
	kW	27.0	
	Input kW	4.26	5.19

PQRY-		P96ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	108,000	
	kW	31.7	
	Input kW	5.05	
Rated Heating capacity	BTU/h	103,000	
	kW	30.2	
	Input kW	4.65	4.48

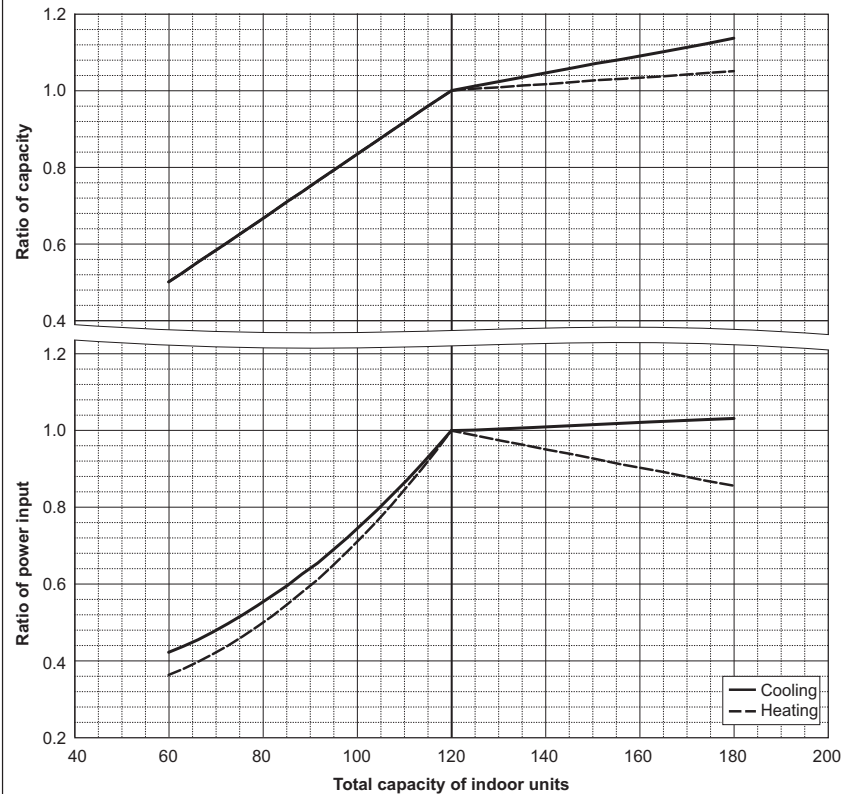


7. CAPACITY TABLES

PQRY-		P120ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	120,000	
	kW	35.2	
	Input kW	7.24	
Rated cooling capacity	BTU/h	114,000	
	kW	33.4	
	Input kW	6.66	7.35

PQRY-		P120ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	135,000	
	kW	39.6	
	Input kW	6.83	
Rated Heating capacity	BTU/h	129,000	
	kW	37.8	
	Input kW	6.29	5.92

PQRY-P120ZLMU-A1



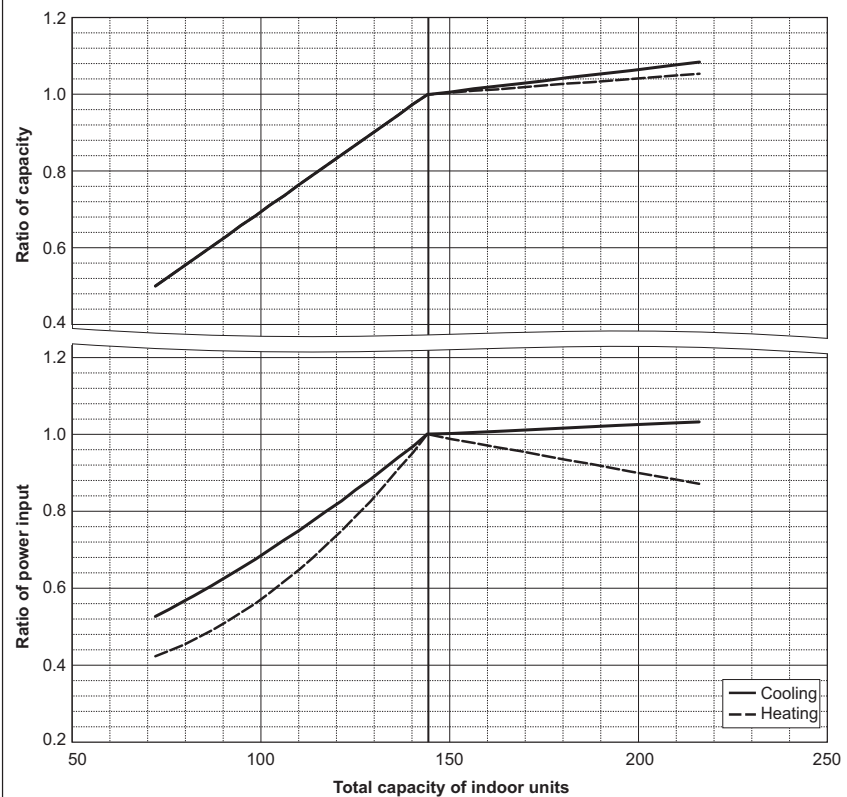
PQRY-		P144ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	8.78	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	8.07	9.98

PQRY-		P144ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	8.11	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	7.47	7.90

PQRY-		P144ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	144,000	
	kW	42.2	
	Input kW	7.11	
Rated cooling capacity	BTU/h	137,000	
	kW	40.2	
	Input kW	6.53	7.72

PQRY-		P144ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	160,000	
	kW	46.9	
	Input kW	7.45	
Rated Heating capacity	BTU/h	152,000	
	kW	44.5	
	Input kW	6.86	7.22

PQRY-P144Z(S)LMU-A1



7. CAPACITY TABLES

PQRY-		P168ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	12.05	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	11.10	11.88

PQRY-		P168ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.86	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	9.09	9.72

PQRY-		P168ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	168,000	
	kW	49.2	
	Input kW	9.33	
Rated cooling capacity	BTU/h	161,000	
	kW	47.2	
	Input kW	8.58	9.22

PQRY-		P168ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	188,000	
	kW	55.1	
	Input kW	9.34	
Rated Heating capacity	BTU/h	179,000	
	kW	52.5	
	Input kW	8.60	8.03

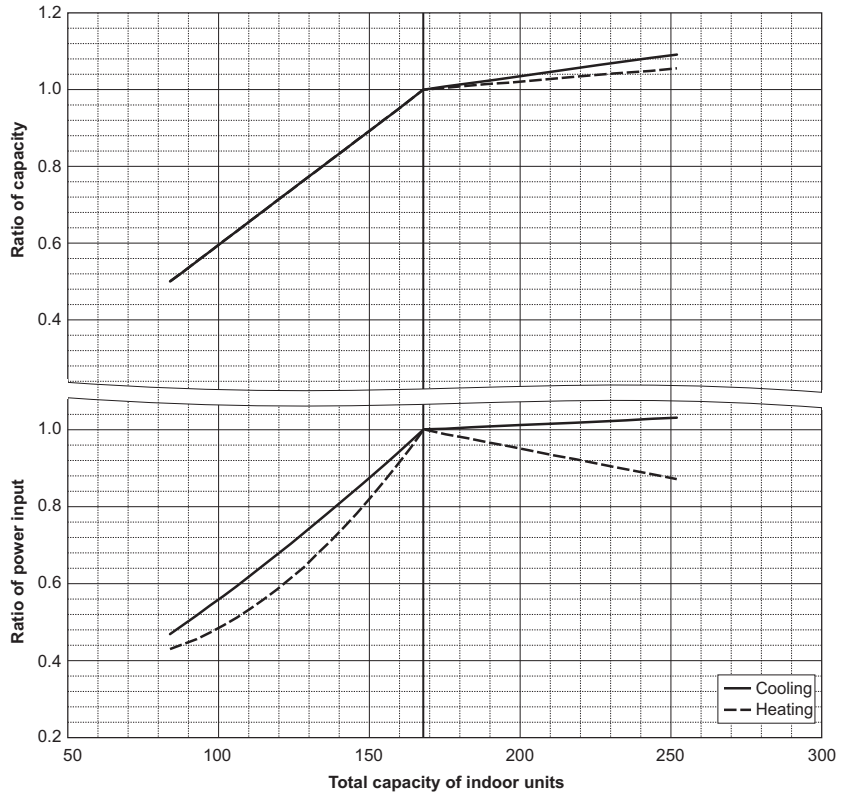
PQRY-		P192ZLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	15.05	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	13.87	14.19

PQRY-		P192ZLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.90	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.97	11.56

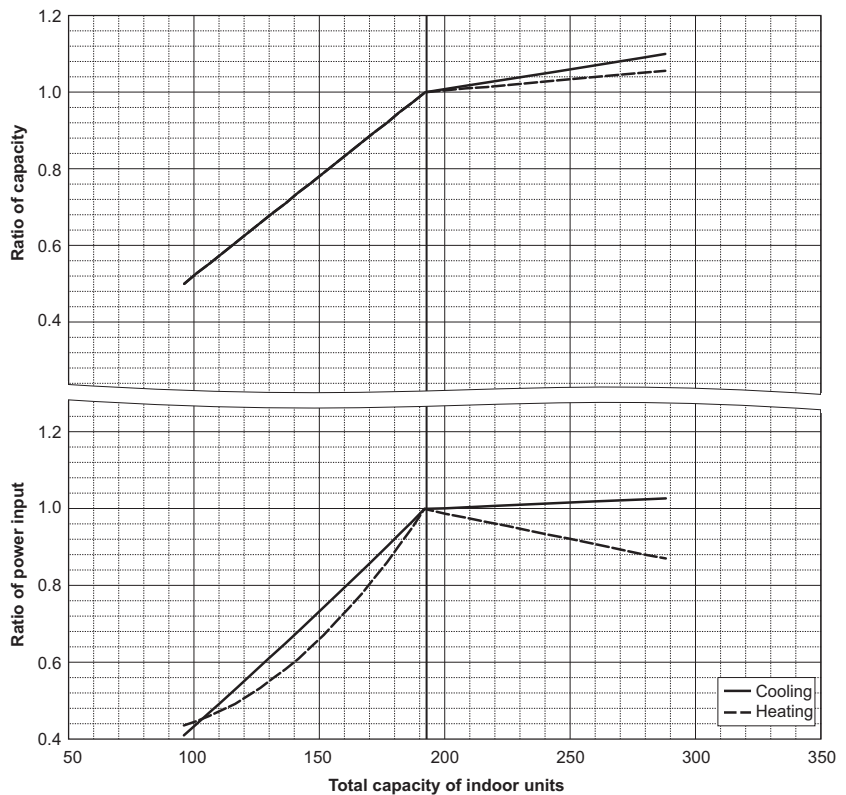
PQRY-		P192ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	192,000	
	kW	56.3	
	Input kW	11.30	
Rated cooling capacity	BTU/h	183,000	
	kW	53.6	
	Input kW	10.40	10.98

PQRY-		P192ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	215,000	
	kW	63.0	
	Input kW	11.02	
Rated Heating capacity	BTU/h	205,000	
	kW	60.1	
	Input kW	10.16	8.90

PQRY-P168Z(S)LMU-A1



PQRY-P192Z(S)LMU-A1



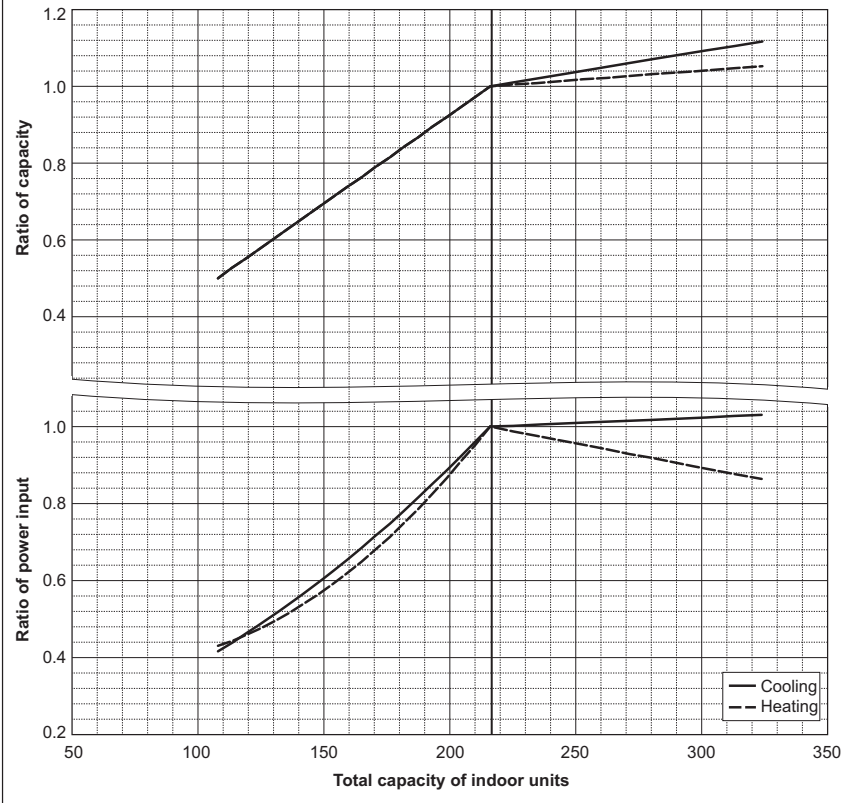
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

PQRY-		P216ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	216,000	
	kW	63.3	
	Input kW	14.03	
Rated cooling capacity	BTU/h	206,000	
	kW	60.4	
	Input kW	12.93	13.24

PQRY-		P216ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	243,000	
	kW	71.2	
	Input kW	12.88	
Rated Heating capacity	BTU/h	232,000	
	kW	68.0	
	Input kW	11.88	10.35

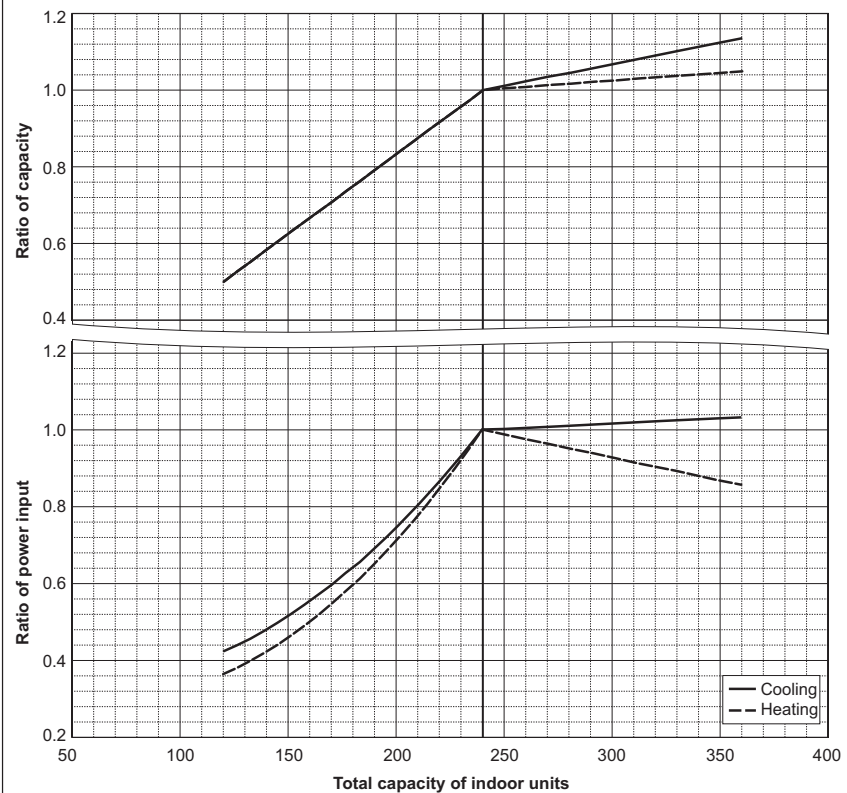
PQRY-P216ZSLMU-A1



PQRY-		P240ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	240,000	
	kW	70.3	
	Input kW	16.89	
Rated cooling capacity	BTU/h	228,000	
	kW	66.8	
	Input kW	15.57	16.15

PQRY-		P240ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	270,000	
	kW	79.1	
	Input kW	14.58	
Rated Heating capacity	BTU/h	258,000	
	kW	75.6	
	Input kW	13.45	12.02

PQRY-P240ZSLMU-A1

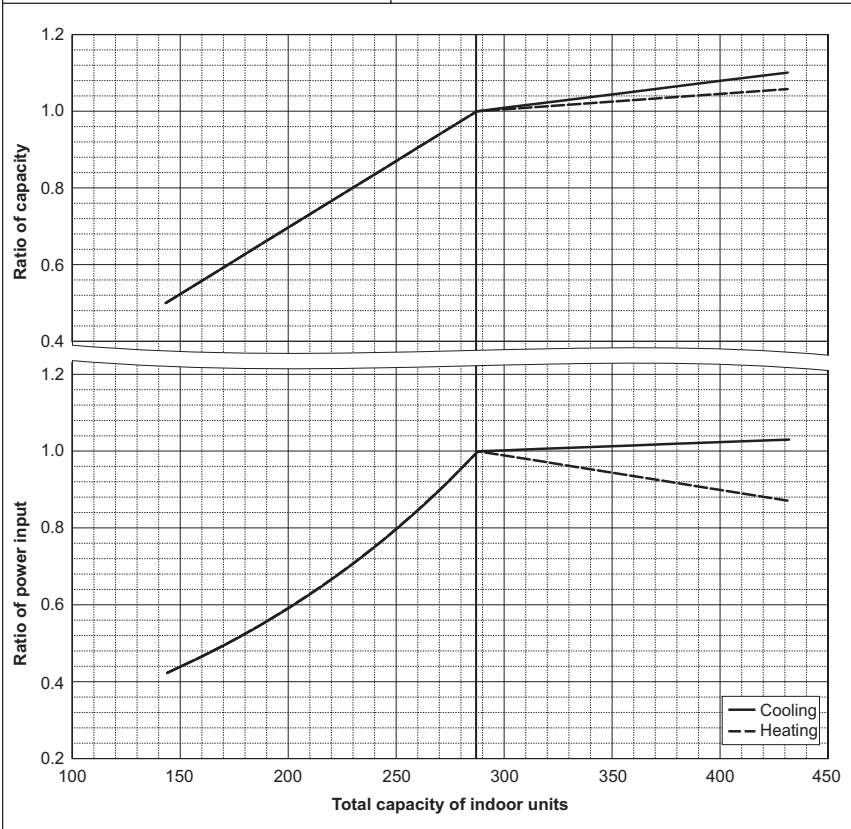


7. CAPACITY TABLES

PQRY-		P288ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	288,000	
	kW	84.4	
	Input kW	20.42	
Rated cooling capacity	BTU/h	275,000	
	kW	80.6	
	Input kW	18.82	21.43

PQRY-		P288ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	323,000	
	kW	94.7	
	Input kW	17.50	
Rated Heating capacity	BTU/h	308,000	
	kW	90.3	
	Input kW	16.13	16.05

PQRY-P288ZSLMU-A1

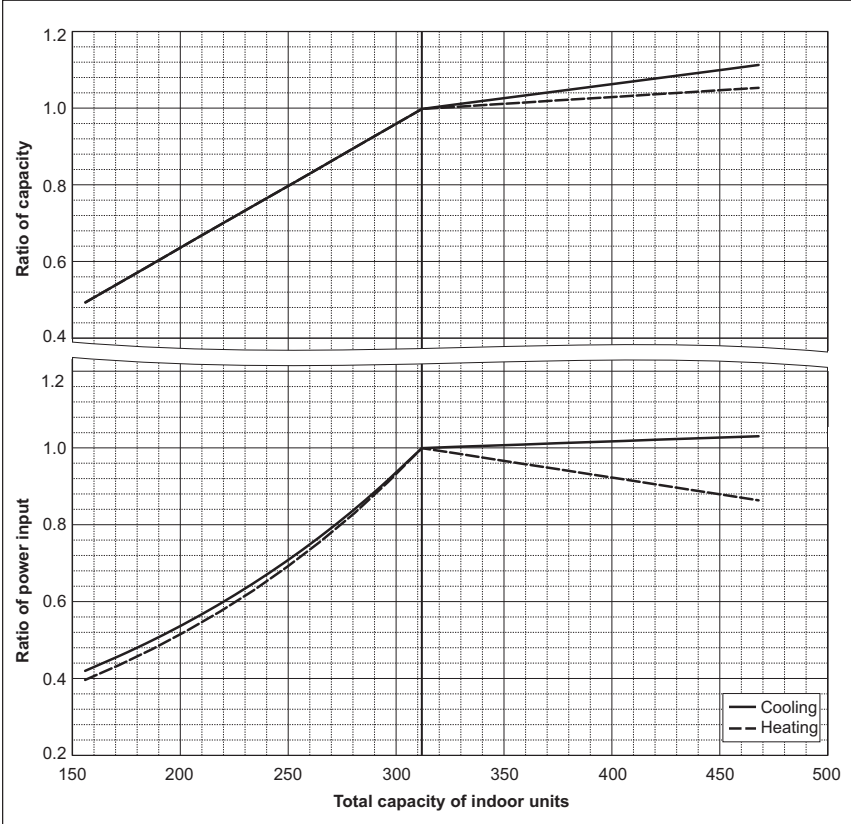


PQRY-P-Z(S)LMU-A1

PQRY-		P312ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	312,000	
	kW	91.4	
	Input kW	23.41	
Rated cooling capacity	BTU/h	297,000	
	kW	87.0	
	Input kW	21.59	23.67

PQRY-		P312ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	350,000	
	kW	102.6	
	Input kW	19.11	
Rated Heating capacity	BTU/h	334,000	
	kW	97.9	
	Input kW	17.62	17.96

PQRY-P312ZSLMU-A1

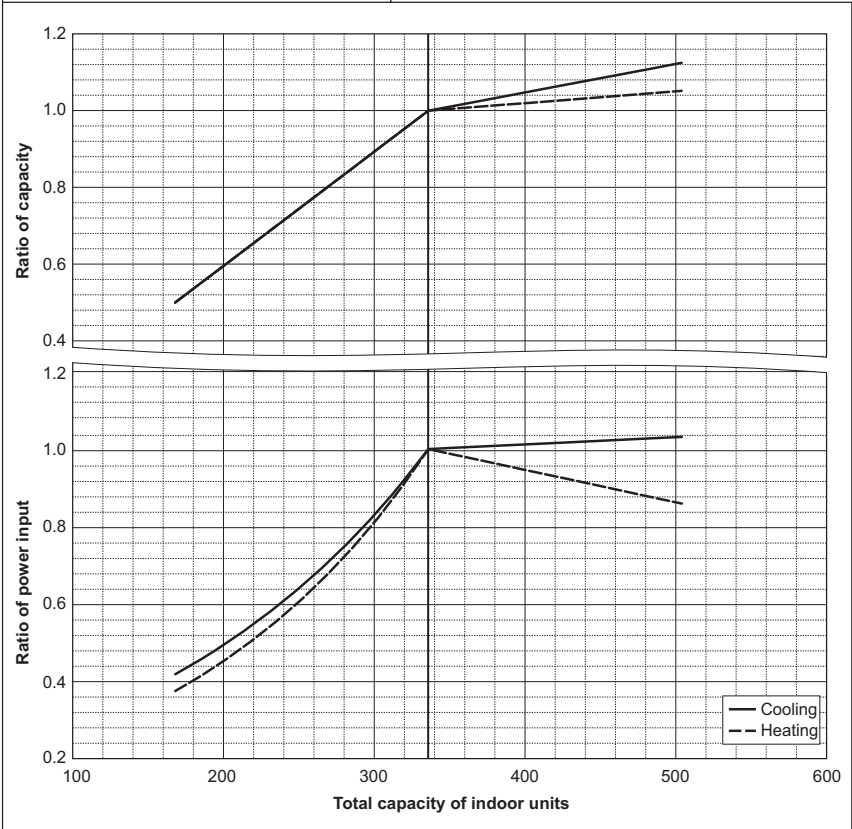


7. CAPACITY TABLES

PQRY-		P336ZSLMU	
		Non-Ducted	Ducted
Nominal cooling capacity	BTU/h	336,000	
	kW	98.5	
	Input kW	26.84	
Rated cooling capacity	BTU/h	320,000	
	kW	93.8	
	Input kW	24.76	25.85

PQRY-		P336ZSLMU	
		Non-Ducted	Ducted
Nominal Heating capacity	BTU/h	378,000	
	kW	110.8	
	Input kW	20.77	
Rated Heating capacity	BTU/h	361,000	
	kW	105.8	
	Input kW	19.16	20.05

PQRY-P336ZSLMU-A1



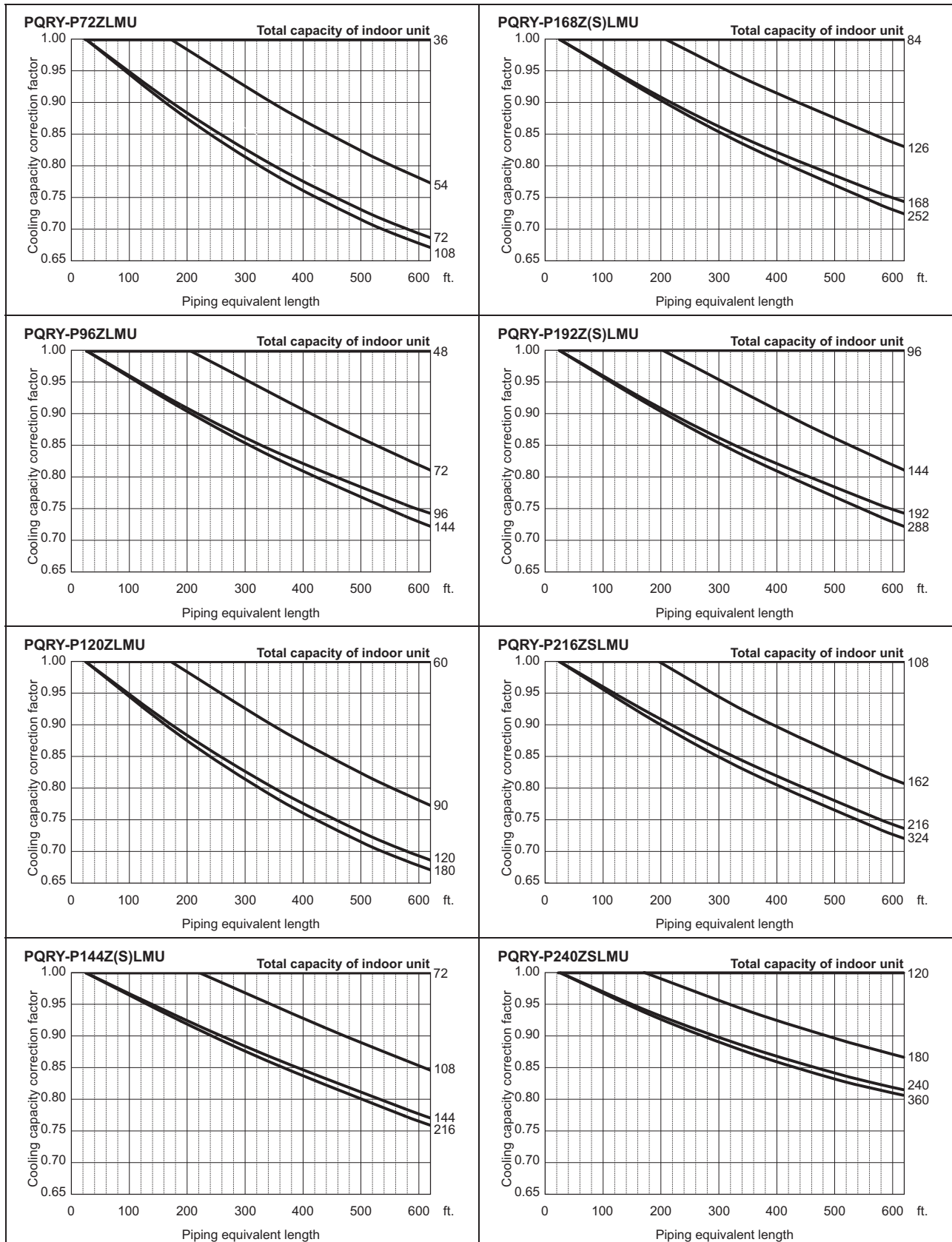
PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

7-3. Correction by refrigerant piping length

CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 7-3-1 and 7-3-2, the capacity can be observed. 7-3-3 shows how to obtain the equivalent length of piping.

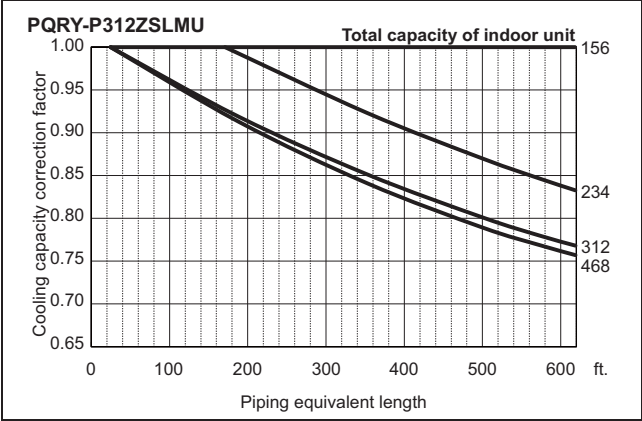
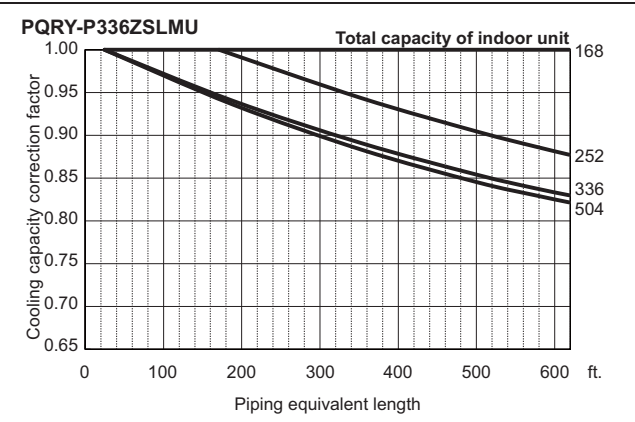
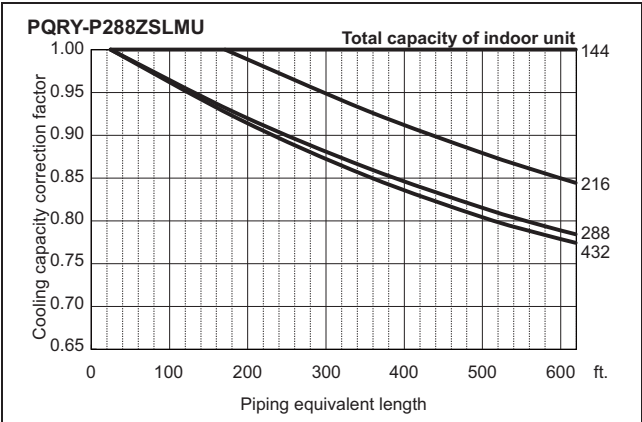
7-3-1. Cooling capacity correction



PQRY-P-Z(S)LMU-A1

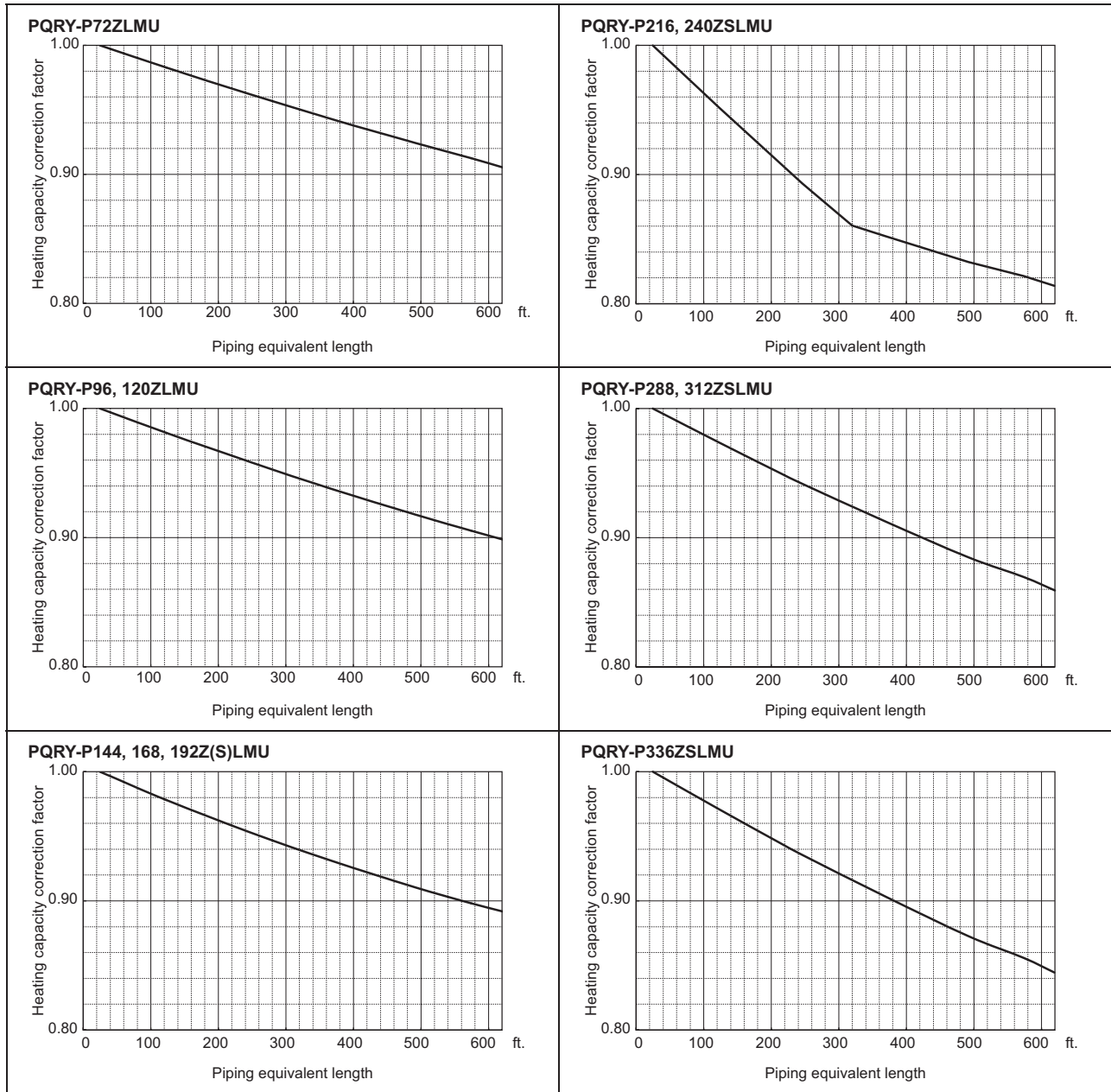
7. CAPACITY TABLES

PQRY-P-Z(S)LMU-A1



7. CAPACITY TABLES

7-3-2. Heating capacity correction



PQRY-P-Z(S)LMU-A1

7. CAPACITY TABLES

7-3-3. How to obtain the equivalent piping length

1. PQR-P72ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.15 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) [m]

2. PQR-P96ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.38 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) [m]

3. PQR-P120ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.54 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 x number of bent on the piping) [m]

4. PQR-P144, 168, 192, 216, 240Z(S)LMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.64 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) [m]

5. PQR-P288, 312ZSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.29 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 x number of bent on the piping) [m]

6. PQR-P336ZSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (2.70 x number of bent on the piping) [ft.]

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 x number of bent on the piping) [m]

CITY MULTI

SYSTEM DESIGN WY SERIES

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1. Piping Design

1-1. R410A Piping material

The maximum operation pressure of R410A air conditioner is 4.15 MPa [601 psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. You shall follow the local industrial standard.

1-2. Piping Design

1-2-1. PQHY-P72-240TLMU/YLMU Piping

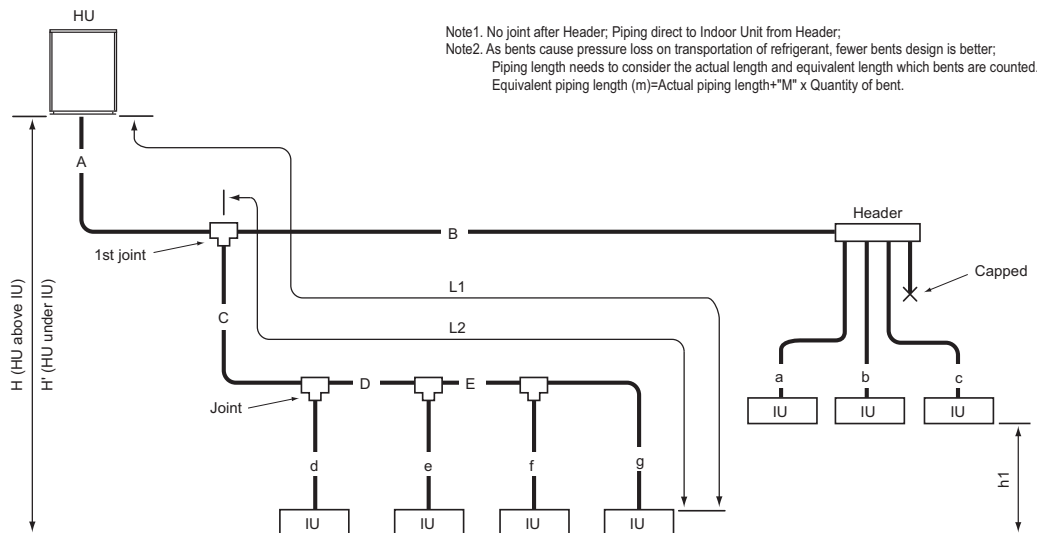


Fig. 1-2-1A Piping scheme

IU: Indoor unit, HU: Heat source unit

Piping length

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g	*1	-
Farthest IU from HU (L1)	A+C+D+E+g / A+B+c	165 [541]	190 [623]
Farthest IU from first joint (L2)	C+D+E+g / B+c	40 [131] *2	40 [131]
Height between HU and IU (HU above IU)	H	50 [164]	-
Height between HU and IU (HU under IU)	H'	40 [131]	-
Height between IU and IU	h1	15 [49]	-

HU: Heat source unit, IU: Indoor unit

*1 300 [984] for PQHY-P72-120TLMU/YLMU, 500 [1640] for PQHY-P144-240TLMU/YLMU

*2 90 m is available. When the piping length exceeds 40 m, use one size larger liquid pipe starting with the section of piping where 40 m is exceeded and all piping after that point. In the figure above, if the piping labeled "E" exceeds 40 m (but does not exceed 90 m), increase the size of the liquid piping labeled E, f, and g by one size.

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
PQHY-P72T/YLMU	0.35 [1.15]
PQHY-P96T/YLMU	0.42 [1.38]
PQHY-P120T/YLMU	0.42 [1.38]
PQHY-P144T/YLMU	0.50 [1.64]
PQHY-P168T/YLMU	0.50 [1.64]
PQHY-P192T/YLMU	0.50 [1.64]
PQHY-P216T/YLMU	0.50 [1.64]
PQHY-P240T/YLMU	0.50 [1.64]

Table1. Piping "A" size selection rule

Heat source unit	Pipe(Liquid)	Pipe(Gas)
PQHY-P72T/YLMU	ø9.52 [3/8]	ø19.05 [3/4]
PQHY-P96T/YLMU	ø9.52 [3/8] *1	ø22.20 [7/8]
PQHY-P120T/YLMU	ø9.52 [3/8] *2	ø22.20 [7/8]
PQHY-P144T/YLMU	ø12.70 [1/2]	ø28.58 [1-1/8]
PQHY-P168-240T/YLMU	ø15.88 [5/8]	ø28.58 [1-1/8]

*1 L1>=90 m [295 ft.], ø12.70 mm [1/2 in.]

*2 L1>=40 m [131 ft.], ø12.70 mm [1/2 in.]

Table2. Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P54	ø9.52 [3/8]	ø15.88 [5/8]
P55 ~ P72	ø9.52 [3/8]	ø19.05 [3/4]
P73 ~ P108	ø9.52 [3/8]	ø22.20 [7/8]
P109 ~ P144	ø12.70 [1/2]	ø28.58 [1-1/8]
P145 ~ P240	ø15.88 [5/8]	ø28.58 [1-1/8]
P241 ~ P308	ø19.05 [3/4]	ø34.93 [1-3/8]
P309 ~	ø19.05 [3/4]	ø41.28 [1-5/8]

Table3. Piping "a", "b", "c", "d", "e", "f", "g" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06, P08, P12, P15, P18	ø6.35 [1/4]	ø12.70 [1/2]
P24, P27, P30, P36, P48, P54	ø9.52 [3/8]	ø15.88 [5/8]
P72	ø9.52 [3/8]	ø19.05 [3/4]
P96	ø9.52 [3/8]	ø22.20 [7/8]

Table4-1. Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P72	CMY-Y102SS-G2
P73 ~ P144	CMY-Y102LS-G2
P145 ~ P240	CMY-Y202S-G2
P241 ~	CMY-Y302S-G2

*Concerning detailed usage of joint parts, refer to its Installation Manual.

Table4-2.

See the table below for the first joint of the heat source unit described below.

heat source unit model	Joint model
P96 to P120	CMY-Y102LS-G2
P144 to P240	CMY-Y202S-G2

Table5. Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104C-G	CMY-Y108C-G	CMY-Y1010C-G
total down-stream Indoor capacity	<=P72	<=P144	<=P240

* CMY-Y104C-G can directly connect PQHY-P72T/YLMU, but can NOT directly connect PQHY-P96T/YLMU or above;

* CMY-Y108C-G can directly connect PQHY-P72-144T/Y(S)LMU, but can NOT directly connect PQHY-P168T/Y(S)LMU or above;

* CMY-Y1010C-G can directly connect PQHY-P72-240T/Y(S)LMU;

* CMY-Y104C-G can NOT connect P72-P96 Indoor, but CMY-Y108, Y1010C-G can do;

* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;

For example, PEFY-P06NMAU-E3, its capacity is P06;

Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.

For example, PEFY-P06NMAU-E3+PEFY-P08NMAU-E3: Total Indoor capacity=P06+P08=P14

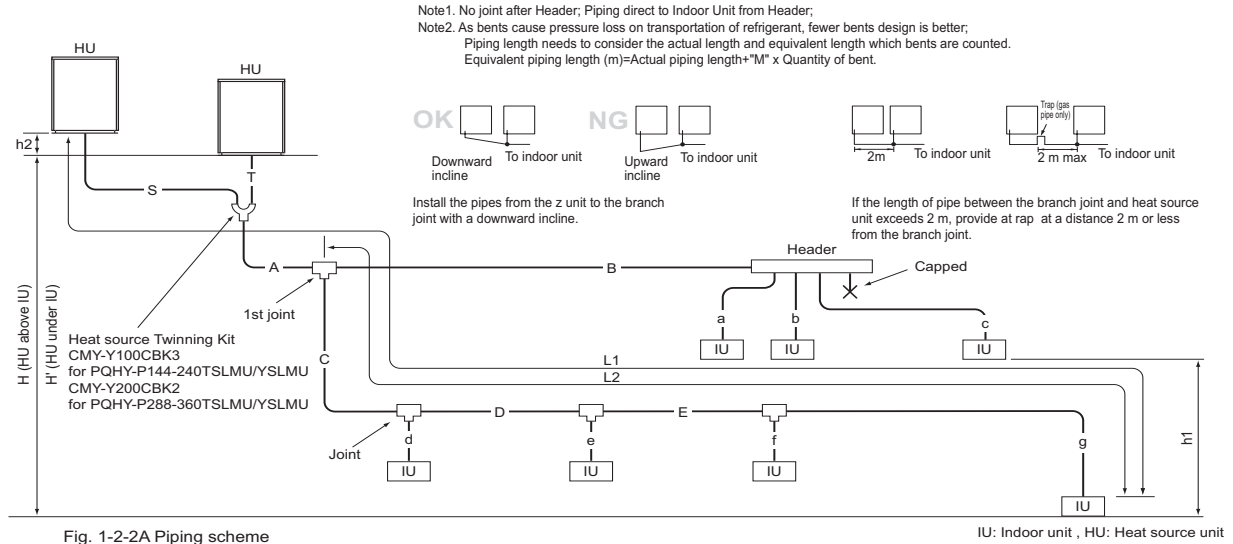
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary

to be bigger than the up-stream one.

i.e. A>=B, A>C>=D

1. Piping Design

1-2-2. PQHY-P144-360TSLMU/YSLMU Piping



Piping length

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+A+B+C+D+E+a+b+c+d+e+f+g	500 [1640]	-
Distance between HU and HU	S+T	10 [32]	-
Height between HU and HU	h2	0.1 [0.3]	-
Farthest IU from HU (L1)	S(T)+A+C+D+E+g / S(T)+A+B+c	165 [541]	190 [623]
Farthest IU from the first joint (L2)	C+D+E+g / B+c	40 [131] *1	40 [131]
Height between HU and IU (HU above IU)	H	50 [164]	-
Height between HU and IU (HU under IU)	H'	40 [131]	-
Height between IU and IU	h1	15 [49]	-

HU: Heat source Unit, IU: Indoor Unit

*1 90 m is available. When the piping length exceeds 40 m, use one size larger liquid pipe starting with the section of piping where 40 m is exceeded and all piping after that point.

In the figure above, if the piping labeled "E" exceeds 40 m (but does not exceed 90 m), increase the size of the liquid piping labeled E, f, and g by one size.

Bends equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
PQHY-P144T/YSLMU	0.50 [1.64]
PQHY-P168T/YSLMU	0.50 [1.64]
PQHY-P192T/YSLMU	0.50 [1.64]
PQHY-P216T/YSLMU	0.50 [1.64]
PQHY-P240T/YSLMU	0.50 [1.64]
PQHY-P288T/YSLMU	0.70 [2.29]
PQHY-P312T/YSLMU	0.70 [2.29]
PQHY-P336T/YSLMU	0.80 [2.62]
PQHY-P360T/YSLMU	0.80 [2.62]

Table1. Piping "A" size selection rule

Heat source unit	Pipe(Liquid)	Pipe(Gas)
PQHY-P144T/YSLMU	ø12.70 [1/2]	ø28.58 [1-1/8]
PQHY-P168-240T/YSLMU	ø15.88 [5/8]	ø28.58 [1-1/8]
PQHY-P288-312T/YSLMU	ø19.05 [3/4]	ø34.93 [1-3/8]
PQHY-P336-360T/YSLMU	ø19.05 [3/4]	ø41.28 [1-5/8]

For Piping size "S", "T", please refer to specification of the Twinning kit CMY-Y100CBK3, CMY-Y200CBK2 at the Heat source unit's external drawing.

Table4-1. Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P72	CMY-Y102SS-G2
P73 ~ P144	CMY-Y102LS-G2
P145 ~ P240	CMY-Y202S-G2
P241 ~	CMY-Y302S-G2

*Concerning detailed usage of joint parts, refer to its Installation Manual.

*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 240 or below.

If the total capacity of the units in the downstream of the branch joints on both lines is 240 or above use two branch joints (CMY-Y302S-G2).

Table4-2.

See the table below for the first joint of the heat source unit described below.

heat source unit model	Joint model
P144 to P240	CMY-Y202S-G2
P288 to P360	CMY-Y302S-G2

Table2. Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P54	ø9.52 [3/8]	ø15.88 [5/8]
P55 ~ P72	ø9.52 [3/8]	ø19.05 [3/4]
P73 ~ P108	ø9.52 [3/8]	ø22.20 [7/8]
P109 ~ P144	ø12.70 [1/2]	ø28.58 [1-1/8]
P145 ~ P240	ø15.88 [5/8]	ø28.58 [1-1/8]
P241 ~ P308	ø19.05 [3/4]	ø34.93 [1-3/8]
P309 ~	ø19.05 [3/4]	ø41.28 [1-5/8]

Table3. Piping "a", "b", "c", "d", "e", "f", "g" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06, P08, P12, P15, P18	ø6.35 [1/4]	ø12.70 [1/2]
P24, P27, P30, P36, P48, P54	ø9.52 [3/8]	ø15.88 [5/8]
P72	ø9.52 [3/8]	ø19.05 [3/4]
P96	ø9.52 [3/8]	ø22.20 [7/8]

Table5. Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104C-G	CMY-Y108C-G	CMY-Y1010C-G
Total down-stream Indoor capacity	<=P72	<=P144	<=P240

* CMY-Y104C-G can directly connect PQHY-P72T/YLMU, but can NOT directly connect PQHY-P96T/YLMU or above;

* CMY-Y108C-G can directly connect PQHY-P72-144T/Y(S)LMU, but can NOT directly connect PQHY-P168T/Y(S)LMU or above;

* CMY-Y1010C-G can directly connect PQHY-P72-240T/Y(S)LMU;

* CMY-Y104C-G can NOT connect P72~P96 Indoor, but CMY-Y108, Y1010C-G can do;

* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;

For example, PEFY-P06NMAU-E3, its capacity is P06;

Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.

For example, PEFY-P06NMAU-E3+PEFY-P08NMAU-E3: Total Indoor capacity=P06+P08=P14

Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.

i.e. A>=B; A>=C>=D

1. Piping Design

1-2-3. PQHY-P72-192ZLMU Piping

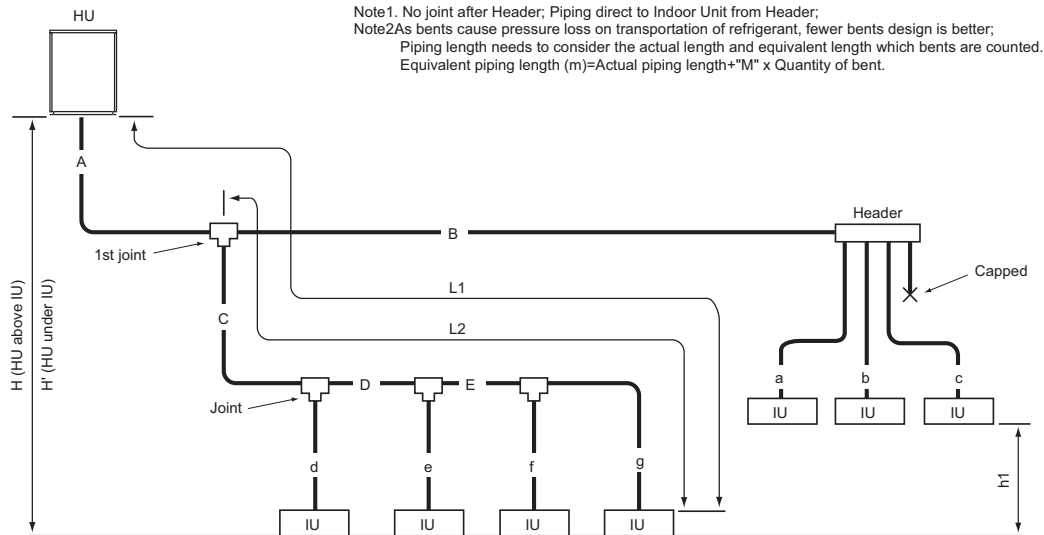


Fig. 1-2-3A Piping scheme

IU: Indoor unit, HU: Heat source unit

Piping length		(m [ft.])	Bent equivalent length "M"
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g	*1	-
Farthest IU from HU (L1)	A+C+D+E+g / A+B+c	165 [541]	190 [623]
Farthest IU from first joint (L2)	C+D+E+g / B+c	40 [131] *2	40 [131]
Height between HU and IU (HU above IU)	H	50 [164]	-
Height between HU and IU (HU under IU)	H'	40 [131]	-
Height between IU and IU	h1	15 [49]	-

HU: Heat source Unit, IU: Indoor Unit

*1 300 [984] for PQHY-P72-120ZLMU, 500 [1640] for PQHY-P144-192ZLMU

*2 90 m [295 ft.] is available. When the piping length exceeds 40 m [131 ft.], use one size larger liquid pipe starting with the section of piping where 40 m [131 ft.] is exceeded and all piping after that point. In the figure above, if the piping labeled "E" exceeds 40 m [131 ft.] (but does not exceed 90 m [295 ft.]), increase the size of the liquid piping labeled E, f, and g by one size.

Table1. Piping "A" size selection rule	(mm [in.])
Heat source unit	Pipe(Liquid)
PQHY-P72ZLMU	ø9.52 [3/8]
PQHY-P96ZLMU	ø9.52 [3/8] *1
PQHY-P120ZLMU	ø9.52 [3/8] *2
PQHY-P144ZLMU	ø12.70 [1/2]
PQHY-P168-192ZLMU	ø15.88 [5/8]

*1 L1>=90 m [295 ft.], ø12.70 mm [1/2 in.]

*2 L1>=40 m [131 ft.], ø12.70 mm [1/2 in.]

Table2. Piping "B", "C", "D", "E" size selection rule	(mm [in.])
Total down-stream Indoor capacity	Pipe(Liquid)
~ P54	ø9.52 [3/8]
P55 ~ P72	ø9.52 [3/8]
P73 ~ P108	ø9.52 [3/8]
P109 ~ P144	ø12.70 [1/2]
P145 ~ P240	ø15.88 [5/8]
P241 ~ P308	ø19.05 [3/4]
P309 ~	ø19.05 [3/4]

Table3. Piping "a", "b", "c", "d", "e", "f", "g" size selection rule	(mm [in.])
Indoor Unit size	Pipe(Liquid)
P06, P08, P12, P15, P18	ø6.35 [1/4]
P24, P27, P30, P36, P48, P54	ø9.52 [3/8]
P72	ø9.52 [3/8]
P96	ø9.52 [3/8]

Table4-1. Selection criteria for joints	Joint
Total down-stream Indoor capacity	~ P72
P73 ~ P144	CMY-Y102SS-G2
P145 ~ P240	CMY-Y102LS-G2
P241 ~	CMY-Y202S-G2

*Concerning detailed usage of joint parts, refer to its Installation Manual.

Table4-2. See the table below for the first joint of the heat source unit described below.

heat source unit model	Joint model
P96 to P120	CMY-Y102LS-G2
P144 to P192	CMY-Y202S-G2

Table5. Header selection rule	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104C-G	CMY-Y108C-G	CMY-Y1010C-G
total down-stream Indoor capacity	<=P72	<=P144	<=P240

* CMY-Y104C-G can directly connect PQHY-P72ZLMU, but can NOT directly connect PQHY-P96ZLMU or above;

* CMY-Y108C-G can directly connect PQHY-P72-144Z(S)LMU, but can NOT directly connect PQHY-P168Z(S)LMU or above;

* CMY-Y1010C-G can directly connect PQHY-P72-240Z(S)LMU;

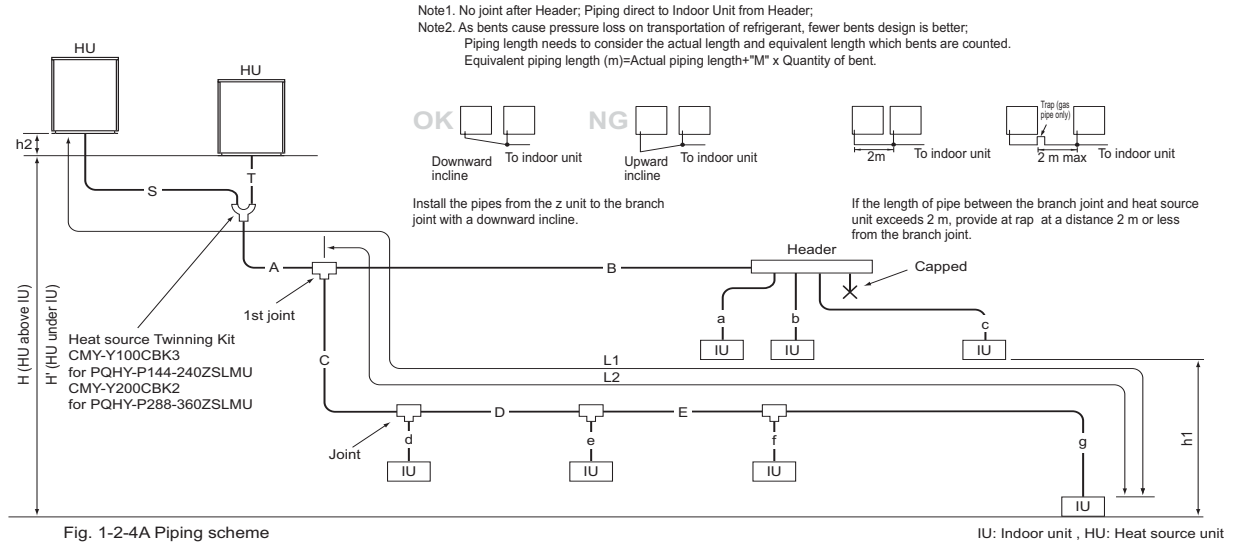
* CMY-Y104C-G can NOT connect P72~P96 Indoor, but CMY-Y108, Y1010C-G can do;

* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
 For example, PEFY-P06NMAU-E3, its capacity is P06;
 Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
 For example, PEFY-P06NMAU-E3+PEFY-P08NMAU-E3: Total Indoor capacity=P06+P08=P14
 Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
 i.e. A>=B; A>C>=D

1. Piping Design

1-2-4. PQHY-P144-360ZSLMU Piping



Piping length

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+A+B+C+D+E+a+b+c+d+e+f+g	500 [1640]	-
Distance between HU and HU	S+T	10 [32]	-
Height between HU and HU	h2	0.1 [0.3]	-
Farthest IU from HU (L1)	S(T)+A+C+D+E+g / S(T)+A+B+c	165 [541]	190 [623]
Farthest IU from the first joint (L2)	C+D+E+g / B+c	40 [131] *1	40 [131]
Height between HU and IU (HU above IU)	H	50 [164]	-
Height between HU and IU (HU under IU)	H'	40 [131]	-
Height between IU and IU	h1	15 [49]	-

HU: Heat source unit, IU: Indoor Unit

*1 90 m [295 ft.] is available. When the piping length exceeds 40 m [131 ft.], use one size larger liquid pipe starting with the section of piping where 40 m [131 ft.] is exceeded and all piping after that point. In the figure above, if the piping labeled “E” exceeds 40 m [131 ft.] (but does not exceed 90 m [295 ft.]), increase the size of the liquid piping labeled E, f, and g by one size.

Table1. Piping “A” size selection rule

Heat source unit	Pipe(Liquid)	Pipe(Gas)
PQHY-P144ZSLMU	ø12.70 [1/2]	ø28.58 [1-1/8]
PQHY-P168-240ZSLMU	ø15.88 [5/8]	ø28.58 [1-1/8]
PQHY-P288-312ZSLMU	ø19.05 [3/4]	ø34.93 [1-3/8]
PQHY-P336-360ZSLMU	ø19.05 [3/4]	ø41.28 [1-5/8]

For Piping size “S”, “T”, please refer to specification of the Twinning kit CMY-Y100CBK3, CMY-Y200CBK2 at the Heat source unit's external drawing.

Table2. Piping “B”, “C”, “D”, “E” size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P54	ø9.52 [3/8]	ø15.88 [5/8]
P55 ~ P72	ø9.52 [3/8]	ø19.05 [3/4]
P73 ~ P108	ø9.52 [3/8]	ø22.20 [7/8]
P109 ~ P144	ø12.70 [1/2]	ø28.58 [1-1/8]
P145 ~ P240	ø15.88 [5/8]	ø28.58 [1-1/8]
P241 ~ P308	ø19.05 [3/4]	ø34.93 [1-3/8]
P309 ~	ø19.05 [3/4]	ø41.28 [1-5/8]

Table3. Piping “a”, “b”, “c”, “d”, “e”, “f”, “g” size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06, P08, P12, P15, P18	ø6.35 [1/4]	ø12.70 [1/2]
P24, P27, P30, P36, P48, P54	ø9.52 [3/8]	ø15.88 [5/8]
P72	ø9.52 [3/8]	ø19.05 [3/4]
P96	ø9.52 [3/8]	ø22.20 [7/8]

Bends equivalent length “M”

Heat source Model	M (m/bends [ft./bends])
PQHY-P144ZSLMU	0.50 [1.64]
PQHY-P168ZSLMU	0.50 [1.64]
PQHY-P192ZSLMU	0.50 [1.64]
PQHY-P216ZSLMU	0.50 [1.64]
PQHY-P240ZSLMU	0.50 [1.64]
PQHY-P288ZSLMU	0.70 [2.29]
PQHY-P312ZSLMU	0.70 [2.29]
PQHY-P336ZSLMU	0.80 [2.62]
PQHY-P360ZSLMU	0.80 [2.62]

Table4-1. Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P72	CMY-Y102SS-G2
P73 ~ P144	CMY-Y102LS-G2
P145 ~ P240	CMY-Y202S-G2
P241 ~	CMY-Y302S-G2

* Concerning detailed usage of joint parts, refer to its Installation Manual.

* The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 240 or below.
 If the total capacity of the units in the downstream of the branch joints on both lines is 240 or above use two branch joints (CMY-Y302S-G2).

Table4-2.

See the table below for the first joint of the heat source unit described below.

heat source unit model	Joint model
P144 to P240	CMY-Y202S-G2
P288 to P360	CMY-Y302S-G2

Table5. Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104C-G	CMY-Y108C-G	CMY-Y1010C-G
Total down-stream Indoor capacity	<=P72	<=P144	<=P240

* CMY-Y104C-G can directly connect PQHY-P72ZSLMU, but can NOT directly connect PQHY-P96ZSLMU or above;
 * CMY-Y108C-G can directly connect PQHY-P72~144Z(S)LMU, but can NOT directly connect PQHY-P168Z(S)LMU or above;
 * CMY-Y1010C-G can directly connect PQHY-P72~240Z(S)LMU;

* CMY-Y104C-G can NOT connect P72~P96 Indoor, but CMY-Y108, Y1010C-G can do;

* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;

For example, PEFY-P06NMAU-E3, its capacity is P06;

Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.

For example, PEFY-P06NMAU-E3+PEFY-P08NMAU-E3: Total Indoor capacity=P06+P08=P14
 Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.

i.e. A>=B; A>C>=D

1. Piping Design

1-3. Refrigerant charging calculation

■ PQHY-P-T(S)LMU-A1/Y(S)LMU-A1

At the time of shipping, the heat source unit is charged with the refrigerant. As this charge does not include the amount needed for extended piping, additional charging for each refrigerant line will be required on site. In order that future servicing may be properly provided, always keep a record of the size and length of each refrigerant line and the amount of additional charge by writing it in the space provided on the heat source unit.

(1) Calculation of additional refrigerant charge

- Calculate the amount of additional charge based on the length of the piping extension and the size of the refrigerant line.
- Use the table to the below as a guide to calculating the amount of additional charging and charge the system accordingly.
 - * When connecting PLFY-P08NBMU-E2, add 0.3kg [11oz] of refrigerant per indoor unit.
 - * When connecting PLFY-EP08NEMU-E, add 0.3kg [11oz] of refrigerant per indoor unit.
- If the calculation results in a fraction of less than 0.1kg[1oz], round up to the next 0.1kg[1oz]. For example, if the result of the calculation was 11.89kg[420.0oz], round the result up to 11.9kg[420oz].

<Additional Charge>

- Piping length from heat source unit to the most farthest indoor unit ≤ 30.5m[100ft] use the table [A]
- Piping length from heat source unit to the most farthest indoor unit > 30.5m[100ft] use the table [B]

Additional refrigerant charge		+	Liquid Piping Size Total length of ø19.05mm [3/4in]		+	Liquid Piping Size Total length of ø15.88mm [5/8in]		+	Liquid Piping Size Total length of ø12.7mm [1/2in]		+	Liquid Piping Size Total length of ø9.52mm [3/8in]		+	Liquid Piping Size Total length of ø6.35mm [1/4in]	
[A]	(kg) [oz]		[A]	(m) × 0.29 (kg/m) (ft) × 3.12 (oz/ft)		[A]	(m) × 0.2 (kg/m) (ft) × 2.16 (oz/ft)		[A]	(m) × 0.12 (kg/m) (ft) × 1.30 (oz/ft)		[A]	(m) × 0.06 (kg/m) (ft) × 0.65 (oz/ft)		[A]	(m) × 0.024 (kg/m) (ft) × 0.26 (oz/ft)
[B]	(kg) [oz]		[B]	(m) × 0.26 (kg/m) (ft) × 2.80 (oz/ft)		[B]	(m) × 0.18 (kg/m) (ft) × 1.94 (oz/ft)		[B]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)		[B]	(m) × 0.054 (kg/m) (ft) × 0.59 (oz/ft)		[B]	(m) × 0.021 (kg/m) (ft) × 0.23 (oz/ft)
			Additional charge													
			Heat source unit model			Charged amount										
			Single			P216	1.0 kg									
						P240	1.0 kg									

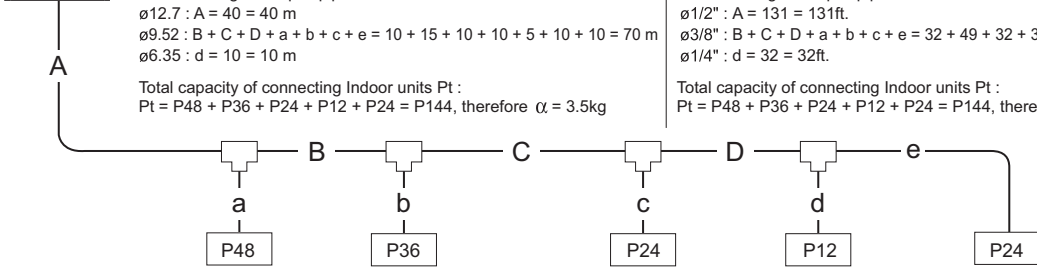
Table3-2-4-1. Value of α

Total capacity of connecting indoor units	α	
Models ~ 27	2.0 kg	[71 oz]
Models 28 ~ 54	2.5 kg	[89 oz]
Models 55 ~ 126	3.0 kg	[106 oz]
Models 127 ~ 144	3.5 kg	[124 oz]
Models 145 ~ 180	4.5 kg	[160 oz]
Models 181 ~ 234	5.0 kg	[177 oz]
Models 235 ~ 273	6.0 kg	[212 oz]
Models 274 ~ 307	8.0 kg	[283 oz]
Models 308 ~ 342	9.0 kg	[318 oz]
Models 343 ~ 411	10.0 kg	[353 oz]
Models 412 ~ 480	12.0 kg	[424 oz]
Models 481 ~	14.0 kg	[494 oz]

1. Piping Design

Example: PQHY-P144TLMU/YLMU

m [kg]					ft. [oz]							
	Indoor	1: P48	A: ø12.7	40 m	a: ø9.52	10 m	Indoor	1: P48	A: ø1/2"	131ft.	a: ø3/8"	32ft.
		2: P36	B: ø9.52	10 m	b: ø9.52	5 m		2: P36	B: ø3/8"	32ft.	b: ø3/8"	16ft.
		3: P24	C: ø9.52	15 m	c: ø9.52	10 m		3: P24	C: ø3/8"	49ft.	c: ø3/8"	32ft.
		4: P12	D: ø9.52	10 m	d: ø6.35	10 m		4: P12	D: ø3/8"	32ft.	d: ø1/4"	32ft.
		5: P24			e: ø9.52	10 m		5: P24			e: ø3/8"	32ft.
The total length of liquid pipe of each size is as follows:						The total length of liquid pipe of each line is as follows:						
ø12.7 : A = 40 = 40 m						ø1/2" : A = 131 = 131ft.						
ø9.52 : B + C + D + a + b + c + e = 10 + 15 + 10 + 10 + 5 + 10 + 10 = 70 m						ø3/8" : B + C + D + a + b + c + e = 32 + 49 + 32 + 32 + 16 + 32 + 32 = 225ft.						
ø6.35 : d = 10 = 10 m						ø1/4" : d = 32 = 32ft.						
Total capacity of connecting Indoor units Pt :						Total capacity of connecting Indoor units Pt :						
Pt = P48 + P36 + P24 + P12 + P24 = P144, therefore $\alpha = 3.5$ kg						Pt = P48 + P36 + P24 + P12 + P24 = P144, therefore $\alpha = 124$ oz						



m [kg]						ft. [oz]										
Additional refrigerant charge	=	Total length of liquid pipe sized ø19.05	x 0.26 (kg/m)	+	Total length of liquid pipe sized ø15.88	x 0.18 (kg/m)	+	Total length of liquid pipe sized ø12.7	x 0.11 (kg/m)	+	Total length of liquid pipe sized ø9.52	x 0.054 (kg/m)	+	Total length of liquid pipe sized ø6.35	x 0.021 (kg/m)	+ 3.5
	(kg)	0 (m) x 0.26 (kg/m)			0 (m) x 0.18 (kg/m)			40 (m) x 0.11 (kg/m)			70 (m) x 0.054 (kg/m)			10 (m) x 0.021 (kg/m)		
= 0 + 0 + 40 x 0.11 + 70 x 0.054 + 10 x 0.021 + 3.5																
= 11.9 kg																
Additional refrigerant charge	=	Total length of liquid pipe sized ø3/4"	x 2.80 (oz/ft.)	+	Total length of liquid pipe sized ø5/8"	x 1.94 (oz/ft.)	+	Total length of liquid pipe sized ø1/2"	x 1.19 (oz/ft.)	+	Total length of liquid pipe sized ø3/8"	x 0.59 (oz/ft.)	+	Total length of liquid pipe sized ø1/4"	x 0.23 (oz/ft.)	+ 124
	(oz)	0 (ft.) x 2.80 (oz/ft.)			0 (ft.) x 1.94 (oz/ft.)			131 (ft.) x 1.19 (oz/ft.)			225 (ft.) x 0.59 (oz/ft.)			32 (ft.) x 0.23 (oz/ft.)		
= 0 + 0 + 131 x 1.19 + 225 x 0.59 + 32 x 0.23 + 124																
= 420 [oz]																

■ Limitation of the amount of refrigerant to be charged

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

Total index of the heat source units		P72 T/YLMU	P96 T/YLMU	P120 T/YLMU	P144 T/YLMU	P168 T/YLMU	P192 T/YLMU	P216 T/YLMU	P240 T/YLMU	P144 T/YSLMU	P168 T/YSLMU
Maximum refrigerant charge	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	11.7kg	11.7kg	10.0kg	10.0kg
	Charged on site	22.0kg	28.5kg	29.5kg	42.0kg	51.5kg	53.5kg	56.0kg	57.0kg	42.0kg	51.5kg
	Total for system	27.0kg	33.5kg	34.5kg	48.0kg	57.5kg	59.5kg	67.7kg	68.7kg	52.0kg	61.5kg
	Factory charged	11 lbs 1 oz	11 lbs 1 oz	11 lbs 1 oz	13 lbs 4 oz	13 lbs 4 oz	13 lbs 4 oz	25 lbs 13 oz	25 lbs 13 oz	22 lbs 1 oz	22 lbs 1 oz
	Charged on site	48 lbs 9 oz	62 lbs 14 oz	65 lbs 1 oz	92 lbs 10 oz	113 lbs 9 oz	118 lbs 0 oz	123 lbs 8 oz	125 lbs 11 oz	92 lbs 10 oz	113 lbs 9 oz
	Total for system	59 lbs 9 oz	73 lbs 14 oz	76 lbs 1 oz	105 lbs 14 oz	126 lbs 13 oz	131 lbs 3 oz	149 lbs 5 oz	151 lbs 8 oz	114 lbs 11 oz	135 lbs 10 oz

Total index of the heat source units		P192 T/YSLMU	P216 T/YSLMU	P240 T/YSLMU	P288 T/YSLMU	P312 T/YSLMU	P336 T/YSLMU	P360 T/YSLMU
Maximum refrigerant charge	Factory charged	10.0kg	10.0kg	10.0kg	12.0kg	12.0kg	12.0kg	12.0kg
	Charged on site	53.5kg	55.0kg	56.0kg	67.5kg	67.5kg	67.5kg	70.0kg
	Total for system	63.5kg	65.0kg	66.0kg	79.5kg	79.5kg	79.5kg	82.0kg
	Factory charged	22 lbs 1 oz	22 lbs 1 oz	22 lbs 1 oz	26 lbs 8 oz	26 lbs 8 oz	26 lbs 8 oz	26 lbs 8 oz
	Charged on site	118 lbs 0 oz	121 lbs 5 oz	123 lbs 8 oz	148 lbs 13 oz	148 lbs 13 oz	148 lbs 13 oz	154 lbs 6 oz
	Total for system	140 lbs 0 oz	143 lbs 5 oz	145 lbs 9 oz	175 lbs 5 oz	175 lbs 5 oz	175 lbs 5 oz	180 lbs 13 oz

1. Piping Design

■ PQHY-P-Z(S)LMU-A1

At the time of shipping, the heat source unit is charged with the refrigerant. As this charge does not include the amount needed for extended piping, additional charging for each refrigerant line will be required on site. In order that future servicing may be properly provided, always keep a record of the size and length of each refrigerant line and the amount of additional charge by writing it in the space provided on the heat source unit.

(1) Calculation of additional refrigerant charge

- Calculate the amount of additional charge based on the length of the piping extension and the size of the refrigerant line.
- Use the table to the below as a guide to calculating the amount of additional charging and charge the system accordingly.
 - * When connecting PLFY-P08NBMU-E2, add 0.3kg [11oz] of refrigerant per indoor unit.
 - When connecting PLFY-EP08NEMU-E, add 0.3kg [11oz] of refrigerant per indoor unit.
- If the calculation results in a fraction of less than 0.1kg[1oz], round up to the next 0.1kg[1oz]. For example, if the result of the calculation was 11.89kg[420.0oz], round the result up to 11.9kg[420oz].

<Additional Charge>

- Piping length from heat source unit to the most farthest indoor unit ≤ 30.5m[100ft] use the table [A]
- Piping length from heat source unit to the most farthest indoor unit > 30.5m[100ft] use the table [B]

Additional refrigerant charge		+	Liquid Piping Size Total length of ø19.05mm [3/4in]		+	Liquid Piping Size Total length of ø15.88mm [5/8in]		+	Liquid Piping Size Total length of ø12.7mm [1/2in]		+	Liquid Piping Size Total length of ø9.52mm [3/8in]		+	Liquid Piping Size Total length of ø6.35mm [1/4in]		+	α
[A]	(kg) [oz]		[A]	(m) × 0.29 (kg/m) (ft) × 3.12 (oz/ft)		[A]	(m) × 0.2 (kg/m) (ft) × 2.16 (oz/ft)		[A]	(m) × 0.12 (kg/m) (ft) × 1.30 (oz/ft)		[A]	(m) × 0.06 (kg/m) (ft) × 0.65 (oz/ft)		[A]	(m) × 0.024 (kg/m) (ft) × 0.26 (oz/ft)		
[B]	(kg) [oz]		[B]	(m) × 0.26 (kg/m) (ft) × 2.80 (oz/ft)		[B]	(m) × 0.18 (kg/m) (ft) × 1.94 (oz/ft)		[B]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)		[B]	(m) × 0.054 (kg/m) (ft) × 0.59 (oz/ft)		[B]	(m) × 0.021 (kg/m) (ft) × 0.23 (oz/ft)		

Table3-2-4-1. Value of α

Total capacity of connecting indoor units		α	
Models	~ 27	2.0 kg	[71 oz]
Models	28 ~ 54	2.5 kg	[89 oz]
Models	55 ~ 126	3.0 kg	[106 oz]
Models	127 ~ 144	3.5 kg	[124 oz]
Models	145 ~ 180	4.5 kg	[160 oz]
Models	181 ~ 234	5.0 kg	[177 oz]
Models	235 ~ 273	6.0 kg	[212 oz]
Models	274 ~ 307	8.0 kg	[283 oz]
Models	308 ~ 342	9.0 kg	[318 oz]
Models	343 ~ 411	10.0 kg	[353 oz]
Models	412 ~ 480	12.0 kg	[424 oz]
Models	481 ~	14.0 kg	[494 oz]

CITY MULTI

SYSTEM DESIGN WR2 SERIES

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1. Piping Design

1-1. R410A Piping material

The maximum operation pressure of R410A air conditioner is 4.15 MPa [601 psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. You shall follow the local industrial standard.

1-2. Piping Design

1-2-1. IF 16 ports or less are in use, i.e., if only one BC controller is in use with no sub BC controller.

- Note1. PQR systems do not require headers.
 Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)
 Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.
 Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.
 Note5. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.
 Note6. Total "downstream indoor capacity" is the total of all the indoor units connected downstream. For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

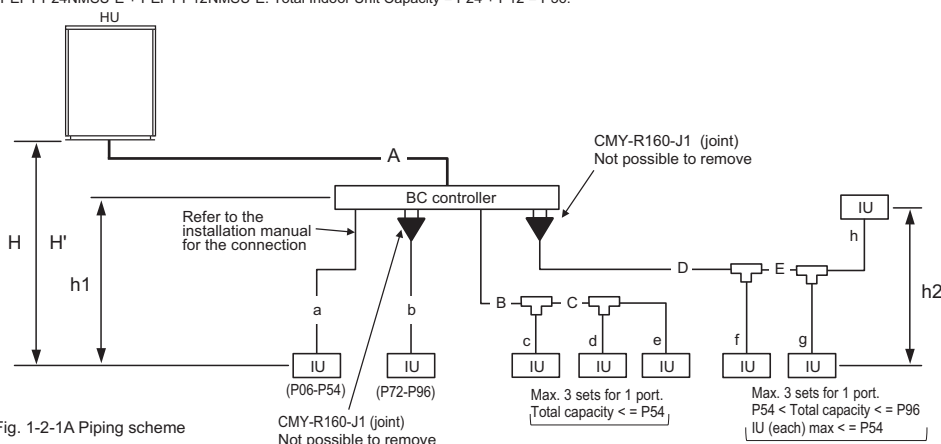


Fig. 1-2-1A Piping scheme

Piping length limitation

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g+h	*1	-
Farthest IU from HU	A+D+E+h	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-

HU: Heat source Unit ; IU: Indoor Unit; BC: BC controller

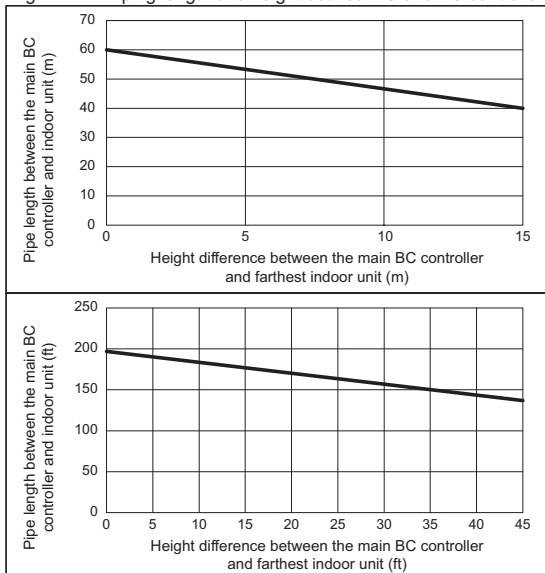
*1. Please refer to 1-2-7.

*2. Farthest Indoor from BC controller "D+E+h" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected. Details refer to Fig. 1-2-1B

*3. Height between Indoor sized P72, P96 and BC must be less than 10 m [32 ft.], if any.

*4. Height between Indoor sized P72, P96 and IU must be less than 20 m [65 ft.], if any.

Fig. 1-2-1B Piping length and height between IU and BC controller



Piping "A" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P72TLMU,YLMU	ø15.88 [5/8"]	ø19.05 [3/4"]
P96-120TLMU,YLMU	ø19.05 [3/4"]	ø22.20 [7/8"]
P144-192TLMU,YLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P216TLMU,YLMU	ø22.20 [7/8"] *4	ø28.58 [1-1/8"]
P240TLMU,YLMU	ø22.20 [7/8"] *4	ø34.93 [1-3/8"]

*4. When the piping length is 65 m or longer, use the ø28.58 [1-1/8"] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "a", "b", "c", "d", "e", "f", "g", "h" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]
P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P96	ø9.52 [3/8"]	ø22.20 [7/8"]

1. Piping Design

1-2-2. IF more than 16 ports are in use, or if there is more than one BC controller in use for one heat source unit

Note1. PQRY systems do not require headers.

Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)

Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.

Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.

Note5. For sub BC controller CMB-P-NU-GB1, the total connectable indoor unit capacity can be 126,000 BTUs or less.

If two sub BC controllers are used, the total indoor unit capacity connected to BOTH sub BC controllers also cannot exceed 126,000 BTUs.

For sub BC controller CMB-P1016NU-HB1 the total connectable indoor unit capacity can be 126,000 BTUs or less. However, if two sub controllers are used, the total indoor unit capacity connected to BOTH sub controllers must NOT exceed 168,000 BTUs.

Note6. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.

Note7. Total "downstream indoor capacity" is the total of all the indoor units connected downstream.

For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

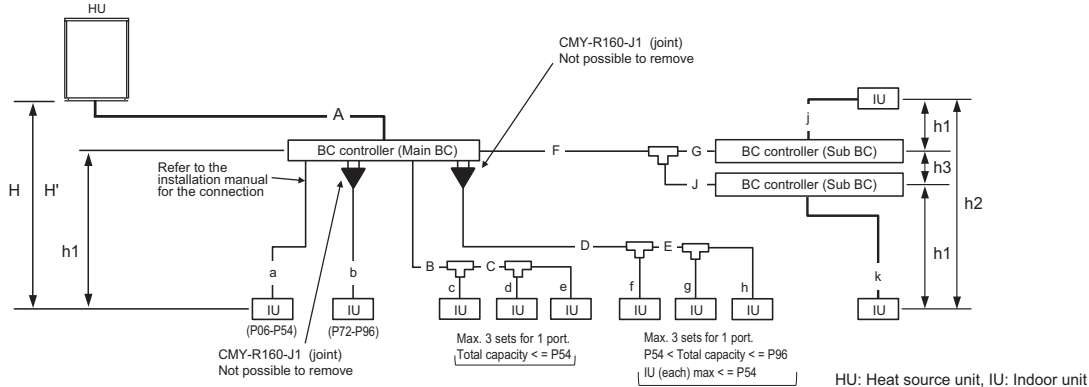


Fig. 1-2-2A Piping scheme

Piping length limitation

Item	Piping in the figure	Max. length (m [ft.])	Max. equivalent length (m [ft.])
Total piping length	A+B+C+D+E+F+G+H+I+J+K	*1	-
Farthest IU from HU	A+F+J+K	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+H or F+J+K	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	J	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-
Height between BC(Main or Sub) and BC(Sub)	h3	15 [49'] (10 [32']) *5	-

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Please refer to 1-2-7.

*2. Farthest Indoor from BC controller "D+E+H or F+J+K" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected. Details refer to Fig. 1-2-2B

*3. Height between Indoor sized P72, P96 and BC must be less than 10 m [32 ft.], if any.

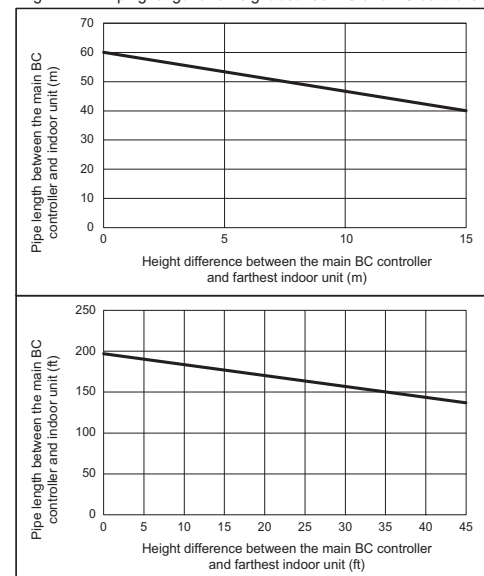
*4. Height between Indoor sized P72, P96 and IU must be less than 20 m [65 ft.], if any.

*5. Height between BC (Main or Sub) and BC (Sub) must be less than 10 m [32 ft.] if two BC (Sub) are installed or IU size is P72, P96.

Bends equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
P72TLMU, YLMU	0.35 [1.15']
P96TLMU, YLMU	0.42 [1.38']
P120TLMU, YLMU	0.47 [1.54']
P144TLMU, YLMU	0.50 [1.64']
P168TLMU, YLMU	0.50 [1.64']
P192TLMU, YLMU	0.50 [1.64']
P216TLMU, YLMU	0.50 [1.64']
P240TLMU, YLMU	0.50 [1.64']

Fig. 1-2-2B Piping length and height between IU and BC controller



Piping "A" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P72TLMU, YLMU	ø15.88 [5/8"]	ø19.05 [3/4"]
P96-120TLMU, YLMU	ø19.05 [3/4"]	ø22.20 [7/8"]
P144-192TLMU, YLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P216TLMU, YLMU	ø22.20 [7/8"] *5	ø28.58 [1-1/8"]
P240TLMU, YLMU	ø22.20 [7/8"] *5	ø34.93 [1-3/8"]

*5. When the piping length is 65 m or longer, use the ø28.58 [1-1/8"] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P72 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P73 to P108	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P109 to P126	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P127 to P144	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P145 to P168	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP: High pressure, LP: Low pressure

Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]
P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P96	ø9.52 [3/8"]	ø22.20 [7/8"]

1. Piping Design

1-2-3. IF more than 16 ports are in use, or if there is more than one BC controller in use for two heat source units

Note1. PQRY systems do not require headers.

Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)

Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.

Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.

Note5. For sub BC controller CMB-P-NU-GB1, the total connectable indoor unit capacity can be 126,000 BTUs or less. If two sub BC controllers are used, the total indoor unit capacity connected to BOTH sub BC controllers also cannot exceed 126,000 BTUs.

For sub BC controller CMB-P1016NU-HB1 the total connectable indoor unit capacity can be 126,000 BTUs or less. However, if two sub controllers are used, the total indoor unit capacity connected to BOTH sub controllers must NOT exceed 168,000 BTUs.

Note6. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.

Note7. Total "downstream indoor capacity" is the total of all the indoor units connected downstream. For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

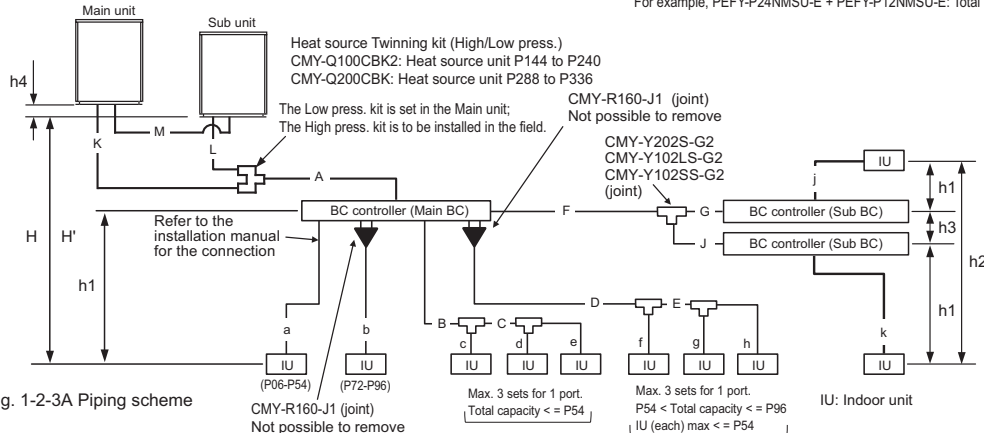


Fig. 1-2-3A Piping scheme

Piping length limitation

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	K+L+M+A+B+C+D+E+F+G+H+I+J+K	*1	-
Farthest IU from HU	K(L)+A+F+J+k	165 [541']	190 [623']
Distance between HU and BC	K(L)+A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h or F+G+j or F+J+k	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-
Height between BC(Main or Sub) and BC(Sub)	h3	15 [49'] (10 [32']) *5	-
Distance between Main unit and Sub unit	K+L or M	5 [16']	-
Height between Main unit and Sub unit	h4	0.1 [0.3']	-

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Please refer to 1-2-7.

*2. Farthest Indoor from BC controller "D+E+h or F+G+j or F+J+k" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected.

Details refer to Fig. 1-2-3B

*3. Height between Indoor sized P72, P96 and BC must be less than 10 m [32 ft.], if any.

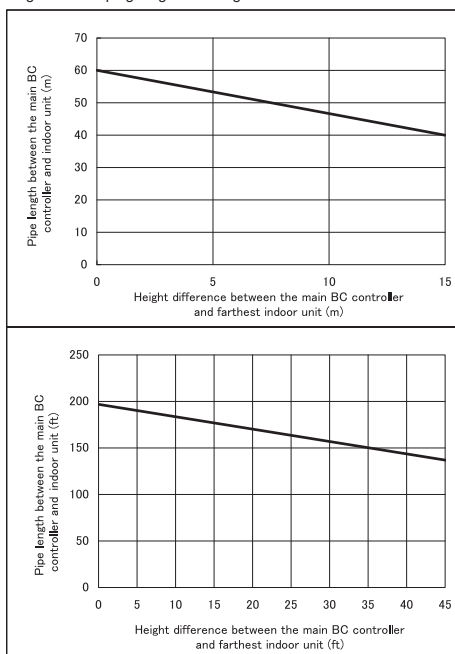
*4. Height between Indoor sized P72, P96 and IU must be less than 20 m [65 ft.], if any.

*5. Height between BC (Main or Sub) and BC (Sub) must be less than 10 m [32 ft.] if two BC (Sub) are installed or IU size is P72, P96.

Bent equivalent length "M"

Heat source Model	M (m/bent [ft./bent])
P144TSLMU, YSLMU	0.50 [1.64']
P168TSLMU, YSLMU	0.50 [1.64']
P192TSLMU, YSLMU	0.50 [1.64']
P216TSLMU, YSLMU	0.50 [1.64']
P240TSLMU, YSLMU	0.50 [1.64']
P288TSLMU, YSLMU	0.70 [2.29']
P312TSLMU, YSLMU	0.70 [2.29']
P336TSLMU, YSLMU	0.80 [2.62']

Fig. 1-2-3B Piping length and height between IU and BC controller



Piping "A" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P144-192TSLMU, YSLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P216TSLMU, YSLMU	ø22.20 [7/8"] *5	ø28.58 [1-1/8"]
P240TSLMU, YSLMU	ø22.20 [7/8"] *5	ø34.93 [1-3/8"]
P288-312TSLMU, YSLMU	ø28.58 [1-1/8"]	ø34.93 [1-3/8"]
P336TSLMU, YSLMU	ø28.58 [1-1/8"]	ø41.28 [1-5/8"]

*5. When the piping length is 65 m or longer, use the ø28.58 [1-1/8"] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P72 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P73 to P108	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P109 to P126	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P127 to P144	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P145 to P168	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP: High pressure, LP: Low pressure

Piping "K", "L", "M" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P72THMU, YHMu	ø15.88 [5/8"]	ø19.05 [3/4"]
P96THMU, YHMu	ø19.05 [3/4"]	ø22.20 [7/8"]
P120THMU, YHMu	ø19.05 [3/4"]	ø28.58 [1-1/8"]

Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]
P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P96	ø9.52 [3/8"]	ø22.20 [7/8"]

1. Piping Design

1-2-4. IF 16 ports or less are in use, i.e., if only one BC controller is in use with no sub BC controller.

Note1. PQRY systems do not require headers.

Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)

Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.

Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.

Note5. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.

Note6. Total "downstream indoor capacity" is the total of all the indoor units connected downstream. For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

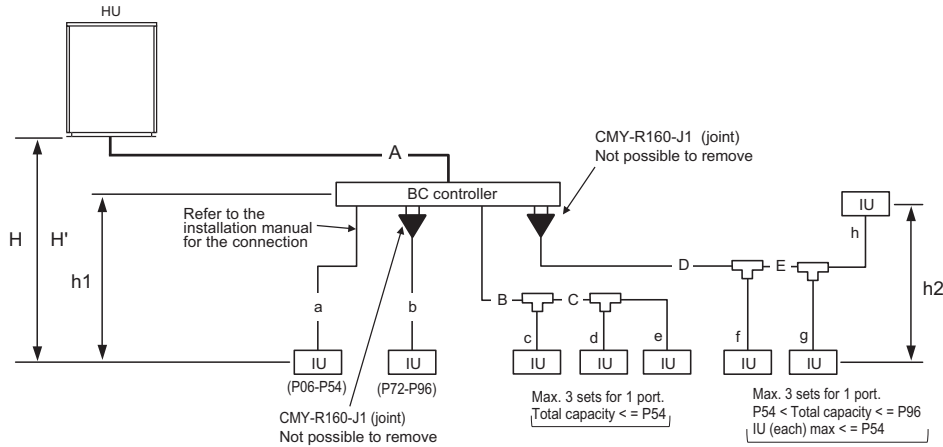


Fig. 1-2-4A Piping scheme

Piping length limitation		(m [ft.])	
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g+h	*1	-
Farthest IU from HU	A+D+E+h	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	H	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

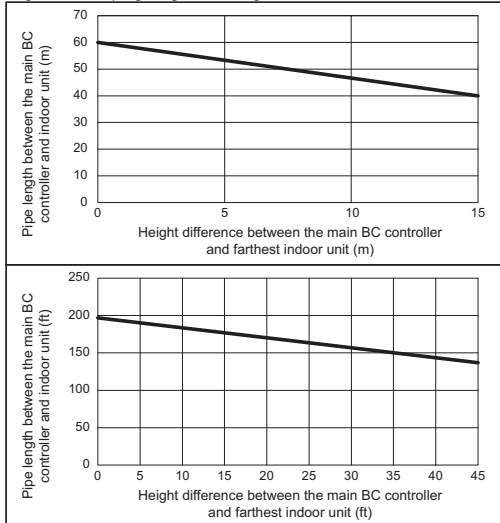
*1. Please refer to 1-2-7.

*2. Farthest Indoor from BC controller "D+E+h" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected. Details refer to Fig.1-2-4B

*3. Distance of Indoor sized P72, P96 from BC must be less than 10 m [32 ft.], if any.

*4. Distance of Indoor sized P72, P96 from IU must be less than 20 m [65 ft.], if any.

Fig. 1-2-4B Piping length and height between IU and BC controller



Bends equivalent length "M"	
Heat source Model	M (m/bends [ft./bends])
P72ZLMU	0.35 [1.15']
P96ZLMU	0.42 [1.38']
P120ZLMU	0.47 [1.54']
P144ZLMU	0.50 [1.64']
P168ZLMU	0.50 [1.64']
P192ZLMU	0.50 [1.64']

Piping "A" size selection rule			(mm [in.])
Heat source Model	Pipe(High pressure)	Pipe(Low pressure)	
P72ZLMU	ø15.88 [5/8"]	ø19.05 [3/4"]	
P96-120ZLMU	ø19.05 [3/4"]	ø22.20 [7/8"]	
P144-192ZLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]	

Piping "B", "C", "D", "E" size selection rule			(mm [in.])
Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)	
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]	
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]	

Piping "a", "b", "c", "d", "e", "f", "g", "h" size selection rule			(mm [in.])
Indoor Unit size	Pipe(Liquid)	Pipe(Gas)	
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]	
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]	
P72	ø9.52 [3/8"]	ø19.05 [3/4"]	
P96	ø9.52 [3/8"]	ø22.20 [7/8"]	

1. Piping Design

1-2-5. IF more than 16 ports are in use, or if there is more than one BC controller in use for one heat source unit

Note1. PQRY systems do not require headers.

Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)

Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.

Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.

Note5. For sub BC controller CMB-P-NU-GB1, the total connectable indoor unit capacity can be 126,000 BTUs or less.

If two sub BC controllers are used, the total indoor unit capacity connected to BOTH sub BC controllers also cannot exceed 126,000 BTUs.

For sub BC controller CMB-P1016NU-HB1 the total connectable indoor unit capacity can be 126,000 BTUs or less. However, if two sub controllers are used, the total indoor unit capacity connected to BOTH sub controllers must NOT exceed 168,000 BTUs.

Note6. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.

Note7. Total "downstream indoor capacity" is the total of all the indoor units connected downstream.

For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

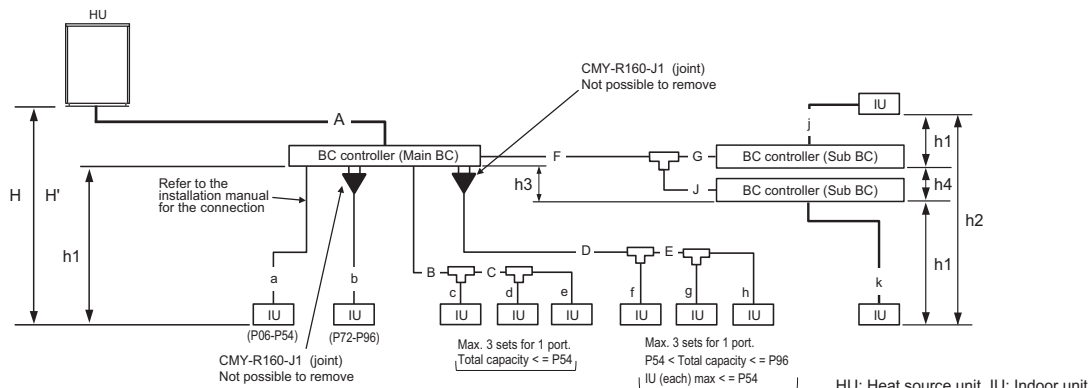


Fig. 1-2-5A Piping scheme

Piping length limitation		(m [ft.])	
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+F+G+H+I+J+K	*1	-
Farthest IU from HU	A+F+J+K	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+h or F+J+K	40 [131'] *2	40 [131'] *2
Height between HU and IU (HU above IU)	J	50 [164']	-
Height between HU and IU (IU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) *3	-
Height between IU and IU	h2	30 [98'] (20 [65']) *4	-
Height between BC(Main) and BC(Sub)	h3	15 [49'] (10 [32']) *5	-
Height between BC(Sub) and BC(Sub)	h4	10 [32']	-

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Please refer to 1-2-7.

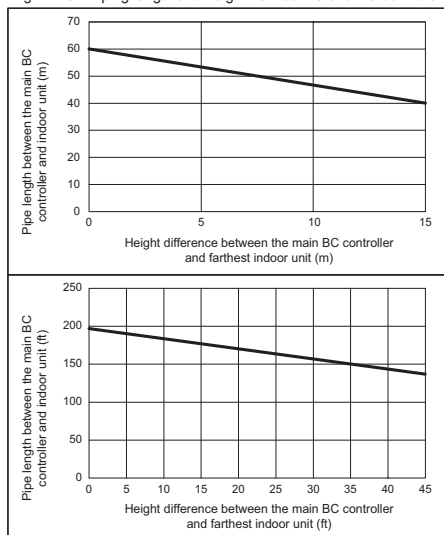
*2. Farthest Indoor from BC controller "D+E+h or F+J+K" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected. Details refer to Fig.1-2-5B

*3. Distance of Indoor sized P72, P96 from BC must be less than 10 m [32 ft.], if any.

*4. Distance of Indoor sized P72, P96 from IU must be less than 20 m [65 ft.], if any.

*5. Distance between BC (Main) and BC (Sub) must be less than 10 m, if two BC (Sub) are installed or Indoor sized P72 and/or P96 is connected.

Fig. 1-2-5B Piping length and height between IU and BC controller



Piping "A" size selection rule (mm [in.])

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P72ZLMU	ø15.88 [5/8"]	ø19.05 [3/4"]
P96-120ZLMU	ø19.05 [3/4"]	ø22.20 [7/8"]
P144-192ZLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]

Piping "B", "C", "D", "E" size selection rule (mm [in.])

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule (mm [in.])

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P72 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P73 to P108	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P109 to P126	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P127 to P144	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P145 to P168	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP: High pressure, LP: Low pressure

Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule (mm [in.])

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]
P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P96	ø9.52 [3/8"]	ø22.20 [7/8"]

1. Piping Design

1-2-6. IF more than 16 ports are in use, or if there is more than one BC controller in use for two heat source units

Note1. PQRY systems do not require headers.

Note2. Indoor units sized P72-P96 should be connected to a BC controller using the Y-shaped CMY-R160-J1 joint adapter. These indoor units cannot use the same BC controller ports as other units. (They must use their own individual BC controller port.)

Note3. As bends cause pressure loss on transportation of refrigerant, the fewer bends in the system, the better it is. Piping length needs to factor in the actual length and equivalent length in which the bends are counted.

Note4. Indoor units connected to the BC controller sharing one port cannot operate separately in heating and cooling modes simultaneously; i.e., they must function in either heating or cooling in tandem.

Note5. For sub BC controller CMB-P-NU-GB1, the total connectable indoor unit capacity can be 126,000 BTUs or less. If two sub BC controllers are used, the total indoor unit capacity connected to BOTH sub BC controllers also cannot exceed 126,000 BTUs.

For sub BC controller CMB-P1016NU-HB1 the total connectable indoor unit capacity can be 126,000 BTUs or less. However, if two sub controllers are used, the total indoor unit capacity connected to BOTH sub controllers must NOT exceed 168,000 BTUs.

Note6. Indoor unit capacities are included in the model name. For example, PEFY-P24NMSU-E has a capacity of 24,000 BTUs.

Note7. Total "downstream indoor capacity" is the total of all the indoor units connected downstream. For example, PEFY-P24NMSU-E + PEFY-P12NMSU-E: Total Indoor Unit Capacity = P24 + P12 = P36.

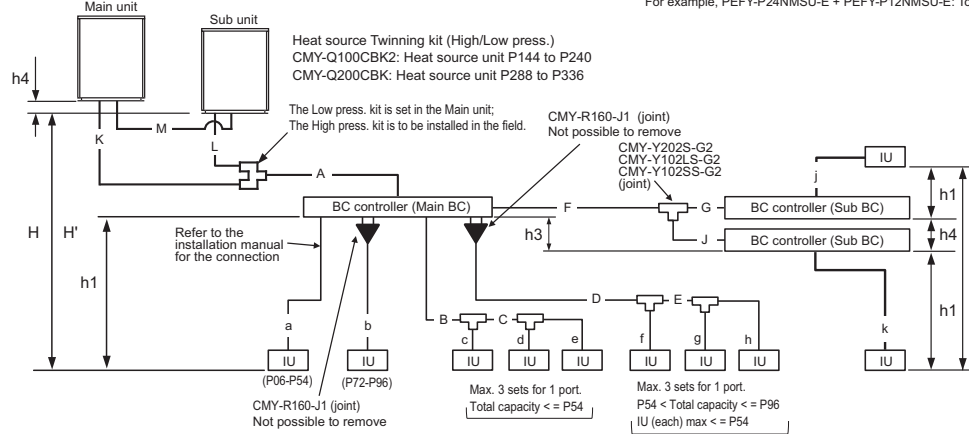


Fig. 1-2-6A Piping scheme

Piping length limitation

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	$K+L+M+A+B+C+D+E+F+G+H+I+J+K+L$	*1	-
Farthest IU from HU	$K(L)+A+F+J+k$	165 [541]	190 [623]
Distance between HU and BC	$K(L)+A$	110 [360] *1	110 [360] *1
Farthest IU from BC controller	$D+E+h$ or $F+G+j$ or $F+J+k$	40 [131] *2	40 [131] *2
Height between HU and IU (HU above IU)	H	50 [164]	-
Height between HU and IU (IU above IU)	H'	40 [131]	-
Height between IU and BC	h1	15 [49] (10 [32]) *3	-
Height between IU and IU	h2	30 [98] (20 [65]) *4	-
Height between BC(Main or Sub) and BC(Sub)	h3	15 [49] (10 [32]) *5	-
Distance between Main unit and Sub unit	K+L or M	5 [16]	-
Height between Main unit and Sub unit	h4	0.1 [0.3]	-
Height between BC(Sub) and BC(Sub)	h4	10 [32]	-

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Please refer to 1-2-7.

*2. Farthest Indoor from BC controller "D+E+h or F+G+j or F+J+k" can exceed 40 m [131 ft.] till 60 m [197 ft.] if no Indoor sized P72, P96 connected.

Details refer to Fig. 1-2-6B

*3. Distance of Indoor sized P72, P96 from BC must be less than 10 m [32 ft.], if any.

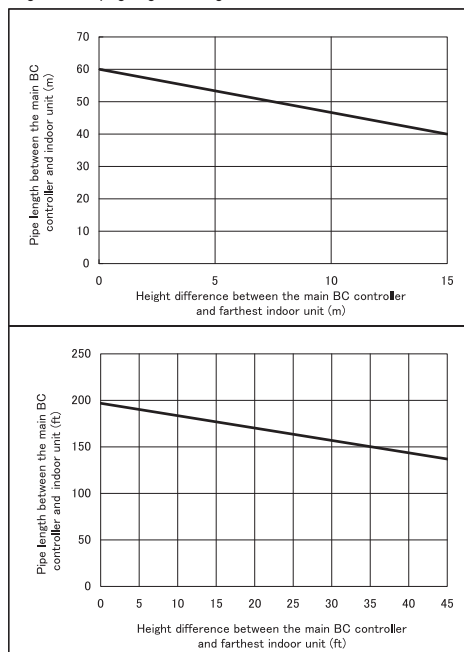
*4. Distance of Indoor sized P72, P96 from IU must be less than 20 m [65 ft.], if any.

*5. Distance between BC (Main) and BC (Sub) must be less than 10 m, if two BC (Sub) are installed or Indoor sized P72 and/or P96 is connected.

Bent equivalent length "M"

Heat source Model	M (m/bends (ft./bends))
P144ZSLMU	0.50 [1.64]
P168ZSLMU	0.50 [1.64]
P192ZSLMU	0.50 [1.64]
P216ZSLMU	0.50 [1.64]
P240ZSLMU	0.50 [1.64]
P288ZSLMU	0.70 [2.29]
P312ZSLMU	0.70 [2.29]
P336ZSLMU	0.80 [2.62]

Fig. 1-2-6B Piping length and height between IU and BC controller



Piping "A" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P144-192ZSLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P216ZSLMU	ø22.20 [7/8"] *5	ø28.58 [1-1/8"]
P240ZSLMU	ø22.20 [7/8"] *5	ø34.93 [1-3/8"]
P288-312ZSLMU	ø28.58 [1-1/8"]	ø34.93 [1-3/8"]
P336ZSLMU	ø28.58 [1-1/8"]	ø41.28 [1-5/8"]

*5. When the piping length is 65 m or longer, use the ø28.58 [1-1/8"] pipe for the part that exceeds 65 m.

Piping "B", "C", "D", "E" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]

Piping "F", "G", "J" size selection rule

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(HP Gas)	Pipe(LP Gas)
P72 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	ø19.05 [3/4"]
P73 to P108	ø9.52 [3/8"]	ø19.05 [3/4"]	ø22.20 [7/8"]
P109 to P126	ø12.70 [1/2"]	ø19.05 [3/4"]	ø28.58 [1-1/8"]
P127 to P144	ø12.70 [1/2"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P145 to P168	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]

HP: High pressure, LP: Low pressure

Piping "K", "L", "M" size selection rule

Heat source Model	Pipe(High pressure)	Pipe(Low pressure)
P144ZSLMU	ø15.88 [5/8"]	ø19.05 [3/4"]
P168-240ZSLMU	ø19.05 [3/4"]	ø22.20 [7/8"]
P288-336ZSLMU	ø22.20 [7/8"]	ø28.58 [1-1/8"]

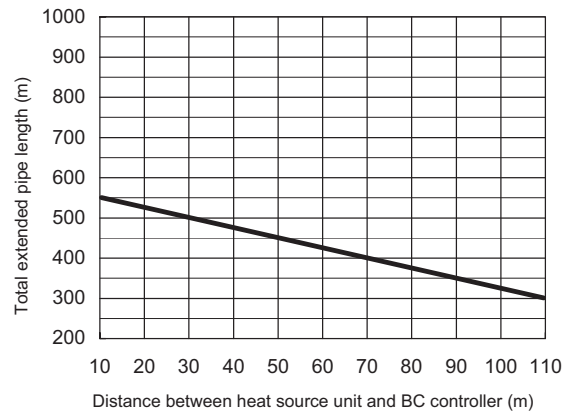
Piping "a", "b", "c", "d", "e", "f", "g", "h", "j", "k" size selection rule

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P06 to P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24 to P54	ø9.52 [3/8"]	ø15.88 [5/8"]
P72	ø9.52 [3/8"]	ø19.05 [3/4"]
P96	ø9.52 [3/8"]	ø22.20 [7/8"]

1. Piping Design

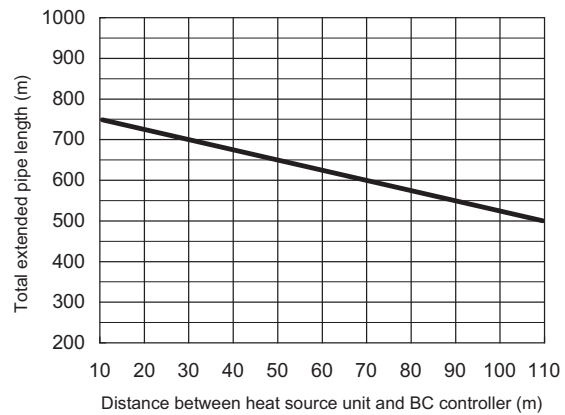
1-2-7. Total piping length restrictions (m)

[PQRY-P72, 96, 120TLMU-A1/YLMU-A1]



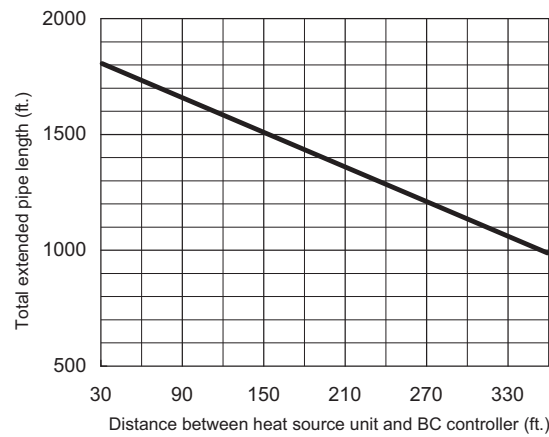
[PQRY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1]

[PQRY-P144, 168, 192, 216, 240, 288, 312, 336TSLMU-A1/YSLMU-A1]



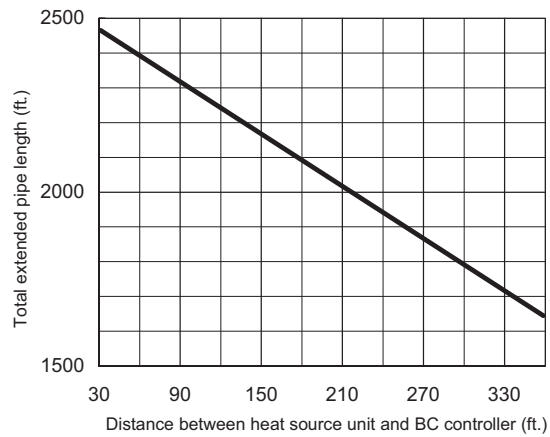
Total piping length restrictions (ft.)

[PQRY-P72, 96, 120TLMU-A1/YLMU-A1]



[PQRY-P144, 168, 192, 216, 240TLMU-A1/YLMU-A1]

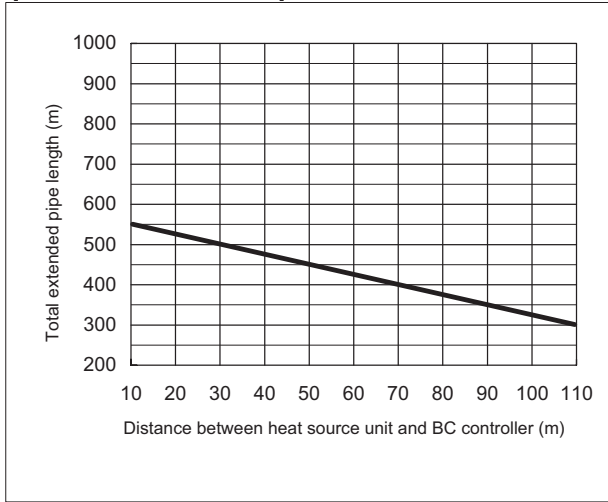
[PQRY-P144, 168, 192, 216, 240, 288, 312, 336TSLMU-A1/YSLMU-A1]



1. Piping Design

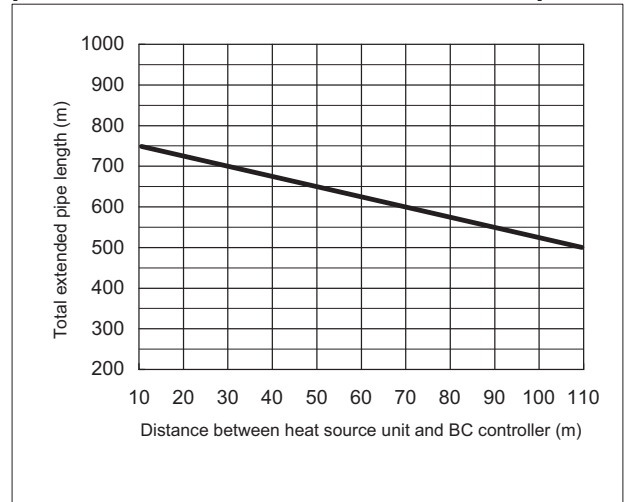
Total piping length restrictions (m)

[PQRY-P72, 96, 120ZLMU-A1]



[PQRY-P144, 168, 192ZLMU-A1]

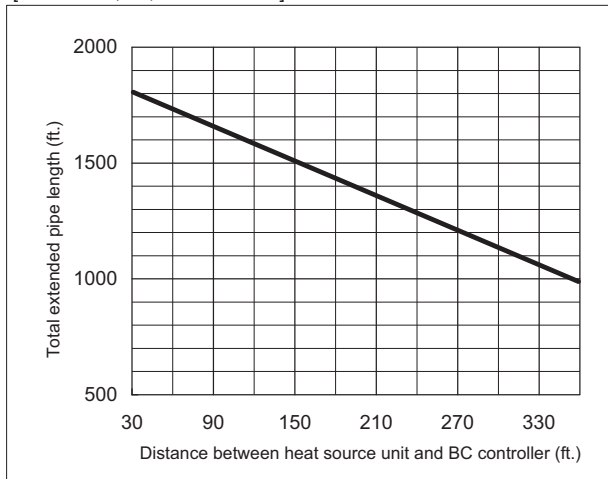
[PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU-A1]



PQRY-P-T(s)LMU-A1, Y(s)LMU-A1, Z(s)LMU-A1

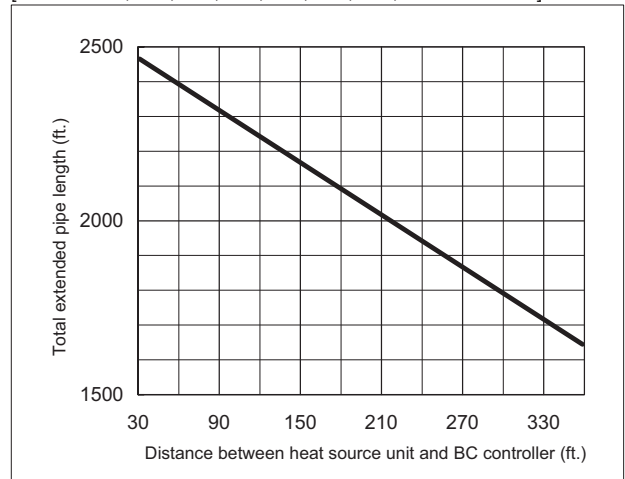
Total piping length restrictions (ft.)

[PQRY-P72, 96, 120ZLMU-A1]



[PQRY-P144, 168, 192ZLMU-A1]

[PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU-A1]

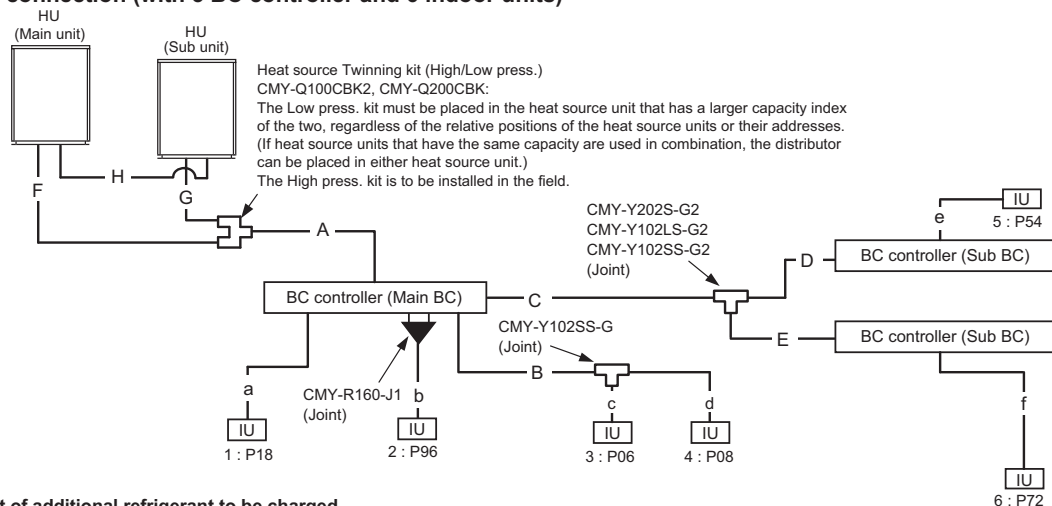


1. Piping Design

1-3. Refrigerant charging calculation

■ PQRY-P-T(S)LMU-A1/Y(S)LMU-A1

Sample connection (with 3 BC controller and 6 indoor units)



■ Amount of additional refrigerant to be charged

Refrigerant for extended pipes (field piping) is not factory-charged to the heat source unit. Add an appropriate amount of refrigerant for each pipes on site. Record the size of each high pressure pipe and liquid pipe, and the amount of refrigerant that was charged on the heat source unit for future reference.

■ Calculating the amount of additional refrigerant to be charged

The amount of refrigerant to be charged is calculated with the size of the on-site-installed high pressure pipes and liquid pipes, and their length. Calculate the amount of refrigerant to be charged according to the formula below.

* When connecting PLFY-P08NBMU-E2, add 0.3kg [11oz] of refrigerant per indoor unit.

* When connecting PLFY-EP08NEMU-E, add 0.3kg [11oz] of refrigerant per indoor unit.

Round up the calculation result to the nearest 0.1kg[4oz]. (i.e., 16.08 kg = 16.1 kg)

<Amount of additional refrigerant to be charged>

■ Calculating the amount of additional refrigerant to be charged

• Piping length from heat source unit to the most farthest indoor unit ≤ 30.5 m [100 ft] use the table [A]

• Piping length from heat source unit to the most farthest indoor unit > 30.5 m [100 ft] use the table [B]

Additional refrigerant charge		=	High pressure pipe size Total length of ø 28.58mm [1-1/8 in]		+	High pressure pipe size Total length of ø 22.2mm [7/8 in]		+	High pressure pipe size Total length of ø 19.05mm [3/4 in]		+	High pressure pipe size Total length of ø 15.88mm [5/8 in]			
[A]	(kg) [oz]		[A]	(m) × 0.36 (kg/m) (ft) × 3.88 (oz/ft)		[A]	(m) × 0.23 (kg/m) (ft) × 2.48 (oz/ft)		[A]	(m) × 0.16 (kg/m) (ft) × 1.73 (oz/ft)		[A]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)		
[B]	(kg) [oz]		[B]	(m) × 0.33 (kg/m) (ft) × 3.55 (oz/ft)		[B]	(m) × 0.21 (kg/m) (ft) × 2.26 (oz/ft)		[B]	(m) × 0.14 (kg/m) (ft) × 1.51 (oz/ft)		[B]	(m) × 0.10 (kg/m) (ft) × 1.08 (oz/ft)		
		+	Liquid Piping size Total length of ø 15.88mm [5/8 in]		+	Liquid Piping size Total length of ø 12.7mm [1/2 in]		+	Liquid Piping size Total length of ø 9.52mm [3/8 in]		+	Liquid Piping size Total length of ø 6.35mm [1/4 in]			
			[A]	(m) × 0.20 (kg/m) (ft) × 2.16 (oz/ft)		[A]	(m) × 0.12 (kg/m) (ft) × 1.30 (oz/ft)		[A]	(m) × 0.06 (kg/m) (ft) × 0.65 (oz/ft)		[A]	(m) × 0.024 (kg/m) (ft) × 0.26 (oz/ft)		
			[B]	(m) × 0.18 (kg/m) (ft) × 1.94 (oz/ft)		[B]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)		[B]	(m) × 0.054 (kg/m) (ft) × 0.59 (oz/ft)		[B]	(m) × 0.021 (kg/m) (ft) × 0.23 (oz/ft)		
		+	Additional charge												
			Heat source unit model		Charged amount										
			Single	P216		1.0 kg									
				P240		1.0 kg									
		+	BC controller (Standard / Main)		+	BC controller (Main) HA-Type		+	BC controller (Sub) Total Units		Charged amount				
			3.0 kg[106oz]			2.0 kg[71oz]			1		1.0 kg[36oz]				
									2		2.0 kg[71oz]				
		+	Total Capacity of Connected Indoor Units		Charged amount										
			Models ~ 27		2.0 kg [71 oz]										
			Models 28 ~ 54		2.5 kg [89 oz]										
			Models 55 ~ 126		3.0 kg [106 oz]										
			Models 127 ~ 144		3.5 kg [124 oz]										
			Models 145 ~ 180		4.5 kg [159 oz]										
			Models 181 ~ 234		5.0 kg [177 oz]										
			Models 235 ~ 273		6.0 kg [212 oz]										
			Models 274 ~ 307		8.0 kg [283 oz]										
			Models 308 ~ 342		9.0 kg [318 oz]										
			Models 343 ~ 411		10.0 kg [353 oz]										
			Models 412 ~		12.0 kg [424 oz]										

1. Piping Design

■ Amount of factory charged refrigerant

Heat source unit Model	Charged amount
P72	5.0 kg
P96	
P120	
P144	6.0 kg
P168	
P192	
P216	11.7 kg
P240	

■ Sample calculation

Indoor

A : ø28.58 [1-1/8"] 40m [131ft.] 1 : P18 a : ø6.35 [1/4"] 5m [16ft.]
 B : ø9.52 [3/8"] 10m [32ft.] 2 : P96 b : ø9.52 [3/8"] 3m [10ft.]
 C : ø12.70 [1/2"] 10m [32ft.] 3 : P06 c : ø6.35 [1/4"] 2m [6ft.]
 D : ø9.52 [3/8"] 5m [16ft.] 4 : P08 d : ø6.35 [1/4"] 3m [10ft.]
 E : ø9.52 [3/8"] 5m [16ft.] 5 : P54 e : ø9.52 [3/8"] 3m [10ft.]
 F : ø22.20 [7/8"] 2m [6ft.] 6 : P72 f : ø9.52 [3/8"] 10m [32ft.]
 G : ø22.20 [7/8"] 1m [4ft.]

Total length for each pipe size : ø28.58 A = 40m [131ft.]
 ø22.20 F+G = 2+1 = 3m [10ft.]
 ø12.70 C = 10m [32ft.]
 ø9.52 B+D+E+b+e+f = 36m [116ft.]
 ø6.35 a+c+d = 10m [32ft.]

Therefore, additional refrigerant charge = $40 \times 0.33 + 3 \times 0.21 + 10 \times 0.11 + 36 \times 0.054 + 10 \times 0.021 + 3.0 + 2.0 + 6.0$
 (kg) = 28.08kg
 ≒ 28.1kg

or

Therefore, additional refrigerant charge = $131 \times 3.55 + 10 \times 2.26 + 32 \times 1.19 + 116 \times 0.59 + 32 \times 0.23 + 106 + 71 + 212$
 (oz) = 990.5oz
 ≒ 991oz

■ Limitation of the amount of refrigerant to be charged

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

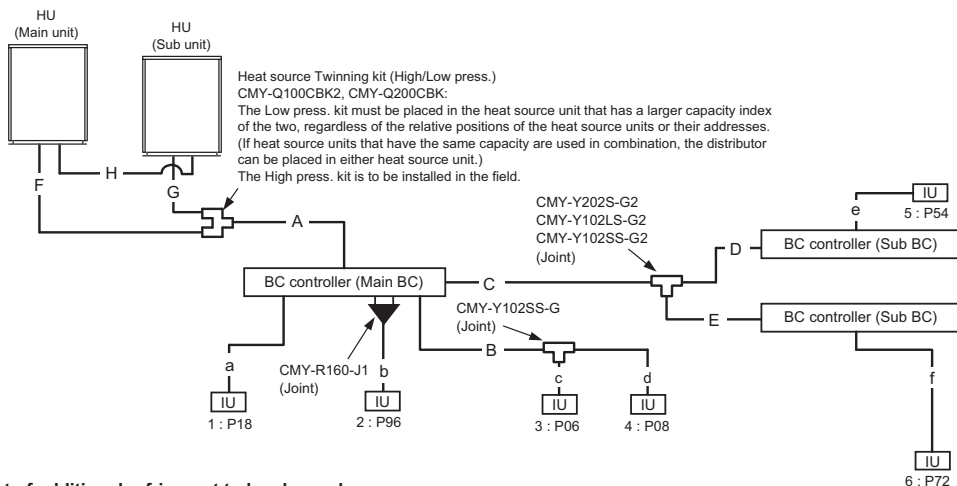
Total index of the heat source units		P72 T/YLMU	P96 T/YLMU	P120 T/YLMU	P144 T/YLMU	P168 T/YLMU	P192 T/YLMU	P216 T/YLMU	P240 T/YLMU	P144 T/YSLMU	P168 T/YSLMU
Maximum refrigerant charge	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	11.7kg	11.7kg	10.0kg	10.0kg
	Charged on site	28.0kg	32.0kg	33.0kg	44.0kg	45.0kg	52.0kg	57.0kg	58.0kg	44.0kg	45.0kg
	Total for system	33.0kg	37.0kg	38.0kg	50.0kg	51.0kg	58.0kg	68.7kg	69.7kg	54.0kg	55.0kg
	Factory charged	11 lbs 1 oz	11 lbs 1 oz	11 lbs 1 oz	13 lbs 4 oz	13 lbs 4 oz	13 lbs 4 oz	25 lbs 13 oz	25 lbs 13 oz	22 lbs 1 oz	22 lbs 1 oz
	Charged on site	61 lbs 12 oz	70 lbs 9 oz	72 lbs 13 oz	97 lbs 1 oz	99 lbs 4 oz	114 lbs 11 oz	125 lbs 11 oz	127 lbs 14 oz	97 lbs 1 oz	99 lbs 4 oz
	Total for system	72 lbs 13 oz	81 lbs 10 oz	83 lbs 13 oz	110 lbs 4 oz	112 lbs 7 oz	127 lbs 14 oz	151 lbs 8 oz	153 lbs 11 oz	119 lbs 1 oz	121 lbs 5 oz

Total index of the heat source units		P192 T/YSLMU	P216 T/YSLMU	P240 T/YSLMU	P288 T/YSLMU	P312 T/YSLMU	P336 T/YSLMU
Maximum refrigerant charge	Factory charged	10.0kg	10.0kg	10.0kg	12.0kg	12.0kg	12.0kg
	Charged on site	50.0kg	56.0kg	59.0kg	74.0kg	74.0kg	76.0kg
	Total for system	60.0kg	66.0kg	69.0kg	86.0kg	86.0kg	88.0kg
	Factory charged	22 lbs 1 oz	22 lbs 1 oz	22 lbs 1 oz	26 lbs 8 oz	26 lbs 8 oz	26 lbs 8 oz
	Charged on site	110 lbs 4 oz	123 lbs 8 oz	130 lbs 2 oz	163 lbs 3 oz	163 lbs 3 oz	167 lbs 9 oz
	Total for system	132 lbs 5 oz	145 lbs 9 oz	152 lbs 2 oz	189 lbs 10 oz	189 lbs 10 oz	194 lbs 1 oz

1. Piping Design

■ PQR-Y-P-Z(S)LMU-A1

Sample connection (with 3 BC controller and 6 indoor units)



■ Amount of additional refrigerant to be charged

Refrigerant for extended pipes (field piping) is not factory-charged to the heat source unit. Add an appropriate amount of refrigerant for each pipes on site. Record the size of each high pressure pipe and liquid pipe, and the amount of refrigerant that was charged on the heat source unit for future reference.

■ Calculating the amount of additional refrigerant to be charged

The amount of refrigerant to be charged is calculated with the size of the on-site-installed high pressure pipes and liquid pipes, and their length.

Calculate the amount of refrigerant to be charged according to the formula below.

* When connecting PLFY-P08NBMU-E2, add 0.3kg [11oz] of refrigerant per indoor unit.

When connecting PLFY-EP08NEMU-E, add 0.3kg [11oz] of refrigerant per indoor unit.

Round up the calculation result to the nearest 0.1kg[4oz]. (i.e., 16.08 kg = 16.1 kg)

<Amount of additional refrigerant to be charged>

■ Calculating the amount of additional refrigerant to be charged

• Piping length from heat source unit to the most farthest indoor unit ≤ 30.5 m [100 ft] use the table [A]

• Piping length from heat source unit to the most farthest indoor unit > 30.5 m [100 ft] use the table [B]

Additional refrigerant charge		High pressure pipe size Total length of ø 28.58mm [1-1/8 in]		High pressure pipe size Total length of ø 22.2mm [7/8 in]		High pressure pipe size Total length of ø 19.05mm [3/4 in]		High pressure pipe size Total length of ø 15.88mm [5/8 in]	
[A]	(kg) [oz]	[A]	(m) × 0.36 (kg/m) (ft) × 3.88 (oz/ft)	[A]	(m) × 0.23 (kg/m) (ft) × 2.48 (oz/ft)	[A]	(m) × 0.16 (kg/m) (ft) × 1.73 (oz/ft)	[A]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)
[B]	(kg) [oz]	[B]	(m) × 0.33 (kg/m) (ft) × 3.55 (oz/ft)	[B]	(m) × 0.21 (kg/m) (ft) × 2.26 (oz/ft)	[B]	(m) × 0.14 (kg/m) (ft) × 1.51 (oz/ft)	[B]	(m) × 0.10 (kg/m) (ft) × 1.08 (oz/ft)

		Liquid Piping size Total length of ø 15.88mm [5/8 in]		Liquid Piping size Total length of ø 12.7mm [1/2 in]		Liquid Piping size Total length of ø 9.52mm [3/8 in]		Liquid Piping size Total length of ø 6.35mm [1/4 in]	
[A]	(kg) [oz]	[A]	(m) × 0.20 (kg/m) (ft) × 2.16 (oz/ft)	[A]	(m) × 0.12 (kg/m) (ft) × 1.30 (oz/ft)	[A]	(m) × 0.06 (kg/m) (ft) × 0.65 (oz/ft)	[A]	(m) × 0.024 (kg/m) (ft) × 0.26 (oz/ft)
[B]	(kg) [oz]	[B]	(m) × 0.18 (kg/m) (ft) × 1.94 (oz/ft)	[B]	(m) × 0.11 (kg/m) (ft) × 1.19 (oz/ft)	[B]	(m) × 0.054 (kg/m) (ft) × 0.59 (oz/ft)	[B]	(m) × 0.021 (kg/m) (ft) × 0.23 (oz/ft)

BC controller (Standard / Main)		BC controller (Main) HA-Type		BC controller (Sub) Total Units		Charged amount	
3.0 kg[106oz]		2.0 kg[71oz]		1		1.0 kg[36oz]	
				2		2.0 kg[71oz]	

Total Capacity of Connected Indoor Units		Charged amount	
Models ~ 27		2.0 kg [71 oz]	
Models 28 ~ 54		2.5 kg [89 oz]	
Models 55 ~ 126		3.0 kg [106 oz]	
Models 127 ~ 144		3.5 kg [124 oz]	
Models 145 ~ 180		4.5 kg [159 oz]	
Models 181 ~ 234		5.0 kg [177 oz]	
Models 235 ~ 273		6.0 kg [212 oz]	
Models 274 ~ 307		8.0 kg [283 oz]	
Models 308 ~ 342		9.0 kg [318 oz]	
Models 343 ~ 411		10.0 kg [353 oz]	
Models 412 ~		12.0 kg [424 oz]	

1. Piping Design

■ Amount of factory charged refrigerant

Heat source unit Model	Charged amount
P72	5.0 kg
P96	
P120	
P144	6.0 kg
P168	
P192	
P216	11.7 kg
P240	

■ Sample calculation

Indoor

A : ø28.58 [1-1/8"]	40m [131ft.]	1 : P18	a : ø6.35 [1/4"]	5m [16ft.]
B : ø9.52 [3/8"]	10m [32ft.]	2 : P96	b : ø9.52 [3/8"]	3m [10ft.]
C : ø12.70 [1/2"]	10m [32ft.]	3 : P06	c : ø6.35 [1/4"]	2m [6ft.]
D : ø9.52 [3/8"]	5m [16ft.]	4 : P08	d : ø6.35 [1/4"]	3m [10ft.]
E : ø9.52 [3/8"]	5m [16ft.]	5 : P54	e : ø9.52 [3/8"]	3m [10ft.]
F : ø22.20 [7/8"]	2m [6ft.]	6 : P72	f : ø9.52 [3/8"]	10m [32ft.]
G : ø22.20 [7/8"]	1m [4ft.]			

Total length for each pipe size : ø28.58 A = 40m [131ft.]
 ø22.20 F+G = 2+1 = 3m [10ft.]
 ø12.70 C = 10m [32ft.]
 ø9.52 B+D+E+b+e+f = 36m [116ft.]
 ø6.35 a+c+d = 10m [32ft.]

Therefore, additional refrigerant charge = $40 \times 0.33 + 3 \times 0.21 + 10 \times 0.11 + 36 \times 0.054 + 10 \times 0.021 + 3.0 + 2.0 + 6.0$
 = 28.08kg
 ≒ 28.1kg

or

Therefore, additional refrigerant charge = $131 \times 3.55 + 10 \times 2.26 + 32 \times 1.19 + 116 \times 0.59 + 32 \times 0.23 + 106 + 71 + 212$
 = 990.5oz
 ≒ 991oz

■ Limitation of the amount of refrigerant to be charged

The above calculation result of the amount of refrigerant to be charged must become below the value in the table below.

Total index of the heat source units		P72 ZLMU	P96 ZLMU	P120 ZLMU	P144 ZLMU	P168 ZLMU	P192 ZLMU	P144 ZSLMU	P168 ZSLMU
Maximum refrigerant charge	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	10.0kg	10.0kg
	Charged on site	28.0kg	32.0kg	33.0kg	44.0kg	45.0kg	52.0kg	44.0kg	45.0kg
	Total for system	33.0kg	37.0kg	38.0kg	50.0kg	51.0kg	58.0kg	54.0kg	55.0kg
	Factory charged	11 lbs 1 oz	11 lbs 1 oz	11 lbs 1 oz	13 lbs 4 oz	13 lbs 4 oz	13 lbs 4 oz	22 lbs 1 oz	22 lbs 1 oz
	Charged on site	61 lbs 12 oz	70 lbs 9 oz	72 lbs 13 oz	97 lbs 1 oz	99 lbs 4 oz	114 lbs 11 oz	97 lbs 1 oz	99 lbs 4 oz
	Total for system	72 lbs 13 oz	81 lbs 10 oz	83 lbs 13 oz	110 lbs 4 oz	112 lbs 7 oz	127 lbs 14 oz	119 lbs 1 oz	121 lbs 5 oz

Total index of the heat source units		P192 ZSLMU	P216 ZSLMU	P240 ZSLMU	P288 ZSLMU	P312 ZSLMU	P336 ZSLMU
Maximum refrigerant charge	Factory charged	10.0kg	10.0kg	10.0kg	12.0kg	12.0kg	12.0kg
	Charged on site	50.0kg	56.0kg	59.0kg	74.0kg	74.0kg	76.0kg
	Total for system	60.0kg	66.0kg	69.0kg	86.0kg	86.0kg	88.0kg
	Factory charged	22 lbs 1 oz	22 lbs 1 oz	22 lbs 1 oz	26 lbs 8 oz	26 lbs 8 oz	26 lbs 8 oz
	Charged on site	110 lbs 4 oz	123 lbs 8 oz	130 lbs 2 oz	163 lbs 3 oz	163 lbs 3 oz	167 lbs 9 oz
	Total for system	132 lbs 5 oz	145 lbs 9 oz	152 lbs 2 oz	189 lbs 10 oz	189 lbs 10 oz	194 lbs 1 oz



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

mitsubishi electric corporation

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