

AIR CONDITIONING SYSTEMS

CITY MULTI



DATA BOOK

MODEL

PQRY-P72-336Z(S)LMU-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-P144ZSLMU-A1	PQRY-P168ZSLMU-A1	PQRY-P192ZSLMU-A1
Type(BTU/h)	216K	240K	
Model Name	PQRY-P216ZSLMU-A1	PQRY-P240ZSLMU-A1	



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



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

PQRY-P-Z(S)LMU-A1

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1-1. AHRI 1230-2014 condition

Heat Source Mod Indoor Model				PQRY-P72 Non-Ducted	Ducted	
Power source				3-phase 3-wire 57		
Cooling capacity		*1	BTU/h	72,0		
(Nominal)			kW	21		
,	Pow	ver input	kW	3.6		
	(575) Curr		A	4.		
(Rate		onempar	BTU/h	69,0		
(run	cu)		kW	20		
	Pow	er input	kW	3.34	3.12	
	(575) Curr		A	3.7	3.4	
Temp. range of	(373) Cdil		W.B.	59~75°F (
cooling		water	°F	50~113°F (
	IIIet	*2				
Heating capacity		2	kW	80,0		
Nominal)				23		
		ver input	kW	4.(
	(575) Curr	ent input	A	4.		
(Rate	ed)		BTU/h	76,0		
			kW	22		-
		er input	kW	3.74	3.36	
	(575) Curr		А	4.1	3.7	
Temp. range of	Indo	or	D.B.	59~81°F (
neating	Inlet	water	°F	50~113°F	10~45°C)	
ndoor unit	Tota	al capacity		50~150% of heat se	ource unit capacity	
onnectable		lel/Quantity		P04~P9		
		d in anechoic room)	dB <a>	46		
Refrigerant		n pressure	in. (mm)	5/8 (15.88		
•		pressure		3/4 (19.05		
oiping diameter		pressure	in. (mm)			
Minimum Circuit A			A	5		
Maximum Overcu			Α	11		
irculating water	Wate	er flow rate	G/h	1,5		
			G/min	25	4	
			m ³ /h	5.7	6	
			L/min	94		
			cfm	3.	1	
	Pres	sure drop	psi	3.4		
	1103	sourc urop	kPa			
	-	roting velue -		24		
		rating volume	G/h	793 ~	-	
	rang	le	G/min	13.2~		
			m ³ /h	3.0~		
Compressor		e x Quantity		Inverter scroll herme		
	Star	ting method		Inve	rter	
	Moto	or output	kW	4.	3	
	Case	e heater	kW	-		
		ricant		MEL	.32	
External finish	1			Galvanized		
External dimensio	on H x W x D		in.	43-5/16 x 34-11		-
			mm	1,100 x 8		
Protection devices	o Uigh	n pressure protectio		High pressure sensor, High press		-
			11			
		rter circuit		Over-heat protection, C		
		npressor		Over-heat		
Refrigerant		e x original charge		R410A x 11 lbs		-
	Cont	trol	1	Indoor LEV and		
Net weight			lbs (kg)	411 (186)	
Heat exchanger				plate	type	
e e	Wate	er volume in plate	G	1.3		
			1	5.		
	Wate	er pressure Max.	psi	29		
	, van	F	MPa	23		
HIC circuit (HIC: H	Heat Inter Cha	anger)	1VII G	2.	,	
					242	
Drawing	Exte			KL94		
	Wirir			KE94		
Standard		ument		Installation		
attachment	Acce	essory		Details refer to		
Optional parts				joint: CMY-Y102SS-G2, CMY		
				BC controller: CMB-P104,	06,108,1012,1016NU-J1	
				Main BC controller: CMB-P108,1012	1016NU-JA1, CMB-P1016NU-KA1	
				Sub BC controller: CM	B-P104,108NU-KB1	
Remarks				Details on foundation work, duct work, insulation work, electric		ther items shall be
				ferred 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		
				The ambient relative humidity of the Heat Source Unit needs to		
				The Heat Source Unit should not be installed at outdoor.		
				Be sure to mount a strainer (more than 50 meshes) at the wat	er inlet piping of the unit.	
				Be sure to provide interlocking for the unit operation and wate	circuit.	
				Install the supplied insulation material to the unused drain-soc	ket.	
				When installing insulation material around both water and refr		
				When installing insulation material around both water and refin The cooling tower and the water circuit must be a closed circu		
otes:						
lotes: Nominal cooling	conditions (Tr	est conditions are t	ased on AHRI	The cooling tower and the water circuit must be a closed circu	t (water is not exposed to the atmosp	here). Unit converter
.Nominal cooling		est conditions are b		The cooling tower and the water circuit must be a closed circu	t (water is not exposed to the atmosp	here).

T.Nonlinal cooling conditions (Test conditions are based on ARKI 1250)	BT0/II	-KVV X 3,41Z
Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)	cfm	=m ³ /min x 35.31
2.Nominal heating conditions (Test conditions are based on AHRI 1230)	onn	III /IIIII X 00.01
Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)	lbs	=kg/0.4536

PQRY-P-Z(S)LMU-A1

leat Source Model			PQRY-P96ZLMU-A1	
ndoor Model				ucted
Power source		DT11/	3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity	*1	BTU/h kW	96,000	
(Nominal)	Power input	kW	28.1 5.21	
(575		A	5.8	
(Rated)) Ourient linput	BTU/h	92,000	
(. (kW	27.0	
	Power input	kW		5.19
(575) Current input	А		5.7
Femp. range of	Indoor	W.B.	59~75°F (15~24°C)	
cooling	Inlet water	°F	50~113°F (10~45°C)	
Heating capacity	*2	BTU/h	108,000	
Nominal)		kW	31.7	
	Power input	kW	5.64	
) Current input	А	6.2	
(Rated)		BTU/h	103,000	
	-	kW	30.2	
(575	Power input	kW		.48
) Current input	A		4.9
emp. range of	Indoor	D.B.	59~81°F (15~27°C)	
eating	Inlet water	°F	50~113°F (10~45°C)	
ndoor unit	Total capacity Model/Quantity		50~150% of heat source unit capacity P04~P96/1~24	
onnectable	Model/Quantity	dB <a>	48.0	
	High pressure		48.0 3/4 (19.05) Brazed	
Refrigerant		in. (mm)	3/4 (19.05) Brazed 7/8 (22.2) Brazed	
piping diameter Minimum Circuit Ampaci	Low pressure	in. (mm) A	//8 (22.2) Brazed 7	
Maximum Orcuit Ampacit		A	15	
irculating water	Water flow rate	A G/h	1,522	
inculating water	Water now rate	G/min	25.4	
		m ³ /h		
		L/min		
		cfm	3.4	
	Pressure drop	psi	3.48	
	Flessule diop	kPa		
	Operating volume	G/h	793 ~ 1.902	
	range	G/min	13.2 ~ 31.7	
	range	m ³ /h	3.0 ~ 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Starting method		Inverter	
	Motor output	kW	6.0	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized steel sheets	
External dimension H x V	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	n	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	1	Indoor LEV and BC controller	
let weight		lbs (kg)	411 (186)	
leat exchanger			plate type	
	Water volume in plate	G	1.32	
		 .	5.0	
	Water pressure Max.	psi		
	(henry)	MPa	2.0	
HC circuit (HIC: Heat Int			-	
Drawing	External		KL94C243 KE94G421	
Standard	Wiring Document			
attachment			Installation Manual	
attachment Optional parts	Accessory		Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1	
optional parts			BC controller: CMB-P104,106,108,1012,1016NU-J1	
			Main BC controller: CMB-P108,1012,1016NU-JA1, CMB-P1016NU-KA1	
			Sub BC controller: CMB-P104,108NU-KB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switc	h, and other items shall be
tornanto			ferred to the Installation Manual.	
			Due to continuing improvement, above specifications may be subject to change without not	
			The ambient temperature of the Heat Source Unit needs to be kept below 104°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 mount a strainer (more than 50 mesnes) 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 insta	allation manual.
			The cooling tower and the water circuit must be a closed circuit (water is not exposed to the	e atmosphere).
otes:				Unit converter
Nominal cooling conditi	ons (Test conditions are b	ased on AHRI	1230)	BTU/h =kW x 3,412
a containa cooning contain			mperature: 86°F (30°C)	$cfm = m^3/min \times 35.31$

Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

*Above specification data is subject to rounding variation.

=kg/0.4536

=m³/min x 35.31

cfm lbs

Indoor Model			PQRY-P120 Non-Ducted	ZLMU-A1 Ducted		
Power source			3-phase 3-wire 57			
Cooling capacity	*1	BTU/h	120,0			
(Nominal)		kW	35.			
,	Power input	kW	7.5	1		
(57	75) Current input	А	8.1	3		
(Rated)		BTU/h	114,	000		
		kW	33.	4		
	Power input	kW	6.95	7.35		
(57	75) Current input	А	7.7	8.2		
emp. range of	Indoor	W.B.	59~75°F (*	5~24°C)		
ooling	Inlet water	°F	50~113°F (10~45°C)		
leating capacity	*2	BTU/h	135,0	000		
Nominal)		kW	39.	6		
	Power input	kW	7.0	9		
(57	75) Current input	А	7.			
(Rated)		BTU/h	129,0	000		
		kW	37	8		
	Power input	kW	6.55	5.92		
(57	75) Current input	А	7.3	6.6		
emp. range of	Indoor	D.B.	59~81°F (1	5~27°C)		
eating	Inlet water	۴	50~113°F (
ndoor unit	Total capacity		50~150% of heat so			
onnectable	Model/Quantity	1	P04~P9			
	measured in anechoic room)		54.			
Refrigerant	High pressure	in. (mm)	3/4 (19.05			
piping diameter	Low pressure	in. (mm)	7/8 (22.2)			
/linimum Circuit Ampa		А	11			
Maximum Overcurrent		А	15			
irculating water	Water flow rate	G/h	1,5			
		G/min	25.			
		m ³ /h	5.7	6		
		L/min	96	i		
		cfm	3.4	l		
	Pressure drop	psi	3.4	8		
		kPa	24			
	Operating volume	G/h	793 ~	1,902		
	range	G/min	13.2 ~	31.7		
	-	m ³ /h	3.0 ~	7.2		
Compressor	Type x Quantity		Inverter scroll herme	tic compressor x 1		
	Starting method		Inve	ter		
	Motor output	kW	7.	,		
	Case heater	kW	-			
	Lubricant	•	MEL	32		
External finish			Galvanized s			
External dimension H :	x W x D	in.	43-5/16 x 34-11			
		mm	1,100 x 8			
Protection devices	High pressure protectio	n	High pressure sensor, High press	ure switch at 4.15 MPa (601 psi)		
	Inverter circuit		Over-heat protection, C			
	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 (86)		
Heat exchanger			plate			
-	Water volume in plate	G	1.3			
		1	5.			
		1 .				
	Water pressure Max.	psi	29)		
	Water pressure Max.	psi MPa	29 2.			
HC circuit (HIC: Heat)		
			2.0			
	Inter-Changer)		2.	243		
Drawing	Inter-Changer) External		2. - - - KL940) :243 :421		
Drawing Standard	Inter-Changer) External Wiring		2. - - - - - - - - - - - - - - - - - - -) 243 3421 Manual		
Drawing Standard attachment	Inter-Changer) External Wiring Document		2.1) 2243 3421 Manual External Drw		
Drawing Standard attachment	Inter-Changer) External Wiring Document		2.1) 2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1		
Drawing Standard attachment	Inter-Changer) External Wiring Document		2.1 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1) 2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1		
Drawing Standard attachment	Inter-Changer) External Wiring Document		2.1 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104, 1 Main BC controller: CMB-P108, 1012) 2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1		
Drawing Standard attachment	Inter-Changer) External Wiring Document		2.1 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1) 2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1		
Drawing Standard <u>attachment</u> Dptional parts	Inter-Changer) External Wiring Document		2.1) 2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1		
Drawing Standard <u>attachment</u> Dptional parts	Inter-Changer) External Wiring Document		2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	243 243 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be re		
Drawing Standard <u>attachment</u> Optional parts	Inter-Changer) External Wiring Document		2.1 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104, 1 Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be set	243 243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be re- subject to change without notice.		
Drawing Standard <u>attachment</u> Optional parts	Inter-Changer) External Wiring Document		2.1 	243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.)		
Drawing Standard <u>attachment</u> Optional parts	Inter-Changer) External Wiring Document		2.1 	243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.)		
HIC circuit (HIC: Heat Drawing Standard attachment Optional parts Remarks	Inter-Changer) External Wiring Document		2.1	243 243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) b be kept below 80%.		
Drawing Standard <u>attachment</u> Optional parts	Inter-Changer) External Wiring Document		2.1 	2243 2243 2243 2243 2242 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) b be kept below 80%. er inlet piping of the unit.		
Drawing Standard <u>attachment</u> Dptional parts	Inter-Changer) External Wiring Document		2.1 	243 243 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) b be kept below 80%. er inlet piping of the unit. circuit.		
Drawing Standard <u>attachment</u> Dptional parts	Inter-Changer) External Wiring Document		2.1 KL940 KL940 KE940 Installation Joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P104,1012 Sub BC controller:	2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2057		
Drawing Standard <u>attachment</u> Dptional parts	Inter-Changer) External Wiring Document		2.1 KL940 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104, 1 Main BC controller: CMB-P104, 1 Sub BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be set The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wat Be sure to provide interlocking for the unit operation and wate Install the supplied insulation material to the unused drain-soc	2243 3421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) b be kept below 80%. er inlet piping of the unit. circuit. ket. gerant piping, follow the installation manual.		
Drawing Standard Ittachment Dptional parts Remarks	Inter-Changer) External Wiring Document		2.1 KL940 KL940 KE940 Installation Joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P104,1012 Sub BC controller:	243 243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) be kept below 80%. er inlet piping of the unit. circuit. (et. gerant piping, follow the installation manual. t (water is not exposed to the atmosphere).		
Drawing Standard attachment Dptional parts Remarks	Inter-Changer) External Wiring Document		2.1 KL940 KL940 KE940 Installation Joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P104,1012 Sub BC controller:	2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2243 2058 2018		
Drawing Standard attachment Dptional parts Remarks Iotes: .Nominal cooling conc	Inter-Changer) External Wiring Document Accessory ditions (Test conditions are b	MPa	2.1 KL940 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be s The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wate Install the supplied insulation material to the unused drain-soc When installing insulation material around both water and refri The cooling tower and the water circuit must be a closed circu 1230)	243 243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be re- subject to change without notice. kept below 104°FD.B. (40°CD.B.) be kept below 104°FD.B. (40°CD.B.) be kept below 80%. er inlet piping of the unit. circuit. (et. gerant piping, follow the installation manual. t (water is not exposed to the atmosphere).		
Drawing Standard attachment Dptional parts Remarks Remarks Iotes: Nominal cooling conc Indoor: 81°FD.B./66°1	Inter-Changer) External Wiring Document Accessory	MPa	2.1 KL940 KL940 KL940 Installation Joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P104,1012 Sub BC controller: CMB-P104,1012 Sub BC controller: CMB-P108,1012 Sub BC controller:	243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) b be kept below 80%. er inlet piping of the unit. circuit. tet. gerant piping, follow the installation manual. t (water is not exposed to the atmosphere). Unit converter BTU/h =kW x 3,412		
Drawing Standard attachment Optional parts Remarks Remarks Iotes: .Nominal cooling conc Indoor: 81°FD.B./66°I. .Nominal heating conc	Inter-Changer) External Wiring Document Accessory ditions (Test conditions are b	MPa	2.1 KL940 KL940 KL940 KL940 KL940 Installation Details refer to joint: CMY-Y102SS-G2, CMY BC controller: CMB-P104,1 Main BC controller: CMB-P104,1012 Sub BC controller: CMB-P108,1012 Sub BC controller:	243 243 2421 Manual External Drw Y102LS-G2, CMY-R160-J1 06,108,1012,1016NU-J1 1016NU-JA1, CMB-P1016NU-KA1 B-P104,108NU-KB1 al wiring, power source switch, and other items shall be re- subject to change without notice. kept below 104°FD.B. (40°CD.B.) be kept below 104°FD.B. (40°CD.B.) be kept below 80%. er inlet piping of the unit. circuit. ket. gerant piping, follow the installation manual. t (water is not exposed to the atmosphere). Unit converter		

Heat Source Model			PQRY-P144Z		
ndoor Model			Non-Ducted	Ducted	
Power source			3-phase 3-wire 575		
Cooling capacity	*1		144,00	0	
Nominal)		kW	42.2		
(575)	Power input	kW	8.78		
	Current input	A BTU/h	9.7	20	
(Rated)		kW	40.2	0	
	Power input	kW	8.07	9.98	
(575)	Current input	A	9.0	11.1	
Temp. range of	Indoor	W.B.	59~75°F (15		
coolina	Inlet water	°F	50~113°F (10	- 1	
Heating capacity	*2		160.00		
Nominal)		kW	46.9	-	
,	Power input	kW	8.11		
(575)	Current input	А	9.0		
(Rated)		BTU/h	152,00	0	
		kW	44.5		
	Power input	kW	7.47	7.90	
(575)	Current input	А	8.3	8.8	
emp. range of	Indoor	D.B.	59~81°F (15		
neating	Inlet water	°F	50~113°F (10		
door unit Total capacity			50~150% of heat sou		
connectable	Model/Quantity	L:	P04~P96/	1~36	
Sound pressure level (mea			54.0		
Refrigerant	High pressure	in. (mm)	7/8 (22.2) E		
piping diameter	Low pressure	in. (mm)	1-1/8 (28.58)	Brazed	
Minimum Circuit Ampacity		A	13		
Maximum Overcurrent Pro		A	20		
Circulating water	Water flow rate	G/h C/min	1,902		
		G/min m ³ /h	31.7 7.20		
		L/min	120		
		cfm	4.2		
	Pressure drop	psi	6.38		
	Flessule drop	kPa	44		
	Operating volume	G/h	44 1,189 ~ 3	054	
	range	G/min	19.8 ~ 5		
	range	m ³ /h	4.5 ~ 11		
Compressor	Type x Quantity	/11	Inverter scroll hermetic		
Compressor	Starting method		Inverter		
	Motor output	kW	9.5		
	Case heater	kW	-		
	Lubricant		MEL3	2	
External finish			Galvanized ste	el sheets	
External dimension H x W	/ x D	in.	57-1/8 x 34-11/16	6 x 21-11/16	
		mm	1,450 x 880	x 550	
Protection devices	High pressure protection	n	High pressure sensor, High pressur	e switch at 4.15 MPa (601 psi)	
	Inverter circuit		Over-heat protection, Over-	er-current protection	
	Compressor		Over-heat pr		
Refrigerant	Type x original charge		R410A x 13 lbs +		
	Control	r	Indoor LEV and E		
Net weight		lbs (kg)	512 (23		
Heat exchanger		1 -	plate ty	ре	
	Water volume in plate	G	1.32		
		μ.	5.0		
	Water pressure Max.	psi			
		MPa	2.0		
HIC circuit (HIC: Heat Inte			-		
Drawing	External		KL94C2		
Stondard	Wiring		KE94G4		
Standard attachment	Document Accessory		Installation I Details refer to E		
Optional parts	ACCESSOLY		joint: CMY-Y102SS-G2, CMY-Y		
opuonai paris			Main BC controller: CMB-P108,1012,10		
			Sub BC controller: CMB-		
Remarks			Details on foundation work, duct work, insulation work, electrical ferred to the Installation Manual. Due to continuing improvement, above specifications may be su The ambient temperature of the Heat Source Unit needs to be k The ambient relative humidity of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water Be sure to provide interlocking for the unit operation and water or Install the supplied insulation material to the unused drain-socke When installing insulation material around both water and refrige The cooling tower and the water circuit must be a closed circuit	bject to change without notice. ept below 104°FD.B. (40°CD.B.) be kept below 80%. inlet piping of the unit. sircuit. et. erant piping, follow the installation manual.	
			The cooling lower and the water circuit must be a closed circuit	water is not exposed to the atmosphere).	
-4					
lotes:				Unit converter	
Nominal cooling conditio				BTU/h =kW x 3,412	

 Notes:
 Unit converter

 1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
 BTU/h
 =kW x 3,412

 Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 cfm
 =m³/min x 35.31

 2.Nominal heating conditions (Test conditions are based on AHRI 1230)
 lbs
 =kg/0.4536

 Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)
 *Above specification data is subject to rounding variation.

Power action 3-phile 3-wine STP 2 VB 200 (Noniva) *** #*** Power input KW 42.2 (ATS) Current trough A (ATS) STUIN 10.05 (ATS) STUIN 11.00 (Noniva) KW 0.51 (Noniva) KW 0.00 (ST) Current risk KW (ST) Current risk KW (ST) Current risk A (ST) Current risk A <th>eat Source Model</th> <th></th> <th></th> <th>PQRY-P168ZLMU-A1</th> <th>Durated</th>	eat Source Model			PQRY-P168ZLMU-A1	Durated
Conting openety Y BTuh 199,000 (Noninal) Pose input KW 4.92. (ST) Current input A 10.05 (ST) Current input A 10.14. (Pase input A 11.10. 11.88 (ST) Current input A 11.20. 11.88 (Noninal) (ST) Current input A 11.20. 11.88 (Noninal) (ST) Current input A 11.20. 13.20.00. (Noninal) (ST) Current input A 11.0. 13.20.00. (Noninal) (ST) Current input A 11.0. 10.20. (ST) Current input A 10.1 10.20. 10.20. 10.20.	ndoor Model			Non-Ducted	Ducted
Nominal Nome 422 Power roud KW 12.06 (Ref) FUL 13.4 Parent roud A 13.4 (Ref) FUL 11.06 Parent roud KW 11.0 Parent roud KW 11.0 Parent roud KW 11.0 Parent roud KW 12.3 Separation W.B. 12.3 Parent roud KW 11.0 Heating capacity Y 2 Parent roud KW 9.8 (Nominal) Power rout KW 9.8 Parent roud A 11.1 Parent roud A 11.0 Parent roud A 11.0 Parent roud A 11.0 Parent roud A 10.1 Parent roud AW 9.60 Parent roud AW 9.60 Parent roud AW 9.60 Parent roud AW 9.60 Parent roud A 10.1 Parent roud A 10.1 Parent roud A 10.1 Parent roud A 10.1 Parent roud A <td></td> <td>*1</td> <td>DTU/h</td> <td></td> <td></td>		*1	DTU/h		
Power pod (Rated) WW 12.05 (Rated) BTUh 10.00 (Falsed) BTUh 10.00 (FAlsed) BTUh 11.00 (FAlsed) WB 10.00 (FAlsed) WB 10.00 (FAlsed) WB 50-757 (15-24°C) (FAlsed) WB 50-757 (15-24°C) (FAlsed) WB 50-1757 (15-24°C) (FAlsed) WB 50-1757 (15-24°C) (FAlsed) WB 90-1 (FAlsed) WB 90-1 (FAlsed) WB 90-1 (FAlsed) WW 92-5 (FAlsed) WW 90-1 (FAlsed) WW 90-1 (FAlsed) WW 90-1 (FAlsed) Hidware F (FAlsed) 10.1 10.1 (FAlsed) 10.1 10.1 (FAlsed) 10.1 10.1 (FAlsed) 10.1 10.1 (FAlsed) 10	• • •	.1			
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[Rated] BTUh 11:10 11:100 [Forex input] A 12.3 11:18 [Forex input] A 12.3 11:18 [Forex input] A 12.3 11:18 [Forex input] Forex input] A 12.3 [Forex input] Forex input] SetTuh 13:2 [Forex input] A 12.3 5:1 [Forex input] A 11:0 15:1 [Forex input] A 11:0 10:0 [Forex input] A 10:0 2:5 2:2 [Forex input] A 10:0 10:0 10:0 10:0 [Forex input] A 10:0	(575)				
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Image of test in the second process of the second proces of the second proces proces of the second process o	(Talod)				
Index A 12.3 13.2 coding Index We WB 59-75°F (15-24°) coding Index water % 59-13°F (15-43°C) Heating capacity 2 BTuh 58.000 Nominal Power input KW 9.88 Power input KW 9.88 (75) Corrent Input A 11.0 France BTuh 172.000 (75) Corrent Input A 10.1 Power input KW 8.09 9.72 france D-10.5 59-81°F (15-27°C) 10.8 Indoor D.8 50-960 of thet source unit capacity 10.1 Conditionscience BTuh 50-150°F (15-27°C) 10.8 Conditionscience B.0 59-81°F (15-27°C) 10.8 Conditionscience B.0 59-81°F (15-27°C) 10.8 Conditionscience B.0 50.0 50.0 10.0 Conditionscience B.0 50.0 50.0 10.0 <t< td=""><td></td><td>Power input</td><td></td><td></td><td>11.88</td></t<>		Power input			11.88
Temp. range of index W.B. 99-75° (15-24°C). tealing capacity '2 BTU/h 880.000 Nominal) Power input KW 9.880. (FS) Current input KW 9.880. (FS) Current input KW 9.880. (FS) Current input A 10.1 (FR) Current input A 10.1 (FR) Current input A 10.1 10.8 (FR) Current input A 10.1 10.8 (Framp. range of indox D.8. 50-113° (10-45°C) 10.8 (Framp. range of indox D.8. 50-113° (10-45°C) 10.8 (Framp. range of indox in the indox D.8. 50-113° (10-45°C) 10.8 (Framp. range of indox in the indox in the indox	(575)				
					15.2
Hading capacity *2 BTU/h 188,000 Nominal) Power input KW 9,86 (FS) Current input KW 9,86 (FS) Current input A 11.0 (FR) BTU/h 11.0 11.0 (FS) Current input A 10.1 0.72 (FR) Current input A 10.1 10.8 Ferop. range of indoor D.B. 59-917 (10-45°C) 10.8 Index water FP 50-113°F (10-45°C) 10.8 ondoor unit Total capacity S0-113°F (10-45°C) 10.8 ondoor unit Total capacity FO4-980'1-42 50-6.0 Steffigerant High pressure in. (mm) 7.12 (22.1) Brazed oping dimmeter High pressure in. (mm) 11-18 (25.5) Brazed findimum Circuit Appacity A 16 4 Adamset for how rate G/h 1.0002 11 Adamset for how rate G/h 1.0002 11					
Nominal Power input KW 55.1 Power input KW 9.86 (57) Current input A (57) Ever input KW 9.09 (57) Ever input KW 9.09 (57) Ever input A 10.1 (57) Ever input A 10.8 (57) Ever input A 10.8 (57) Ever input F 50-157% of heat source unit capacity ond pressure learnet measured in anchoir room dB <a> 50-157% of heat source unit capacity ound pressure learnet measured in anchoir room dB <a> 50-16 foriging diameter Low pressure in (mm) 11.16 (22.8) Brazed inculating water Water fow rate Grim 11.6 (2014) Ever input A 20 (2014) Ever input A 20 (2014) Grim 31.7 11.6 (2014) Even input 4.3 2.3 (2014) (201 11.6					
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(57) Current input A 10.1 10.8 eating Index P 59-81% (15-27°C) 10.4 voor unit Total capacity 50-113% (10-45°C) 10.4 ord unit Total capacity 50-113% (10-45°C) 10.4 omorectable Mode/Quanity 80-9407-42 50.0 omorectable Mode/Quanity 60.0 50.0 defigerant High pressure in. (mm) 77.62.2.16 stazed linimum Crocul Ampachy A 16.0 6.0 fainmum Crocul Ampachy A 16.0 6.0 fainmum Crocul Ampachy A 16.0 6.0 fainmum Crocul Ampachy A 16.0 10.00 fainmum Crocul Ampachy A 10.0 10.0 formum Crocul Ampachy A 10.0 10.0 formum Crocul Ampachy A 10.0 10.0 formum Crocul Ampachy A 10.0 10.0 10.0 formum Crocul Ampachy A 10.0 10.0		Deureninnut			0.70
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eating Intel water 9° 50-113° f (10-8°C) odor unt Total capacity 50-103° f (10-8°C) 50-103° f (10-8°C) omnectable Model/Quantity 50-103° f (10-8°C) 50.0 effigerant High pressure in. (mm) 78 (22.2) Brazed inimum Circuit Ampacity A 16 taimenter Low pressure A 25 taimenter (1-80 (25.8) Brazed 16 taimum Overcurrent Protection A 25 crusting water Water flow rate G/h 1,902 Grimin 31.7 m³/h 7.20 Umin 120 cfm 4.2 Pressure drop psi 6.38 44 Operating volume G/m 1,188 - 30.9 18.8 - 50.9 m?h m/h 14.9 - 51.16 10.0 10.0 totage and finish In Grimin 14.8 - 50.9 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 <t< td=""><td></td><td></td><td></td><td></td><td>10.8</td></t<>					10.8
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Immetable Model/Quantity P04-P861-42 ound pressure level (messured in anchoic room) BL sA> 56.0 offgerant High pressure in. (mm) 7/8 (22.2) Brazed ping dimeter Low pressure in. (mm) 1-1/8 (28.5) Brazed inimum Circuit Ampacity A 16 aximum Overcurrent Protection A 25 cruinting water Water flow rate G/m 1,902 Umin 31.7 7.20 m ² /h 20 1/1/8 3.0 pressure drop psi 6.38 4.2 Pressure drop m ² /h 4.5 11.6 opperating volume G/m 1.189 - 3.054 1.189 - 3.054 range G/min 11.9 1.8 - 5.03 1.189 - 3.054 orgenting volume G/h 1.189 - 3.054 1.0 1.0 Case heater KW 1.1.0 1.0 1.0 1.0 Case heater KW - 1.0 1.0 1.0 1.0 1.0	V		۳-		
ound pressure level (measured in an echoic room) dB <a> 66.0 67.6 67.6 67.6 67.6 67.6 67.6 67.6 67.6 67.6 67.6 77.					
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lping diameter Low pressure in, (mn) 1-1/8 (26.58) Brazed inimum Circuit Ampacity A 16 admum Overournent Protection A 25 rculating water G/h 1902 Grimin 31.7 31.7 m ³ /h 7.20 100 L/min 120 6.38 Pressure drop psi 6.38 KPa 4.2 6.38 Operating volume G/h 1.180 ~ 3.054 range G/min 1.88 ~ 50.9 m ³ /h 4.5 ~ 11.6 1.100 Case heater KW 1.10 Case heater KW 1.10 Lubricant KW 1.10 Case heater KW - Lubricant KB 5.0.9 mm 1.450 X80 X50 - Case heater KW - Lubricant Min 1.450 X401/16 X21-11/16 Case heater KW - - Case heater					
Innum Crait Ampacity A 16 faximum Overcurrent Protection A					
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G(min 31.7 m ³ /n 7.20 L/min 120 cfm 4.2 Pressure drop psi 6.38 4.2 Operating volume 6/h 18.8 ~ 50.9 4.4 Operating volume 6/h 19.8 ~ 50.9 19.8 ~ 50.9 Type x Quantity Inverter scool hermetic compressor x 1 Starting method Inverter Motor output kW Case heater 10 Case heater - Lutricant Glavanized steel sheets External finish 57.1/8 x34.11/16 x21.11/16 x1.11/16 x1.11	laximum Overcurrent Pr	rotection		25	
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$\begin{array}{ c c c c } \hline Pressure drop & psi & 6.38 \\ \hline Pressure drop & Qalama & A4 & A$					
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range G/min 19.8 ~ 50.9 m ³ /h 4.5 ~ 11.6 compressor Type x Quantity Inverter Starting method Inverter Motor output kW Case heater kW Lubricant MEL32 External finish Galvanized steel sheets External dimension H x W x D in. mm 14.50 x 880 x 550 rotection devices High pressure protection High pressure protection High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Inverter circuit Over-heat protection Compressor Over-heat protection Inverter circuit Over-heat protection Compressor Over-heat protection Inverter circuit Over-heat protection Compressor Over-heat protection Inverter circuit Over-heat protection Control Indoor LEV and BC controller tet weight Ibs (kg) teat exchanger plate type Vater volume in plate G I 5.0 Water pressure Max. psi I 5.0 Mare pressure Max. psi I 5.0 Water pressure Max. psi		Operating volume			
Image: Sompressor Type x Quantity Inverter Starting method Inverter scroll hermetic compressor x 1 Starting method Inverter Motor output kW Case heater kW Lubricant Galvanized steel sheets External dimension H x W x D in. Starting method Starting method Inverter circuit Galvanized steel sheets in. Starting pressure sensor, High pressure protection Inverter circuit Over-heat protection, Over-ourner protection Compressor Over-heat protection Inverter circuit Over-heat protection Control Indoor LEV and BC controller Iet weight Ibs (kg) 512 (232) Ieat exchanger Image: pressure Max. psi Vater volume in plate G 1.32 I 5.0 MPa 2.0 MPa 2.0 Vater pres					
$ \begin{array}{ c c c } \hline \mbox{Type x Quantity} & \mbox{Inverter scroll hermetic compressor x 1} \\ \hline \mbox{Starting method} & \mbox{Inverter} \\ \hline \mbox{Starting method} & \mbox{Inverter} \\ \hline \mbox{Moto output} & \mbox{kW} & \mbox{Inverter} \\ \hline \mbox{Autor output} & \mbox{kW} & \mbox{Inverter} \\ \hline \mbox{Case heater} & \mbox{kW} & \mbox{Inverter} \\ \hline \mbox{Lubricant} & \mbox{MEL32} \\ \hline \mbox{Lubricant} & \mbox{MEL32} \\ \hline \mbox{Starting ressure sensor High pressure seles heets} \\ \hline \mbox{Starting ressure protection} & \mbox{Inverter} & \mbox{Starting ressure sensor, High pressure switch at 4.15 MPa (601 psi) \\ \hline \mbox{Inverter circuit} & \mbox{Store} & \m$		range			
Starting method Inverter Motor output kW 11.0 Case heater kW	`omprosoor	Tupo y Quentity	m /n		
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 Protection devices High pressure protection High pressure protection Inverter circuit Over-heat protection, Over-current protection Compressor Over-heat protection Control Indoor LEV and BC controller ket weight Ibs (kg) 512 (232) feat exchanger Ibs (kg) 200 Water volume in plate G 1.32 In 5.0 2.0 IIC circuit (HIC: Heat Inter-Changer) - - Orawing External KE94G421 Wring Document Installation Manual KE94G421 Document Installation Manual	ompressor				
Case heater kW - Lubricant MEL32 External finish Galvanized steel sheets External dimension H x W x D in. mm 1.450 x80 x 550 Protection devices High pressure protection Inverter circuit Over-heat protection, Over-current protection Compressor Over-heat protection Control Indoor LEV and BC controller Refrigerant Type x original charge Control Indoor LEV and BC controller Vater volume in plate G I 1.32 Vater pressure Max psi MPa 2.0 HIC circuit (HIC: Heat Inter-Changer) - Orawing External Wring KL94C244 Wring KL94C244 Wring KL94C244 Wring Cateront Accessory Details refer to External Drw			1.1.47		
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-heat protection Compressor Over-heat protection Refrigerant Type x original charge Ver volume in plate Ibs (kg) Vater volume in plate G IL circuit (HIC: Heat Inter-Changer) - Orawing External Kernal MPa Standard Document Ittachment Accessory					
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 Compressor Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Control Indoor LEV and BC controller Verter volume in plate G 1/2 Vater volume in plate G 1/32 Indicating 1/1 1/32 Vater pressure Max. psi 290 Mare pressure Max. psi 2.0 Ming KL94C244 KL94C244 Wring KE94G421 Installation Manual Standard Document Installation Manual			KVV		
External dimension H x W x D in. $57-1/8 \times 34-11/16 \times 21-11/16$ 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 Over-heat protection Compressor Over-heat protection Over-heat protection Refrigerant Type x original charge R410A x 13 lbs + 4 oz (6.0 kg) Control Indoor LEV and BC controller Verter volume in plate 6 Vater volume in plate 6 Vater volume in plate 9 Vater pressure Max. 9 MPa 290 MIC circuit (HIC: Heat Inter-Changer) - Orawing External Wring KE946421 Standard Document Accessory Details refer to External Drw		Lubricant			
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 512 (232) feat exchanger Ibs (kg) 512 (232) Vater volume in plate G 1.32 Water pressure Max. psi 5.0 Water pressure Max. psi 290 MPa 2.0 2.0 HIC circuit (HIC: Heat Inter-Changer) - - Orawing External KL94C244 Wiring KL94C244 Kl94G421 Standard Document Installation Manual Accessory Details refer to External Drw			1.		
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 Type x original charge R410A x 13 lbs + 4 oz (6.0 kg) Control Indoor LEV and BC controller Net weight 512 (232) Heat exchanger Ibs (kg) Water volume in plate G I 5.0 Water pressure Max. psi MPa 290 MPa 2.0 HIC circuit (HIC: Heat Inter-Changer) - Orawing KL94C244 Wiring KL94C244	xternal dimension H x W	VxD			
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 Vet weight Ibs (kg) 512 (232) Heat exchanger plate type Water volume in plate G 1.32 Water pressure Max. psi 290 MPa 2.0 HIC circuit (HIC: Heat Inter-Changer) - Oraving KL94C244 Wiring KL94C244 Standard Document Accessory Details refer to External Drw					
	rotection devices		n		(601 psi)
Type x original charge R410A x 13 lbs + 4 oz (6.0 kg) Control Indoor LEV and BC controller let weight 512 (232) leat exchanger plate type Water volume in plate G I 5.0 Water pressure Max. psi MPa 290 IIC circuit (HIC: Heat Inter-Changer) - Fextmal KL94C244 Wring KE94G421 itandard Document Accessory Details refer to External Drw					
Control Indoor LEV and BC controller let weight 512 (232) leat exchanger plate type Water volume in plate G I 5.0 Water pressure Max. psi IC circuit (HIC: Heat Inter-Changer) - rrawing KEsternal Wring KE94G421 tandard Document Itachment Accessory					
$ \begin{array}{c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	efrigerant				
leat exchanger Water volume in plate G 1.32 I 5.0 Water pressure Max. psi IIC circuit (HIC: Heat Inter-Changer) - brawing External Wiring KL94C244 Wiring KE94G421 Standard Document Accessory Details refer to External Drw		Control			
Water volume in plate G 1.32 I 5.0 Water pressure Max. psi psi 290 MPa 0.0 IIC circuit (HIC: Heat Inter-Changer) - Orawing External Wiring KL94C244 Wiring KE946421 Standard Document Accessory Details refer to External Drw	let weight		lbs (kg)	512 (232)	
Water volume in plate G 1.32 I 5.0 Water pressure Max. psi psi 290 MPa 2.0 IIC circuit (HIC: Heat Inter-Changer) - prawing External Wiring KL94C244 Wiring KE94G421 Standard Document Accessory Details refer to External Drw	leat exchanger			plate type	
Water pressure Max. psi MPa 290 AllC circuit (HIC: Heat Inter-Changer) 2.0 Orawing External - Wring KL94C244 Wiring KE94G421 Standard Document Accessory Details refer to External Drw		Water volume in plate	G	1.32	
MPa 2.0 IIC circuit (HIC: Heat Inter-Changer) - brawing External Wiring KL94C244 Wiring KE94G421 standard Document ttachment Accessory			1	5.0	
MPa 2.0 IIC circuit (HIC: Heat Inter-Changer) - brawing External Wiring KL94C244 Wiring KE94G421 standard Document ttachment Accessory		Water pressure Max.	psi		
HIC circuit (HIC: Heat Inter-Changer) - Drawing External KL94C244 Wiring KE94G421 Standard Document Installation Manual Ittachment Accessory Details refer to External Drw		1			
External KL94C244 Wring KE94G421 Standard Document Installation Manual ttachment Accessory Details refer to External Drw	IC circuit (HIC: Heat Int	er-Changer)			
Wiring KE94G421 Standard Document Installation Manual ttachment Accessory Details refer to External Drw					
Document Installation Manual ttachment Accessory Details refer to External Drw					
ttachment Accessory Details refer to External Drw	tandard				
		_, 10000001 y		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1	
	-puonai parto				
Main BC controller: CMB-P108,1012,1016NU-JA1, CMB-P1016NU-KA1					NU-KA1
Sub BC controller: CMB-P104,108NU-KB1				Sub BC controller: CMB-P104,108NU-KB1	
temarks Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other it ferred 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°FD.B. (40°CD.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.	.emarks			ferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change withor The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.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.	ut notice. (40°CD.B.)
When installing insulation material around both water and refrigerant piping, follow the installation manua The cooling tower and the water circuit must be a closed circuit (water is not exposed to the atmosphere)				When installing insulation material around both water and refrigerant piping, follow the	e installation manual. to the atmosphere).
otes: Unit	otes:				Unit converter
		ana (Taat aav -1141		1000)	

Notes:	ł	Unit converter
 Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C) Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C) 	BTU/h cfm Ibs	=kW x 3,412 =m ³ /min x 35.31 =kg/0.4536
		specification data is to rounding variation.

Heat Source Model	I		PQRY-P192	ZLMU-A1
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575	5 V ±10% 60 Hz
Cooling capacity	*1		192,0	
(Nominal)	-	kW	56.3	
	Power input	kW	15.0	
(Dete d	(575) Current input	A	16.7	
(Rated	1)	BTU/h	183,0	
	Devver in nut	kW kW	53.6	
	(575) Current input	A	13.87	<u>14.19</u> 15.8
Temp. range of	Indoor	W.B.	15.4 59~75°F (1	
cooling Inter °F			50~113°F (1	
Heating capacity	*2		215,0	
(Nominal)	E	kW	63.0	
(Norminal)	Power input	kW	11.9	
	(575) Current input	A	13.2	
(Rated		BTU/h	205,0	
(*	· /	kW	60.1	
	Power input	kW	10.97	11.56
	(575) Current input	А	12.2	12.8
Temp. range of	Indoor	D.B.	59~81°F (1	
neating	Inlet water	°F	50~113°F (1	,
ndoor unit	Total capacity	·	50~150% of heat so	
connectable	Model/Quantity		P04~P96	
	el (measured in anechoic room)	dB <a>	58.0	
Refrigerant	High pressure	in. (mm)	7/8 (22.2)	
piping diameter	Low pressure	in. (mm)	1-1/8 (28.58	
Minimum Circuit Am	· ·	A	20	•
Maximum Overcurre		A	30	
Circulating water	Water flow rate	G/h	1,90	
č		G/min	31.7	
		m ³ /h	7.20	
		L/min	120	
		cfm	4.2	
	Pressure drop	psi	6.38	
	i lessare diop	kPa	44	
	Operating volume	G/h	1,189~1	3 054
	range	G/min	19.8 ~	
	lange	m ³ /h	4.5 ~ 1	
Compressor	Type x Quantity		Inverter scroll hermet	
Compresser	Starting method		Inverter sereit harmet	
	Motor output	kW	12.4	
	Case heater	kW		
	Lubricant		MEL	32
External finish	Zabrioant		Galvanized st	
External dimension	H×W×D	in.	57-1/8 x 34-11/1	
		mm	1,450 x 88	
Protection devices	High pressure protection		High pressure sensor, High pressu	
	Inverter circuit		Over-heat protection, Ov	
	Compressor		Over-heat p	
Refrigerant	Type x original charge		R410A x 13 lbs +	
	Control		Indoor LEV and	
Net weight	Control	lbs (kg)	512 (2	
Heat exchanger		100 (Ng/	plate th	
out oxonanyer	Water volume in plate	G	1.32	
	Trater volume in piale	Г	5.0	
	Water pressure Max.	psi	5.0	
	Trater pressure wax.	MPa	2.0	
HIC circuit (HIC: He	eat Inter-Changer)			
Drawing	External		- KL94C	244
2	Wiring		KE94G	
Standard	Document		Installation	
attachment	Accessory		Details refer to l	
Optional parts	7.0000001y		joint: CMY-Y102SS-G2, CMY-	
			-	
			Main BC controller: CMB-P108,1012,1	
			Sub BC controller: CME	3-P104,108NU-KB1
Remarks			Details on foundation work, duct work, insulation work, electrica ferred to the Installation Manual. Due to continuing improvement, above specifications may be s The ambient temperature of the Heat Source Unit needs to be i The ambient relative humidity of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wate Be sure to provide interlocking for the unit operation and water Install the supplied insulation material to the unused drain-sock	ubject to change without notice. kept below 104°FD.B. (40°CD.B.) be kept below 80%. r inlet piping of the unit. circuit.
			When installing insulation material around both water and refrig	erant piping, follow the installation manual.
				erant piping, follow the installation manual.
			When installing insulation material around both water and refrig	jerant piping, follow the installation manual. (water is not exposed to the atmosphere).
Notes:	onditions (Test conditions are b		When installing insulation material around both water and refric The cooling tower and the water circuit must be a closed circuit	erant piping, follow the installation manual.

 Notes:
 Unit converter

 1. Nominal cooling conditions (Test conditions are based on AHRI 1230)
 BTU/h
 =kW x 3,412

 Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 cfm
 =m³/min x 35.31

 Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)
 lbs
 =kg/0.4536

 *Above specification data is subject to rounding variation.

Heat Source Model Indoor Model			PQRY-P144 Non-Ducted	ZSLMU-A1 Ducted	
Power source			3-phase 3-wire 5		
Cooling capacity	*1	BTU/h	3-pnase 3-wire 5		
Nominal)	I	kW	42		
(Norman)	Power input	kW	7.		
(57	5) Current input	A	7.		
(Rated)	5) Current input	BTU/h	137		
(Italeu)		kW		.2	
	Power input	kW	6.53	7.72	
(57	5) Current input	A	7.2	8.6	
Temp. range of	Indoor	W.B.	7.2 59~75°F		
cooling	Inlet water	vv.в. ⁰F	59~75 F		
Heating capacity	*2		50~113 F 160		
	2	kW			
(Nominal)	Deres a la ser et	kW	46		
·	Power input		7.		
	5) Current input	A	8		
(Rated)		BTU/h	152		
		kW		.5	
	Power input	kW	6.86	7.22	
	5) Current input	А	7.6	8.0	
Temp. range of	Indoor	D.B.	59~81°F		
heating	Inlet water	٩F	50~113°F		
ndoor unit	Total capacity		50~150% of heat s		
connectable	Model/Quantity		· · · · · · · · · · · · · · · · · · ·	06/1~36	
Sound pressure level (r	neasured in anechoic room)	dB <a>	49		
Refrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed	
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5		
Set Model					
Model			PQRY-P72ZLMU-A1	PQRY-P72ZLMU-A1	
Minimum Circuit Ampa	city	А	5	5	
Maximum Overcurrent		A	15	15	
Circulating water	Water flow rate	G/h	1,522 ·		
		G/min	25.4		
		m ³ /h	5.76		
		L/min			
		cfm	3.4 -		
	Pressure drop	psi	3.48	3.48	
	Flessure drop	kPa	24	24	
	Our constitution of home of	G/h			
	Operating volume		793 + 793 ~		
	range	G/min	13.2 + 13.2		
~		m ³ /h	3.0 + 3.0 -		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1	
	Starting method	1	Inverter	Inverter	
	Motor output	kW	4.3	4.3	
	Case heater	kW	-	-	
	Lubricant		MEL32	MEL32	
External finish		1	Galvanized steel sheets	Galvanized steel sheets	
External dimension H >	WxD	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	n	High pressure sensor, High pressure switch at 4.15 MPa (601	High pressure sensor, High pressure switch at 4.15 MPa (6	
FIDIECTION DEVICES	riigh pressure protection		psi)	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)	
J	Control			d BC controller	
Net weight		lbs (kg)	411 (186)	411 (186)	
Heat exchanger			plate type	plate type	
	Water volume in plate	G	1.32	1.32	
		Ĭ	5.0	5.0	
	Water pressure Max.	psi	290	290	
	Water pressure Max.	MPa	290	290	
HIC circuit (HIC: Heat I	nter Changer)	ווורמ	2.0	2.0	
		in ()	- E/0 (45.00) Decert	- 5/8 (15.88) Brazed	
Pipe between unit and	High pressure	in. (mm)	5/8 (15.88) Brazed		
distributor	Low pressure	in. (mm)	-	3/4 (19.05) Brazed	
Drawing	External		KL94		
a	Wiring		KE94G421	KE94G421	
Standard	Document			n Manual	
attachment	Accessory			External Drw	
Optional parts				kit: CMY-Q100CBK2	
			joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012		
Demontre			Sub BC controller: Cl		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be re- ferred 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°FD.B. (40°CD.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 wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-so When installing insulation material around both water and ref	r circuit. ted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.	
			The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-so	r circuit. ted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.	
lotes;			The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-so When installing insulation material around both water and ref	r circuit. ted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.	

Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

BTU/h =kW x 3,412 cfm =m³/min x 35.31 =kg/0.4536 lbs

leat Source Model				
			PQRY-P168 Non-Ducted	ZSLMU-A1 Ducted
Power source			3-phase 3-wire 5	
Cooling capacity	*1	BTU/h	168.	
(Nominal)		kW	49	
. ,	Power input	kW	9.3	33
(575)	Current input	А	10	.4
(Rated)		BTU/h	161,	000
		kW	47	.2
	Power input	kW	8.58	9.22
(575)	Current input	А	9.5	10.2
Temp. range of	Indoor	W.B.	59~75°F (
cooling	Inlet water	°F	50~113°F	(10~45°C)
Heating capacity	*2	BTU/h	188.	000
(Nominal)		kW	55	.1
	Power input	kW	9.3	34
(575)	Current input	А	10	.4
(Rated)		BTU/h	179,	000
		kW	52	.5
	Power input	kW	8.60	8.03
(575)	Current input	А	9.5	8.9
Temp. range of	Indoor	D.B.	59~81°F (15~27°C)
neating	Inlet water	°F	50~113°F	(10~45°C)
ndoor unit	Total capacity		50~150% of heat s	
connectable	Model/Quantity		P04~P9	
	asured in anechoic room)	dB <a>	50	
Refrigerant	High pressure	in. (mm)	7/8 (22.2	
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5	
Set Model		,		
Model			PQRY-P96ZLMU-A1	PQRY-P72ZLMU-A1
Minimum Circuit Ampacit	V	А	7	5
Maximum Overcurrent Pr		A	15	15
Circulating water	Water flow rate	G/h	1,522 +	
		G/min	25.4 +	
		m ³ /h	5.76 +	
		L/min	96 +	
		cfm	3.4 +	
	Pressure drop	psi	3.48	3.48
	Flessure drop	kPa	24	24
	On exeting yeak men			
	Operating volume	G/h	793 + 793 ~ 1	
	range	G/min	13.2 + 13.2 -	
		m ³ /h	3.0 + 3.0 ~	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	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 V	V 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
		,	High pressure sensor, High pressure switch at 4.15 MPa (601	High pressure sensor, High pressure switch at 4.15 MPa (
Protection devices	High pressure protection		psi)	psi)
Protection devices	High pressure protection		F7	psi)
Protection devices	High pressure protection		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
Protection devices	. .			
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
Protection devices	Inverter circuit Compressor		Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)
	Inverter circuit Compressor Type x original charge	lbs (kg)	Over-heat protection, Over-current protection Over-heat protection	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)
Refrigerant Net weight	Inverter circuit Compressor Type x original charge	lbs (kg)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller
Refrigerant	Inverter circuit Compressor Type x original charge Control	lbs (kg) G	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186)
Refrigerant Net weight	Inverter circuit Compressor Type x original charge		Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type
Refrigerant Net weight	Inverter circuit Compressor Type x original charge Control Water volume in plate	G	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 5.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0
Refrigerant Net weight	Inverter circuit Compressor Type x original charge Control	G I psi	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 9 late type 1.32 5.0 290	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290
Refrigerant <u>Net weight</u> Heat exchanger	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	G	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 5.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0
Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Int	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer)	G I psi MPa	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 -
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) Indoor LEV and 9 plate type 1.32 5.0 290 2.0 2.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 200 - 3/4 (19.05) Brazed
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure	G I psi MPa	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) Indoor LEV and 9 plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 -	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) Indoor LEV and 911 (186) 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KL94 KE94G421 KL94	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421
Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 91 ate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Details refer to	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw
Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Over-heat protection Indoor LEV an Alt10A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KL94 Alt (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual D External Drw kit CMY-Q100CBK2
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 91 ate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Details refer to	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual D External Drw kit CMY-Q100CBK2
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Over-heat protection Indoor LEV an Alt10A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KL94 Alt (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual • External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed Other Sector Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual.	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 .,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 0 1.stallatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 AB-P104,108NU-KA1 AB-P104,108NU-KA1 awitch, and other items shall be subject to change without notice.
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed Other Sector State Sector Other Sector 1.32 5.0 290 2.0 - State Sector State Sector Sector Sector Optimized Sector Controller: CMP-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - 7/8 (22.2) Brazed C251 KE94G421 Nanual • External Drw kit: CMY-0100CBK2 '-Y102LS-G2, CMY-R160-J1 . ,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statis refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - 7/8 (22.2) Brazed C251 KE94G421 Nanual • External Drw kit: CMY-0100CBK2 '-Y102LS-G2, CMY-R160-J1 . ,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 0 1.stallatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 M Manual External Drw kit: CMY-Q100CBK2 - - C251 KE94G421 M Manual External Drw kit: CMY-Q100CBK2 - - Subject I ochange without notice. subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%.
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed Other Sector State Sector Base Sector State Sector State Sector State Sector State Sector State Sector Sector State Sector State Sector State Sector State Sector Sector Sector Installation Manual. Details on foundation work, duct work, insulation work, electrifered to the Installat	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) year and the state of the sta
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 0 1.stallatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit.
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statils refer to Heat Source Twinnig joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wai Be sure to provide interlocking for the unit operation and wate	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 M Manual External Drw kit: CMY-Q100CBK2 - - Subject to change without notice. kep104/08NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cide to the low pressure side of the heat source unit.
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statils refer to Details refer to Nain BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Ma-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. a kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. kket. igerant piping, follow the installation manual.
Refrigerant <u>let weight</u> -leat exchanger <u>lIC circuit (HIC: Heat Int</u> ² ipe between unit and <u>listributor</u> Drawing Standard <u>attachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State State KE94G421 Installation Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrifered to the Installation Manual. Due to continuing improvement, above specifications may be The Heat Source Unit needs to be<	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Ma-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. a kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. kket. igerant piping, follow the installation manual.
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Intr</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts Remarks	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statils refer to Details refer to Nain BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intr Pipe between unit and distributor Drawing Standard attachment Optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statils refer to Details refer to Nain BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Ma-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. a kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. kket. igerant piping, follow the installation manual.
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intel Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Notes: .Nominal cooling conditio	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State State KE94G421 Installatio Details refer to Details refer to Details refer to Sub BC controller: CMB-P108,1012 Sub BC controller: CMP-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-108,1012 <	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Integrity of the sector o	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water ter	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statis refer KE94G421 Installatio Details refer joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller:	Over-heat protection Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 ABP 104 wing, power source switch, and other items shall be subject to change without notice. to be kept below 80%. ted to the low pressure side of the heat source unit. Unit converter BTU/h =kWX x 3.412
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Intel Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks Nominal cooling conditit Indoor: 81°FD.B./66°FW Nominal heating conditit	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G J psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water ter ased on AHRI	Over-heat protection, Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 0 1.32 1.32 1.32 290 2.0 1.32 1.32 1.32 1.32 2.0 2.0 1.132 1.32 1.32 1.32 2.0 2.0 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.133 1.134 1.132	Over-heat protection Over-heat protection Over-heat protection Over-heat protection Over-heat protection Att10A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 - C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 - - Subject to change without notice. explore without notice. explore below 80%. terinlet piping of the unit. colspan="2">- Cdl to the low pressure

Heat Source Model			PQRY-P192		
Indoor Model			Non-Ducted		ucted
Power source	*1	BTU/h	3-phase 3-wire 5		
Cooling capacity	-1	kW	192.		
(Nominal)	Power input	kW	11.		
(575)	Current input	A			
(Rated)	Current input	A BTU/h	183.		
(Raled)		kW			
	Deuren innut			.6	0.00
(575)	Power input Current input	kW	10.40		0.98
(575)		A W.B.	11.6		2.2
Temp. range of	Indoor	<u>vv.в.</u> °F	<u>59~75°F (</u> 50~113°F		
cooling	Inlet water *2	BTU/h			
Heating capacity	"Z		215.		
Nominal)	D : :	kW	63		
	Power input	kW	11.		
(575)	Current input	A	12		
(Rated)		BTU/h	205.		
		kW	60		
	Power input	kW	10.16		3.90
(575)		A	11.3		9.9
Temp. range of	Indoor	D.B.	<u>59~81°F (</u>		
eating	Inlet water	°F	50~113°F		
ndoor unit	Total capacity		50~150% of heat s		
onnectable	Model/Quantity		P04~P9		
	asured in anechoic room)	dB <a>		.0	
Refrigerant	High pressure	in. (mm)	7/8 (22.2		
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5	i8) Brazed	
Set Model					
lodel			PQRY-P96ZLMU-A1	PQRY-PS	96ZLMU-A1
linimum Circuit Ampacit	/	А	7		7
Aaximum Overcurrent Pr	otection	А	15		15
Circulating water	Water flow rate	G/h	1,522 -	- 1,522	
-		G/min	25.4 -		
		m ³ /h	5.76 +		
		L/min	96 -		
		cfm	3.4 -		
	Pressure drop	psi	3.48		3.48
	Pressure drop				
	On south a such as a	kPa	24		24
	Operating volume	G/h	793 + 793 ~ 1		
	range	G/min	13.2 + 13.2 ~		
		m ³ /h	3.0 + 3.0 ~		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1		metic compressor x 1
	Starting method		Inverter	Inv	/erter
	Motor output	kW	6.0	(6.0
	Case heater	kW	-		-
	Lubricant		MEL32	M	EL32
External finish	-		Galvanized steel sheets	Galvanized	d 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 34-1	11/16 x 21-11/16
		mm	1,100 x 880 x 550		880 x 550
			High pressure sensor, High pressure switch at 4.15 MPa (601		
Protection devices	High pressure protection	1	psi)		osi)
	Inverter circuit		Over-heat protection, Over-current protection		Over-current protection
	Compressor		Over-heat protection, Over-current protection		at protection
Defining and					s + 1 oz (5.0 kg)
Refrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		S + 1 02 (5.0 Kg)
1-4	Control	the deal	Indoor LEV an		(400)
Net weight		lbs (kg)	411 (186)		(186)
leat exchanger			plate type		e type
	Water volume in plate	G	1.32		.32
		1	5.0		5.0
	Water pressure Max.	psi	290		290
		MPa	2.0		2.0
			-		-
HIC circuit (HIC: Heat Inte	er-Changer)				05) Brazed
	er-Changer) High pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.0	
Pipe between unit and		in. (mm) in. (mm)	3/4 (19.05) Brazed		2) Brazed
Pipe between unit and listributor	High pressure		3/4 (19.05) Brazed - - KL94	7/8 (22.	2) Brazed
Pipe between unit and listributor	High pressure Low pressure		-	7/8 (22. C251	2) Brazed 4G421
Pipe between unit and <u>distributor</u> Drawing	High pressure Low pressure External			7/8 (22. C251 KE9	
Pipe between unit and distributor Drawing Standard	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio	7/8 (22. C251 KE9 n Manual	
Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure Low pressure External Wiring		KL94 KE94G421 Installatio Details refer to	7/8 (22. C251 KE9 n Manual p External Drw	
Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning	7/8 (22. C251 KE9 n Manual External Drw kit CMY-Q100CBK2	
Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1	4G421
Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1	4G421
Pipe between unit and listributor Drawing Standard Ittachment	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	7/8 (22. C251 KE9 n Manual DExternal Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1	4G421
Pipe between unit and <u>listributor</u> Drawing Standard <u>uttachment</u> Dptional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: Cf	7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1	4G421
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri	7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1	4G421
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual.	7/8 (22. C251 KE9 n Manual b External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 dB-P104,108NU-KB1 cal wiring, power source switc	4G421 h, and other items shall be r
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CT Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be	7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not	4G421 h, and other items shall be r
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C	4G421 h, and other items shall be r
HIC circuit (HIC: Heat Inter Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC c	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C	4G421 h, and other items shall be r
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not s kept below 104°FD.B. (40°C to be kept below 80%.	4G421 h, and other items shall be r
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit.	4G421 h, and other items shall be r
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient tenders to be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit.	4G421 h, and other items shall be r ice. D.B.)
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne	7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of	4G421 h, and other items shall be r ice. D.B.)
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 /B-P104,108NU-KB1 cal wiring, power source switc subject to change without not te kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of ket.	4G421 h, and other items shall be i ice. D.B.) of the heat source unit.
ipe between unit and istributor rrawing tandard ttachment optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient tenter thus the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-sood When installing insulation material around both water and refi	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be i ice. D.B.) of the heat source unit.
tipe between unit and istributor brawing standard ttachment optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be r ice. D.B.) of the heat source unit.
ipe between unit and istributor rrawing tandard ttachment optional parts	High pressure Low pressure External Wiring Document		KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient tenter thus the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-sood When installing insulation material around both water and refi	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be i ice. D.B.) of the heat source unit. illation manual. e atmosphere).
ipe between unit and istributor irawing tandard ttachment pptional parts temarks	High pressure Low pressure External Wiring Document Accessory	in. (mm)	KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient telative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refi The cooling tower and the water circuit must be a closed circu	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be i ice. D.B.) of the heat source unit. illation manual. a atmosphere).
Pipe between unit and listributor Drawing Standard <u>tttachment</u> Dptional parts Remarks Remarks	High pressure Low pressure External Wiring Document Accessory	in. (mm)	KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit needs to be The Heat Source Unit needs to be Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refi The cooling tower and the water circuit must be a closed circu 1230)	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be i ice. D.B.) of the heat source unit. illation manual. e atmosphere).
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts Remarks Remarks	High pressure Low pressure External Wiring Document Accessory	in. (mm)	KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient tentre humidity of the Heat Source Unit needs to be the ambient tentre humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and reff The cooling tower and the water circuit must be a closed circu	7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. tet to the low pressure side of ket. igerant piping, follow the insta	4G421 h, and other items shall be ice. D.B.) of the heat source unit. illation manual. a atmosphere).

Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperatu 2.Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

=m³/min x 35.31 cfm lbs =kg/0.4536

Indoor Model Power source			PQRY-P216 Non-Ducted		ucted
			3-phase 3-wire 5		
Cooling capacity	*1	BTU/h	216		
Nominal)		kW		.3	
,	Power input	kW	14		
(575	i) Current input	A		5.6	
(Rated)	/1 • •••• ••••	BTU/h	206		
(kW		0.4	
	Power input	kW	12.93		3.24
(575	i) Current input	A	14.4		4.7
emp. range of	Indoor	W.B.	59~75°F		14.7
cooling	Inlet water	°F	50~113°F		
leating capacity	*2		243		
	2	kW		.2	
Nominal)	Deven in net				
(Power input	kW	12		
(575) Current input	А	14		
(Rated)		BTU/h	232		
		kW	68		
	Power input	kW	11.88		0.35
(575	 Current input 	А	13.2	1	1.5
emp. range of	Indoor	D.B.	59~81°F	(15~27°C)	
eating	Inlet water	°F	50~113°F	(10~45°C)	
ndoor unit	Total capacity			ource unit capacity	
onnectable	Model/Quantity		P04~P96/2~50 (Connectable b		:)
	easured in anechoic room)	dB <a>	F04~F90/2~50 (Connectable b		4
Refrigerant	High pressure	in. (mm)	7/8 (22,2) Brazed (1-1/8 (28,58) Brazed		65 m)
					uu III)
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5	58) Brazed	
Set Model					0071 141 1 4 1
<u>Aodel</u>			PQRY-P120ZLMU-A1		96ZLMU-A1
Ainimum Circuit Ampaci		А	11		7
Maximum Overcurrent P	rotection	А	15		15
Circulating water	Water flow rate	G/h	1,522 -	+ 1,522	
-		G/min	25.4 -		
		m ³ /h	5.76 -	+ 5.76	
		L/min	96 -		
		cfm		+ 3.4	
	Pressure drop	psi	3.48		3.48
	Fressure drop				
	0	kPa	24		24
	Operating volume	G/h	793 + 793 ~ 7		
	range	G/min	13.2 + 13.2 -	~ 31.7 + 31.7	
		m ³ /h	3.0 + 3.0 -	~ 7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll herr	netic compressor x 1
	Starting method		Inverter	Inverter	
	Motor output	kW	7.7		6.0
	Case heater	kW	-		-
	Lubricant		MEL32	M	EL32
External finish	Eddicant		Galvanized steel sheets		d steel sheets
	Al v D	in	43-5/16 x 34-11/16 x 21-11/16		11/16 x 21-11/16
		in.			
External dimension H x V	IT X B	mm	1,100 x 880 x 550	1,100 X	880 x 550
					ressure switch at 4-15 MPa (F
	High pressure protection			High pressure sensor, High pr	
External dimension H x V			psi)	k	psi)
External dimension H x V				k	
External dimension H x V	High pressure protection		psi)	Over-heat protection,	psi)
External dimension H x V Protection devices	High pressure protection		psi) Over-heat protection, Over-current protection Over-heat protection	Over-heat protection, Over-heat protection	osi) Over-current protection at protection
External dimension H x V Protection devices	High pressure protectio Inverter circuit Compressor Type x original charge		psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	Over-heat protection, Over-heat protection, Over-hea R410A x 11 lb	over-current protection
External dimension H x V Protection devices Refrigerant	High pressure protection	n	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an	Over-heat protection, Over-heat R410A x 11 lb d BC controller	osi) Over-current protection at protection os + 1 oz (5.0 kg)
External dimension H x V Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge		psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186)	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411	Dosi) Over-current protection at protection bis + 1 oz (5.0 kg) (186)
External dimension H x V Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge Control	n Ibs (kg)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection bs + 1 oz (5.0 kg) (186) te type
External dimension H x V Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge	n	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection is + 1 oz (5.0 kg) (186) ie type 1.32
External dimension H x V Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge Control	n Ibs (kg) G I	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection ss + 1 oz (5.0 kg) (186) te type .32 5.0
External dimension H x V	High pressure protectio Inverter circuit Compressor Type x original charge Control	n Ibs (kg) G I psi	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290	Ver-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection st protection (186) (186) (182) (32) 5.0 (290)
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	n Ibs (kg) G I	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	Ver-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection ss + 1 oz (5.0 kg) (186) te type .32 5.0
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	n Ibs (kg) G I psi	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290	A Controller Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection st protection (186) (186) (182) 5.0 290
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Int	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	n Ibs (kg) G I psi	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat	Over-current protection at protection st protection (186) (186) (186) (200 2.0
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer)	n Ibs (kg) G I psi MPa	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 2 3/4 (19.0	Over-current protection at protection at protection (186) (186) (200 200 2.0
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and distributor	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 2 3/4 (19.0 7/8 (22.	Over-current protection at protection at protection is + 1 oz (5.0 kg) (186) (186) 1.32 5.0 290 2.0 - 05.0 Brazed
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and distributor	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 3/4 (19.0 7/8 (22.	Over-current protection at protection at protection at protection at protection (186) (186) (186) (186) (200 (2.0) - 05) Brazed (2) Brazed
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 3/4 (19.0 7/8 (22. C251 KE9	Over-current protection at protection at protection is + 1 oz (5.0 kg) (186) (186) 1.32 5.0 290 2.0 - 05.0 Brazed
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and <u>distributor</u> Drawing Standard	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 3/4 (19.0 7/8 (22. C251 KE9 n Manual	Over-current protection at protection at protection at protection at protection (186) (186) (186) (186) (200 2:0 - 05) Brazed 2) Brazed
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to	Over-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual b External Drw	Over-current protection at protection at protection at protection at protection (186) (186) (186) (186) (200 2:0 - 05) Brazed 2) Brazed
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Cover-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 0 External Drw 9 kit CMY-Q100CBK2	Over-current protection at protection at protection at protection at protection (186) (186) (186) (186) (200
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to	Cover-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 0 External Drw 9 kit CMY-Q100CBK2	Over-current protection at protection at protection at protection at protection (186) (186) (186) (186) (200
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.5) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	Over-heat protection, Over-heat Qver-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual D External Drw kit: CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1	opsi) Over-current protection at protection at protection 11 protection it protection (186) it protection (190) it protection (200) it protection (2) Brazed (2) Brazed (4G421 it protection
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Int</u> Pipe between unit and <u>tistributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.5) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012	Over-heat protection, Over-heat Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual O External Drw 9 kit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1	opsi) Over-current protection at protection at protection 11 protection it protection (186) it protection (190) it protection (200) it protection (2) Brazed (2) Brazed (4G421 it protection
External dimension H x V Protection devices Refrigerant leat weight leat exchanger leat exchanger leat exchanger listributor Drawing Standard ttachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.5) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	Over-heat protection, Over-heat Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual O External Drw 9 kit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1	opsi) Over-current protection at protection at protection 11 protection at protection (186) (186) (186) (186) (186) (186) (186) (186) (200) (200) (200)
External dimension H x V Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and listributor Drawing Standard Htachment Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.5) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012	Over-heat protection, Over-heat Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 5 External Drw 9 kit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J11 2,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1	opsi) Over-current protection 1t protection 1 1st protection 1 1(186) 1 1(186) 1 1(186) 1 1(186) 1 200 2 200 2 200 2 2.0 - 2.0 Brazed 2 2.1 Brazed 2
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CM	Over-heat protection, Over-heat Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual D External Drw y kit: CMY-Q100CBK2 2,1016NU-JA1, CMB-P1016NU-KA1 WB-P104,108NU-KB1 wer source switch, and other items	opsi) Over-current protection 1t protection 1 1st protection 1 1(186) 1 1(186) 1 1(186) 1 1(186) 1 200 2 200 2 200 2 2.0 - 2.0 Brazed 2 2.1 Brazed 2
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P1	Over-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat plat 1 2 2 3/4 (19.0 7/8 (22.0 C251 KE9 n Manual b External Drw jkit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 wB-P104,108NU-KB1 bwer source switch, and other items hange without notice.	opsi) Over-current protection 1t protection 1 1st protection 1 1(186) 1 1(186) 1 1(186) 1 1(186) 1 200 2 200 2 200 2 2.0 - 2.0 Brazed 2 2.1 Brazed 2
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 blat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual b External Drw kit: CMV-0100CBK2 r/102LS-62, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 wB-P104,108NU-KB1 bwer source switch, and other items nange without notice. 104°FD.B. (40°CD.B.)	opsi) Over-current protection 1t protection 1 1st protection 1 1(186) 1 1(186) 1 1(186) 1 1(186) 1 200 2 200 2 200 2 2.0 - 2.0 Brazed 2 2.1 Brazed 2
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KE94G421 Installatio Details refer ts KE94G421 Installatio Details refer ts KE94G421 Installatio Details refer ts Betails on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to cl The ambient temperature of the Heat Source Unit needs to be kept below	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 IN Manual 5 External Drw 9 kit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1 2,1016NU-KA1 wB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104*FD.B. (40*CD.B.) alow 80%.	Over-current protection 1t protection st protection 1 (186) 1 (186) 1 (186) 1 (186) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 21 (180) 1 (180) 1 (180) 1 (180) 1 (180) 1 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180)
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Details refer to Heat Source Twinning joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject o c The ambient relative humidity of the Heat Source Unit needs to be kept below The ambient relative humidity of the Heat Source Unit needs to be kept below The Heat Source Unit needs to be kept below The Manuel and on to be installed at outdoor. Be sure to mount	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 IN Manual 5 External Drw 9 kit CMY-Q100CBK2 (-Y102LS-G2, CMY-R160-J1 2,1016NU-KA1 wB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104*FD.B. (40*CD.B.) alow 80%.	Over-current protection 1t protection st protection 1 (186) 1 (186) 1 (186) 1 (186) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 20 (180) 21 (180) 1 (180) 1 (180) 1 (180) 1 (180) 1 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180) 2 (180)
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External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMV-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to be The ambient relative of the Heat Source Unit needs to be kept below The ambient relative of the Heat Source Unit needs to be kept below The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor. Be sure to mount be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor.	Over-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual D External Drw y kit CMY-Q100CBK2 /*/102LS-62, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 WB-P104,108NU-KB1 wer source switch, and other items hange without notice. 104*FD.B. (40*CD.B.) slow 80%. a strainer (more than 50 meshes) a ww pressure side of the heat source	Dosi) Over-current protection at protection st + 1 oz (5.0 kg) (186)
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KE94G421 Installatic Details refer to Heat Source Uninning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to cl The ambient temperature of the Heat Source Unit needs to be kept below The ambient temperature of the unit operation and water circuit. The Heat Source twinning kit (low pressure) should be connected to the k Installed to the unit operation and refirgerant pipir	Over-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat plat 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 0 External Drw jkit CMY-Q100CBK2 /-Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 WB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104*FD.B. (40*CD.B.) avw 80%. a strainer (more than 50 meshes) a pw pressure side of the heat source g, follow the installation manual.	Dosi) Over-current protection at protection st + 1 oz (5.0 kg) (186)
External dimension H x V Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inf</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 4111 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CM Particle Transition work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to ci The ambient relative humidity of the Heat Source Unit needs to be kept below The ambient relative humidity for the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient relative humidity of the Heat Source Unit needs to be kept below The ambient relative humidity of the Heat Source Unit needs to be kept below The ambient relative humidity of the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient relative humidity of the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient relative humidity of the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient relative humidity of the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient humidity of the unit operation and water circuit. The Heat Source Unit needs to be kept below The ambient heat huming kit (bor pressure) should be connected to the ke Install the supplied insulation material to the unused drain-socket. When the high pressure ping length is 56 m or less. Weat Source The Ambient circuit area the figurent ping length is 56 m or less. Weat Installing insulation material around both water and refigurent ping length is 56 m or less. Weat Installing insulation material around both water and refigurent ping length is 56 m or less. Weat Installing insulation material to use 7/8 (22.2) pipe.	Over-heat protection, Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual D External Drw g kit CMY-0100CBK2 r/1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 Dower source switch, and other items hange without notice. 104°FD.B. (40°CD.B.) alow 80%. a strainer (more than 50 meshes) a pw pressure side of the heat source ag, follow the installation manual.	Dosi) Diver-current protection at protection st + 1 oz (5.0 kg) (186
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External dimension H x V Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inf Pipe between unit and distributor Drawing Standard ditachment Distributor Drawing Remarks	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 5 External Drw 9 kit CMY-Q100CBK2 /-Y102LS-G2, CMY-R160-J1 2, 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104°FD.B. (40°CD.B.) aw strainer (more than 50 meshes) a ow pressure side of the heat source ug, follow the installation manual. Intil 65 m, use 1-1/8 (28.58) pipe for	Desi) Over-current protection at protection s + 1 oz (5.0 kg) (186)
External dimension H x V Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Dptional parts Remarks Hotes:	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	n Ibs (kg) G I MPa in. (mm) in. (mm)	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may bable to be kept bo The ambient relative humidity of the Heat Source Unit needs to be kept bo The heat Source Unit should not be installed at outdoor.Be sure to mount Be sure to provide interfocking for the unit operation and water circuit. The Heat Source upin in should not be installed at outdoor.Be sure to mount Be sure to provide interfocking for the unit operation and water circuit. The Heat Source upin in genue to the theat Source do to be kept bo The mismaling insulation material to the unused drain-socket. When the high pressure piping length sceeds 65 m, use 7/8 (22.2) pipe i The cooling tower and the water circuit must be a closed circuit (water is r	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 5 External Drw 9 kit CMY-Q100CBK2 /-Y102LS-G2, CMY-R160-J1 2, 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104°FD.B. (40°CD.B.) aw strainer (more than 50 meshes) a ow pressure side of the heat source ug, follow the installation manual. Intil 65 m, use 1-1/8 (28.58) pipe for	Desi) Over-current protection at protection st + 1 oz (5.0 kg) (186)
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External dimension H x V Protection devices Refrigerant Net weight HC circuit (HIC: Heat Inf Pipe between unit and distributor Drawing Standard attachment Dptional parts Remarks Remarks Indoor: 81°FD.B./66°FV	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	n Ibs (kg) G I psi MPa in. (mm) in. (mm) assed on AHRI , Inlet water ter	psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Table to the test Source Unit needs to be kept be the Heat Source Unit should not be installed at outdoor.Be sure to mount Be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit should not be installed at outdoor.Be sure to mount Be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unit needs to be kept be the heat Source Unit needs to the keat Source Unit needs to be kept be the heat Source Unit needs to be kept be the heat Source Unit needs to be kept be the heat Sou	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 plat 1 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 5 External Drw 9 kit CMY-Q100CBK2 /-Y102LS-G2, CMY-R160-J1 2, 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 ower source switch, and other items hange without notice. 104°FD.B. (40°CD.B.) aw strainer (more than 50 meshes) a ow pressure side of the heat source ug, follow the installation manual. Intil 65 m, use 1-1/8 (28.58) pipe for	Desi) Over-current protection at protection st + 1 oz (5.0 kg) (186)

*Above specification data is

Indoor Model Power source Cooling capacity				ZSLMU-A1		
			Non-Ducted 3-phase 3-wire 5	Ducted		
	*1	BTU/h	3-priase 3-wife 5			
Nominal)	1	kW	70			
(Continue)	Power input	kW	16.			
(575		A	18			
(Rated)	/	BTU/h	228	000		
· ,		kW	66	.8		
	Power input	kW	15.57	16.15		
(575	5) Current input	А	17.3	18.0		
Temp. range of	Indoor	W.B.	59~75°F (15~24°C)		
ooling	Inlet water	٩F	50~113°F	(10~45°C)		
leating capacity	*2	BTU/h	270.	000		
Nominal)		kW	79	.1		
	Power input	kW	14.	58		
(575	5) Current input	А	16	.2		
(Rated)		BTU/h	258.	000		
		kW	75	.6		
	Power input	kW	13.45	12.02		
(575	5) Current input	А	15.0	13.4		
emp. range of	Indoor	D.B.	59~81°F (15~27°C)		
eating	Inlet water	۴F	50~113°F			
ndoor unit	Total capacity		50~150% of heat s			
onnectable	Model/Quantity		P04~P96/2~50 (Connectable b			
	easured in anechoic room)		57			
Refrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Bra			
iping diameter	Low pressure	in. (mm)	1-3/8 (34.9	3) Brazed		
Set Model						
Nodel		1	PQRY-P120ZLMU-A1	PQRY-P120ZLMU	-A1	
/inimum Circuit Ampac		А	11	11		
Aaximum Overcurrent F		А	15	15		
Circulating water	Water flow rate	G/h	1,522 -			
		G/min	25.4 +			
		m ³ /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	G/h	793 + 793 ~ 1	,902 + 1,902		
	range	G/min	13.2 + 13.2 ~	· 31.7 + 31.7		
		m ³ /h	3.0 + 3.0 -	7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic con	npressor x 1	
	Starting method		Inverter	Inverter		
	Motor output	kW	7.7	7.7		
	Case heater	kW	-	-		
	Lubricant		MEL32	MEL32		
			Galvanized steel sheets		leets	
External finish			Galvanized steel sheets	Galvanized steel sh		
	WxD	in.	43-5/16 x 34-11/16 x 21-11/16	Galvanized steel sh 43-5/16 x 34-11/16 x 2		
	W x D	in. mm			1-11/16	
External dimension H x		mm	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 2	<u>1-11/16</u> 0	
External finish External dimension H x Protection devices	W x D High pressure protection	mm	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550	<u>43-5/16 x 34-11/16 x 2</u> 1,100 x 880 x 55	<u>1-11/16</u> 0	
External dimension H x		mm	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s	<u>1-11/16</u> i0 witch at 4.15 MPa (6	
External dimension H x	High pressure protection	mm	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	<u>43-5/16 x 34-11/16 x 2</u> <u>1,100 x 880 x 55</u> High pressure sensor, High pressure s psi)	1-11/16 50 witch at 4.15 MPa (6 rrent protection	
External dimension H x	High pressure protection Inverter circuit Compressor	mm	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x	High pressure protection Inverter circuit Compressor Type x original charge	mm	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x Protection devices Refrigerant	High pressure protection Inverter circuit Compressor	mm	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge	mm n	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge	mm n	43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186)	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186)	1-11/16 i0 witch at 4.15 MPa (f rrent protection ion	
External dimension H x Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge Control	mm n Ibs (kg)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Distribution of the system of the syst	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion	
External dimension H x Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge Control	mm n Ibs (kg)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 4 BC controller 411 (186) plate type 1.32	1-11/16 i0 witch at 4.15 MPa (f rrent protection ion	
External dimension H x	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate	mm n Ibs (kg) G I	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protection, Aver-cu Over-heat protection, Over-cu Over-heat protection, 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x Protection devices Refrigerant <u>Vet weight</u> Heat exchanger	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	mm n Ibs (kg) G I psi	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion	
External dimension H x Protection devices Refrigerant <u>Net weight</u> Heat exchanger	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	mm n Ibs (kg) G I psi	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0	1-11/16 i0 witch at 4.15 MPa (f rrent protection ion (5.0 kg)	
External dimension H x Protection devices Refrigerant <u>Vet weight</u> Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. iter-Changer)	mm n Ibs (kg) G I psi MPa	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0	1-11/16 i0 witch at 4.15 MPa (f rrent protection ion (5.0 kg) ad	
External dimension H x Protection devices Refrigerant <u>Het weight</u> Heat exchanger <u>HIC circuit (HIC: Heat In</u> pipe between unit and distributor	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 1 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion (5.0 kg)	
External dimension H x Protection devices Refrigerant <u>Het weight</u> Heat exchanger <u>HIC circuit (HIC: Heat In</u> pipe between unit and distributor	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Iter-Changer) High pressure Low pressure	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 1 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion (5.0 kg)	
External dimension H x Protection devices Refrigerant Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion (5.0 kg)	
External dimension H x Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 4 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual	1-11/16 i0 witch at 4.15 MPa (6 rrent protection ion (5.0 kg)	
External dimension H x Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard attachment	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-ou Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw	1-11/16 i0 witch at 4.15 MPa (f rrent protection ion (5.0 kg) ad	
External dimension H x Protection devices Refrigerant Let weight Leat exchanger LC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Lttachment	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-ou Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2	1-11/16 i0 witch at 4.15 MPa (t rrent protection ion (5.0 kg) ad	
External dimension H x Protection devices Refrigerant Let weight Leat exchanger LC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Lttachment	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-ou Over-heat protect R410A x 11 lbs + 1 oz 4 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual • External Drw kit: CMY-Q100CBK2 -y102LS-G2, CMY-R160-J1	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ad	
ixternal dimension H x irrotection devices tefrigerant leat weight leat exchanger IIC circuit (HIC: Heat In Pipe between unit and istributor irrawing itandard ttachment	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Qver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 .	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ad	
xternal dimension H x rotection devices tefrigerant let weight leat exchanger IIC circuit (HIC: Heat In tipe between unit and istributor rawing tandard ttachment	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ad	
xternal dimension H x rotection devices tefrigerant let weight leat exchanger IIC circuit (HIC: Heat In tipe between unit and istributor rawing tandard ttachment ptional parts	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Qver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 .	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d	
ixternal dimension H x irotection devices tefrigerant let weight leat exchanger lIC circuit (HIC: Heat In ipe between unit and istributor irawing itandard ttachment)ptional parts	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, p	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 4 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual • External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 wer source switch, and other items shall be re	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d	
External dimension H x Protection devices Refrigerant Let weight Let weight Let exchanger Let exchanger Lift circuit (HIC: Heat In Pipe between unit and Listributor Drawing Standard Littachment Dptional parts	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection Over-he	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 - Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 wer source switch, and other items shall be re sange without notice.	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d	
External dimension H x Protection devices Refrigerant <u>Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard attachment Dptional parts </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KL94 KE94G421 Installatio Details refer to KL94 KE94G421 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Colspan="2">Colspan="2"Colspan="2" Colspan=	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 - Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104, 108NU-KB1 wer source switch, and other items shall be re- sange without notice. 104*FD.B. (40°CD.B.)	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d	
External dimension H x Protection devices Refrigerant <u>Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard attachment Dptional parts </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection Over-he	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /dB-P104, 108NU-KB1 wer source switch, and other items shall be re lange without notice. 104*FD.B. (40°CD.B.) low 80%.	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d d sferred to the Installatio	
External dimension H x Protection devices Refrigerant <u>Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard attachment Dptional parts </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to cl The ambient relative humidity of the Heat Source Unit needs to be kept below The Heat Source Unit should not be installed at outdoor.Be sure to mount Be sure to provide interdoking for the unit operation and water circuit.	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Me-P104,108NU-KB1 wer source switch, and other items shall be re ange without notice. 104*FD.B. (40*CD.B.) 0w80%. a strainer (more than 50 meshes) at the water	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ad d d sferred to the Installation	
External dimension H x Protection devices Refrigerant <u>Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard attachment Dptional parts </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - 1.52 0.0 1.100000000000000000000000000000000000	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Me-P104,108NU-KB1 wer source switch, and other items shall be re ange without notice. 104*FD.B. (40*CD.B.) 0w80%. a strainer (more than 50 meshes) at the water	1-11/16 i0 witch at 4.15 MPa (v rrent protection ion (5.0 kg) ad d d sferred to the Installatio	
External dimension H x Protection devices Refrigerant Net weight	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, pr Manual. Due to continuing improvement, above specifications may be subject to of the heat Source Unit needs to be kept below The ambient relative of the Heat Source Unit needs to be kept below The ambient relative of the the stource Unit needs to be kept below The ambient relative to the the unit operation and water circuit. The Heat Source Unit nouted not be unitaded and outbor. Be sure to provide interlocking for the unit operation and water circuit.	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protection, Over-eat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /B-P104, 108NU-KB1 wer source switch, and other items shall be resource switch and strainer (more than 50 meshes) at the water	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad d d sferred to the Installatio	
External dimension H x Protection devices Refrigerant <u>Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard attachment Dptional parts </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KE94G421 Installatio Details refer to KE94G421 Last controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to cl The ambient temperature of the Heat Source Unit needs to be kept below The Heat Source Unit needs to be kept below Manual. Due to continuing improvement, above specifications may be subject to cl The ambient temperature of the Heat Source Unit needs to be kept below <td colspan<="" td=""><td>43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protection, Over-eat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /B-P104, 108NU-KB1 wer source switch, and other items shall be resource switch and strainer (more than 50 meshes) at the water </td><td>1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad d d sferred to the Installatio</td></td>	<td>43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protection, Over-eat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /B-P104, 108NU-KB1 wer source switch, and other items shall be resource switch and strainer (more than 50 meshes) at the water </td> <td>1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad d d sferred to the Installatio</td>	43-5/16 x 34-11/16 x 2 1,100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protection, Over-eat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /B-P104, 108NU-KB1 wer source switch, and other items shall be resource switch and strainer (more than 50 meshes) at the water	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad d d sferred to the Installatio
External dimension H x Protection devices Refrigerant let weight leat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Ltachment Dptional parts	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State Second Sec	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /dB-P104, 108NU-KB1 wer source switch, and other items shall be re lange without notice. 104*FD.B. (40*CD.B.) ow 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad ad d d offerred to the Installation r inlet piping of the unit	
ixternal dimension H x irotection devices tefrigerant let weight leat exchanger lIC circuit (HIC: Heat In ipe between unit and istributor irawing itandard ttachment)ptional parts	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnig, piont: CMV-F102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /dB-P104, 108NU-KB1 wer source switch, and other items shall be re lange without notice. 104*FD.B. (40*CD.B.) ow 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad ad d d offerred to the Installation r inlet piping of the unit	
xternal dimension H x rotection devices lefrigerant let weight leat exchanger IIC circuit (HIC: Heat In ipe between unit and istributor irrawing tandard ttachment Pptional parts temarks	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection 0ver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State Second Sec	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-0100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 /dB-P104, 108NU-KB1 wer source switch, and other items shall be re lange without notice. 104*FD.B. (40*CD.B.) ow 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad ad d d eferred to the Installation r inlet piping of the unit hat exceeds 65 m.	
xternal dimension H x rotection devices lefrigerant let weight leat exchanger IIC circuit (HIC: Heat In ipe between unit and istributor irrawing tandard ttachment Diptional parts lemarks	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Iter-Changer) High pressure Low pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Qver-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to di The ambient relative humidity of the Heat Source Unit needs to be kept below The Heat Source Unit should not be installed at outdoor.Be sure to mount Be sure to povide interfooking for the unit operation and water circuit. The heat provide interfooking for the unit operation and water circuit. The heat source winning kit (low pressure) should be connected to the le Installed at outdoor.Be sure to mount Be sure to povide interfooking for the unit opere	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 wer source switch, and other items shall be re tange without notice. 104*FD B. (40*CD B.) low 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th ot exposed to the atmosphere).	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ed d d ed d ferred to the Installation r inlet piping of the unit hat exceeds 65 m. Unit converter	
xternal dimension H x rrotection devices tefrigerant tet weight leat exchanger IIC circuit (HIC: Heat In lipe between unit and listributor rrawing tandard ttachment ptional parts temarks temarks	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. iter-Changer) High pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm) ased on AHRI	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection. Over-current protection Over-heat protection Attract to the protection Over-heat protection Over-heat protection Over-heat protection Over-heat protection Over-heat protection Overotechnic toprotechinered protection	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 wer source switch, and other items shall be re tange without notice. 104*FD B. (40*CD B.) low 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th ot exposed to the atmosphere).	1-11/16 i0 witch at 4.15 MPa (rrent protection ion (5.0 kg) ad ad d ed d ferred to the Installation r inlet piping of the unit hat exceeds 65 m.	
ixternal dimension H x irotection devices tefrigerant tet weight leat exchanger tilC circuit (HIC: Heat In ipe between unit and istributor irawing tandard ttachment)ptional parts temarks temarks temarks	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water fe	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection Indoor LEV an 1.32 Over-heat protection Over-heat protection Over-heat protection Over-heat protection	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 wer source switch, and other items shall be re tange without notice. 104*FD B. (40*CD B.) low 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th ot exposed to the atmosphere).	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ad d d ferred to the Installation r inlet piping of the unit. hat exceeds 65 m. Unit converter =kW x 3,412	
External dimension H x Protection devices Refrigerant <u>let weight leat exchanger leat exchanger leat exchanger Standard ttachment Dptional parts Remarks otes: Nominal cooling condit Indoor: 81°FD.B./66°FN Nominal heating condit </u>	High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. iter-Changer) High pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm) in. (mm)	43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Qver-heat protection, Over-current protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 .	43-5/16 x 34-11/16 x 2 1.100 x 880 x 55 High pressure sensor, High pressure s psi) Over-heat protection, Over-cu Over-heat protect R410A x 11 lbs + 1 oz 4 BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Braze 7/8 (22.2) Braze C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104, 108NU-KB1 wer source switch, and other items shall be re arage without notice. 104*FD.B. (40*CD.B.) ow 80%. a strainer (more than 50 meshes) at the water w pressure side of the heat source unit. g, follow the installation manual. ntil 65 m, use 1-1/8 (28.58) pipe for the part th ot exposed to the atmosphere).	1-11/16 i0 witch at 4.15 MPa (i rrent protection ion (5.0 kg) ed d d ed d ferred to the Installatio r inlet piping of the unit. hat exceeds 65 m. Unit converter	

PQRY-P-Z(S)LMU-A1

MEES23K060

			Non-Ducted	Ducted
Power source			3-phase 3-wire 5	
Cooling capacity	*1		288.	
Nominal)	Power input	kW kW	84 20.	
(579	5) Current input	A	20.	
(Rated)		BTU/h	275.	
(i tatou)		kW	80	
	Power input	kW	18.82	21.43
(575	5) Current input	А	20.9	23.9
emp. range of	Indoor	W.B.	59~75°F (
ooling	Inlet water	°F	50~113°F	
leating capacity	*2	BTU/h kW	323	
Nominal)	Power input	kW	94	
(575		A	17	
(Rated)		BTU/h	308.	
(. (kW	90	
	Power input	kW	16.13	16.05
(575	5) Current input	А	17.9	17.9
emp. range of	Indoor	D.B.	59~81°F (
eating	Inlet water	°F	50~113°F	
ndoor unit	Total capacity		50~150% of heat s	
onnectable	Model/Quantity	dB <a>	P04~P96/2~50 (Connectable b	
ound pressure level (m Refrigerant	easured in anechoic room) High pressure	dB <a> in. (mm)	57 1-1/8 (28.5	
iping diameter	Low pressure	in. (mm)	1-1/8 (28.5	
Set Model	2011 2.000010	(
lodel			PQRY-P144ZLMU-A1	PQRY-P144ZLMU-A1
linimum Circuit Ampac	ity	А	13	13
laximum Overcurrent F		А	20	20
Circulating water	Water flow rate	G/h	1,902 -	-
		G/min	31.7 -	
		/h	7.20 -	
		L/min cfm		
	Pressure drop	psi	6.38	6.38
	Pressure drop	kPa	44	44
	Operating volume	G/h	1,189 + 1,189 -	
	range	G/min	19.8 + 19.8 -	
		m ³ /h	4.5 + 4.5 ~	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Starting method		Inverter	Inverter
	Motor output	kW	9.5	9.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
	•	[.	Galvanized steel sheets	Galvanized steel sheets
	•	in.	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16
	•	in. mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550
External dimension H x	•	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa
External finish External dimension H x Protection devices	W x D High pressure protection	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi)
External dimension H x	W x D High pressure protection Inverter circuit	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection
External dimension H x Protection devices	W x D High pressure protection	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi)
External dimension H x Protection devices	W x D High pressure protection Inverter circuit Compressor	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg)
External dimension H x Protection devices Refrigerant	W x D High pressure protection Inverter circuit Compressor Type x original charge	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection
External dimension H x Protection devices Refrigerant let weight	W x D High pressure protection Inverter circuit Compressor Type x original charge Control	mm n Ibs (kg)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type
External dimension H x Protection devices Refrigerant Net weight	W x D High pressure protection Inverter circuit Compressor Type x original charge	mm	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32
External dimension H x Protection devices Refrigerant Net weight	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate	n n 	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection 0ver-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0
External dimension H x Protection devices Refrigerant let weight	W x D High pressure protection Inverter circuit Compressor Type x original charge Control	mm n Ibs (kg) G I psi	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290
Protection devices Protection devices Refrigerant <u>let weight</u> leat exchanger	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	n n 	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0
ixternal dimension H x Protection devices Refrigerant leat weight leat exchanger	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer)	mm n Ibs (kg) G I psi MPa	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0
ixternal dimension H x irotection devices tefrigerant let weight leat exchanger IIC circuit (HIC: Heat In tipe between unit and	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed
ixternal dimension H x Protection devices Refrigerant let weight leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer)	mm n Ibs (kg) G I psi MPa	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0
External dimension H x Protection devices Refrigerant Heat weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Prawing	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421
External dimension H x Protection devices Refrigerant leat weight leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard uttachment	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw
ixternal dimension H x Protection devices Refrigerant let weight leat exchanger liC circuit (HIC: Heat In Pipe between unit and listributor Prawing Standard ttachment	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kti: CMY-Q200CBK
ixternal dimension H x Protection devices Refrigerant let weight leat exchanger liC circuit (HIC: Heat In Pipe between unit and listributor Prawing Standard ttachment	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1
ixternal dimension H x irotection devices tefrigerant let weight leat exchanger IIC circuit (HIC: Heat In tipe between unit and istributor irawing itandard ttachment	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor
xternal dimension H x rotection devices lefrigerant let weight leat exchanger IIC circuit (HIC: Heat In ipe between unit and istributor rawing tandard ttachment ptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CM	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor sensor results and the sensor sensor results and the sensor sensor sensor results and the sensor sensor sensor results and the sensor
ixternal dimension H x Protection devices Refrigerant let weight leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor Prawing Standard Ittachment Optional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor, High pressure switch at 4.15 MPa results and the sensor sensor sensor results and the sensor sensor results and the sensor sensor sensor results and the sensor sensor sensor results and the sensor
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Attachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CM	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK - Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Attachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) 1.32 1.32 1.32 2.0 290 2.0 1.7/8 (22.2) Brazed 1.7/8 (22.2) Brazed 1.50	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual b External Drw g kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 ',1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Attachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-62, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102 Sub B	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual b External Drw g kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 ',1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Attachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor.	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. k kept below 104°FD.B. (40°CD.B.) to be kept below 80%.
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Attachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) Indoor LEV an 512 (232) Indoor LEV an 510 290 2.0 Indoor LEV an 7/8 (22.2) Brazed Installatio KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kt: CMY-0200CBK 'Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. 8 kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit.
External dimension H x Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 2.0 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Qver-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual p kit: CMY-Q200CBK Y102LS-G2, CMY-R160-J1 J1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. a kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit.
External dimension H x Protection devices Refrigerant let weight leat exchanger life between unit and listributor Drawing Standard Lttachment Dptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) Indoor LEV an 512 (232) Indoor LEV an 510 290 2.0 Indoor LEV an 7/8 (22.2) Brazed Installatio KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. k kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit.
ixternal dimension H x Protection devices Refrigerant let weight leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor Prawing Standard Ittachment Optional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) Indoor LEV a	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Qver-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual 0 External Drw g kit: CMY-Q200CBK Y102LS-62, CMY-R160-J1 ;1016NU-JA1, CMB-P1016NU-KA1 AB-P104, 108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. subject to change without notice. is kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. :ket. igerant piping, follow the installation manual.
ixternal dimension H x irotection devices tefrigerant let weight leat exchanger lIC circuit (HIC: Heat In ipe between unit and istributor irawing itandard ttachment)ptional parts	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) Indoor LEV a	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Qver-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual 0 External Drw g kit: CMY-Q200CBK Y102LS-62, CMY-R160-J1 ;1016NU-JA1, CMB-P1016NU-KA1 AB-P104, 108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. subject to change without notice. is kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. :ket. igerant piping, follow the installation manual.
External dimension H x Protection devices Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Bandard titachment Dptional parts Remarks	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) Indoor LEV a	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa r psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and tistributor Drawing Standard attachment Dptional parts Remarks Iotes:	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to The ambient temperature of the Heat Source Unit needs to The ambient temperature of the Heat Source Unit needs to The ambient temperature of the Heat Source Unit needs to the the at Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source Winning kit (low pressure) should be connel Installing insulation material around both water and refi The cooling tower and the water circuit must be a closed circuit The cooling tower and the water circuit must be a closed circuit The cooling tower and the water circuit must be a closed circuit The Cooling tower and the water circuit must be a closed circuit The Cooling tower and the water circuit must be a closed circuit The Cooling tower and the water circuit must be a closed circuit The Cooling tower and the water circuit must be a closed circuit The Cooling tower and the water circuit must be a closed circuit The cooling tower and the water circuit must be a closed circuit The cooling tower and th	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
External dimension H x Protection devices Refrigerant Het weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard Htachment Dptional parts Remarks Remarks	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory ions (Test conditions are b	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm) ased on AHR	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installation Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrifered to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conner. Mean Source twinning kit (l	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK 'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
ixternal dimension H x irotection devices Refrigerant let weight leat exchanger IIC circuit (HIC: Heat In ipe between unit and istributor orawing standard ttachment Dptional parts Remarks Remarks otes: Nominal cooling condit Indoor: 81°FD. B./66°FI	W x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	mm n Ibs (kg) G I psi MPa in. (mm) in. (mm)	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 1.7/8 (2.2) Brazed 1.7/8 (2.2) Brazed 1.10 KE94G421 1.10 1.	Galvanized steel sheets 57-1/8 x 34-11/16 x 21-11/16 1.450 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa i psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere).

Indoor Model			PQRY-P312		ucted
Power source			Non-Ducted 3-phase 3-wire 5		ucted
Cooling capacity	*1	BTU/h		.000	
(Nominal)	i	kW		.4	
,	Power input	kW	23		
(575) Current input	А	26	5.1	
(Rated)		BTU/h	297	000	
		kW		<u>.0</u>	
	Power input	kW	21.59		3.67
) Current input	A	24.0		26.4
Temp. range of	Indoor	W.B.	59~75°F (
cooling	Inlet water *2	°F	50~113°F		
Heating capacity	-2	BTU/h kW	350	2.6	
Nominal)	Power input	kW	10		
(676) Current input	A	21		
(Rated)		BTU/h		.000	
(Italeu)		kW			
	Power input	kW	17.62		7.96
(575		A	19.6		20.0
emp. range of	Indoor	D.B.	59~81°F (
eating	Inlet water	°F	50~113°F	(10~45°C)	
ndoor unit	Total capacity	<u> </u>	50~150% of heat s		
onnectable	Model/Quantity		P04~P96/2~50 (Connectable b		.)
	easured in anechoic room)	dB <a>	58	3.0	
Refrigerant	High pressure	in. (mm)	1-1/8 (28.5		
piping diameter	Low pressure	in. (mm)	1-3/8 (34.9	3) Brazed	
Set Model					
Nodel		T	PQRY-P168ZLMU-A1		44ZLMU-A1
Ainimum Circuit Ampaci		A	16		13
Maximum Overcurrent P		A	25		20
Circulating water	Water flow rate	G/h		+ 1,902	
		G/min	31.7 -		
		m ³ /h	7.20 -		
		L/min		+ 120	
	Dressure dress	cfm	6.38		3.38
	Pressure drop	psi kPa	6.38 44		44
	Operating values	G/h	44 1,189 + 1,189 -		44
	Operating volume				
	range	G/min m ³ /h		~ 50.9 + 50.9 11.6 + 11.6	
Compressor	Type x Quantity	111 /11	4.5 + 4.5 ~		metic compressor x 1
Jompressor	Starting method		Inverter		verter
	Motor output	kW	11.0		9.5
	Case heater	kW	-		-
	Lubricant	NVV	MEL32	М	EL32
External finish	Lubricant		Galvanized steel sheets		d steel sheets
External dimension H x \	NxD	in.	57-1/8 x 34-11/16 x 21-11/16		1/16 x 21-11/16
		mm	1,450 x 880 x 550		880 x 550
Ducto sticus devices	Llink processes protection	-	High pressure sensor, High pressure switch at 4.15 MPa (601		
Protection devices	High pressure protection	n	psi)		psi)
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection,	Over-current protection
	Compressor		Over-heat protection	Over-hea	at protection
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lb	os + 4 oz (6.0 kg)
	Control		Indoor LEV an	d BC controller	
	CONTION	lbs (kg)	512 (232)	512	2 (232)
	Control	IDS (Kg)			
			plate type	plat	e type
	Water volume in plate	G	1.32	plat 1	l.32
	Water volume in plate	G	1.32 5.0	plat 1	te type 1.32 5.0
		G I psi	1.32 5.0 290	<u>plat</u> 1	l.32 5.0 290
leat exchanger	Water volume in plate Water pressure Max.	G	1.32 5.0 290 2.0	<u>plat</u> 1	te type 1.32 5.0
leat exchanger IIC circuit (HIC: Heat In	Water volume in plate Water pressure Max. ter-Changer)	G I psi MPa	1.32 5.0 290 2.0	plat 1 2	e type 1.32 5.0 290 2.0 -
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and	Water volume in plate Water pressure Max. ter-Changer) High pressure	G I psi MPa in. (mm)	1.32 5.0 290 2.0	plat 1 2 2 7/8 (22	e type 1.32 5.0 290 2.0 - 2) Brazed
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure	G I psi MPa	1.32 5.0 290 2.0 - 7/8 (22.2) Brazed	plat 1 2 2 7/8 (22 1-1/8 (28	e type 1.32 5.0 290 2.0 -
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and listributor	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94		e type .32 5.0 290 2.0 - .2) Brazed .58) Brazed
leat exchanger IIC circuit (HIC: Heat In ipe between unit and listributor rawing	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	1.32 5.0 290 2.0 		e type 1.32 5.0 290 2.0 - 2) Brazed
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatic		e type .32 5.0 290 2.0 - .2) Brazed .58) Brazed
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard attachment	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer to	plat 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	e type .32 5.0 200 2.0 - .2) Brazed .58) Brazed
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard ttachment	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)			e type .32 5.0 200 2.0 - .2) Brazed .58) Brazed
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard ttachment	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)			e type 1.32 5.0 290 2.0 - 2) Brazed .58) Brazed 4G421
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and listributor Drawing Standard ttachment	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)			e type 1.32 5.0 290 2.0 - 2) Brazed .58) Brazed 4G421
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and istributor Drawing standard ttachment	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)			e type 1.32 5.0 290 2.0 - 2) Brazed .58) Brazed 4G421
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and istributor Prawing Standard ttachment Optional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)		plat 7/8 (22 7/8 (22 1-1/8 (28 C252 KE9 n Manual D External Drw 9 kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1	e type 1.32 5.0 290 2.0 - 2) Brazed .58) Brazed 4G421
Heat exchanger HC circuit (HIC: Heat In Pipe between unit and <u>istributor</u> Drawing Standard <u>ttachment</u> Optional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual.	plat 1 7/8 (22 1-1/8 (28 C252 KE9 n Manual 5 External Drw g kit: CMY-Q200CBK r/102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc	e type 1.32 5.0 290 2.0 - 2) Brazed .58) Brazed 4G421 4 4 4 4 4 4 4 4 5 4 4 5 8 1 1 1 1 1 1 1 1 1 1 1 1 1
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard tttachment Dptional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)		plat 1 7/8 (22 1-1/8 (28 C252 KE9 n Manual > External Drw g kit: CMY-Q200CBK 2.1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc subject to change without not	e type 1.32 5.0 290 2.0 - 2) Brazed 4G421 4G421 1 h, and other items shall be tice.
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard attachment Dptional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7 7/8 (22.2) Brazed 7 7/8 (22.2) Brazed 7 7/8 (22.2) Brazed 7 7/8 (22.2) Brazed 7 7 7/8 (22.2) Brazed 7	plat 7/8 (22 1-1/8 (28 C252 KE9 n Manual 9 kit: CMY-Q200CBK -'Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc subject to change without not s kept below 104°FD.B. (40°C	e type 1.32 5.0 290 2.0 - .2) Brazed .58) Brazed 4G421 4G421 t t, and other items shall be to the state of the
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard tttachment Dptional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer ts Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to b The ambient relative humidity of the Heat Source Unit needs to	plat 7/8 (22 1-1/8 (28 C252 KE9 n Manual 9 kit: CMY-Q200CBK -'Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc subject to change without not s kept below 104°FD.B. (40°C	e type 1.32 5.0 290 2.0 - .2) Brazed .58) Brazed 4G421 4G421 t t, and other items shall be r tice.
Heat exchanger	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient remperature of the Heat Source Unit needs to b The Heat Source Unit should not be installed at outdoor.	plat 7/8 (22 1-1/8 (28 C252 KE9 n Manual 2 External Drw g kit: CMY-Q200CBK /-102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C to be kept below 80%.	e type 1.32 5.0 290 2.0 - .2) Brazed .58) Brazed 4G421 4G421 t t, and other items shall be r tice.
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Dptional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 1-1/8 (28 C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK /-Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 /B-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit.	e type 1.32 5.0 290 2.0 - .2) Brazed .58) Brazed 4G421 4G421 1 th, and other items shall be r tice.
Net weight Heat exchanger HC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 1-1/8 (28 C252 Manual D External Drw g kit: CMY-Q200CBK (-/102LS-G2, CMY-R160-J1 2, 1016NU-JA1, CMB-P1016NU-KA1 dB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. er circuit.	e type 1.32 5.0 200 2.02) Brazed .58) Brazed 4G421 4G421 th, and other items shall be r ice. D.B.)
Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and <u>listributor</u> Drawing Standard attachment Dptional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 1-1/8 (28 C252 KE9 n Manual p External Drw g kit: CMY-Q200CBK 2,1016NU-JA1, CMB-P1016NU-KA1 vB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the low pressu	e type .32 5.0 200 2.0 - 2.) Brazed .58) Brazed 4G421 4G421 th, and other items shall be in ice. D.B.)
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and istributor Prawing Standard ttachment Optional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type .32 5.0 200 2.0 - 2.) Brazed .58) Brazed 4G421 4G421 4G421 4G421 b.b. p. b. p. p. p. b. p.
leat exchanger IIC circuit (HIC: Heat In Pipe between unit and istributor Prawing Standard ttachment Optional parts	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (20.2) Brazed 7/8 (2	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type .32 5.0 200 2.0 - 2.) Brazed .58) Brazed 4G421 4G421 4G421 4G421 b.b. p. b. p. p. p. b. p.
leat exchanger IIC circuit (HIC: Heat In ipe between unit and istributor rawing tandard tachment ptional parts temarks	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type .32 5.0 290 2.0 - .2) Brazed .58) Brazed .4G421
ILC circuit (HIC: Heat In 'ipe between unit and istributor rawing itandard ttachment ipplional parts itemarks	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (2	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type 1.32 5.0 200 2.0 - 2.) Brazed .58) Brazed 4G421 4G421 4G421 .58, and other items shall be r i.ce. .D.B.) of the heat source unit. allation manual.
teat exchanger tiC circuit (HIC: Heat In 'ipe between unit and listributor 'rawing standard ttachment 'pptional parts Remarks	Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm) in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer to KL94 KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y1028S-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source Winning kit (low pressure) should be conne Install the supplied insulation material around both water and refe The cooling tower and the water circuit must be a closed circuit	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type .32 5.0 290 2.0 - .2) Brazed .58) Brazed .4G421
IlC circuit (HIC: Heat In ipe between unit and istributor rrawing itandard ttachment Diptional parts itemarks	Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory Accessory	G I psi MPa in. (mm) in. (mm) in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (20.2) Brazed 7/8 (2	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type .32 5.0 290 2.0 - .2) Brazed .58) Brazed .58) Brazed .58) Brazed .4G421 .58) Brazed .58) Brazed .58) Brazed .58) Brazed .58) Brazed .58) Brazed .58) Brazed .59) Brazed .59) Brazed .59) Brazed .59) Brazed .59) Brazed .59) Brazed .59) Brazed .59) Brazed
teat exchanger tiC circuit (HIC: Heat In 'ipe between unit and listributor 'irrewing tandard ttachment 'ptional parts Remarks cotes: Nominal cooling conditi Indoor: 81°FD.B./66°FV Nominal heating conditi	Water volume in plate Water pressure Max. ter-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm)	1.32 5.0 290 2.0 7/8 (22.2) Brazed 7/8 (22.2) Brazed 7/8 (22.2) Brazed KL94 KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Betails on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to the Heat Source Unit needs The Heat Source Unit needs The Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source Unit should not be unused drain-so When installing insulation material around both water and refi The cooling tower and the water circuit must be a closed circu 1230) 1230)	plat 7/8 (22 7/8 (22 1-1/8 (28 C252 n Manual D External Drw g kit: CMY-Q200CBK (-1/102LS-G2, CMY-R160-J1 2, 1016NU-KA1 MB-P104, 108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD_B. (40°C to be kept below 80%. ter inlet piping of the unit. rr circuit. cted to the low pressure side of cket. igerant piping, follow the insta	e type

*Above specification data is

subject to rounding variation.

-	e Model el			PQRY-P336 Non-Ducted	Ducted
Power sourc			1	3-phase 3-wire 5	
Cooling capa	acity	*1		336.	
(Nominal)		Power input	kW kW	98 26.	
	(575)	Current input	A	29	
Γ	(Rated)		BTU/h	320,	
	` '		kW	93	.8
		Power input	kW	24.76	25.85
		Current input	А	27.6	28.8
Temp. range	e of	Indoor	₩.B. °F	59~75°F (
cooling Heating capa	ooit.	Inlet water *2		50~113°F 378.	
Nominal)	acity	2	kW	378.	
(Norminal)		Power input	kW	20.	
	(575)	Current input	A	23	
Γ	(Rated)		BTU/h	361.	
	` '		kW	10	5.8
		Power input	kW	19.16	20.05
		Current input	А	21.3	22.3
Гemp. range	e of	Indoor	D.B.	59~81°F (
neating		Inlet water	°F	50~113°F	
ndoor unit		Total capacity		50~150% of heat s	
connectable		Model/Quantity		P04~P96/2~50 (Connectable b	
	sure level (mea	asured in anechoic room)		59	
Refrigerant	otor	High pressure	in. (mm)	1-1/8 (28.5	
<u>piping diame</u> Set Model	elei	Low pressure	in. (mm)	1-5/8 (41.2	O DIAZEU
Set Model Model				PQRY-P168ZLMU-A1	PQRY-P168ZLMU-A1
	ircuit Ampacity	1	А	16	16
	vercurrent Pro		A	25	25
Circulating w		Water flow rate	G/h	23	
			G/min	31.7 +	-
			m ³ /h	7.20 +	
			L/min	120 -	
			cfm	4.2 -	- 4.2
		Pressure drop	psi	6.38	6.38
			kPa	44	44
		Operating volume	G/h	1,189 + 1,189 -	- 3,054 + 3,054
		range	G/min	19.8 + 19.8 ~	- 50.9 + 50.9
			m ³ /h	4.5 + 4.5 ~	
Compressor	r	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
		Starting method		Inverter	Inverter
		Motor output	kW	11.0	11.0
		Case heater	kW	-	-
		Lubricant		MEL32	MEL32
External finis			1.	Galvanized steel sheets	Galvanized steel sheets
External dim	nension H x W	I X D	in. mm	57-1/8 x 34-11/16 x 21-11/16 1,450 x 880 x 550	<u>57-1/8 x 34-11/16 x 21-11/16</u> 1,450 x 880 x 550
				High pressure sensor, High pressure switch at 4.15 MPa (601	
Protection de	levices	High pressure protectio	n	psi)	psi)
		Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
		Compressor		Over-heat protection	Over-heat protection, Over-current protection
				R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lbs + 4 oz (6.0 kg)
Refrigerant		Type x original charge			
Refrigerant		Type x original charge Control		Indoor LEV and	d BC controller
		Type x original charge Control	lbs (kg)	Indoor LEV an 512 (232)	<u>d BC controller</u> 512 (232)
Net weight			lbs (kg)		
Net weight			lbs (kg) G	512 (232)	512 (232)
Net weight		Control		512 (232) plate type	512 (232) plate type
Net weight		Control	G I psi	512 (232) plate type 1.32 5.0 290	512 (232) plate type 1.32 5.0 290
<u>Net weight</u> Heat exchan	nger	Control Water volume in plate Water pressure Max.	G I	512 (232) plate type 1.32 5.0	512 (232) plate type 1.32 5.0
<u>Net weight</u> Heat exchan HIC circuit (H	nger HIC: Heat Inte	Water volume in plate Water pressure Max.	G I psi MPa	512 (232) plate type 1.32 5.0 290 2.0 -	512 (232) plate type 1.32 5.0 290 2.0 -
<u>Net weight</u> Heat exchan <u>HIC circuit (H</u> Pipe betwee	nger HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) High pressure	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed
Net weight Heat exchan HIC circuit (H Pipe betwee distributor	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure	G I psi MPa	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22) Brazed	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed
Net weight Heat exchan HIC circuit (H Pipe betwee distributor	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed KL94	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual p External Drw
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.9) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.9) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMX	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.9) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1
<u>Net weight</u> Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.9) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMX	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1
<u>Vet weight</u> Heat exchan <u>HIC circuit (H</u> Pipe betwee <u>distributor</u> Drawing Standard <u>attachment</u> Dptional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 - 7/8 (22.9) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CM	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1
<u>Vet weight</u> Heat exchan <u>HIC circuit (H</u> Pipe betwee <u>distributor</u> Drawing Standard <u>attachment</u> Dptional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1
<u>Net weight</u> -leat exchan -leat exchan -leat exchan -leat exchan - 	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin, joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK '-Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice.
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment Optional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Float CMT-YI02SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrifered to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw j kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.)
<u>Vet weight</u> Heat exchan <u>HIC circuit (H</u> Pipe betwee <u>distributor</u> Drawing Standard <u>attachment</u> Dptional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to KE94G421 Installatio Details refer to Beta Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw j kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be i subject to change without notice. kept below 104°FD.B. (40°CD.B.)
<u>Net weight</u> -leat exchan -leat exchan -leat exchan -leat exchan - 	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient reparture of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. k kept below 104°FD.B. (40°CD.B.) to be kept below 80%.
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment Optional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit and the type of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The unit temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The Heat Source Unit needs to bo The Heat Source Unit needs to bo	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ktr: CMY-Q200CBK 'Y102LS-G2, CMY-R160-J1 '.1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be it subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit.
Refrigerant Net weight Heat exchan HilC circuit (H Pipe betwee distributor Drawing Standard attachment Optional part Remarks	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to KE94G421 Installatio Details refer to Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative numidity of the Heat Source Unit needs to be The ambient relative numidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual 9 External Drw gkit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit.
<u>Net weight</u> -leat exchan -leat exchan -leat exchan -leat exchan - 	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit and the type of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The ambient temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The unit temperature of the Heat Source Unit needs to bo The Heat Source Unit needs to bo The Heat Source Unit needs to bo The Heat Source Unit needs to bo	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. k kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit.
<u>Vet weight</u> Heat exchan <u>HIC circuit (H</u> Pipe betwee <u>distributor</u> Drawing Standard <u>attachment</u> Dptional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KE94G421 Installation Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CMB Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refit	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 (1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.
Het weight Heat exchan HC circuit (H Pipe betwee listributor Drawing Standard Attachment Dptional part	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be come Install the supplied insulation material to the unused drain-soor	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 (1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.
Net weight -leat exchan -leat exchan -lea	nger HIC: Heat Inte	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KE94G421 Installation Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CMB Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refit	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw kt: CMY-0200CBK '-Y102LS-G2, CMY-R160-J1 (1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. ket. igerant piping, follow the installation manual.
Net weight Heat exchan HIC circuit (H Pipe betwee distributor Drawing Standard attachment Optional part Remarks	nger HIC: Heat Inte en unit and rts	Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The mabient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source Unit should not be pressure) should be conne Installiting insulation material around both water and reff The cooling tower and the water circuit must be a closed circuit	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. :ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere). Unit converter
Vet weight Heat exchan Heat exchan Hic circuit (H Pipe betwee distributor Drawing Standard attachment Dptional part Remarks Remarks Iotes: .Nominal co	nger HIC: Heat Inte en unit and rts coling conditio	Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm) in. (mm) assed on AHRI	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrifered to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refif	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r cricuit. cted to the low pressure side of the heat source unit. cket. igerant piping, follow the installation manual. uit (water is not exposed to the atmosphere). Unit converter BTU/h =kW x 3,412
Vet weight Heat exchan	nger HIC: Heat Inte en unit and rts	Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) in. (mm)	512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Installing insulation material to the unused drain-soor When installing insulation material around both water and refit The cooling tower and the water circuit must be a closed circu 1230) mperature: 86°F (30°C)	512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. :ket. igerant piping, follow the installation manual. it (water is not exposed to the atmosphere). Unit converter

1-2. AHRI 1230-2021 condition

Heat Source	e Model			PQRY-P72	ZLMU-A1	
Indoor Mod				Non-Ducted	Ducted	
Power sour	rce			3-phase 3-wire 57		
Cooling cap	pacity	*1	BTU/h	72,0	00	
(Nominal)			kW	21.	1	
		Power input	kW	3.6		
	(575)	Current input	А	4.0		
	(Rated)		BTU/h	69,0		
			kW	20.		
	(575)	Power input	kW	3.60	3.59	
T		Current input Indoor	A W.B.	4.0 59~75°F (1	4.0	
Temp. range of Indoor W.B. cooling Inlet water °F			59~75 F (50~113°F (
Heating cap	nacity	*2		80,0		
(Nominal)	pacity	2	kW	23.		
(i torninar)		Power input	kW	4.0		
	(575)	Current input	A	4.5		
	(Rated)		BTU/h	76,0	00	
	` '		kW	22.	3	
		Power input	kW	3.78	3.36	
	(575)	Current input	А	4.2	3.7	
Temp. rang	je of	Indoor	D.B.	59~81°F (1		
heating		Inlet water	۴	50~113°F (
Indoor unit		Total capacity		50~150% of heat so		
connectable		Model/Quantity		P04~P9		
		asured in anechoic room)	dB <a>	46.		
Refrigerant		High pressure	in. (mm) in. (mm)	5/8 (15.88	8	
piping diam	ieter Fircuit Ampacity	Low pressure	A	3/4 (19.05		
	Dircuit Ampacity		A	5		
Circulating w		Water flow rate	A G/h	1,44		
circulating w	water	Water now rate	G/min	24.		
			m ³ /h	5.4		
			L/min	91		
			cfm	3.2		
		Pressure drop	psi	3.4		
			kPa	24		
		Operating volume	G/h	793 ~ 1	1,902	
		range	G/min	13.2 ~	31.7	
			m ³ /h	3.0 ~	7.2	
Compresso	or	Type x Quantity		Inverter scroll hermetic compressor x 1		
		Starting method		Inverter		
		Motor output	kW	4.3	3	
		Case heater	kW	-		
		Lubricant		MEL		
External fini	iish mension H x W	(D	:	Galvanized s		
External din	mension H x W	XD	in. mm	<u>43-5/16 x 34-11/</u> 1,100 x 88		
Protection d	devices	High pressure protection		High pressure sensor, High press		
FIOLECTION	uevices	Inverter circuit	1	Over-heat protection, O		
		Compressor		Over-heat protection, o		
Refrigerant		Type x original charge		R410A x 11 lbs		
		Control		Indoor LEV and		
Net weight		·	lbs (kg)	411 (*		
Heat excha	inger			plate	type	
		Water volume in plate	G	1.3		
			1	5.0		
		Water pressure Max.	psi	29		
			MPa	2.0		
	(HIC: Heat Inte			-		
Drawing		External		KL94C		
Otay de		Wiring		KE940		
Standard		Document		Installation		
attachment		Accessory		joint: CMY-Y102SS-G2, CMY-		
Optional pa	1115			Joint: CMY-Y102SS-G2, CMY- BC controller: CMB-P104,1		
				Main BC controller: CMB-P104, 1 Main BC controller: CMB-P108, 1012,		
				Sub BC controller: CM		
Remarks				Details on foundation work, duct work, insulation work, electric		
				ferred to the Installation Manual.		
				Due to continuing improvement, above specifications may be s		
				The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to		
				The Heat Source Unit should not be installed at outdoor.		
				Be sure to mount a strainer (more than 50 meshes) at the wate	er 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-soci		
				When installing insulation material around both water and refri The cooling tower and the water circuit must be a closed circuit		
				The cooling tower and the water circuit must be a closed circuit	י (שמנטי וא ווטר באףטצבע נט נוופ מנווטארופופ).	
Notes:					Unit converter	
	nolina conditio	ns (Test conditions are b	ased on AHDI	1230)	BTU/h =kW x 3,412	
		.B. (27°CD.B./19°CW.B.)				
		(,		cfm =m ³ /min x 35.31	

l	Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)	cfm	=m ³ /min x 35.31
l	2.Nominal heating conditions (Test conditions are based on AHRI 1230)		
l	Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)	lbs	=kg/0.4536
l			

PQRY-P-Z(S)LMU-A1

Heat Source Model			PQRY-P96ZLMU-A1	
ndoor Model				icted
Power source			3-phase 3-wire 575 V ±10% 60 Hz	
Cooling capacity	*1		96,000	
(Nominal)		kW	28.1	
	Power input	kW	5.21	
(575)	Current input	A	5.8	
(Rated)		BTU/h	92,000	
	Dennesiumet	kW	27.0	57
(575)	Power input	kW		.57
	Current input	A W.B.		5.2
Гетр. range of cooling	Indoor	vv.в. °F	<u>59~75°F (15~24°C)</u> 50~113°F (10~45°C)	
leating capacity	Inlet water *2		108,000	
0 1 2	2			
Nominal)	Power input	kW kW	<u>31.7</u> 5.64	
(676)	Current input	A	6.2	
(Rated)	Current input	A BTU/h	103,000	
(Raleu)		kW	30.2	
	Power input	kW		.52
(676)	Current input	A		5.0
emp. range of	Indoor	D.B.	59~81°F (15~27°C)).0
emp. range of leating	Indoor Inlet water	D.B. °F	59~81°F (15~27°C) 50~113°F (10~45°C)	
ndoor unit	Total capacity	11	50~113°F (10~45°C) 50~150% of heat source unit capacity	
onnectable	Model/Quantity		50~150% of heat source unit capacity P04~P96/1~24	
Sound pressure level (mea		dB <a>	48.0	
Sound pressure level (mea Refrigerant	High pressure	aB <a>	48.0 3/4 (19.05) Brazed	
-				
<u>piping diameter</u> Minimum Circuit Ampacity	Low pressure	in. (mm) A	7/8 (22.2) Brazed	
			7	
Maximum Overcurrent Pro	Water flow rate	A G/h	15	
irculating water	vvater now rate			
		G/min	25.4	
		m ³ /h	5.76	
		L/min	96	
		cfm	3.4	
	Pressure drop	psi	3.48	
		kPa	24	
	Operating volume	G/h	793 ~ 1,902	
	range	G/min	13.2 ~ 31.7	
		m ³ /h	3.0 ~ 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	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	
	I	mm	1,100 x 880 x 550	
Protection devices	High pressure protection	n	High pressure sensor, High pressure switch at 4.15 MPa (601	osi)
	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	
let weight		lbs (kg)	411 (186)	
Heat exchanger			plate type	
	Water volume in plate	G	1.32	
		1	5.0	
	Water pressure Max.	psi	290	
		MPa	2.0	
HC circuit (HIC: Heat Inte	er-Changer)		-	
Drawing	External		KL94C243	
	Wiring		KE94G421	
Standard	Document		Installation Manual	
attachment	Accessory		Details refer to External Drw	
Optional parts			joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1	
			BC controller: CMB-P104,106,108,1012,1016NU-J1	
			Main BC controller: CMB-P108,1012,1016NU-JA1, CMB-P1016NU-KA1	
			Sub BC controller: CMB-P104,108NU-KB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switc	h, and other items shall be
			ferred to the Installation Manual.	
			Due to continuing improvement, above specifications may be subject to change without not	
			The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.B. (40°C The ambient relative humidity of the Heat Source Unit needs to be kept below 80%.	U.D.)
			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 insta	
			The cooling tower and the water circuit must be a closed circuit (water is not exposed to the	atmosphere).
otes:				Unit converter
Manual and a straight and a state	ns (Test conditions are b	ased on AHRI	1230)	BTU/h =kW x 3,412
	.B. (27°CD.B./19°CW.B.)			

Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

*Above specification data is subject to rounding variation.

=kg/0.4536

=m³/min x 35.31

cfm lbs

Indoor Mode Power source	e Model			PQRY-P120ZLMU-A1	
FOWER SOUL				Non-Ducted E 3-phase 3-wire 575 V ±10% 60 Hz	Ducted
Cooling cap		*1	BTU/h	3-phase 3-wile 575 V ±10% 60 H2 120,000	
(Nominal)	Jacity	I	kW	35.2	
(Norman)		Power input	kW	7.51	
	(575)		A	8.3	
	(Rated)	Guiront input	BTU/h	115,000	
	(Hatoa)		kW	33.7	
		Power input	kW		7.96
	(575)		A	8.2	8.8
Temp. range		Indoor	W.B.	59~75°F (15~24°C)	
cooling	,:	Inlet water	°F	50~113°F (10~45°C)	
Heating cap	pacity	*2	BTU/h	135,000	
(Nominal)			kW	39.6	
(/		Power input	kW	7.09	
	(575)		A	7.9	
	(Rated)		BTU/h	129,000	
	` '		kW	37.8	
		Power input	kW	6.61	5.96
	(575)		А	7.3	6.6
Temp. range		Indoor	D.B.	59~81°F (15~27°C)	
heating		Inlet water	°F	50~113°F (10~45°C)	
Indoor unit		Total capacity		50~150% of heat source unit capacity	
connectable	e	Model/Quantity		P04~P96/1~30	
		asured in anechoic room)	dB <a>	54.0	
Refrigerant		High pressure	in. (mm)	3/4 (19.05) Brazed	
piping diam		Low pressure	in. (mm)	7/8 (22.2) Brazed	
11.7	ircuit Ampacity		A	11	
	Overcurrent Pro		A	15	
Circulating w		Water flow rate	G/h	1,522	
5.			G/min	25.4	
			m ³ /h	5.76	
			L/min	96	
			cfm	3.4	
		Pressure drop	psi	3.48	
			kPa	24	
		Operating volume	G/h	793 ~ 1,902	
		range	G/min	13.2 ~ 31.7	
		range	m ³ /h	3.0 ~ 7.2	
Compresso	or	Type x Quantity		Inverter scroll hermetic compressor x 1	
oomprocee.		Starting method		Inverter	
		Motor output	kW	7.7	
		Case heater	kW	-	
		Lubricant		MEL32	
External fini	ish	Labridant		Galvanized steel sheets	
	mension H x W	/ x D	in.	43-5/16 x 34-11/16 x 21-11/16	
External an			mm	1,100 x 880 x 550	
Protection d	devices	High pressure protectio		High pressure sensor, High pressure switch at 4.15 MPa (601	nsi)
1 locotion a		Inverter circuit		Over-heat protection, Over-current protection	501)
		Compressor		Over-heat protection	
Refrigerant		Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)	
		Type x enginar enarge		Indoor LEV and BC controller	
Reingerant		Control			
		Control	lbs (ka)	411 (186)	
Net weight		Control	lbs (kg)	411 (186)	
				plate type	
Net weight		Control Water volume in plate	Ibs (kg) G	<u>рlate type</u> 1.32	
Net weight		Water volume in plate	G I	plate type 1.32 5.0	
Net weight			G I psi	plate type 1.32 5.0 290	
Net weight Heat exchai		Water volume in plate Water pressure Max.	G I	plate type 1.32 5.0	
Net weight Heat exchar HIC circuit (inger	Water volume in plate Water pressure Max. er-Changer)	G I psi	plate type 1.32 5.0 290 2.0 -	
Net weight Heat exchai	inger	Water volume in plate Water pressure Max. er-Changer) External	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243	
Net weight Heat exchar HIC circuit (Drawing	inger	Water volume in plate Water pressure Max. ar-Changer) External Wiring	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421	
Net weight Heat exchar HIC circuit (Drawing Standard	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual	
Net weight Heat exchan HIC circuit (Drawing Standard attachment	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. ar-Changer) External Wiring	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw	
Net weight Heat exchar HIC circuit (Drawing Standard	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1	
Net weight Heat exchan HIC circuit (Drawing Standard attachment	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1	
Net weight Heat exchan HIC circuit (Drawing Standard attachment	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P108,1012,1016NU-JA1, CMB-P1016NU-K/A	1
Net weight Heat exchan HIC circuit (Drawing Standard attachment	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1	
Net weight Heat exchan HIC circuit (Drawing Standard attachment	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,NU-JA1, CMB-P1016NU-KA Sub BC controller: CMB-P104,108NU-KB1	
Net weight Heat exchart HIC circuit (Drawing Standard attachment Optional part	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,1012,1016NU-KB1 Details on foundation work, duct work, insulation work, electrical wiring, power source swifered to the Installation Manual.	tch, and other items shall be re-
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 200 200 200 200 200 200 200 200 20	tch, and other items shall be re-
Net weight Heat exchart HIC circuit (Drawing Standard attachment Optional part	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 KL94C243 KE94G221 Installation Manual Details refer to External Drw joint: CMY-Y102S-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,U12,1016NU-J1 Main BC controller: CMB-P104,108NU-KB1 Details on foundation work, duct work, insulation work, electrical wiring, power source swiftered to the Installation Manual. Details on foundation work, duct work, insulation work, electrical wiring, power source swiftered to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without not The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.B. (40°	tch, and other items shall be re-
Net weight Heat exchart HIC circuit (Drawing Standard attachment Optional part	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102S-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106NU-KB1 Details on foundation work, duct work, insulation work, electrical wiring, power source swit ferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without m The ambient relative humindity of the Heat Source Unit needs to be kept below 80%.	tch, and other items shall be re-
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 290 2.0 KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,108NU-KB1 Details on foundation work, duct work, insulation work, electrical wiring, power source swiferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without nor The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.B. (40° The Heat Source Unit should not be installed at outdoor.	tch, and other items shall be re-
Net weight Heat exchart HIC circuit (Drawing Standard attachment Optional part	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 2.0 200 2.0 200 2.0 2.0 2.0 2.0 2.0 2.	tch, and other items shall be re-
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 290 290 2.0 KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,108NU-KB1 Details on foundation work, duct work, insulation work, electrical wiring, power source swiferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without nor The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.B. (40° The Heat Source Unit should not be installed at outdoor.	tch, and other items shall be re-
Net weight Heat exchart HIC circuit (Drawing Standard attachment Optional part	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 1.32 5.0 290 200 200 200 200 200 200 200 200 20	tch, and other items shall be re- ptice. CD.B.) tallation manual.
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 1.32 5.0 290 2.0 1.32 1.0 290 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	tch, and other items shall be re- ptice. CD.B.) tallation manual.
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 1.32 5.0 290 200 200 200 200 200 200 200 200 20	tch, and other items shall be re- btice. CD.B.) tallation manual. e atmosphere).
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par Remarks	inger (HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document	G I psi	plate type 1.32 5.0 1.32 5.0 290 200 200 200 200 200 200 200 200 20	tch, and other items shall be re- ptice. CD.B.) tallation manual.
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par Remarks Remarks	(HIC: Heat Inte	Water volume in plate Water pressure Max. ar-Changer) External Wiring Document Accessory	G I psi MPa	plate type 1.32 5.0 290 2.0 - KL94C243 KE94G421 Installation Manual Details refer to External Drw joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104,106,108,1012,1016NU-J1 Main BC controller: CMB-P104,106,108,1012,1016NU-J41 Controller: CMB-P104,106,108,0012,400 Betails on foundation work, duct work, insulation work, electrical wiring, power source swifferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without nor The ambient relative humidity of the Heat Source Unit needs to be kept below 104°FD.B. (40° The Heat Source Unit needs to be kept below 80%. The Heat Source Unit needs to be kept below 80%. The Heat Source Unit needs to be kept below 80%. The Heat Source Unit needs to be kept below 80%. The Heat Source Unit sthould not be installed at outdoor. 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 ins The cooling tower and the water circuit must be a closed circuit (water is not exp	tch, and other items shall be re- btice. CD.B.) tallation manual. te atmosphere).
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par Remarks Remarks	(HIC: Heat Inte	Water volume in plate Water pressure Max. er-Changer) External Wiring Document Accessory	G I psi MPa	plate type 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 290 2.0 1.2 1.2 1.2 1.2 1.2 1.2 1.	tch, and other items shall be re- btice. CD.B.) tallation manual. ne atmosphere).
Net weight Heat exchan HIC circuit (Drawing Standard attachment Optional par Remarks Remarks	(HIC: Heat Inte	Water volume in plate Water pressure Max. ar-Changer) External Wiring Document Accessory	G I Psi MPa	plate type 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32 2.90 2.0 1.220 1.220	tch, and other items shall be re- btice. CD.B.) tallation manual. ne atmosphere). Unit converter BTU/h =kW x 3,412

Heat Source Model			PQRY-P144ZI	MU-A1
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 575	
Cooling capacity	*1		144,000)
(Nominal)		kW	42.2	
	Power input	kW	8.78	
· · · · ·	575) Current input	A	9.7	<u>,</u>
(Rated)		BTU/h kW	138,000 40.4	J
	Power input	kW	9.44	10.57
0	575) Current input	A	10.5	11.7
Temp. range of	Indoor	W.B.	59~75°F (15-	
cooling	Inlet water	°F	50~113°F (10	
leating capacity	*2		160,000	· · · · · · · · · · · · · · · · · · ·
Nominal)	-	kW	46.9	·
,	Power input	kW	8.11	
(575) Current input	А	9.0	
(Rated)		BTU/h	152,000)
. ,		kW	44.5	
	Power input	kW	7.43	7.92
(;	575) Current input	А	8.2	8.8
emp. range of	Indoor	D.B.	59~81°F (15-	
eating	Inlet water	°F	50~113°F (10	
ndoor unit	Total capacity		50~150% of heat sour	
onnectable	Model/Quantity	1	P04~P96/1	~36
	(measured in anechoic room)		54.0	
Refrigerant	High pressure	in. (mm)	7/8 (22.2) B	
piping diameter	Low pressure	in. (mm)	1-1/8 (28.58)	Brazed
Ainimum Circuit Amp		A	13	
Maximum Overcurrer		A	20	
irculating water	Water flow rate	G/h	1,902	
		G/min m ³ /h	31.7	
			7.20	
		L/min	120	
	Dressure dren	cfm	4.2	
	Pressure drop	psi kPa	6.38	
	On exeting y velope	кРа G/h	44 1,189 ~ 3,	054
	Operating volume	G/min		
	range	m ³ /h	4.5 ~ 11	
Compressor	Type x Quantity	111 /11	4.5 ~ 11 Inverter scroll hermetic	
Sompressor	Starting method		Inverte	
	Motor output	kW	9.5	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized stee	
External dimension H	I 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 protectio	n	High pressure sensor, High pressure	e switch at 4.15 MPa (601 psi)
	Inverter circuit		Over-heat protection, Ove	r-current protection
	Compressor		Over-heat pro	tection
Refrigerant	Type x original charge		R410A x 13 lbs + 4	
	Control		Indoor LEV and B	
Net weight		lbs (kg)	512 (23)	
leat exchanger		1 -	plate typ	e
	Water volume in plate	G	1.32	
		<u> </u>	5.0	
	Water pressure Max.	psi	290	
	t Inter Ober	MPa	2.0	
IC circuit (HIC: Hea			-	14
Drawing	External		KL94C24 KE94G4:	
Standard	Wiring		KE94G4. Installation M	
Ittachment	Document Accessory		Installation M Details refer to E	
Dptional parts	AUCOSULA		joint: CMY-Y102SS-G2, CMY-Y1	
			Main BC controller: CMB-P108,1012,10	
			Sub BC controller: CMB-I	
Remarks			Details on foundation work, duct work, insulation work, electrical ferred to the Installation Manual. Due to continuing improvement, above specifications may be sul The ambient temperature of the Heat Source Unit needs to be kee The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water Be sure to provide interlocking for the unit operation and water ci Install the supplied insulation material to the unused drain-socket When installing insulation material around both water and refrige The cooling tower and the water circuit must be a closed circuit (oject to change without notice. opt below 104°FD.B. (40°CD.B.) e kept below 80%. inlet piping of the unit. rcuit. frant piping, follow the installation manual.
			The cooling lower and the water circuit must be a closed circuit (water is not exposed to the atmosphere).
ataa:				I last an and a second s
otes:				Unit converter
Nominal cooling cor	iditions (Test conditions are b	ased on AHRI	1230)	BTU/h =kW x 3,412

 Notes:
 Unit converter

 1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
 BTU/h
 =kW x 3,412

 Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 cfm
 =m³/min x 35.31

 2.Nominal heating conditions (Test conditions are based on AHRI 1230)
 lbs
 =kg/0.4536

 Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)
 *Above specification data is subject to rounding variation.

Heat Source				PQRY-P168ZLMU-A1	Dustod
Indoor Mode Power source				Non-Ducted 3-phase 3-wire 575 V ±10% 60 Hz	Ducted
Cooling cap		*1	BTU/h	3-phase 3-wire 575 V ±10% 60 Hz 168,000	
Nominal)	acity	I	kW	49.2	
Nominal)		Power input	kW	12.05	
	(575)		A	13.4	
1	(Rated)	Current input	BTU/h	10,4	
	(Tutou)		kW	46.9	
		Power input	kW	11.98	12.47
	(575)		A	13.3	13.9
Femp. range	· · · · · · · · · · · · · · · · · · ·	Indoor	W.B.	59~75°F (15~24°C)	10.5
ooling	0 01	Inlet water	°F	50~113°F (10~45°C)	
leating cap	acity	*2	BTU/h	188,000	
Nominal)	aony	2	kW	55.1	
(torninar)		Power input	kW	9.86	
	(575)		A	11.0	
	(Rated)	Ourient input	BTU/h	178,000	
	(Italed)		kW	52.2	
		Power input	kW	8.96	9.66
	(575)		A	9.9	10.7
emp. range		Indoor	A D.B.	9.9 59~81°F (15~27°C)	10.7
		Indoor Inlet water	D.B. ⁰F	59~81°F (15~27°C) 50~113°F (10~45°C)	
eating			1 °F		
ndoor unit		Total capacity		50~150% of heat source unit capacity P04~P96/1~42	
connectable		Model/Quantity asured in anechoic room)	dB <a>		
	sure revel (me		dB <a> in. (mm)	56.0 7/9 (22.2) Decent	
Refrigerant		High pressure		7/8 (22.2) Brazed	
piping diame		Low pressure	in. (mm)	1-1/8 (28.58) Brazed	
	rcuit Ampacit		A	16	
	Vercurrent Pr		A Official	25	
irculating w	/ater	Water flow rate	G/h	1,902	
			G/min	31.7	
			m ³ /h	7.20	
			L/min	120	
			cfm	4.2	
		Pressure drop	psi	6.38	
			kPa	44	
		Operating volume	G/h	1,189 ~ 3,054	
		range	G/min	19.8 ~ 50.9	
			m ³ /h	4.5 ~ 11.6	
Compressor	r	Type x Quantity	-	Inverter scroll hermetic compressor x 1	
		Starting method		Inverter	
		Motor output	kW	11.0	
		Case heater	kW	-	
		Lubricant		MEL32	
External fini	sh			Galvanized steel sheets	
External dim	nension H x V	V x D	in.	57-1/8 x 34-11/16 x 21-11/16	
			mm	1,450 x 880 x 550	
Protection d	levices	High pressure protectio	n	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)	
U		Control		Indoor LEV and BC controller	
Vet weight		•	lbs (kg)	512 (232)	
leat exchar	naer			plate type	
	-	Water volume in plate	G	1.32	
			1	5.0	
		Water pressure Max.	psi	290	
			MPa	2.0	
IC circuit (HIC: Heat Inte	er-Changer)		-	
Drawing		External		KL94C244	
		Wiring		KE94G244	
Standard		Document		Installation Manual	
attachment		Accessory		Details refer to External Drw	
Dptional par		_,		joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1	1
- Priorial Pal				-	
				Main BC controller: CMB-P108,1012,1016NU-JA1, CMB-P1016	NU-NA1
				Sub BC controller: CMB-P104,108NU-KB1	
lemarks				Details on foundation work, duct work, insulation work, electrical wiring, power source ferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change withor The ambient temperature of the Heat Source Unit needs to be kept below 104°FD.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 around both water and refrigerant piping, follow the When installing insulation material around both water and refrigerant piping, follow the sure to provide interlocking for the unit operation and water circuit.	out notice. (40°CD.B.) it.
				The cooling tower and the water circuit must be a closed circuit (water is not exposed	I to the atmosphere).
					Unit converter
lotes:		ons (Test conditions are h			BTII/b =kW x 3.412

 Notes:
 Unit converter

 1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
 BTU/h
 =kW × 3,412

 cfm
 =m³/min x 35.31
 lbs
 =kg/0.4536

 Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)
 *Above specification data is subject to rounding variation.

PQRY-P-Z(S)LMU-A1

Heat Source Model			PQRY-P192ZLMU-A1	
Indoor Model			Non-Ducted	Ducted
Power source	د م د	D711/	3-phase 3-wire 575 V ±10%	60 Hz
Cooling capacity (Nominal)	*1	BTU/h kW	<u> </u>	
(Nominal)	Power input	kW	15.05	
	(575) Current input	A	16.7	
(Rated		BTU/h	184,000	
,	,	kW	53.9	
	Power input	kW	15.17	15.00
	(575) Current input	А	16.9	16.7
Temp. range of	Indoor	W.B.	59~75°F (15~24°C)	
cooling	Inlet water	°F	50~113°F (10~45°C)	
Heating capacity	*2		215,000	
(Nominal)		kW	63.0	
	Power input	kW	11.90	
(Deted	(575) Current input	A	13.2	
(Rated)	BTU/h kW	204,000 59.8	
	Power input	kW	10.84	11.53
	(575) Current input	A	12.0	12.8
Temp. range of	Indoor	D.B.	59~81°F (15~27°C)	12.0
neating	Inlet water	°F	50~113°F (10~45°C)	
ndoor unit	Total capacity		50~150% of heat source unit	capacity
connectable	Model/Quantity		P04~P96/1~48	· · · · · · · · · · · · · · · · · · ·
	el (measured in anechoic room)	dB <a>	58.0	
Refrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed	
piping diameter	Low pressure	in. (mm)	1-1/8 (28.58) Brazed	
Minimum Circuit An		А	20	
Maximum Overcurr		А	30	
Circulating water	Water flow rate	G/h	1,902	
		G/min	31.7	
		m ³ /h	7.20	
		L/min	120	
		cfm	4.2	
	Pressure drop	psi	6.38	
		kPa	44	
	Operating volume	G/h	1,189 ~ 3,054	
	range	G/min m ³ /h		
Compressor	Type x Quantity	111 /11	Inverter scroll hermetic compre	essor x 1
Compressor	Starting method		Inverter	
	Motor output	kW	12.4	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Galvanized steel sheel	ts
External dimension	HxWxD	in.	57-1/8 x 34-11/16 x 21-1	1/16
		mm	1,450 x 880 x 550	
Protection devices	High pressure protection	ı	High pressure sensor, High pressure switch	n at 4.15 MPa (601 psi)
	Inverter circuit		Over-heat protection, Over-curren	
	Compressor		Over-heat protection	
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.	
	Control		Indoor LEV and BC contr	oller
Net weight		lbs (kg)	512 (232)	
Heat exchanger	14/-4	0	plate type	
	Water volume in plate	G	1.32	
	Water pressure Mari	l noi	5.0	
	Water pressure Max.	psi MPa	290 2.0	
HIC circuit (HIC: He	at Inter-Changer)	NIFO	-	
Drawing	External			
a	Wiring		KE94G421	
Standard	Document		Installation Manual	
attachment	Accessory		Details refer to External I	Drw
Optional parts	•		joint: CMY-Y102SS-G2, CMY-Y102LS-G2	
-			Main BC controller: CMB-P108,1012,1016NU-JA	1, CMB-P1016NU-KA1
			Sub BC controller: CMB-P104.108	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, ferred to the Installation Manual. Due to continuing improvement, above specifications may be subject to The ambient temperature of the Heat Source Unit needs to be kept belo The ambient relative humidity of the Heat Source Unit needs to be kept to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the water inlet pip 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 pip The cooling tower and the water circuit must be a closed circuit (water is	, change without notice. w 104°FD.B. (40°CD.B.) below 80%. ping of the unit. ping, follow the installation manual.
			5	1 1 ,
lotes:				Unit converter
	onditions (Test conditions are b	ased on AHRI	· · · · · · · · · · · · · · · · · · ·	· · · · ·

Heat Source Model			PQRY-P144 Non-Ducted		ucted
Power source					Icted
Cooling capacity	*1	BTU/h	3-phase 3-wire 5 144.		
Nominal)	1	kW	44		
Norman	Power input	kW	7.		
(575) Current input	A	7		
(Rated)	/ ourient input	BTU/h	138.	•	
(Halou)		kW	40		
	Power input	kW	6.96	8	3.34
(575) Current input	А	7.7		9.3
emp. range of	Indoor	W.B.	59~75°F (15~24°C)	
ooling	Inlet water	٩F	50~113°F	(10~45°C)	
leating capacity	*2	BTU/h	160.	000	
Nominal)		kW	46		
	Power input	kW	7.		
) Current input	A	8		
(Rated)		BTU/h	152,		
		kW	44		
(Power input	kW	6.86		.29
) Current input	A D.B.	7.6		8.1
emp. range of	Indoor	0.B. ⁰F	59~81°F (
eating	Inlet water	*⊢	50~113°F		
ndoor unit	Total capacity Model/Quantity		50~150% of heat s		
onnectable	easured in anechoic room)	dB <a>	P04~P9		
efrigerant	High pressure	in. (mm)	7/8 (22.2		
iping diameter	Low pressure	in. (mm)	1-1/8 (28.5		
et Model	LOW PICSSUIC		1-1/0 (20.3	DIALOU	
lodel			PQRY-P72ZLMU-A1	PORY-P	72ZLMU-A1
/inimum Circuit Ampaci	tv	А	5		5
Animum Overcurrent P		A	15		15
Circulating water	Water flow rate	G/h	1,522 -		••
		G/min	25.4 -		
		m ³ /h	5.76 -		
		L/min			
		cfm	3.4 -		
	Pressure drop	psi	3.48		3.48
	i iooodio diop	kPa	24		24
	Operating volume	G/h	793 + 793 ~ 1		
	range	G/min	13.2 + 13.2 ~		
	5	m ³ /h	3.0 + 3.0 ~		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll herr	netic compressor x 1
•	Starting method		Inverter		verter
	Motor output	kW	4.3		4.3
	Case heater	kW	_		-
	Lubricant		MEL32	M	EL32
External finish			Galvanized steel sheets	Galvanized	t steel sheets
External dimension H x	N x D	in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-1	11/16 x 21-11/16
		mm	1,100 x 880 x 550		880 x 550
Protection devices	High pressure protection	ı	High pressure sensor, High pressure switch at 4.15 MPa (601		
	riigir procedio procedio		psi)		osi)
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection,	Over-current protection
	Compressor		Over-heat protection		at protection
tefrigerant	Type x original charge		R410A x 11 lbs + 1 oz (5.0 kg)		os + 1 oz (5.0 kg)
	Control			d BC controller	
let weight		lbs (kg)	411 (186)		(186)
leat exchanger		-	plate type		e type
	Water volume in plate	G	1.32		.32
		μ.	5.0		5.0
	Water pressure Max.	psi MD-	290		290
	han Chang)	MPa	2.0		2.0
IIC circuit (HIC: Heat In		in (m)	- F/0 (45.00) Durant d	EI0 / 1 E /	-
Pipe between unit and	High pressure	in. (mm)	5/8 (15.88) Brazed		88) Brazed
listributor	Low pressure	in. (mm)	-		05) Brazed
Drawing	External		KE94		10.404
tenderd	Wiring		KE94G421		4G421
Standard	Document		Installatio		
ttachment	Accessory		Details refer to		
Optional parts			Heat Source Twinning joint: CMY-Y102SS-G2, CMY		
			Joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012		
			Sub BC controller: Ch		
Remarks			Details on foundation work, duct work, insulation work, electri		h and other items shall be
indirið			ferred to the Installation Manual.	car winnig, power source SWIIC	an, and other items shall be
			Due to continuing improvement, above specifications may be	subject to change without not	ice.
			The ambient temperature of the Heat Source Unit needs to be		
			The ambient relative humidity of the Heat Source Unit needs		,
			The Heat Source Unit should not be installed at outdoor.		
			Be sure to mount a strainer (more than 50 meshes) at the wa		
			Be sure to provide interlocking for the unit operation and wate		- f the s he s of the s
			The Heat Source twinning kit (low pressure) should be conne		ot the heat source unit.
				l A	
			Install the supplied insulation material to the unused drain-so		
			Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and refi	igerant piping, follow the insta	Illation manual.
			Install the supplied insulation material to the unused drain-so	igerant piping, follow the insta	Illation manual.
ntes.			Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and refi	igerant piping, follow the insta	illation manual. atmosphere).
lotes:			Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and refi The cooling tower and the water circuit must be a closed circu	igerant piping, follow the insta	allation manual. e atmosphere). Unit converter
Nominal cooling condit.	ons (Test conditions are b: V.B. (27°CD.B./19°CW.B.)		Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and refi The cooling tower and the water circuit must be a closed circu 1230)	igerant piping, follow the insta	illation manual. atmosphere).

Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C)
 Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

cfm =m³/min x 35.31 =kg/0.4536 lbs

Heat Source Model Indoor Model			PQRY-P168 Non-Ducted		cted
Power source			3-phase 3-wire 5		cled
Cooling capacity	*1	BTU/h	168.		
(Nominal)		kW	49		
	Power input	kW	9.	33	
(575)	Current input	А	10		
(Rated)		BTU/h	160.		
		kW	46		
()	Power input	kW	8.87		.88
	Current input	A	9.8		1.0
Temp. range of	Indoor	₩.B. °F	59~75°F (
cooling	Inlet water *2		50~113°F		
Heating capacity	*2	BTU/h	188.		
(Nominal)	Derror	kW kW	55		
(E7E)	Power input Current input	A	9.		
(Rated)	Current input	A BTU/h	178.		
(Raleu)		kW	52		
	Power input	kW	8.53		.04
(575)	Current input	A	9.5		3.9
Temp. range of	Indoor	D.B.	9.5 59~81°F (
neating	Inlet water	°F	50~113°F		
ndoor unit	Total capacity	1 '	50~150% of heat s		
connectable	Model/Quantity		P04~P9		
Sound pressure level (mea		dB <a>	F04-75		
Refrigerant	High pressure	in. (mm)	7/8 (22.2		
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5		
Set Model				.,	
Vodel			PQRY-P96ZLMU-A1	PQRY-P7	2ZLMU-A1
Minimum Circuit Ampacity	1	А	7		5
Maximum Overcurrent Pro		A	15		15
Circulating water	Water flow rate	G/h	1,522 -		
5		G/min	25.4 -		
		m ³ /h	5.76 +	- 5.76	
		L/min	96 -	- 96	
		cfm	3.4 -	- 3.4	
	Pressure drop	psi	3.48	3.	.48
		kPa	24	2	24
	Operating volume	G/h	793 + 793 ~ 1	,902 + 1,902	
	range	G/min	13.2 + 13.2 -	31.7 + 31.7	
	0	m ³ /h	3.0 + 3.0 ~	7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll herm	netic compressor x 1
	Starting method		Inverter	Inve	erter
	Motor output	kW	6.0	4	1.3
	Case heater	kW			-
	Case nealer	KVV	-		
	Lubricant	K V V	- MEL32	ME	L32
External finish		KVV	MEL32 Galvanized steel sheets		EL32 steel sheets
	Lubricant	in.		Galvanized	
	Lubricant		Galvanized steel sheets	Galvanized 43-5/16 x 34-1	steel sheets
External dimension H x W	Lubricant x D	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601	Galvanized 43-5/16 x 34-1 1,100 x 8 High pressure sensor, High pre	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6
	Lubricant	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550	Galvanized 43-5/16 x 34-1 1,100 x 8 High pressure sensor, High pre p	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si)
External dimension H x W	Lubricant x D	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601	Galvanized 43-5/16 x 34-1 1,100 x 8 High pressure sensor, High pre p	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6
External dimension H x W Protection devices	Lubricant x D High pressure protection	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	Galvanized 43-5/16 x 34-1 1.100 x i High pressure sensor, High pre p Over-heat protection, Over-heat	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection
External dimension H x W Protection devices	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	Galvanized 43-5/16 x 34-1 1.100 x / High pressure sensor, High pr p Over-heat protection, Over-heat R410A x 11 lbs	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection
External dimension H x W Protection devices	Lubricant x D High pressure protection Inverter circuit Compressor	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection	Galvanized 43-5/16 x 34-1 1.100 x / High pressure sensor, High pr p Over-heat protection, Over-heat R410A x 11 lbs	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection
External dimension H x W Protection devices Refrigerant Net weight	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge	in. mm	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection Cover-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186)	Galvanized 43-5/16 x 34-1 1,100 x 1 High pressure sensor, High pre P Over-heat protection, Over-heat R410A x 111 lbs d BC controller 411	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa ((si) Over-current protection t protection s + 1 oz (5.0 kg) (186)
External dimension H x W Protection devices Refrigerant Net weight	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control	in. mm n Ibs (kg)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre p Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (r si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type
External dimension H x W Protection devices Refrigerant Net weight	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge	n	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre p Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1.	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (f si) Over-current protection t protection s + 1 oz (5.0 kg) (186) t type .32
External dimension H x W Protection devices Refrigerant Net weight	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate	in. mm n Ibs (kg) G	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	Galvanized 43-5/16 x 34-1 1.100 x 1 High pressure sensor, High pre- p Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0
External dimension H x W Protection devices Refrigerant Net weight	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control	in. mm n Ibs (kg) G I psi	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290	Galvanized 43-5/16 x 34-1 1,100 x 4 High pressure sensor, High pr P Over-heat protection, Over-heat R410A x 111 bs d BC controller 411 plate 1, 5 2	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa ((si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 32 50 90
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	in. mm n Ibs (kg) G	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,00 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection Cover-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Galvanized 43-5/16 x 34-1 1,100 x 14 High pressure sensor, High pre P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 5 2 2 2	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 90 2.0
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Inte	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. rr-Changer)	in. mm Ibs (kg) G I psi MPa	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- p Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1, 5 2 2	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 90 .0 -
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inte</u> Pipe between unit and	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,00 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection Cover-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Galvanized 43-5/16 x 34-1 1.100 x 1 High pressure sensor, Over-heat protection,	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (f si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 2 type .32 .0 90 2.0 - 5 Brazed
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inte</u> Pipe between unit and distributor	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. rr-Changer) High pressure Low pressure	in. mm Ibs (kg) G I psi MPa	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	Galvanized 43-5/16 x 34-1 1,100 x 14 High pressure sensor, High pre- P Over-heat protection, Over-heat R410A x 111 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.2)	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 90 .0 -
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inte</u> Pipe between unit and distributor	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 5.0 290 2.0 3/4 (19.05) Brazed - KL94	Galvanized 43-5/16 x 34-1 1,100 x 4 High pressure sensor, High pre P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KL94 KL94 KL94	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- p Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 2 2 3/4 (19.0 7/8 (22.2 C251 KE94	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 2 type .32 .0 90 2.0 - 5 Brazed
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE92 n Manual	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inte</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to	Galvanized 43-5/16 x 34-1 1,100 x 3 High pressure sensor, Automatic	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Inte</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Cver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Galvanized 43-5/16 x 34-1 1,100 x 14 High pressure sensor, High pr P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE94 n Manual External Drw kit CMY-Q100CBK2	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to	Galvanized 43-5/16 x 34-1 1,100 x 14 High pressure sensor, High pr P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE94 n Manual External Drw kit CMY-Q100CBK2	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Cver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning	Galvanized 43-5/16 x 34-1 1,100 x 14 High pressure sensor, High pre- P Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 2 3/4 (19.0 7/8 (22.1 C251 KE94 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012	Galvanized 43-5/16 x 34-1 1.100 x 14 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE92 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .5) Brazed 2) Brazed
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Dptional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMM Main BC controller: CMB-P108,1012 Sub BC controller: CM	Galvanized 43-5/16 x 34-1 1.100 x 14 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE92 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 20 - 55) Brazed 2) Brazed 4G421
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Dptional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0	Galvanized 43-5/16 x 34-1 1.100 x 14 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 5 2 2 3/4 (19.0 7/8 (22.5 C251 KE92 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 20 - 55) Brazed 2) Brazed 4G421
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - XL94 KE94G421 Installatio Details refer to Heat Source Twinnig joint: CMY-Y102SS-G2, CM/ Main BC controller: CMB-P108,1012 Sub BC contro	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 52 22 3/4 (19.0 7/8 (22.1 C251 KE94 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 Cal wiring, power source switch	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (isi) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 - .5) Brazed 2) Brazed 4G421
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be	Galvanized 43-5/16 x 34-1 1.100 x 1 High pressure sensor, Automatic pressure sensor, Over-heat R410A x 11 lbs d BC controller 411 plate 1 2 3/4 (19.0 7/8 (22.1 C251 KE92 n Manual External Drw kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 Me-P104,108NU-KB1 cal wiring, power source switch subject to change without notio	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 2.0 - 55) Brazed 2) Brazed 4G421 h, and other items shall be r ce.
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1,32 5,0 290 2,0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installation Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1014 Sub BC contr	Galvanized 43-5/16 x 34-1 1,100 x 4 High pressure sensor, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, External Drw kit: CMY-0100CBK2 'Y102LS-G2, CMY-R160-J1 'L1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switch subject to change without notii kept below 104°FD.B. (40°CI	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 2.0 - 55) Brazed 2) Brazed 4G421 h, and other items shall be r ce.
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Cver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Galvanized 43-5/16 x 34-1 1.100 x 1 High pressure sensor, High pr Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 2 3/4 (19.0 7/8 (22.2 2 3/4 (19.0 7/8 (22.5 C251 KE Kit: CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switcf subject to change without noti kept below 104*FD.B. (40°CI kobe kept below 80%.	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 2.0 - 55) Brazed 2) Brazed 4G421 h, and other items shall be r ce.
External dimension H x W	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Galvanized 43-5/16 x 34-1 1,100 x 1 High pressure sensor, High pressure, High	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 2 type 32 50 90 2.0 - 55) Brazed 2) Brazed 4G421 h, and other items shall be r ce.
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1,32 5,0 290 2,0 2,0 - 3/4 (19.05) Brazed - KL94 KE94G421 Installation Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1014 SUB BC	Galvanized 43-5/16 x 34-1 1.100 xł High pressure sensor, High pressor, High press	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (rights) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 90 2:0 - .5) Brazed 2) Brazed 4G421 h, and other items shall be to ce. D.B.)
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Cver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Galvanized 43-5/16 x 34-1 1.100 x 1 High pressure sensor, High pr Over-heat protection, Over-heat Quer-heat R410A x 11 lbs d BC controller 411 plate 1	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an A111 (186) Indoor LEV an	Galvanized 43-5/16 x 34-1 1,100 x 1 High pressure sensor, High pressor, High Pres	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (si) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
External dimension H x W Protection devices Refrigerant <u>Net weight</u> Heat exchanger Pipe between unit and <u>listributor</u> Drawing Standard <u>attachment</u> Dptional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Galvanized steel sheets Galvanized steel	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (si) Over-current protection t protection s + 1 oz (5.0 kg) (186) (
External dimension H x W Protection devices Refrigerant Het weight Heat exchanger Pipe between unit and listributor Drawing Standard Htachment Dptional parts	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an A111 (186) Indoor LEV an	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (isi) Over-current protection t protection s + 1 oz (5.0 kg) (186) e type .32 .0 90 2.0 - .5) Brazed 2) Brazed 4G421 h, and other items shall be to ce. D.B.) of the heat source unit. llation manual.
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Dptional parts Remarks	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document	in. mm n Ibs (kg) G I psi MPa in. (mm)	Galvanized steel sheets High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Galvanized steel sheets Galvanized steel	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 32 (186) 2 type 32 50 90 2.0 - - 55) Brazed 2) Brazed 4G421 4G421 h, and other items shall be r ce. D.B.) of the heat source unit. Illation manual. atmosphere).
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Notes:	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. rr-Changer) High pressure Low pressure External Wiring Document Accessory	in. mm n lbs (kg) G I psi MPa in. (mm) in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Cver-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-1/16 880 x 550 essure switch at 4.15 MPa (i si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 1 type 32 50 90 20 - 55) Brazed 21) Brazed 4G421 4G421 4G421 4G421 1 55) Frazed 20) Brazed 4G421
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Iotes: .Nominal cooling conditio	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure External Wiring Document Accessory	in. mm n Ibs (kg) G I psi MPa in. (mm) in. (mm) ased on AHRI	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1.100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-1/16 880 x 550 essure switch at 4.15 MPa (isi) Over-current protection t protection s + 1 oz (5.0 kg) (186) a type .32 .60 90 2.0 - 15) Brazed 2) Brazed 4G421 - - .60 90 .0 91 .0 92 Brazed .15) Brazed .2) Brazed .2) Brazed .32 .60 .15) Brazed .20 .21 .22 .32 .33 .34000000000000000000000000000000000000
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks Notes: I.Nominal cooling conditio Indoor: 81°FD.B./66°FW	Lubricant x D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure Low pressure External Wiring Document Accessory ns (Test conditions are b B. (27°CD.B./19°CW.B.)	in, mm n lbs (kg) G I psi MPa in. (mm) in. (mm) in. (mm)	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 6.7 3/4 (19.05) Brazed 6.7 4.9 4.1 4.1 4.1 4.1 4.1 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 411 2 2 2 2 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 3/4 (19.0 7/8 (22.2 22 22 22 22 22 22 22 22 22	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6 si) Over-current protection t protection s + 1 oz (5.0 kg) (186) 2 type .32 .0 90 .0 .0 .0 .0 .0 .0 .0 .0 .0
External dimension H x W Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Inte Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Iotes: .Nominal cooling conditio	Lubricant Lubricant ix D High pressure protection Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. rr-Changer) High pressure Low pressure External Wiring Document Accessory	in	Galvanized steel sheets 43-5/16 x 34-11/16 x 21-11/16 1,100 x 880 x 550 High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) 1 Indoor LEV an 411 (186) 1 Indoor LEV an 411 (186) 2 Indoor LEV an 411 (186) 411 (18	Galvanized 43-5/16 x 34-1 1.100 x 4 High pressure sensor, High pre- P Over-heat protection, Over-heat protection, Over-heat protection, Over-heat protection, Over-heat R410A x 11 lbs d BC controller 411 plate 1. 2. 2. 2. 2. 3/4 (19.0 7/8 (22.2) C251 KE94 n Manual p External Drw kit: CMY-Q100CBK2 	steel sheets 1/16 x 21-11/16 880 x 550 essure switch at 4.15 MPa (6) si) Over-current protection t protection s + 1 oz (5.0 kg) (186) a type .32 .60 90 2.0 - 15) Brazed 2) Brazed 4G421 - - .0 90 .0 91 .0 92 Brazed .15) Brazed .2) Brazed .2) Brazed .32 .60 .70 .71 .72 .73 .74 .74 .75 .75 .75 .75 .75 .76 .77 .77 .77 .77 </td

Indoor Model			PQRY-P192		ata d
			Non-Ducted		icted
Power source	*1	DTU/	3-phase 3-wire 57		
Cooling capacity	^1	BTU/h kW	192.		
(Nominal)	Power input	kW	56		
(575			11.		
) Current input	A	12		
(Rated)		BTU/h	184,		
		kW	53		
	Power input	kW	10.84		1.80
(575		А	12.0		3.1
Temp. range of	Indoor	W.B.	59~75°F (
cooling	Inlet water	°F	50~113°F		
Heating capacity	*2	BTU/h	215,	000	
(Nominal)		kW	63	.0	
	Power input	kW	11.	02	
(575)) Current input	А	12	.2	
(Rated)	·····	BTU/h	204,	000	
(kW	59		
	Power input	kW	10.09		.93
(575)		A	11.2		9.9
Temp. range of	Indoor	D.B.	59~81°F (5.5
heating	Inlet water	°F	50~113°F		
		T			
Indoor unit	Total capacity		50~150% of heat s		
connectable	Model/Quantity	15	P04~P9		
	easured in anechoic room)	dB <a>	51		
Refrigerant	High pressure	in. (mm)	7/8 (22.2		
piping diameter	Low pressure	in. (mm)	1-1/8 (28.5	8) Brazed	
Set Model					
Model			PQRY-P96ZLMU-A1	PQRY-PS	96ZLMU-A1
Minimum Circuit Ampacit	ty	А	7		7
Maximum Overcurrent P		А	15		15
Circulating water	Water flow rate	G/h	1,522 +		
5		G/min	25.4 +		
		m ³ /h	5.76 +		
		L/min	96 +		
		cfm	3.4 +		
	Dressure dren				49
	Pressure drop	psi	3.48		.48
		kPa	24		24
	Operating volume	G/h	793 + 793 ~ 1		
	range	G/min	13.2 + 13.2 ~		
		m ³ /h	3.0 + 3.0 ~	7.2 + 7.2	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hern	netic compressor x 1
	Starting method		Inverter	Inv	rerter
	Motor output	kW	6.0		6.0
	Case heater	kW	-		-
	Lubricant		MEL32	M	EL32
External finish	Eubrioant		Galvanized steel sheets		I steel sheets
External dimension H x V	N × D	in.	43-5/16 x 34-11/16 x 21-11/16		1/16 x 21-11/16
	W X D	mm	1,100 x 880 x 550		880 x 550
			High pressure sensor, High pressure switch at 4.15 MPa (601		
Protection devices	High pressure protection	ı			
			psi)		osi)
			Over-heat protection, Over-current protection		Over-current protection
	Inverter circuit			Over hee	t protection
	Compressor		Over-heat protection		
Refrigerant			Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)		s + 1 oz (5.0 kg)
Refrigerant	Compressor			R410A x 11 lb	s + 1 oz (5.0 kg)
Ģ	Compressor Type x original charge	lbs (kg)	R410A x 11 lbs + 1 oz (5.0 kg)	R410A x 11 lb BC controller	s + 1 oz (5.0 kg) (186)
Net weight	Compressor Type x original charge	lbs (kg)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and	R410A x 11 lb d BC controller 411	
Net weight	Compressor Type x original charge Control		R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186)	R410A x 11 lb d BC controller 411 plat	(186)
Net weight	Compressor Type x original charge	lbs (kg) G	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32	R410A x 11 lb d BC controller 411 plat 1	(186) e type .32
Net weight	Compressor Type x original charge Control Water volume in plate	G	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0	R410A x 11 lb d BC controller 411 plat 1	(186) e type .32 5.0
Net weight	Compressor Type x original charge Control	G I psi	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290	R410A x 11 lb d BC controller 411 plat 1 2	(186) e type .32 5.0 290
Net weight Heat exchanger	Compressor Type x original charge Control Water volume in plate Water pressure Max.	G	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0	R410A x 11 lb d BC controller 411 plat 1 2	(186) e type .32 5.0
Net weight Heat exchanger HIC circuit (HIC: Heat Int	Compressor Type x original charge Control Water volume in plate Water pressure Max. ler-Changer)	G I psi MPa	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0	R410A x 11 lb 1 BC controller 411 plat 1	(186) e type .32 5.0 .90 2.0
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0	R410A x 11 lb d BC controller 411 plat 1 2 2 2 3/4 (19.0	(186) e type .32 5.0 .90 2.0 - .05) Brazed
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure	G I psi MPa	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed	R410A x 11 lb d BC controller 411 plat 1 2 2 3/4 (19.0 7/8 (22.	(186) e type .32 5.0 .90 2.0
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94	R410A x 11 lb d BC controller 411 1 2 2 3/4 (19.0 7/8 (22. 2251	(186) e type .32 .5.0 290 2.0 - .5.0 .5.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 KE94G421	R410A x 11 lb d BC controller 411 plat 2 2 3/4 (19.0 7/8 (22. C251 KE9	(186) e type .32 5.0 .90 2.0 - .05) Brazed
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421	R410A x 11 lb d BC controller 411 plat 1 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual KE9	(186) e type .32 .5.0 290 2.0 - .5.0 .5.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 KE94G421	R410A x 11 lb d BC controller 411 plat 1 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual KE9	(186) e type .32 .5.0 290 2.0 - .5.0 .5.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421	R410A x 11 lb d BC controller 411 plat 1	(186) e type .32 .5.0 290 2.0 - .5.0 .5.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 2	(186) e type .32 .5.0 290 2.0 - .5.0 .5.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1	(186) e type 32 5.0 20 2.0 - - 55) Brazed 2) Brazed 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed KE94G421 Installatio Details refer to	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1	(186) e type 32 5.0 20 2.0 - - 55) Brazed 2) Brazed 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1	(186) e type 32 5.0 20 2.0 - - 55) Brazed 2) Brazed 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMV-Y102SS-62, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CM Sub BC controller: CM	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 Y102LS-G2, CMY-R160-J1 408-P1016NU-KA1 HB-P104,108NU-KB1 408-P104-108	(186) e type .32 5.0 20 2.0 - - 55) Brazed 2) Brazed 2) Brazed 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.5) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric	R410A x 11 lb d BC controller 411 plat 1 y 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 Y102LS-G2, CMY-R160-J1 408-P1016NU-KA1 HB-P104,108NU-KB1 408-P104-108	(186) e type 32 5.0 20 2.0 - - 55) Brazed 2) Brazed 2) Brazed 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual.	R410A x 11 lb 1 BC controller 411 plat 1 1 2 2 2 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 HB-P104,108NU-KB1 cal wiring, power source switc	(186) e type .32 5.0 190 2.0 - .5 5.0 190 2.0 - .5 5.0 2.0 - .5 5.0 2.0 - .5 5.0 4.0 2.0 - .5 5.0 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMD-D108,1012 Sub BC controller: CMD-D108,1012 Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be	R410A x 11 lb 1 BC controller 411 plat 1 1 2 2 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 1 External Drw 1 kit: CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 Y102LS-G2, CMY-R160-J1 419.0 1016NU-JA1, CMB-P1016NU-KA1 18-P104,108NU-KB1 cal wiring, power source switc subject to change without not	(186) e type 32 5.0 290 2.0 - 5) Brazed 2) Brazed 2) Brazed 4G421 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be	R410A x 11 lb 1 BC controller 411 plat 1 1 2 2 2 3/4 (19.0 7/8 (22. 2251 KE9 n Manual External Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C	(186) e type .32 5.0 290 2.0 - 55) Brazed 2) Brazed 2) Brazed 4G421 h, and other items shall be re- ice.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be	R410A x 11 lb 1 BC controller 411 plat 1 1 2 2 2 3/4 (19.0 7/8 (22. 2251 KE9 n Manual External Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C	(186) e type 32 5.0 290 2.0 - 5) Brazed 2) Brazed 2) Brazed 4G421 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KL94 KL94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 1 2 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual 1 External Drw 1 kit: CMY-Q100CBK2	(186) e type 32 5.0 290 2.0 - 5) Brazed 2) Brazed 2) Brazed 4G421 4G421
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 290 2.0 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 K194G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	R410A x 11 lb d BC controller 411 plat 1 plat 1 y 2 3/4 (19.0 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 BP-P104,108NU-KB1 cal wiring, power source switc subject to change without not ekpt below 104°FD.B. (40°C o be kept below 104°FD.S. (40°C o be kept below 80%. er inlet piping of the unit. 1	(186) e type .32 5.0 290 2.0 - - 5) Brazed 2) Brazed 2) Brazed 4G421 h, and other items shall be re- ice.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMX-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wal Be sure to provide interlocking for the unit operation and wate	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 1 2 1 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual KEtemal Drw kit: CMY-Q100CBK2 - -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 Be-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 104°FD.B. (40°C to be kept below 80%. er inlet piping of the unit. r circuit.	(186) e type .32 5.0 .90 2.0 - .5) Brazed 2) Brazed 4G421 h, and other items shall be re- ice. D.B.)
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed Installatio Details refer to KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Petails on foundation work, duct work, insulation work, electriviferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The mation traliation Manual. Due to continuing improvement, above specifications may be The mation tralead outdoor. Be sure to mount a strainer (more than 50 meshes) at the wal The Heat Source Unit needs to the strainer (more than 50 meshes) at the wal	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 1 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual 1 External Drw 1 kit: CMY-Q100CBK2	(186) e type .32 5.0 .90 2.0 - .5) Brazed 2) Brazed 4G421 h, and other items shall be re- ice. D.B.)
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 K194G421 Installatio Details refer to Heat Source Twinning joint: CMV-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit needs to be The Heat Source Unit needs to be The Hea	R410A x 11 lb d BC controller 411 plat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 HB-P104,108NU-KB1 cal wiring, power source switc subject to change without not te kept below 104°FD.B. (40°C o be kept below 104°FD.B. (40°C o be kept below 104°FD.B. (40°C to be kept below 80%. er inlet piping of the unit. r circuit. cited to the low pressure side of ket.	(186) e type .32 .5.0 290 2.0 - - - - - - - - - - - - -
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KL94 KL94 KE94G421 Installatio Details refer to KL94 CMP Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The Assource Unit should not be installed at outdoor. Be sure	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 91 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual 7/8 (22.0) External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 BP-104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of ket. igerant piping, follow the instational statistics statistics	(186) e type .32 5.0 190 2.0 - - 2) Brazed 2) Brazed 4G421 4G421 h, and other items shall be r ice. D.B.) of the heat source unit. Ilation manual.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Dptional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV and 411 (186) plate type 1.32 5.0 290 2.0 2.0 2.0 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 K194G421 Installatio Details refer to Heat Source Twinning joint: CMV-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The Heat Source Unit needs to be The Heat Source Unit needs to be The Hea	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 91 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual 7/8 (22.0) External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 BP-104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of ket. igerant piping, follow the instational statistics statistics	(186) e type .32 5.0 190 2.0 - - 2) Brazed 2) Brazed 4G421 4G421 h, and other items shall be re- ice. D.B.) of the heat source unit. Ilation manual.
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Dptional parts Remarks	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KL94 KL94 KE94G421 Installatio Details refer to KL94 CMP Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The abient relative humidity of the Heat Source Unit needs to be The Assource Unit should not be installed at outdoor. Be sure	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 91 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual 7/8 (22.0) External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 BP-104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of ket. igerant piping, follow the instational statistics statistics	(186) e type .32 5.0 290 2.0
Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks	Compressor Type x original charge Control Water volume in plate Water pressure Max. (er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm)	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Petails on foundation work, duct work, insulation work, electrificerred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Sou	R410A x 11 lb 1 BC controller 411 plat 91 1 91 2 91 3/4 (19.0 7/8 (22.0) C251 KE9 n Manual 7/8 (22.0) External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 BP-104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of ket. igerant piping, follow the instational statistics statistics	(186) e type .32 5.0 290 2.0 - - 5) Brazed 2) Brazed 2) Brazed 4G421 4G421 4G421 b, and other items shall be re- ice. D.B.) of the heat source unit. Ilation manual. e atmosphere). Unit converter
Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Int Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks I.Nominal cooling conditit	Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm) in. (mm) ased on AHRI	R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 2.0 3/4 (19.05) Brazed KL94 KL94 KL94 KE94G421 Installatio Details refer to Means Bourse Twinning joint: CMS-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P1	R410A x 11 lb 1 BC controller 411 9lat 411 9lat 1 2 3/4 (19.0 7/8 (22. C251 KE9 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 H8-P104,108NU-KB1 cal wiring, power source switc subject to change without not kept below 104°FD.B. (40°C o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of ket. igerant piping, follow the insta	(186) e type .32 5.0 290 2.0

Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C) 2.Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

=m³/min x 35.31 cfm lbs =kg/0.4536

ndoor Model Power source			Non-Ducted	ZSLMU-A1	ucted	
				75 V ±10% 60 Hz		
Cooling capacity	*1	BTU/h		,000		
Nominal)		kW		3.3		
,	Power input	kW	14	.03		
(575)	Current input	А	15	5.6		
(Rated)		BTU/h	206			
· · · ·		kW	60).4		
	Power input	kW	13.27	14	4.31	
(575)	Current input	А	14.8	1	5.9	
emp. range of	Indoor	W.B.	59~75°F	(15~24°C)		
ooling	Inlet water	°F	50~113°F			
leating capacity	*2	BTU/h	243	.000		
Nominal)		kW	71	.2		
,	Power input	kW		.88		
(575)		A		1.3		
(Rated)		BTU/h	232	,000		
` '		kW		3.0		
	Power input	kW	11.78		0.04	
(575)	Current input	A	13.1		1.2	
emp. range of	Indoor	D.B.	59~81°F		··· =	
eating	Inlet water	°F	50~113°F			
door unit	Total capacity			ource unit capacity		
onnectable	Model/Quantity		P04~P96/2~50 (Connectable b		.)	
	asured in anechoic room)	dB <a>		5.0	•1	
efrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Bra		65 m)	
iping diameter	Low pressure	in. (mm)		58) Brazed	00 mj	
et Model	LOW PIESSUIE		1-1/8 (20.3	JUJ DIALEU		
			PQRY-P120ZLMU-A1	ם עם עם	96ZLMU-A1	
linimum Circuit Ampacit	M.	А	11		7	
laximum Orcuit Ampacit		A	11		7 15	
		A G/h		+ 1,522	IJ	
irculating water	Water flow rate					
		G/min		+ 25.4		
		m ³ /h		+ 5.76		
		L/min		+ 96		
		cfm		+ 3.4		
	Pressure drop	psi	3.48		3.48	
		kPa	24		24	
	Operating volume	G/h		1,902 + 1,902		
	range	G/min		~ 31.7 + 31.7		
		m ³ /h	3.0 + 3.0 -	~ 7.2 + 7.2		
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll herr	metic compressor x 1	
	Starting method		Inverter	Inv	verter	
	Motor output	kW	7.7		6.0	
	Case heater	kW	-		-	
	Lubricant		MEL32	M	EL32	
xternal finish			Galvanized steel sheets	Galvanized	d steel sheets	
xternal dimension H x W	/ x D	in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-1	11/16 x 21-11/16	
		mm	1,100 x 880 x 550	1.100 x	880 x 550	
	Likely and some most set			High pressure sensor, High pr		
Justantian daviana	High pressure protection	1	psi)	, i	osi)	
Protection devices						
Protection devices	Inverter circuit		Over-heat protection Over-current protection		Over-current protection	
Protection devices	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection,	· · · · ·	
	Compressor		Over-heat protection	Over-heat protection, Over-hea	at protection	
	Compressor Type x original charge		Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	Over-heat protection, Over-hea R410A x 11 lb	· · · · · ·	
tefrigerant	Compressor	lbc /kg)	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an	Over-heat protection, Over-hea R410A x 11 lb d BC controller	at protection s + 1 oz (5.0 kg)	
tefrigerant	Compressor Type x original charge	lbs (kg)	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186)	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411	at protection s + 1 oz (5.0 kg) (186)	
tefrigerant	Compressor Type x original charge Control		Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	at protection ss + 1 oz (5.0 kg) (186) e type	
tefrigerant	Compressor Type x original charge	lbs (kg) G	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an plate type 1.32	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	1t protection 1s + 1 oz (5.0 kg) (186) e type .32	
tefrigerant	Compressor Type x original charge Control Water volume in plate	G	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	at protection (186) e type .32 5.0	
tefrigerant	Compressor Type x original charge Control	G I psi	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	at protection (186) (186	
Refrigerant let weight leat exchanger	Compressor Type x original charge Control Water volume in plate Water pressure Max.	G	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	at protection (186) (186) (200) (20)	
tefrigerant let weight leat exchanger IIC circuit (HIC: Heat Inte	Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer)	G I psi MPa	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat	It protection It protection It is + 1 oz (5.0 kg) (186) It is the second se	
tefrigerant let weight leat exchanger IIC circuit (HIC: Heat Into ipe between unit and	Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure	G I psi MPa in. (mm)	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-hea R410A x 11 lb d BC controller 411 plat 1	at protection (186) (
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tefrigerant let weight leat exchanger lIC circuit (HIC: Heat Inte ipe between unit and istributor rrawing tandard ttachment iptional parts	Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - 3/4 (19.05) Brazed - - XE94G421 Installatic Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to c The ambient relative humidity of the Heat Source Unit needs to be kept below The ambient relative humidity of the Heat Source Unit needs to be kept below <td colspan<="" td=""><td>Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td>It protection It protection It is + 1 oz (5.0 kg) (186) It type It typ</td></td>	<td>Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>It protection It protection It is + 1 oz (5.0 kg) (186) It type It typ</td>	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	It protection It protection It is + 1 oz (5.0 kg) (186) It type It typ
Refrigerant Iet weight leat exchanger IIC circuit (HIC: Heat Intellige between unit and istributor brawing tandard ttachment Deptional parts Remarks Tetmarks Tetmark	Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 4111 (186) plate type 1.32 5.0 290 2.0 Colspan="2">KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KL94 KE94G421 Installatic Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Manual Due to controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electrical wiring, p Manual Due to continuing improvement, above specifications may be subject to c The ambient temperature of the Heat Source Unit needs to be kept below The Heat Source twinning kit (low pressure) should be connected to the k <	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	It protection It protection It is + 1 oz (5.0 kg) (186) e type .32 5.0 .290 2.0 - .5) Brazed 2) Brazed 4G421 4G421 t the water inlet piping of the unit unit.	
efrigerant et weight eat exchanger IC circuit (HIC: Heat Inte ipe between unit and istributor rawing tandard ttachment iptional parts emarks otes: Nominal cooling conditic indoor: 81°FD.B./66°FW	Compressor Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water ter	Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 4111 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - - 3/4 (19.05) Brazed - <tr tdolspan="2">- -<</tr>	Over-heat protection, Over-heat R410A x 11 lb d BC controller 411 91 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	It protection It protection It protection It is + 1 oz (5.0 kg) It	

ndoor Model Power source Cooling capacity (Nominal)				ZSLMU-A1
Cooling capacity			Non-Ducted 3-phase 3-wire 5	Ducted
	*1	DTU		
	-1	BTU/h kW	240.	
,	Power input	kW	16.	
(575		A		.8
(Rated)	-//	BTU/h	230	
(kW		.4
	Power input	kW	16.08	17.37
(575		А	17.9	19.3
Temp. range of	Indoor	W.B.	59~75°F (
cooling	Inlet water	۴F	50~113°F	(10~45°C)
leating capacity	*2	BTU/h	270.	000
Nominal)		kW	79	.1
	Power input	kW	14.	58
(575	5) Current input	А	16	.2
(Rated)		BTU/h	258.	000
		kW	75	.6
	Power input	kW	13.40	11.67
(575	5) Current input	А	14.9	13.0
emp. range of	Indoor	D.B.	59~81°F (
eating	Inlet water	°F	50~113°F	(10~45°C)
ndoor unit	Total capacity		50~150% of heat s	
onnectable	Model/Quantity		P04~P96/2~50 (Connectable b	
	easured in anechoic room)		57	
Refrigerant	High pressure	in. (mm)	7/8 (22.2) Brazed (1-1/8 (28.58) Bra	
piping diameter	Low pressure	in. (mm)	1-3/8 (34.9	03) Brazed
Set Model			1	
Nodel		1	PQRY-P120ZLMU-A1	PQRY-P120ZLMU-A1
/linimum Circuit Ampac		А	11	11
Aaximum Overcurrent F		А	15	15
Circulating water	Water flow rate	G/h	1,522 +	•
		G/min	25.4 +	
		m ³ /h	5.76 +	
		L/min	96 -	
		cfm	3.4 -	
	Pressure drop	psi	3.48	3.48
		kPa	24	24
	Operating volume	G/h	793 + 793 ~ 1	
	range	G/min	13.2 + 13.2 ~	
		m ³ /h	3.0 + 3.0 -	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Starting method	1	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	WxD	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
		n	High pressure sensor, High pressure switch at 4.15 MPa (601	High pressure sensor, High pressure switch at 4.15 MPa (
Protection devices	High pressure protection			psi)
Protection devices	High pressure protection		psi)	* *
Protection devices	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Inverter circuit Compressor		Over-heat protection, Over-current protection Over-heat protection	Over-heat protection, Over-current protection Over-heat protection
	Inverter circuit Compressor Type x original charge		Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg)
Refrigerant	Inverter circuit Compressor		Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller
Refrigerant	Inverter circuit Compressor Type x original charge	lbs (kg)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186)
Refrigerant	Inverter circuit Compressor Type x original charge Control		Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type
Refrigerant	Inverter circuit Compressor Type x original charge	lbs (kg)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32
Refrigerant	Inverter circuit Compressor Type x original charge Control Water volume in plate	G	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0
Refrigerant	Inverter circuit Compressor Type x original charge Control	G I psi	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 0 1.32 5.0 290	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290
Refrigerant <u>Net weight</u> Heat exchanger	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	G	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 9 plate type 1.32 5.0 290 2.0 2.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0
Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Ir	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer)	G I psi MPa	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0
Refrigerant <u>Vet weight</u> Heat exchanger HC circuit (HIC: Heat Ir Pipe between unit and	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 9 plate type 1.32 5.0 290 2.0 2.0	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed
Refrigerant <u>Vet weight</u> Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and tistributor	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure	G I psi MPa	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed
Refrigerant <u>Vet weight</u> Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and tistributor	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Inter-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) Indoor LEV an 9 plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 -	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 C251
Refrigerant <u>Net weight</u> Heat exchanger <u>HC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KL94 KE94G421	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421
Refrigerant <u>Vet weight</u> Heat exchanger <u>HC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection Network R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 KL94 KL94 KL94 Installatio	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. ter-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw
Refrigerant	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw kit CMY-Q100CBK2
Refrigerant <u>Net weight</u> Heat exchanger <u>HC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw kit CMY-Q100CBK2
Refrigerant <u>let weight</u> leat exchanger <u>IIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing Standard uttachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1
Refrigerant let weight leat exchanger lIC circuit (HIC: Heat Ir Pipe between unit and listributor Prawing Standard ttachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual p External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1
Refrigerant let weight leat exchanger lIC circuit (HIC: Heat Ir ipe between unit and istributor rawing standard ttachment optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012 Sub BC controller: CMB	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 AB-P104,108NU-KB1
Refrigerant let weight leat exchanger lIC circuit (HIC: Heat Ir ipe between unit and istributor rawing standard ttachment optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMN Main BC controller: CMB-P108,1012	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-KA1 AB-P104,108NU-KB1
Refrigerant <u>let weight</u> leat exchanger <u>lC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing Standard <u>uttachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed Other Willing 1.52 0.0 290 2.0 - State State State State 0.0 1.32 1.32 5.0 290 2.0 - Support 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.133 1.132 1.133 1.132 1.133 1.133 1.134 1.134 <td>Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual 9 External Drw kit: CMY-0100CBK2 '-Y102LS-G2, CMY-R160-J1 2,106NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installatio ange without notice.</td>	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual 9 External Drw kit: CMY-0100CBK2 '-Y102LS-G2, CMY-R160-J1 2,106NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installatio ange without notice.
Refrigerant <u>Het weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>tistributor</u> Drawing Standard <u>attachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Manual. Due to continuing improvement, above specifications may be subject to c1 The ambient temperature of the Heat Source Unit needs to be kept below	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installation shange without notice. 104*FD.B. (40°CD.B.)
Refrigerant <u>let weight</u> leat exchanger <u>lC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing Standard <u>uttachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Steps 0 1.15 1.32 5.0 290 2.0 - 1.15 1.132 1.32 5.0 290 2.0 - Sub BC 1.132 1.132 1.132 1.132 1.132 1.132 1.141 1.151 1.151 1.151 1.151 1.151 1.151 1.151 1.151 1.151 1.151 1.151	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 106NU-JA1, CMB-P1016NU-KA1 JB = referred to the Installation hange without notice. 104*FD.B. (40°CD.B.) thom ange without notice. 104*FD.B. (40°CD.B.)
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Manual. Due to continuing improvement, above specifications may be subject to c1 The ambient temperature of the Heat Source Unit needs to be kept below	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual 0 External Drw kit: CMY-0100CBK2 'Y102LS-G2, CMY-R160-J1 106NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 over source switch, and other items shall be referred to the Installation hange without notice. 104*FD.B. (40°CD.B.) iow 80%.
Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State Surce Twinning joint: CMY-Y102SS-62, CM Main BC controller: CM-P108, 1012 Sub BC controller: CM-P108, 1012	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 N Manual External Drw kit: CMY-Q100CBK2 - - 104 FD4, 108NU-KA1 AB-P104(NU-KA1 AB-P104(NU-KA1 MB-P1016NU-KA1 MB-P104(NU-KA1 MB-P104(NU-KA1 MB-P104(NU-KB1 Without notice. 104 'FD.B. (40°CD.B.) OVERD.D. MB-P104(CD.B.) MB-P104(CD.B.) MB-P104 FD.B.
Refrigerant <u>Het weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>tistributor</u> Drawing Standard <u>attachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Status KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Manual. Due to continuing improvement, above specifications may be subject to ci The ambient trelative of the Heat Source Unit needs to be kept below The ambient relative of the Heat Source Unit needs to be kept below The Abource Unit should not be installed at outdoor. Be sure to mount Be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unithout no the relation the unused drain-socket.	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -'Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 ower source switch, and other items shall be referred to the Installation anage without notice. 104*FD.B. (40°CD B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit.
Refrigerant <u>Het weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>tistributor</u> Drawing Standard <u>attachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 0 1.52 0.0 290 2.0 - 3/4 (19.05) Brazed 0 1.52 0.0 290 2.0 - Support 1.132 1.132 2.0 - 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.132 1.133 1.132 1.132 1.133 1.132 1.132 1.133	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual External Drw kit CMY-Q100CBK2 -'Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 ower source switch, and other items shall be referred to the Installation anage without notice. 104*FD.B. (40°CD B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit.
Refrigerant <u>let weight</u> leat exchanger <u>lC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing Standard <u>uttachment</u> Dptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Status KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108, 1012 Sub BC controller: CM Manual. Due to continuing improvement, above specifications may be subject to ci The ambient trelative of the Heat Source Unit needs to be kept below The ambient relative of the Heat Source Unit needs to be kept below The Abource Unit should not be installed at outdoor. Be sure to mount Be sure to provide interlocking for the unit operation and water circuit. The Heat Source Unithout no the relation the unused drain-socket.	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual 9 External Drw kit CMY-Q100CBK2 'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installation anage without notice. 104*FD.B. (40°CD.B.) iow 8%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual.
Refrigerant let weight leat exchanger lIC circuit (HIC: Heat Ir ipe between unit and istributor rawing standard ttachment optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Statis refer to Heat Source Twinnells refer to Heat Source Twinning in provement, above specifications may be subject to cl The ambient relative of the Heat Source Unit needs to be kept be low The ambient relative of the Heat Source Unit needs to be kept be low The ambient relative of the Heat Source Unit needs to be kept be low The ambient relative numidity of the unit operation and water circuit. The Heat Source Unit needs to be kept be low The ambient relative numidity of the unit operation and water circuit. The Heat Source Unit needs to be kept be low The Heat Source Unit needs to be kept be low The ambient relative numidity of the Heat Source Unit needs to be kept be low The Heat Source Unit needs to be kept be low The Heat Source Unit needs to be kept be low The Heat Source Unit needs to be kept be low The Heat Source Unit needs to be k	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 1.016NU-JA1, CMB-P1016NU-KA1 ABP104,108NU-KB1 were source switch, and other items shall be referred to the Installation hange without notice. 104*FD.B. (40°CD.B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual. intil 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.
Refrigerant let weight leat exchanger lIC circuit (HIC: Heat Ir ipe between unit and istributor rawing standard ttachment optional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 0 1.152 0 1.152 1.152 2.0 - 3/4 (19.05) Brazed 0 1.152 1.152 1.153 1.154 <	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 1.016NU-JA1, CMB-P1016NU-KA1 ABP104,108NU-KB1 were source switch, and other items shall be referred to the Installation hange without notice. 104*FD.B. (40°CD.B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual. intil 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.
tefrigerant leat weight leat exchanger lIC circuit (HIC: Heat Ir lipe between unit and istributor irawing tandard ttachment biptional parts	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. tter-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 0 1.152 0 1.152 1.152 2.0 - 3/4 (19.05) Brazed 0 1.152 1.152 1.153 1.154 <	Over-heat protection Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 Y102LS-G2, CMY-R160-J1 1.016NU-JA1, CMB-P1016NU-KA1 ABP104,108NU-KB1 were source switch, and other items shall be referred to the Installation hange without notice. 104*FD.B. (40°CD.B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual. intil 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m.
tefrigerant leat exchanger liC circuit (HIC: Heat Ir ipe between unit and istributor rawing tandard ttachment)ptional parts temarks temarks	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Iter-Changer) Hidh pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - Methods Negative 900 2.0 - 3/4 (19.05) Brazed - Methods 1.52 0 290 2.0 - Statis refer to Metal Source Twinning joint: CMY-Y102SS-G2, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrical wiring, potanal. Due to continuing improvement, above specifications may be subject to cl The ambient temperature of the Heat Source Unit needs to be kept below The Heat Source twinning kit (low pressure) should be connected to the log Be sure to provide interdoxing for the unit operation and water circuit. The Heat Source twinning kit (low	Over-heat protection, Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual b External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installation ange without notice. 104*FD.B. (40°CD.B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual. unit 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m of exposed to the atmosphere).
Refrigerant let weight leat exchanger lic circuit (HIC: Heat Ir Pipe between unit and istributor Drawing itandard ttachment Diptional parts Remarks	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Iter-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water te	Over-heat protection, Over-current protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State State KE94G421 Installation Details refer to Details refer to Sub BC controller: CMP-108,1012 Sub BC controller: CM-108,1012	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) 4111 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 - - 200 2.0 - 3/4 (19.05) Brazed C251 KE94G421 n Manual External Drw kit: CMY-Q100CBK2 -'Y102LS-G2, CMY-R160-J1 2,1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 wer source switch, and other items shall be referred to the Installation wange, a strainer (more than 50 meshes) at the water inlet piping of the unit. weres
Refrigerant let weight leat exchanger ² ipe between unit and listributor ² ire between unit and ²	Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. Iter-Changer) Hidh pressure Low pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water te ased on AHRI	Over-heat protection Over-heat protection R410A x 11 lbs + 1 oz (5.0 kg) Indoor LEV an 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed - State Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Details on foundation work, duct work, insulation work, electrical wiring, p Manual. Due to continuing improvement, above specifications may be subject to cithe ambient tentage the Heat Source Unit heads to be kept below The ambient trelative humidity of the unit operation and water circuit. The Heat Source tw	Over-heat protection Over-heat protection Quer-heat protection R410A x 11 lbs + 1 oz (5.0 kg) d BC controller 411 (186) plate type 1.32 5.0 290 2.0 - 3/4 (19.05) Brazed 7/8 (22.2) Brazed C251 KE94G421 n Manual 5 External Drw kit: CMY-Q100CBK2 -Y102LS-G2, CMY-R160-J1 1.016NU-JA1, CMB-P1016NU-KA1 AB-P104, 108NU-KB1 ower source switch, and other items shall be referred to the Installation nange without notice. 104*FD.B, (40*CD.B.) iow 80%. a strainer (more than 50 meshes) at the water inlet piping of the unit. w pressure side of the heat source unit. g, follow the installation manual. unit 65 m, use 1-1/8 (28.58) pipe for the part that exceeds 65 m. ot exposed to the atmosphere).

PQRY-P-Z(S)LMU-A1

MEES23K060

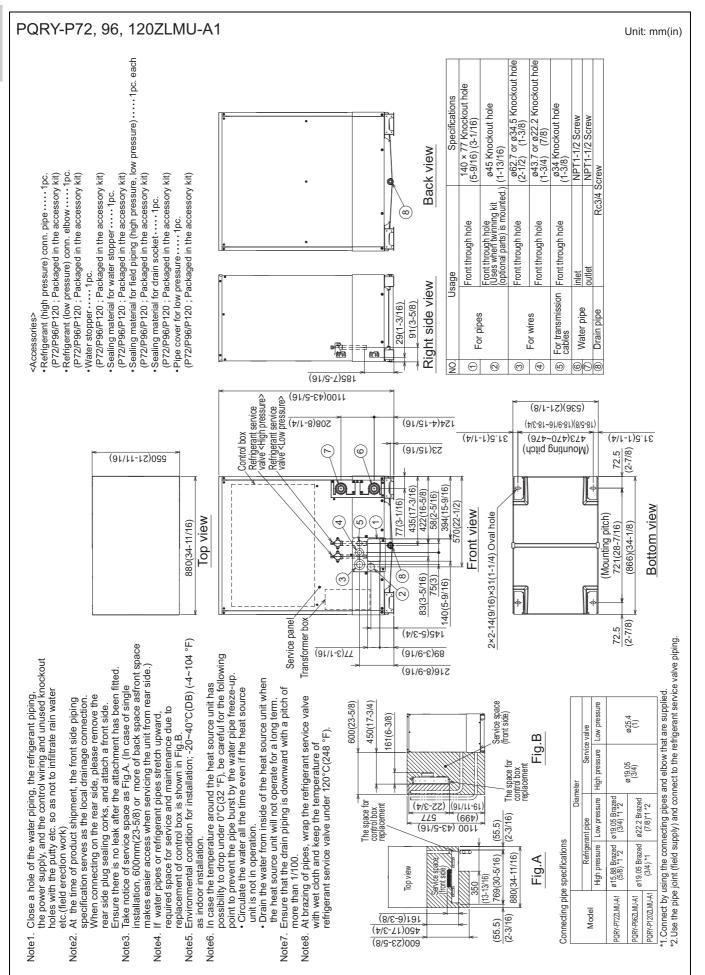
Heat Source M Indoor Model				DODV DOOD	761 MIL A4
				PQRY-P288 Non-Ducted	ZSLMU-A1 Ducted
Power source				3-phase 3-wire 5	
Cooling capac		*1	BTU/h	288.	
(Nominal)	ony		kW	84	
,		Power input	kW	20.	42
_	(575)	Current input	А	22	.7
(F	(Rated)		BTU/h	276.	000
`	, ,		kW	80	.9
		Power input	kW	20.11	22.67
	(575)	Current input	А	22.4	25.2
Temp. range o	of	Indoor	W.B.	59~75°F (15~24°C)
cooling		Inlet water	°F	50~113°F	(10~45°C)
Heating capac	icity	*2	BTU/h	323.	000
(Nominal)			kW	94	.7
		Power input	kW	17.	50
_	(575)	Current input	А	19	.5
(F	(Rated)		BTU/h	304,	000
			kW	89	.1
		Power input	kW	15.83	15.36
	(575)	Current input	A	17.6	17.1
emp. range o	of	Indoor	D.B.	59~81°F (15~27°C)
eating		Inlet water	°F	50~113°F	(10~45°C)
ndoor unit		Total capacity		50~150% of heat s	purce unit capacity
connectable		Model/Quantity	1	P04~P96/2~50 (Connectable b	
	ure level (mea	asured in anechoic room)	dB <a>	57	
Refrigerant		High pressure	in. (mm)	1-1/8 <u>(</u> 28.5	
piping diameter	ter	Low pressure	in. (mm)	1-3/8 (34.9	3) Brazed
Set Model				· · ·	
/lodel			1	PQRY-P144ZLMU-A1	PQRY-P144ZLMU-A1
Ainimum Circo			А	13	13
Aaximum Ove			А	20	20
Circulating wa	ater	Water flow rate	G/h	1,902 +	
			G/min	31.7 +	
			m ³ /h	7.20 +	
			L/min	120 +	120
			cfm	4.2 -	4.2
		Pressure drop	psi	6.38	6.38
			kPa	44	44
		Operating volume	G/h	1,189 + 1,189 ~	3,054 + 3,054
		range	G/min	19.8 + 19.8 ~	50.9 + 50.9
		Ũ	m ³ /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
•		Starting method		Inverter	Inverter
		Motor output	kW	9.5	9.5
		Case heater	kW	-	-
		Lubricant		MEL32	MEL32
External finish	h			Galvanized steel sheets	Galvanized steel sheets
External dime		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
				High pressure sensor, High pressure switch at 4.15 MPa (601	High pressure sensor, High pressure switch at 4.15 MPa (
Protection dev	VICES	High pressure protection	ו	psi)	psi)
		Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection. Over-current protection
		Compressor		Over-heat protection	Over-heat protection
				R410A x 13 lbs + 4 oz (6.0 kg)	R410A x 13 lbs + 4 oz (6.0 kg)
Refrigerant					
Refrigerant		Type x original charge			
			lbs (ka)	Indoor LEV and	BC controller
Vet weight	per	Type x original charge	lbs (kg)	Indoor LEV an 512 (232)	BC controller 512 (232)
Vet weight	ger	Type x original charge Control		Indoor LEV an 512 (232) plate type	I BC controller 512 (232) plate type
Net weight	ger	Type x original charge	lbs (kg) G	Indoor LEV an 512 (232) plate type 1.32	1 BC controller 512 (232) plate type 1.32
Net weight	ger	Type x original charge Control Water volume in plate	G	Indoor LEV and 512 (232) plate type 1.32 5.0	1 BC controller 512 (232) plate type 1.32 5.0
Net weight	ger	Type x original charge Control	G I psi	Indoor LEV an 512 (232) plate type 1.32 5.0 290	BC controller 512 (232) plate type 1.32 5.0 290
<u>Net weight</u> -leat exchang		Type x original charge Control Water volume in plate Water pressure Max.	G	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	BC controller 512 (232) plate type 1.32 5.0 290 2.0
Net weight Heat exchang HC circuit (HI	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer)	G I psi MPa	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 -	BC controller 512 (232) plate type 1.32 5.0 290 2.0
Net weight Heat exchang HIC circuit (HI Pipe between	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure	G I psi MPa in. (mm)	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	4 BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed
<u>Net weight</u> Heat exchange <u>HC circuit (HI</u> Pipe between distributor	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. rr-Changer) High pressure Low pressure	G I psi MPa	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed	BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed
<u>Net weight</u> Heat exchange <u>HC circuit (HI</u> Pipe between distributor	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External	G I psi MPa in. (mm)	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed KL94	BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252
Net weight Heat exchange HIC circuit (HI Pipe between Distributor Drawing	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421	BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421
Net weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed C252 KE94G421 h Manual
<u>Vet weight</u> Heat exchange <u>HIC circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard attachment	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - C252 KE94G421 n Manual External Drw
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw kit: CMY-Q200CBK -
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw jkit: CMY-Q200CBK - -Y102LS-G2, CMY-R160-J1 -
<u>Vet weight</u> Heat exchange <u>HIC circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard attachment	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw jkit: CMY-Q200CBK - -Y102LS-G2, CMY-R160-J1 -
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw j kit: CMY-0200CBK - -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1
Het weight Heat exchange HIC circuit (HI Pipe between distributor Drawing Standard attachment Dptional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw j kit: CMY-0200CBK - -Y102LS-G2, CMY-R160-J1 - 1016NU-JA1, CMB-P1016NU-KA1 - BP-P104,108NU-KB1 -
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment Dptional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw j kit: CMY-0200CBK - -Y102LS-G2, CMY-R160-J1 - 1016NU-JA1, CMB-P1016NU-KA1 - BP-P104,108NU-KB1 -
Net weight Heat exchang HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - C252 KE94G421 n Manual - External Drw - ykt: CMV-0200CBK - -Y102LS-G2, CMY-R160-J1 - ,1016NU-JA1, CMB-P1016NU-KA1 - BP-104,108NU-KB1 - cal wiring, power source switch, and other items shall be readed -
<u>Vet weight</u> Heat exchange <u>HIC circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102 Sub BC	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw j kit: CMY-Q200CBK - -Y102LS-G2, CMY-R160-J1 . 1016NU-JA1, CMB-P1016NU-KA1 - BP-104,108NU-KB1 - subject to change without notice. -
<u>Vet weight</u> Heat exchange <u>HIC circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw j kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. kept below 104°FD.B. (40°CD.B.)
<u>Vet weight</u> Heat exchange <u>HIC circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard <u>attachment</u> Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CMB-P108, 1012 Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor.	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw j kit: CMY-Q200CBK - -106NU-KA1 - BP-104,108NU-KB1 - cal wiring, power source switch, and other items shall be is subject to change without notice. - kept below 104°FD.B. (40°CD.B.) o be kept below 80%.
Net weight Heat exchang HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.9) Brazed 7/8 (22.9) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-0200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 HB-P104,108NU-KB1 sal wiring, power source switch, and other items shall be i subject to change without notice. tept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit.
Net weight Heat exchang HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw kit: CMV-0200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be is subject to change without notice. * kept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit. r circuit.
Net weight Heat exchang HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controll	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed 2252 KE94G421 n Manual External Drw y kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 zal wiring, power source switch, and other items shall be subject to change without notice. k kept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit. r circuit. zed to the low pressure side of the heat source unit.
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment Dptional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.9) Brazed 7/8 (22.9) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed - 252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK - -Y102LS-G2, CMY-R160-J1 . ,1016NU-JA1, CMB-P1016NU-KA1 HB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. : kept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit. r circuit. zted to the low pressure side of the heat source unit. ket.
Vet weight Heat exchange HC circuit (HI Pipe between distributor Drawing Standard attachment Dptional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 7/8 (22.2) Brazed - 252 KE94G421 n Manual - External Drw - ykt: CMV-0200CBK - Y102LS-G2, CMY-R160-J1 . ,1016NU-JA1, CMB-P1016NU-KA1 - B-P104,108NU-KB1 - cal wiring, power source switch, and other items shall be is subject to change without notice. - e kept below 104°FD.B. (40°CD.B.) - o be kept below 80%. - er inlet piping of the unit. - r circuit. - ted to the low pressure side of the heat source unit. ket. - gerant piping, follow the installation manual.
let weight leat exchange liet exchange listributor Drawing Standard uttachment Dptional parts	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.9) Brazed 7/8 (22.9) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw kit: CMV-0200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 IB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be subject to change without notice. • kept below 104°FD.B. (40°CD.B.) • be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of the heat source unit. ket. gerant piping, follow the installation manual.
Vet weight Heat exchange H <u>C circuit (HI</u> Pipe between <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts Remarks	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed 2252 KE94G421 n Manual External Drw y kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 BB-P104,108NU-KB1 zal wiring, power source switch, and other items shall be is subject to change without notice. kept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of the heat source unit. ket. gerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
Net weight Heat exchange HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts Remarks	IIC: Heat Inte	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure Low pressure External Wiring Document	G I psi MPa in. (mm)	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,102	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 7/8 (22.2) Brazed - 252 KE94G421 n Manual - External Drw - ykt: CMV-0200CBK - Y102LS-G2, CMY-R160-J1 . ,1016NU-JA1, CMB-P1016NU-KA1 - B-P104,108NU-KB1 - cal wiring, power source switch, and other items shall be is - subject to change without notice. - * kept below 104°FD.B. (40°CD.B.) - o be kept below 80%. - er inlet piping of the unit. - r circuit. - ted to the low pressure side of the heat source unit. ket. -
Vet weight Heat exchange HIC circuit (HI Pipe between distributor Drawing Standard <u>attachment</u> Optional parts Remarks Remarks	s	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC con	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed 2252 KE94G421 n Manual External Drw y kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 BB-P104,108NU-KB1 zal wiring, power source switch, and other items shall be is subject to change without notice. kept below 104°FD.B. (40°CD.B.) o be kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of the heat source unit. ket. gerant piping, follow the installation manual. it (water is not exposed to the atmosphere).
Net weight Heat exchange HIC circuit (HI Pipe between distributor Drawing Standard attachment Optional parts Remarks Remarks	S S S S S S S S S S S S S S S S S S S	Type x original charge Control Water volume in plate Water pressure Max. r-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water ter	Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 2.0 1.32 1.	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed 2252 KE94G421 n Manual External Drw y kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 BB-P104,108NU-KB1 zal wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) o b kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of the heat source unit. ket. gerant piping, follow the installation manual. it (water is not exposed to the atmosphere). Unit converter
Indoor: 81°FI Nominal heat	S S S S S S S S S S S S S S	Type x original charge Control Water volume in plate Water pressure Max. er-Changer) High pressure External Wiring Document Accessory	G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water te ased on AHRI	Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed	HBC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed 2252 KE94G421 n Manual External Drw y kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 BE-P104,108NU-KB1 ral wiring, power source switch, and other items shall be r subject to change without notice. : kept below 104°FD.B. (40°CD.B.) o b kept below 80%. er inlet piping of the unit. r circuit. ted to the low pressure side of the heat source unit. ket. gerant piping, follow the installation manual. it (water is not exposed to the atmosphere). Unit converter BTU/h =kW x 3,412

Heat Source Model			PQRY-P312		
Indoor Model			Non-Ducted		icted
Power source	*1	DTU/	3-phase 3-wire 5		
Cooling capacity	*1	BTU/h kW	312		
(Nominal)	Power input	kW	91		
(676) Current input	A	23		
	Current input				
(Rated)		BTU/h kW	298		
	Devenienut				1.08
(575	Power input	kW	22.45		4.98
) Current input	A	25.0		7.8
Temp. range of cooling	Indoor	₩.B. °F	<u>59~75°F (</u> 50~113°F		
	Inlet water				
Heating capacity	*2	BTU/h	350		
(Nominal)		kW	10.		
	Power input	kW	19		
) Current input	A	21		
(Rated)		BTU/h		000	
		kW		.9	
	Power input	kW	17.48		7.49
(575		A	19.5		9.5
Temp. range of	Indoor	D.B.	59~81°F (15~27°C)	
neating	Inlet water	°F	50~113°F	(10~45°C)	
ndoor unit	Total capacity		50~150% of heat s	ource unit capacity	
connectable	Model/Quantity		P04~P96/2~50 (Connectable b	ranch pipe number is max. 48	.)
	asured in anechoic room)	dB <a>	58		
Refrigerant	High pressure	in. (mm)	1-1/8 (28.5		
piping diameter	Low pressure	in. (mm)	1-3/8 (34.9		
Set Model			- 5/0 (54.	.,	
Vodel			PQRY-P168ZLMU-A1	PORY-P1	44ZLMU-A1
Minimum Circuit Ampaci	v	A	16		13
Maximum Overcurrent P		A	25		20
					20
Circulating water	Water flow rate	G/h C/min	1,902 -		
		G/min	31.7 -		
		m ³ /h	7.20		
		L/min	120 -		
		cfm	4.2 -		
	Pressure drop	psi	6.38	6	i.38
		kPa	44		44
	Operating volume	G/h	1,189 + 1,189 -	- 3,054 + 3,054	
	range	G/min	19.8 + 19.8 -		
		m ³ /h	4.5 + 4.5 ~		
Compressor	Type x Quantity	/	Inverter scroll hermetic compressor x 1		netic compressor x 1
Compressor	Starting method		Inverter		verter
		kW			9.5
	Motor output		11.0		9.5
	Case heater	kW	-		
	Lubricant		MEL32		EL32
External finish			Galvanized steel sheets		steel sheets
External dimension H x \	V x D	in.	57-1/8 x 34-11/16 x 21-11/16		1/16 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	High pressure sensor, High pr	essure switch at 4.15 MPa (6
	right pressure protection		psi)	A L	osi)
	Inverter circuit		Over-heat protection, Over-current protection	Over-heat protection.	Over-current protection
	Compressor		Over-heat protection		at protection
Refrigerant	Type x original charge		R410A x 13 lbs + 4 oz (6.0 kg)		s + 4 oz (6.0 kg)
Reingerant	Control			d BC controller	3 · + 02 (0.0 kg)
N - 4 :	Control	the states			(000)
Net weight		lbs (kg)	512 (232)		(232)
Heat exchanger	Materia 1	0	plate type		e type
	Water volume in plate	G	1.32		.32
		1	5.0		5.0
	Water pressure Max.	psi	290		290
		MPa	2.0	2	2.0
	er-Changer)		-		-
HIC circuit (HIC: Heat In		in. (mm)	7/8 (22.2) Brazed	7/8 (22.	2) Brazed
	High pressure				.58) Brazed
Pipe between unit and	High pressure	in. (mm)	_	1-1/8 (28	
Pipe between unit and distributor	Low pressure	in. (mm)	- - KI Q4		
Pipe between unit and distributor	Low pressure External	in. (mm)	- KL94 KE94G421	C252	4G421
Pipe between unit and <u>distributor</u> Drawing	Low pressure External Wiring	in. (mm)	KE94G421	C252 KE9	4G421
Pipe between unit and distributor Drawing Standard	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic	C252 KE9 n Manual	4G421
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring	in. (mm)	KE94G421 Installatic Details refer to	C252 KE9 n Manual p External Drw	4G421
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin	C252 KE9 n Manual External Drw g kit: CMY-Q200CBK	4G421
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to	C252 KE9 n Manual External Drw g kit: CMY-Q200CBK	4G421
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM	C252 KE9 External Drw g kit: CMY-Q200CBK '-Y102LS-G2, CMY-R160-J1	
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012	C252 KE9 External Drw g kit: CMY-Q200CBK '-Y102LS-G2, CMY-R160-J1 ',1016NU-JA1, CMB-P1016NU-KA1	
Pipe between unit and distributor Drawing Standard attachment	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM	C252 KE9 External Drw g kit: CMY-Q200CBK '-Y102LS-G2, CMY-R160-J1 ',1016NU-JA1, CMB-P1016NU-KA1	
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012	C252 KE9 n Manual D External Drw g kit: CMY-Q200CBK 'Y102LS-G2, CMY-R160-J1 ',1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1	
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual.	C252 KE9 n Manual p External Drw g kit: CMY-Q200CBK 	h, and other items shall be r
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be	C252 KE9 D External Drw g ki: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 1,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not	h, and other items shall be r ice.
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b	C252 N Manual External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not a kept below 104°FD.B. (40°C	h, and other items shall be r ice.
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to bo The ambient relative humidity of the Heat Source Unit needs	C252 N Manual External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not a kept below 104°FD.B. (40°C	h, and other items shall be r ice.
HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b	C252 N Manual External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not a kept below 104°FD.B. (40°C	h, and other items shall be r
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK '-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit.	h, and other items shall be r ice.
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer tto Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: C Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to bu The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK -Y102LS-62, CMY-R160-J1 1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not skept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit.	h, and other items shall be r ice. D.B.)
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatio Details refer to Heat Source Vinning joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CI Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient tentre humidity of the Heat Source Unit needs to The ambient trelative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne	C252 KE9 n Manual p External Drw g kit: CMY-Q200CBK -/102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 dB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the low pressure side of	h, and other items shall be r ice. D.B.)
Pipe between unit and distributor Drawing Standard attachment Optional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-soo	C252 KE9 n Manual External Drw g kit: CMY-0200CBK 'Y102LS-G2, CMY-R160-J1 t.1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not be kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of ket.	h, and other items shall be r ice. D.B.) of the heat source unit.
Pipe between unit and <u>distributor</u> Drawing Standard <u>attachment</u> Dptional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: C Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material at outd both water and refi	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual.
Pipe between unit and <u>listributor</u> Drawing Standard attachment Dptional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMV-Y102SS-G2, CM Main BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CMB-P108,101 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to b The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material to the unused drain-soo	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual.
Pipe between unit and <u>istributor</u> Drawing Standard <u>ttachment</u> Dptional parts	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: C Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material at outd both water and refi	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual.
Pipe between unit and listributor prawing Standard Ittachment Optional parts Remarks	Low pressure External Wiring Document	in. (mm)	KE94G421 Installatic Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: C Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material at outd both water and refi	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual.
Pipe between unit and <u>listributor</u> Drawing Standard <u>attachment</u> Dptional parts Remarks	Low pressure External Wiring Document Accessory		KE94G421 Installatio Details refer to Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient trentive humidity of the Heat Source Unit needs to b The ambient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Install the supplied insulation material around both water and refi The cooling tower and the water circuit must be a closed circuit	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual. e atmosphere). Unit converter
Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks	Low pressure External Wiring Document Accessory	ased on AHRI	KE94G421 Installatic Details refer tto Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CD Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs to b The ambient temperature of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wa Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conner Install the supplied insulation material to the unused drain-soo When installing insulation material around both water and refi The cooling tower and the water circuit must be a closed circu 1230)	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be r ice. D.B.) of the heat source unit. illation manual. e atmosphere). Unit converter BTU/h =kW x 3,412
Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks	Low pressure External Wiring Document Accessory	ased on AHRI Inlet water ter	KE94G421 Installatio Details refer tto Heat Source Twinnin joint: CMY-Y102SS-G2, CM Main BC controller: CMS-P108,1012 Sub BC controller: CMB-P108,1012 Sub BC controller: CMB-P108,1012 Details on foundation work, duct work, insulation work, electriferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs The arbient relative humidity of the Heat Source Unit needs The Heat Source Unit should not be installed at outdoor. Be sure to provide interlocking for the unit operation and wate The Heat Source twinning kit (low pressure) should be conne Installing insulation material around both water and refit The cooling tower and the water circuit must be a closed circut 1230) prerature: 86°F (30°C)	C252 KE9 n Manual b External Drw g kit: CMY-Q200CBK (-Y102LS-G2, CMY-R160-J1 t,1016NU-JA1, CMB-P1016NU-KA1 MB-P104,108NU-KB1 cal wiring, power source switc subject to change without not b kept below 104°FD.B. (40°C to be kept below 80%. ter inlet piping of the unit. or circuit. cted to the low pressure side of ket. igerant piping, follow the insta	h, and other items shall be i ice. D.B.) of the heat source unit. illation manual. atmosphere). Unit converter

Indoor: 81°FD.B./66°FW.B. (27°CD.B./19°CW.B.), Inlet water temperature: 86°F (30°C) 2.Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 68°FD.B. (20°CD.B.), Inlet water temperature: 68°F (20°C)

=m³/min x 35.31 lbs =kg/0.4536

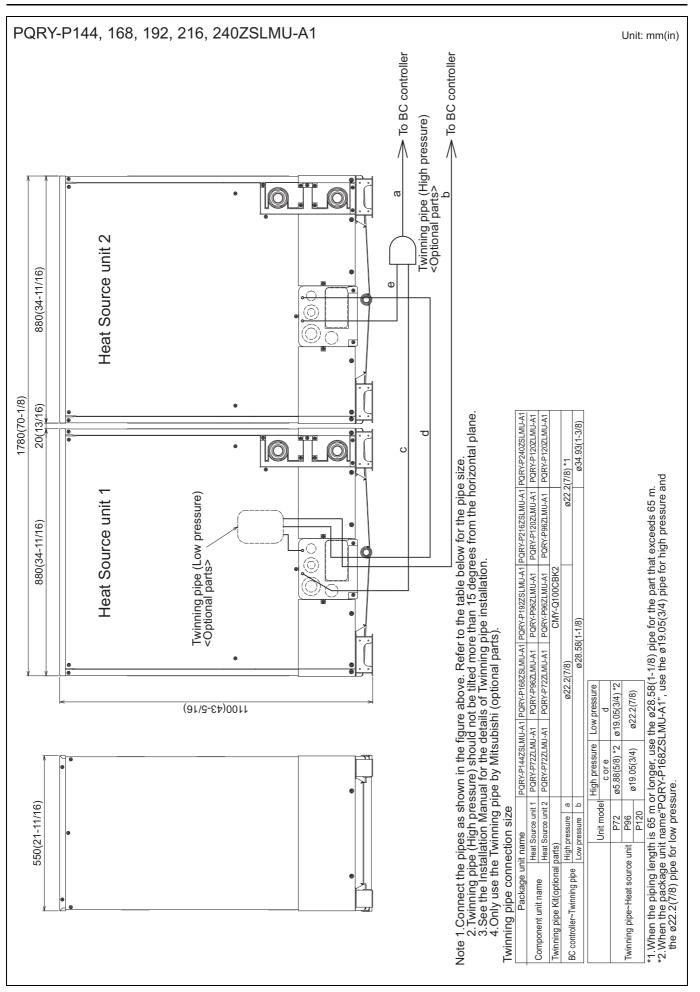
Heat Source Model Indoor Model Power source				ZSLMU-A1
			Non-Ducted	ZSLMU-A1 Ducted
			3-phase 3-wire 5	
Cooling capacity	*1	BTU/h	336,	
(Nominal)		kW	98	
· · · ·	Power input	kW	26.	84
(57)	5) Current input	А	29	.9
(Rated)		BTU/h	320,	000
` '		kW	93	.8
	Power input	kW	25.14	27.11
(57	5) Current input	А	28.0	30.2
Temp. range of	Indoor	W.B.	59~75°F (15~24°C)
cooling	Inlet water	°F	50~113°F	(10~45°C)
Heating capacity	*2	BTU/h	378.	000
(Nominal)		kW	110	0.8
,	Power input	kW	20.	77
(57	5) Current input	A	23	
(Rated)	o// Cartone inpat	BTU/h	360,	
(kW	105	
	Power input	kW	18.91	19.50
(57	5) Current input	A	21.0	21.7
Temp. range of	Indoor	D.B.	59~81°F (
neating	Inlet water	°F	50~113°F	
ndoor unit	Total capacity		50~150% of heat s	
connectable	Model/Quantity		P04~P96/2~50 (Connectable b)	
	neasured in anechoic room)	dB <a>	F04~P96/2~50 (Connectable b)	
	High pressure	aB <a> in. (mm)	1-1/8 (28.5	
Refrigerant				
piping diameter	Low pressure	in. (mm)	1-5/8 (41.2	O) DIALEU
Set Model Model				PQRY-P168ZLMU-A1
viodei Vinimum Circuit Ampac	sits (٨	PQRY-P168ZLMU-A1	
· · ·	1	A	16	16
Maximum Overcurrent F		A	25	25
Circulating water	Water flow rate	G/h	1,902 +	-
		G/min	31.7 +	
		m ³ /h	7.20 +	
		L/min	120 +	
		cfm	4.2 +	
	Pressure drop	psi	6.38	6.38
		kPa	44	44
	Operating volume	G/h	1,189 + 1,189 ~	- 3,054 + 3,054
	range	G/min	19.8 + 19.8 ~	- 50.9 + 50.9
		m ³ /h	4.5 + 4.5 ~	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	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
	WxD	in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
External dimension H x		mm	1,450 x 880 x 550	1,450 x 880 x 550
External dimension H x				
	High pressure protectio			
	High pressure protectio		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (6 psi)
	High pressure protectio		High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection
Protection devices	High pressure protectio		High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection	High pressure sensor, High pressure switch at 4.15 MPa (t psi) Over-heat protection, Over-current protection Over-heat protection
Protection devices	High pressure protectio Inverter circuit Compressor Type x original charge		High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg)	High pressure sensor, High pressure switch at 4.15 MPa (t psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg)
Protection devices	High pressure protectio	n	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller
Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge		High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232)	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232)
Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge Control	n Ibs (kg)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type
Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge	n	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32	High pressure sensor, High pressure switch at 4.15 MPa (t psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32
Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate	n Ibs (kg) G I	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0
Protection devices Refrigerant Net weight	High pressure protectio Inverter circuit Compressor Type x original charge Control	n Ibs (kg) G I psi	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290
Protection devices Refrigerant <u>Net weight</u> Heat exchanger	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max.	n Ibs (kg) G I	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u>	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer)	n Ibs (kg) G I psi MPa	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed
Protection devices Refrigerant <u>Net weight</u> Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure	n Ibs (kg) G I psi MPa	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed
Protection devices Refrigerant <u>Vet weight</u> Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring	n Ibs (kg) G I psi MPa in. (mm)	High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection Over-heat protection Over-heat protection Over-heat protection Over-heat protection Indoor LEV an S12 (232) Indoor LEV an 512 (232) plate type 1.32 5.0 2.0 2.0 7/8 (22.2) Brazed KL94 KL94	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421
Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor Drawing Standard	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual D External Drw
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection Over-heat protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KL94 KE94G421 Installatio	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual D External Drw
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed - KL94 KE94G421 Installatio Details refer to	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-0200CBK
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 2.0	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kli: CMY-Q200CBK -y102LS-G2, CMY-R160-J1
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1
Protection devices Refrigerant <u>Vet weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 2.0	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>distributor</u> Drawing Standard attachment Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -'Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1
Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) Indoor State 512 (232) Indoor	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual 0 External Drw g kt: CMV-0200CBK 'Y102LS-G2, CMY-R160-J1 1.1016NU-JA1, CMB-P1016NU-KA1 //B-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be r
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.</i>	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK - Y102LS-G2, CMY-R160-J1 ,1016NU-JA1, CMB-P1016NU-KA1 4B-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice.
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 bs + 4 oz (6.0 kg) Indoor LEV an 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) Indoor LEV and 510 (2020) Indoor LEV and 510 (2020) Indoor LEV and 510 (2020) Indoor LEV and 510 (2020) Indoor LEV and 718 (22.2) Brazed Indoor LEV and Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-62, CMY Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 JB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be r subject to change without notice. > kept below 104°FD.B. (40°CD.B.)
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 2.0 <i>-</i> <i>T/8 (22.2)</i> Brazed <i>-</i> <i>KL94</i> <i>KE94G421</i> <i>Letals refer to Heat Source Twinning joint: CMV-Y102SS-62, CMV Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient replative humidity of the Heat Source Unit needs to be The Heat Source Unit needs to be</i>	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual D External Drw g kit: CMY-Q200CBK - v102LS-G2, CMY-R160-J1 v105NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be r subject to change without notice. kept below 104°FD.B. (40°CD.B.) to be kept below 80%.
External dimension H x Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electrif ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wai	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK -Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be r subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit.
Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat In Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) Indoor LEV and 510 (2020) Indoor LEV and 718 (22.2) Brazed Indoor LEV and Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108,1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electri ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to be The ambient relative humidity of the Heat Source Unit needs to The Heat Source Unit should not be installed at outdoor. Be sure to mount a strainer (more than 50 meshes) at the wai Be sure to provide interlocking for the unit operation and wate	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw j kt: CMV-0200CBK - Y102LS-G2, CMY-R160-J1 1.1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 Ccal wiring, power source switch, and other items shall be i subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%.
Protection devices Refrigerant <u>Net weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and distributor Drawing Standard attachment Optional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 2.0 2.0 2.0 2.0 1.2 7/8 (22.2) Brazed 1.3 1.32 1.32 1.32 1.32 1.32 1.32 1.32	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed - 1-1/8 (28.58) Brazed C252 KE94G421 n n Manual - 9 kit: CMY-Q200CBK - -1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 cal wiring, power source switch, and other items shall be it subject to change without notice. - kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. r circuit. ctde to the low pressure side of the heat source unit.
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Protection devices Refrigerant <u>Vet weight</u> Heat exchanger <u>HIC circuit (HIC: Heat Ir</u> Pipe between unit and <u>listributor</u> Drawing Standard <u>uttachment</u> Dptional parts	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Max. hter-Changer) High pressure Low pressure External Wiring Document	n Ibs (kg) G I psi MPa in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed KL94 KE94G421 Installatio Details refer to Heat Source Twinning joint: CMY-Y102SS-G2, CMY Main BC controller: CMB-P108, 1012 Sub BC controller: CM Details on foundation work, duct work, insulation work, electric ferred to the Installation Manual. Due to continuing improvement, above specifications may be The ambient temperature of the Heat Source Unit needs to be The Heat Source Unit needs to be The Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The ambient temperature of the Heat Source Unit needs to be The Heat Source twinning it (low pressure) should be connee Install the supplied insulation material to the unused drain-soor	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 - 7/8 (22.2) Brazed 1-1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw J kt: CMV-0200CBK - Y102LS-G2, CMY-R160-J1 .1016NU-JA1, CMB-P1016NU-KA1 AB-P104,108NU-KB1 Cal wiring, power source switch, and other items shall be I subject to change without notice. e kept below 104°FD.B. (40°CD.B.) to be kept below 80%. ter inlet piping of the unit. r circuit. cted to the low pressure side of the heat source unit. :ket. igerant piping, follow the installation manual.
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Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Mater volume in plate Water pressure Low pressure External Wiring Document Accessory	n Ibs (kg) G I MPa in. (mm) in. (mm)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.32</i> <i>1.42</i> <i>1.32</i> <i>1.32</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.42</i> <i>1.</i>	High pressure sensor, High pressure switch at 4.15 MPa (psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1.1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK
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Protection devices Refrigerant Net weight Heat exchanger HIC circuit (HIC: Heat Ir Pipe between unit and distributor Drawing Standard attachment Optional parts Remarks Remarks I.Nominal cooling condi Indoor: 81°FD.B./66°F	High pressure protectio Inverter circuit Compressor Type x original charge Control Water volume in plate Water pressure Mater volume in plate Water pressure Low pressure External Wiring Document Accessory	n Ibs (kg) G I psi MPa in. (mm) in. (mm) ased on AHRI , Inlet water ter	High pressure sensor, High pressure switch at 4.15 MPa (601 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) Indoor LEV and 512 (232) plate type 1.32 5.0 290 2.0 2.0 	High pressure sensor, High pressure switch at 4.15 MPa (6 psi) Over-heat protection, Over-current protection Over-heat protection R410A x 13 lbs + 4 oz (6.0 kg) d BC controller 512 (232) plate type 1.32 5.0 290 2.0 7/8 (22.2) Brazed 1.1/8 (28.58) Brazed C252 KE94G421 n Manual External Drw g kit: CMY-Q200CBK

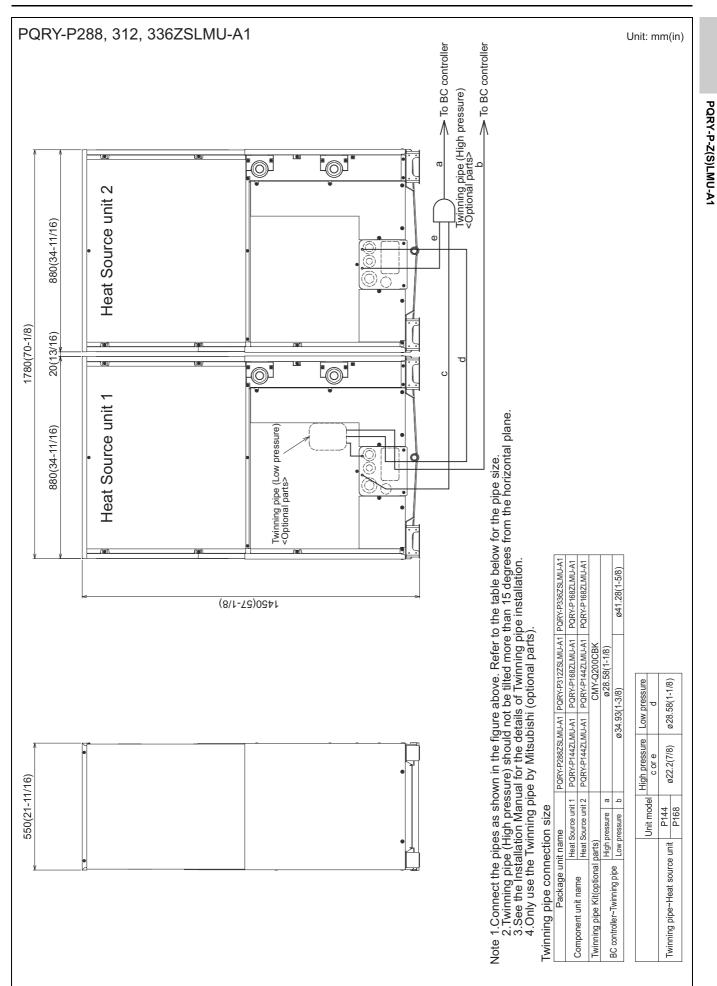


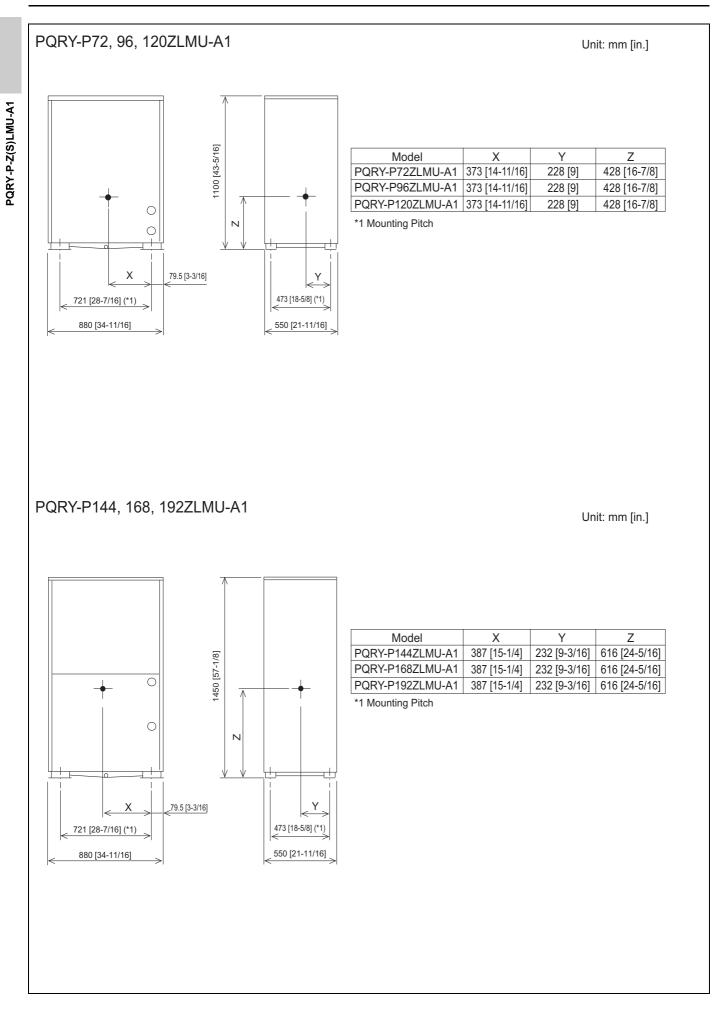
PQRY-P144, 168, 192ZLMU-A1	Unit: mm(in)
Accessories Refigerant (flow pressure) com, pipe 1pc. (P144/P168/P192: Packaged in the accessory kti; P144/P168/P192: Packaged in the accessory kti; Pathigemant (low pressure) com, pipe 1pc. (P144/P168/P192: Packaged in the accessory kti; Packing material for drain socket: 1pc. Packing material for drain socket: 1pc. P144/P168/P192: Packaged in the accessory kti; Packing material for drain socket: 1pc. Packing material for drain socket: 1pc. P144/P168/P192: Packaged in the accessory kti; Packing material for pack end in the accessory kti; Pack end for for for for	NPT1-1/2 Screw Rc3/4 Screw Rc3/4 Screw
Accessories Refrigerant (Inigh pressure) comn. pipe •••••• 1pc. Refrigerant (Inigh pressure) comn. pipe ••••••• 1pc. (P144/P168/P192 : Packaged in the accessory kit) Sealing material for fueld piping (pipe) pressure, low pressure (P144/P168/P192 : Packaged in the accessory kit) Sealing material for parsel •••••• 1pc. (P144/P168/P192 : Packaged in the accessory kit) Sealing material for parsel ••••••• 1pc. (P144/P168/P192 : Packaged in the accessory kit) Packaged in the accessory kit) Pipe or for low pressure ••••••• 1pc. (P144/P168/P192 : Packaged in the accessory kit) Sealing material for parsel ••••••• 1pc. (P144/P168/P192 : Packaged in the accessory kit) Pipe or for low pressure ••••••••••••••••••••••••••••••••••••	Water pipe Inlet Drain pipe uutlet
367(14-1/2) 367(14-1/2) 367(14-1/2) 367(14-1/2) 367(14-1/2)	
(16.58)(18.9/16-18.9/1) (16.58)(18.9/16-18.9))) 72.5(2-7/8) 31.5((1-1/4) 31.5(1-1/4)
Prop v Top v	(8) (Mounting pitch) 721(28-7/16) (866)(34-1/8) Bottom view
	72.5(2-7/8)
srant piping, a unused knockout te rain water connection. remove the ront side. thas been fitted. ases of single k space as front spa inf from rear side.) pward, e due to B	(1-1/8) H.
Close a hole of the water piping, the refrigerant piping, the power supply, and the control wing and unused knockout holes with the puty etc. so as not to infiltrate rain water from etc. (field erection work). The power shows and the control wing and unused knockout holes with the puty etc. so as not to infiltrate rain water access the local drainage connection. When connection on the rear side, plases remove the erar side plases remove the erar side plases remove the erar side places and affach a fond rack and affach a fond rack of single installation, softwards pace as Fig. A (In case of Single installation, softward) provide place and maintenance of back space as Fig. A (In case of Single installation, softward) provide place and the heat source unit how and a pictor of control box is shown in Fig.B. Environmental condition for installation, -20-40° C(DB) (4-104 °F) is as indoor installation, in press attech upward, is equired space for service and maintenance due to required space for service unit will not prevent the placement of control box is shown in Fig.B. Environmental condition for installation, -20-40° C(DB) (4-104 °F) is as indoor installation, in press when servicing the unit from rear side.) If water pipes or regulating a downward with a pitch of more than 1/100. In case the temperature around the heat source unit when the heat source unit will not operate for a long term. In the water all the time even if the heat source unit when the heat source unit will not operate or evelve. The heat source unit when the heat source unit will we control box is shown in Fig.B. Control box is shown in the addition of the heat source unit when the heat source unit will not operate for a long term. In the mater source unit will not operate for a long term. The heat source unit will not operate on the to a source unit when the heat source unit will not operate	ecting pipes that are supplied.
Note1. Close a hole of the water piping, the refrigerant piping, the power supply, and the control winning and unused knockout holes with the putty etc. so as not to infiltrate rain water holes with the putty etc. so as not to infiltrate rain water holes with the putty etc. so as not to infiltrate rain water holes with the putty etc. so as not to infiltrate rain water holes with the putty etc. so as not to infilt and an indice specification serves as the local drainage connection. When connecting on the rear side, please remove the rear side plug sealing cords: and attach a front side installation, 600mm(23-5/8) or more of back space as front spe- installation, 600mm(23-5/8) or more of back space as front spe- installation, control box is shown in FigB. Notes. Environmental condition for installation, -20-40°C(DB)(4-104 required space for service and maintenance due to required space for service and maintenance due to constrain the present the pipes stretch upward. In the case the temperature around the heat source unit when the not in operate for a long term. Notes. Ensure that the drain piping is downward with a pitch of with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F). Notes. A trazing of pipes, wap the refrigerant refrigerant service val- with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F). Notes. A trazing of pipes, weap the refrigerant refrigerant service val- with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F). Notes. A trazing of pipes, weap the refrigerant refrigerant service val- with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F). Drain the water from insels of the heat source unit with the space for refrigerant service valve under 120°C(248 °F). Drain the water from insels of the heat source unit with wet cloth and keep the temperature of refrigerant service valve under 120°C(248 °F). Crounet the provine service valve under 120°C(248 °F). Drain the re	PQRY-P198ZLMU-A1

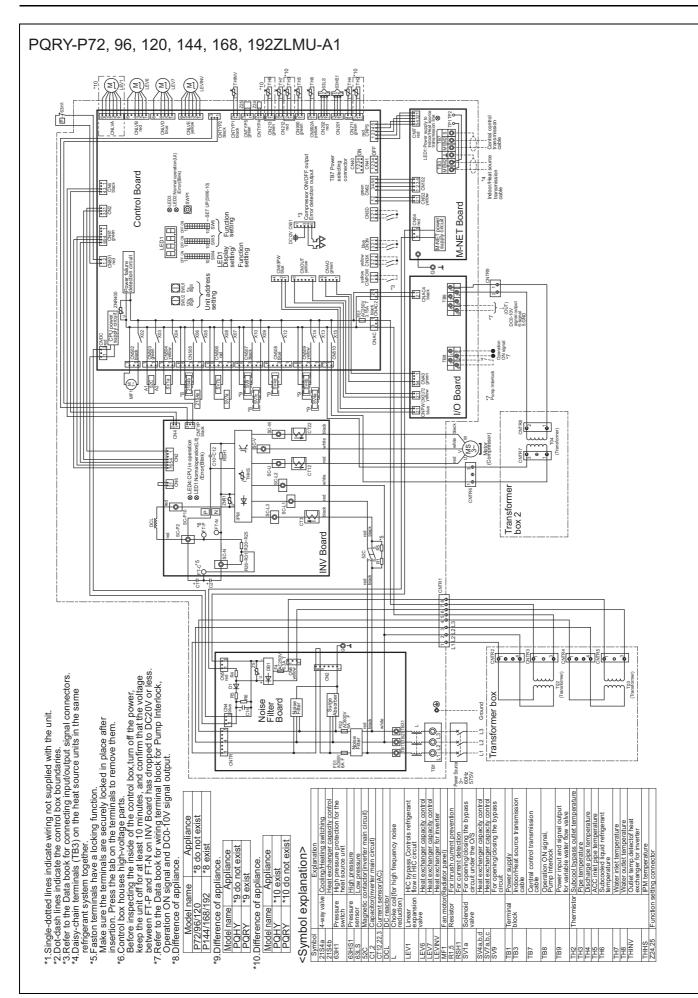
PQRY-P-Z(S)LMU-A1

PQRY-P-Z(S)LMU-A1

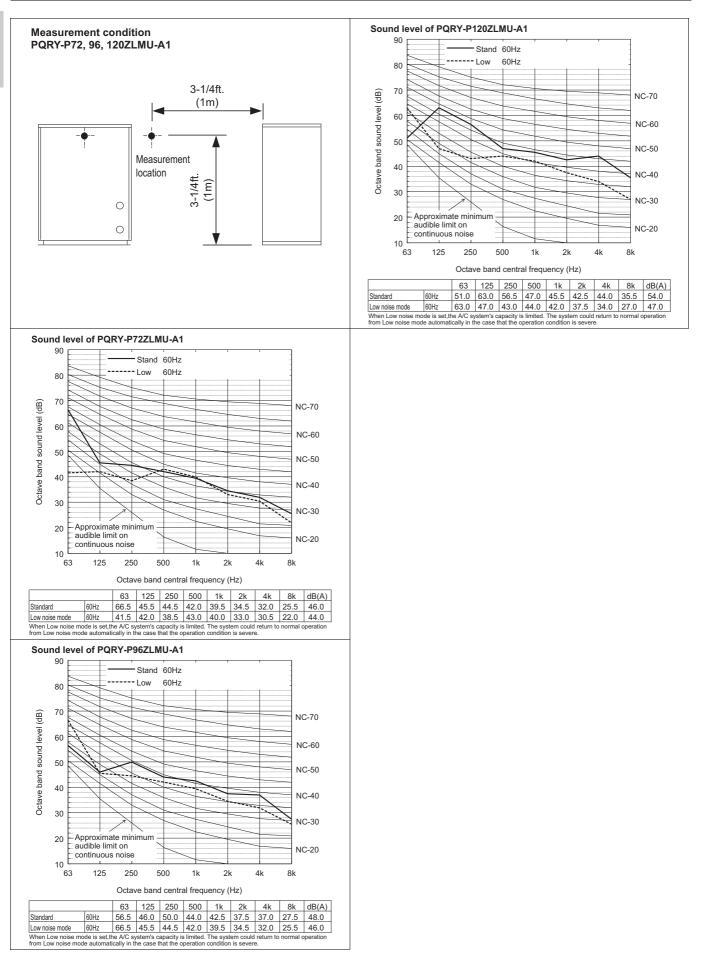




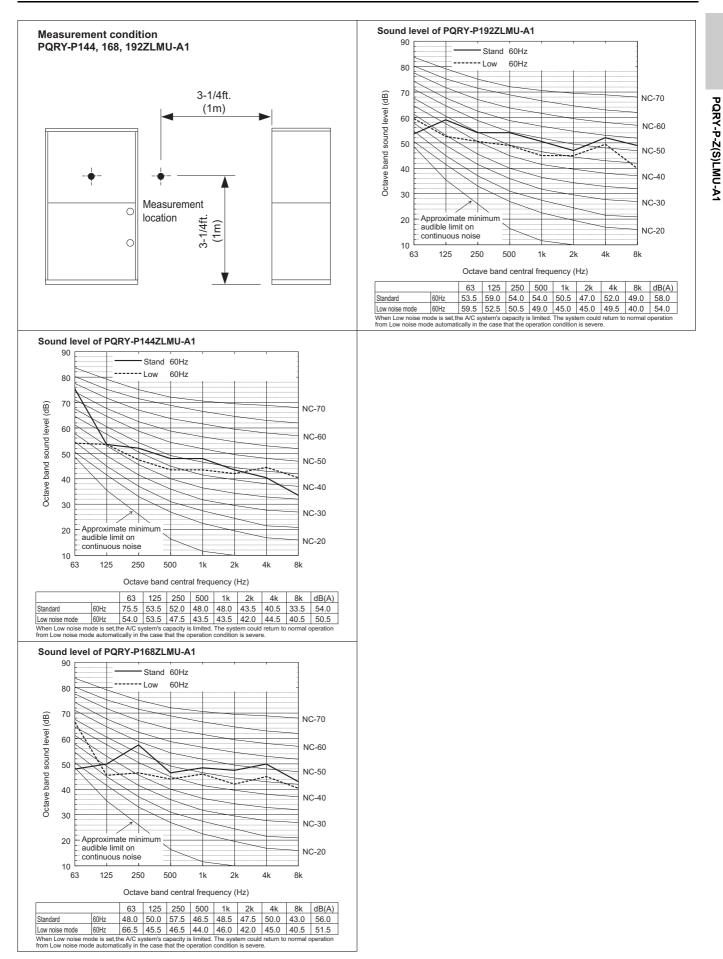




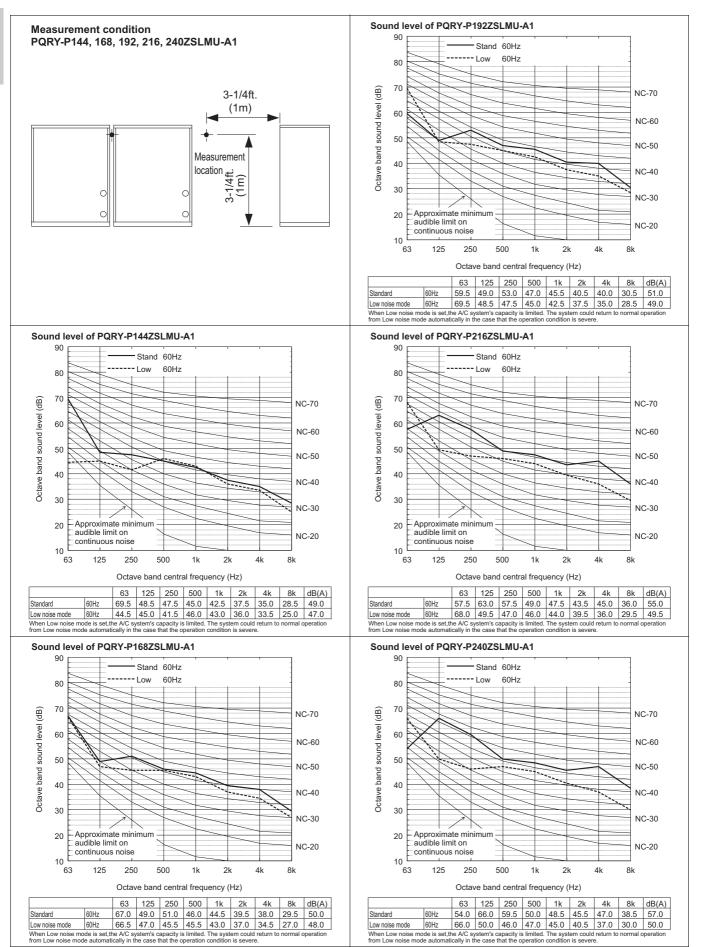
WR2-Series-575V



•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.



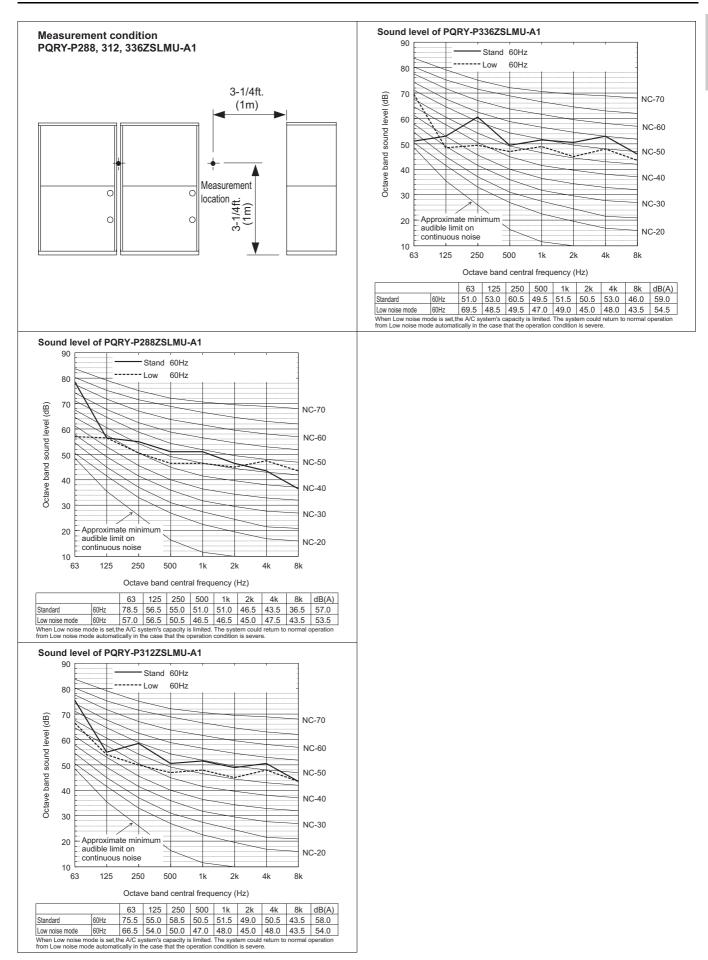
*Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.



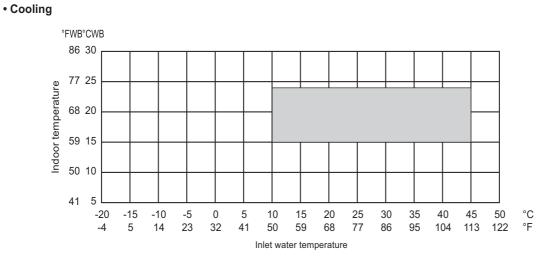
•Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

PQRY-P-Z(S)LMU-A1

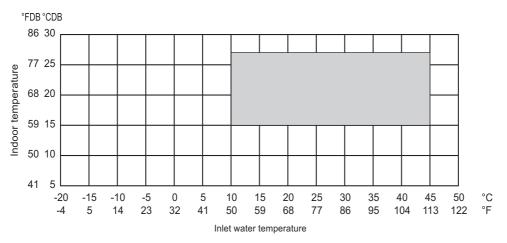
PQRY-P-Z(S)LMU-A1



•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.



• Heating



· Combination of cooling/heating operation (Cooling main or Heating main)

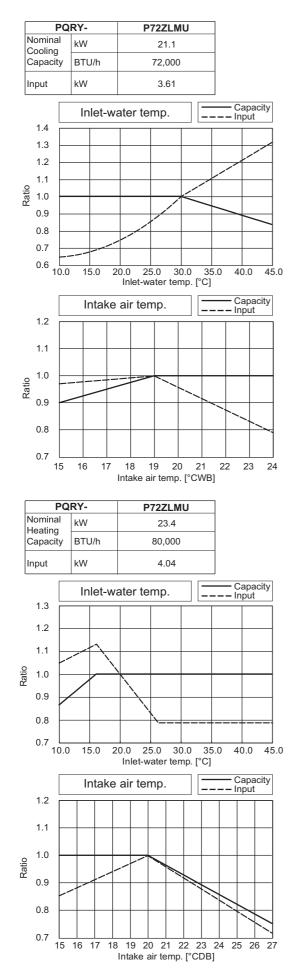
Inlet water temperature	Indoor temperature		
	Cooling	Heating	
10 to 45°C (50 to 113°F)	15 to 24°CWB (59 to 75°FWB)	15 to 27°CDB (59 to 81°FDB)	

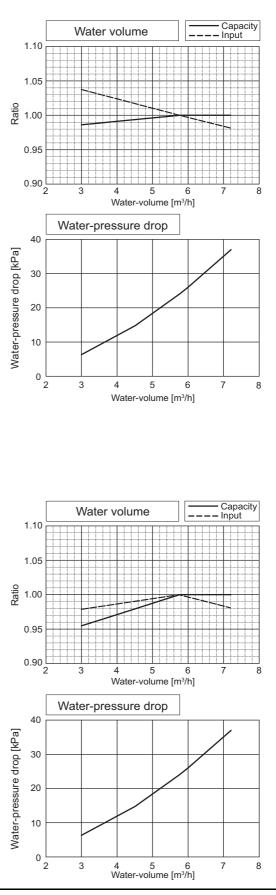
* The upper limit of the outlet water temperature is approximately 70°C (158°F) when the circulating-water flow rate is within the normal range.

If the circulating-water flow rate goes outside the normal range, the outlet water temperature may exceed the above limit.

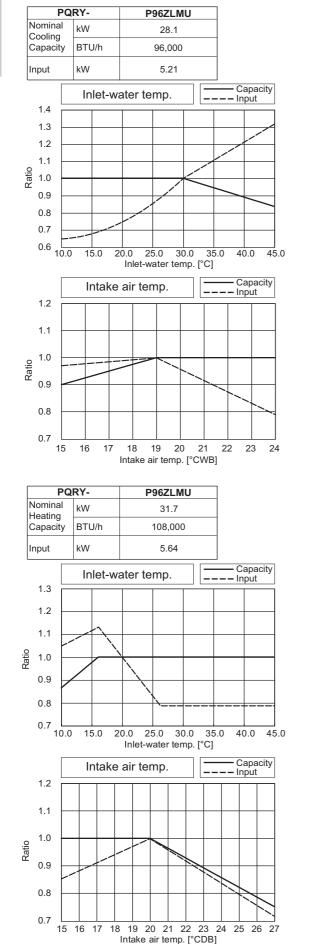
7-1. Correction by temperature

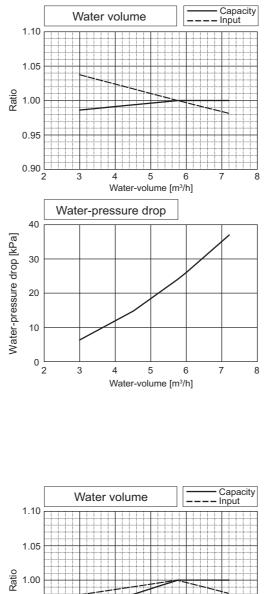
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

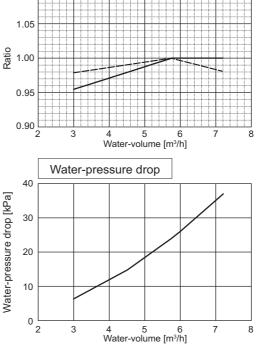


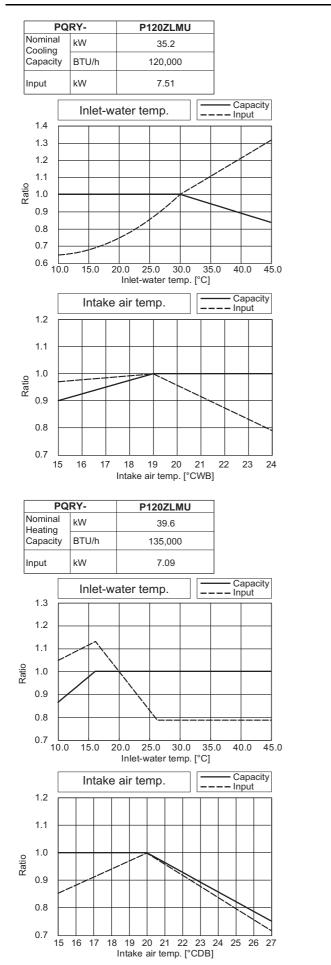


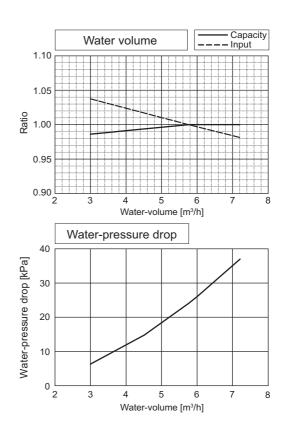
WR2-Series-575V

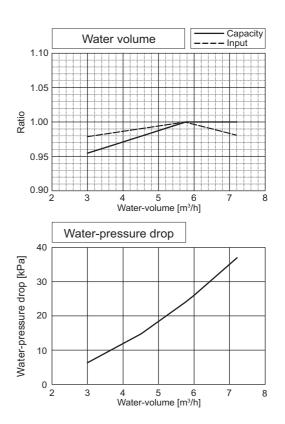


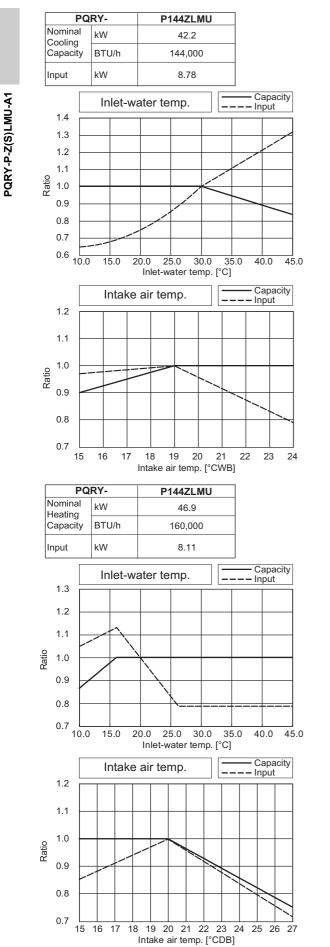


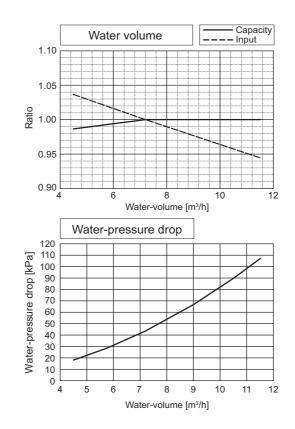


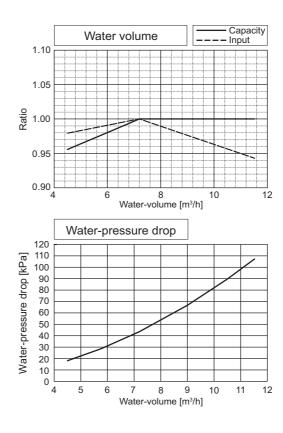


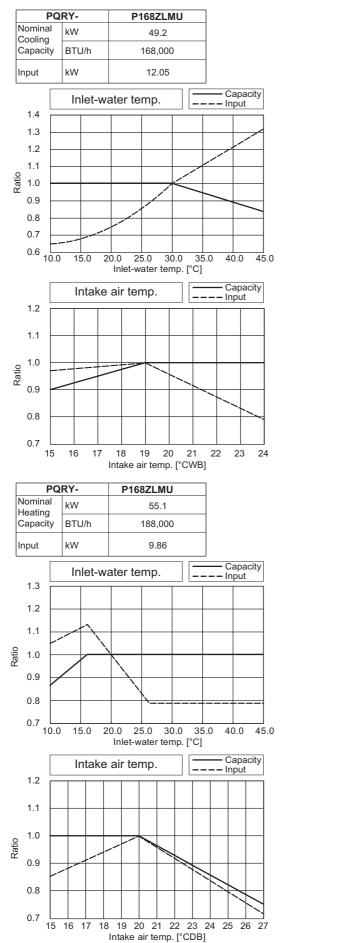


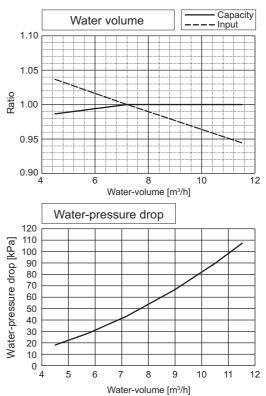


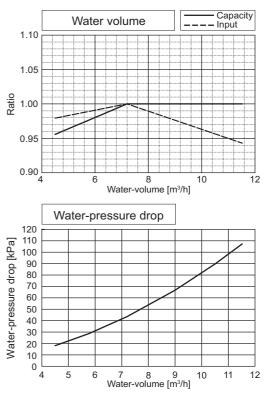


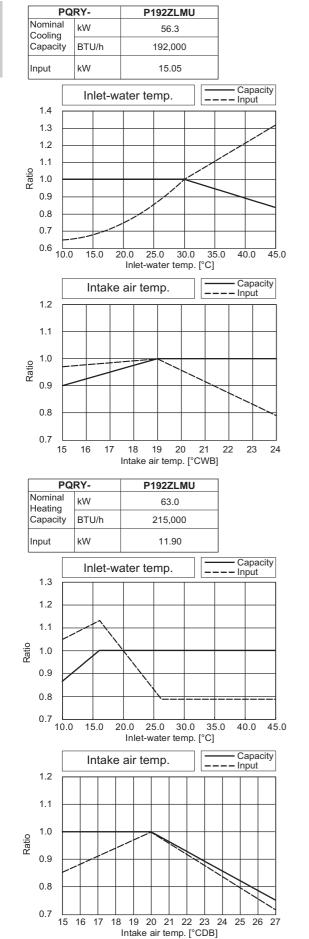


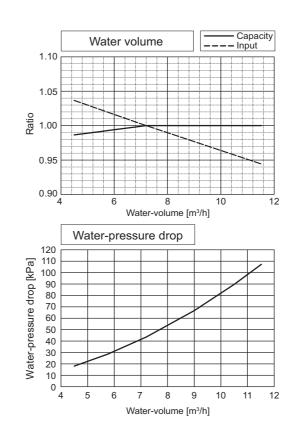


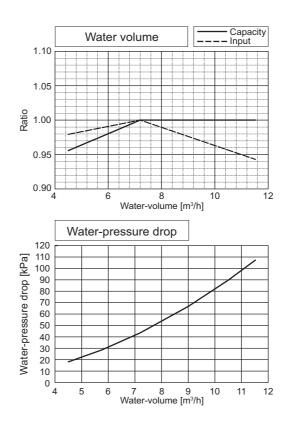




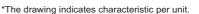


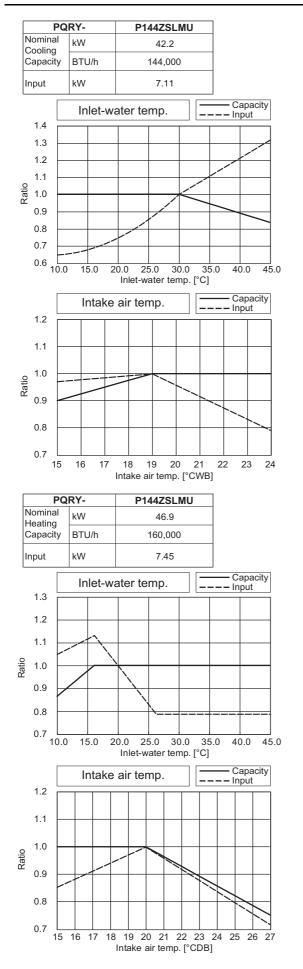


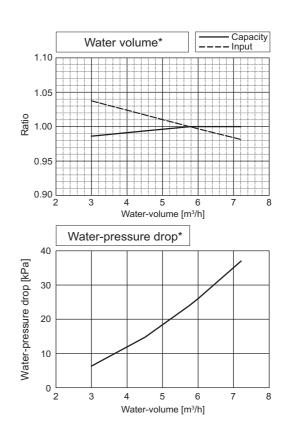


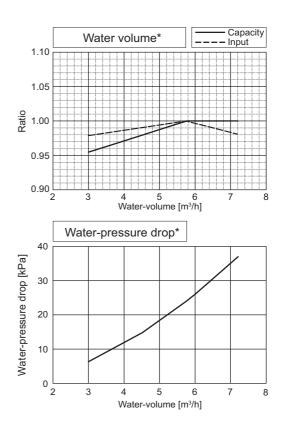


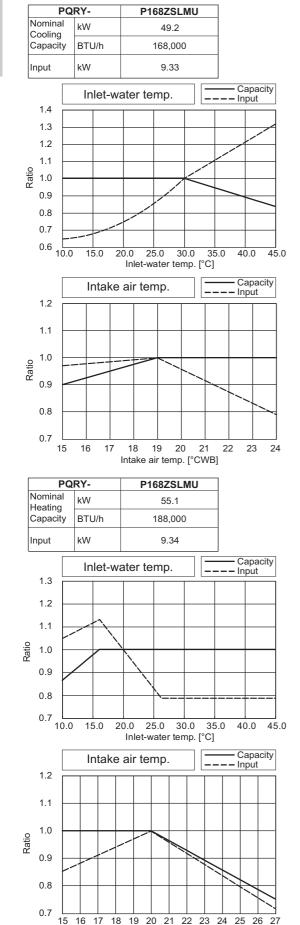
46





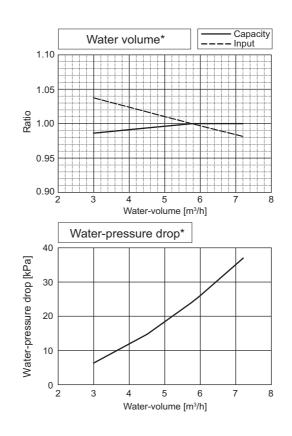


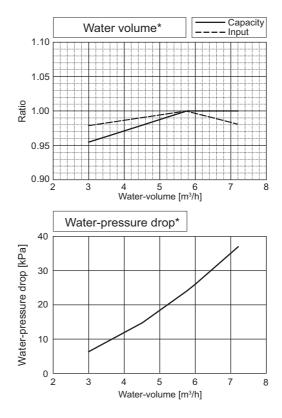


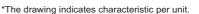


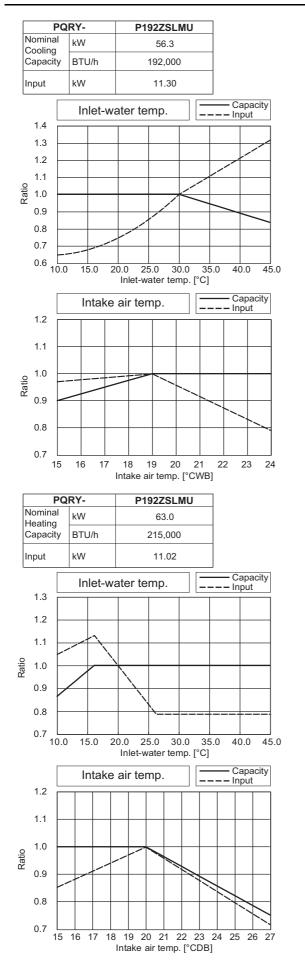
Intake air temp. [°CDB]

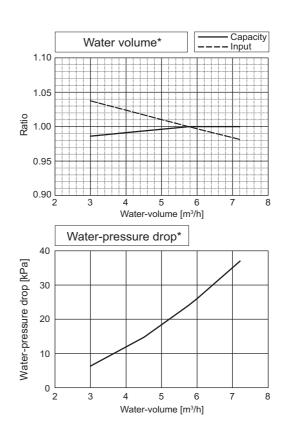
^{*}The drawing indicates characteristic per unit.

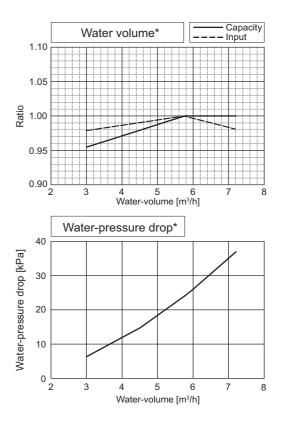


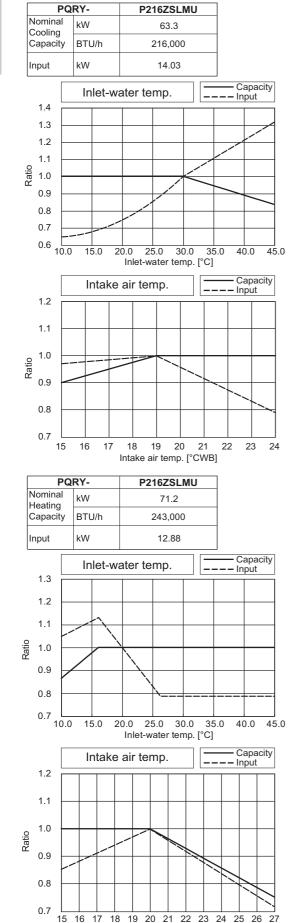






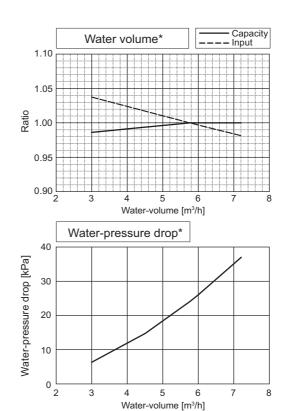


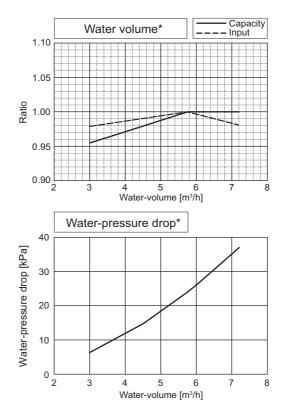


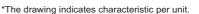


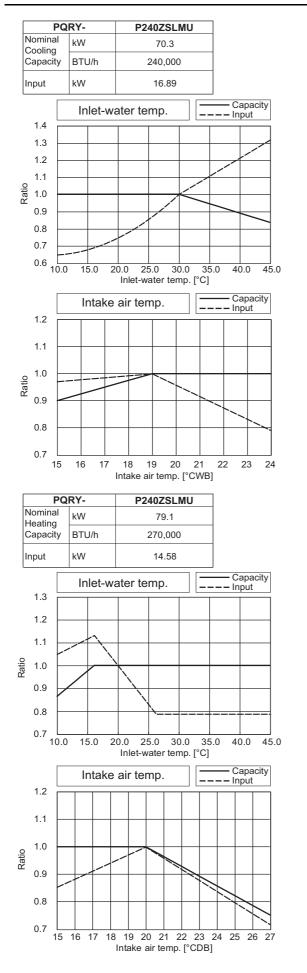
Intake air temp. [°CDB]

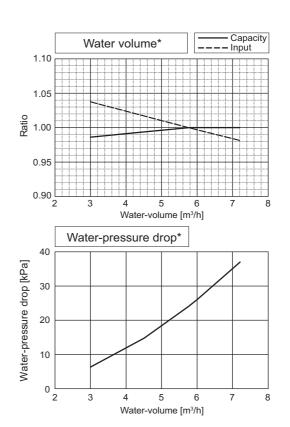
^{*}The drawing indicates characteristic per unit.

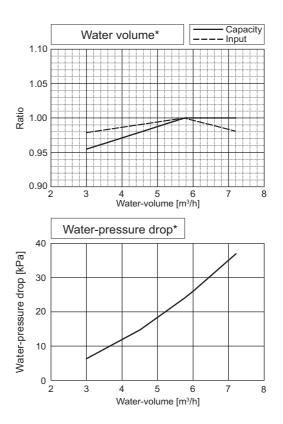


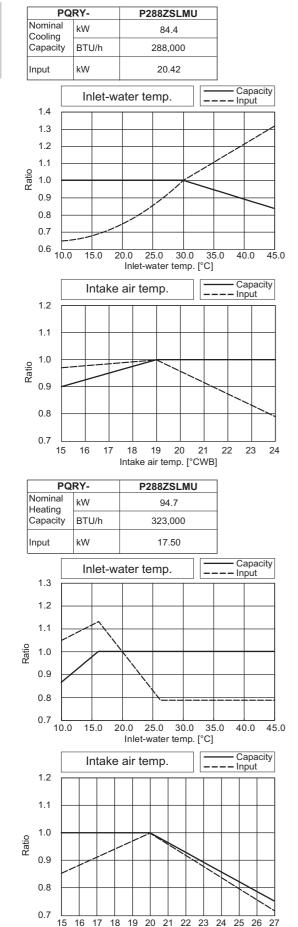






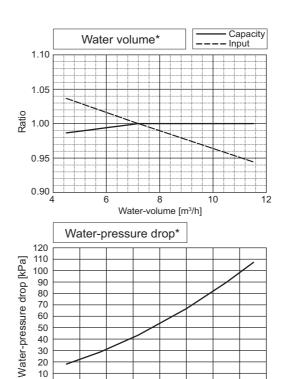






Intake air temp. [°CDB]

*The drawing indicates characteristic per unit.



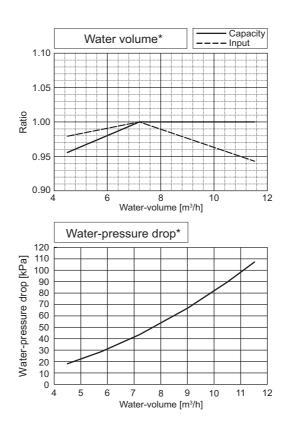
7 8 9 Water-volume [m³/h] 10 11

12

.∟ 0∟ 4

5

6



MEES23K060

kW

kW

BTU/h

Inlet-water temp.

P312ZSLMU

91.4

312,000 23.41

PQRY-

Nominal

Cooling Capacity

Input

1.4

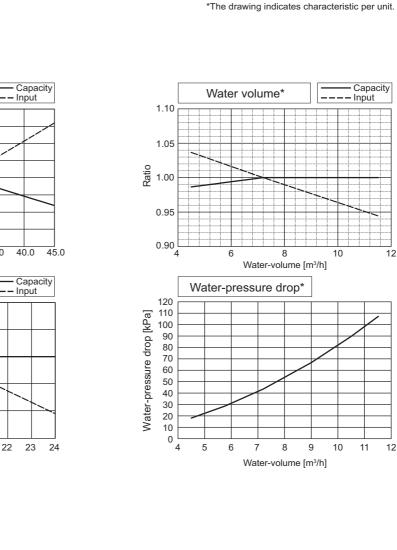
1.3 1.2

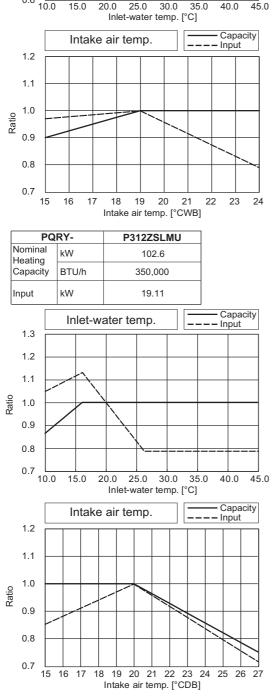
1.1 Ratio

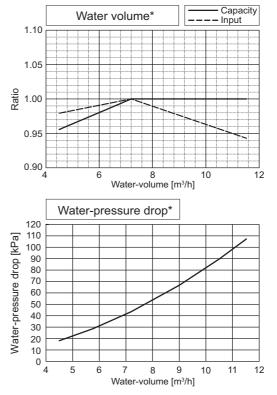
1.0

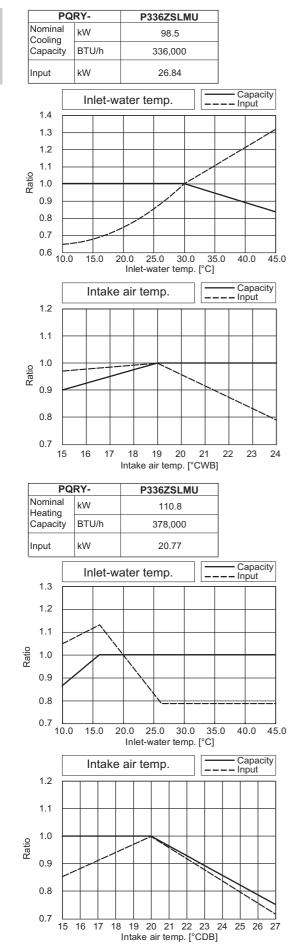
0.9 0.8

0.7 0.6

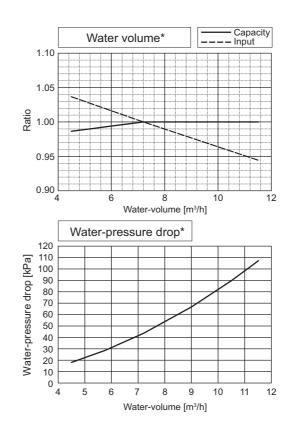


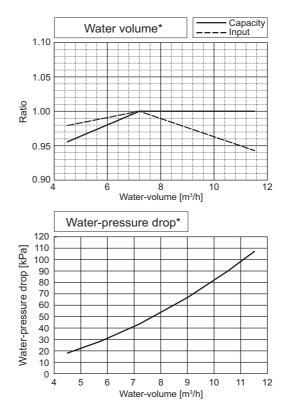


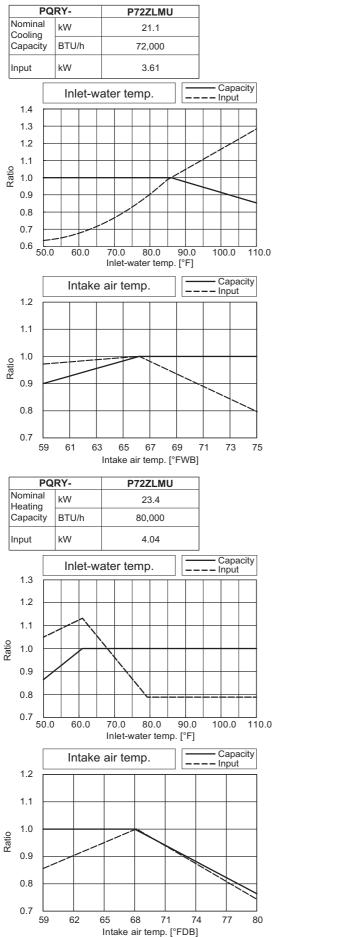


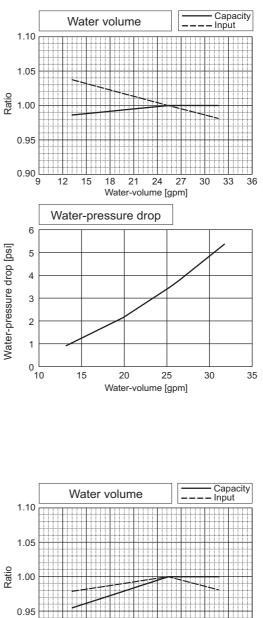


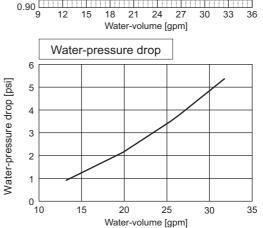
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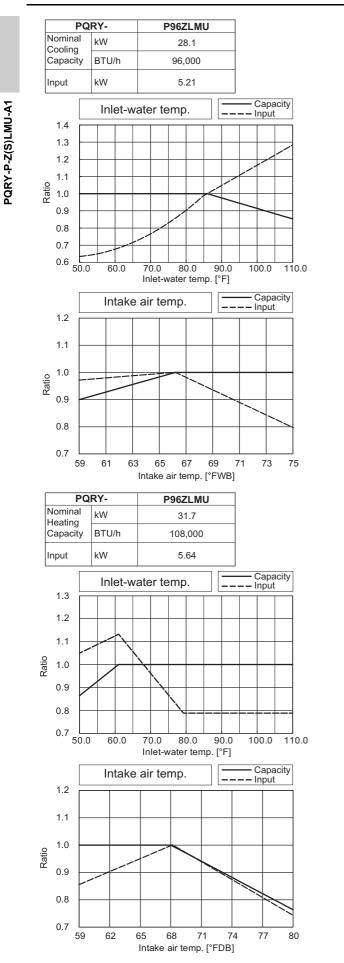


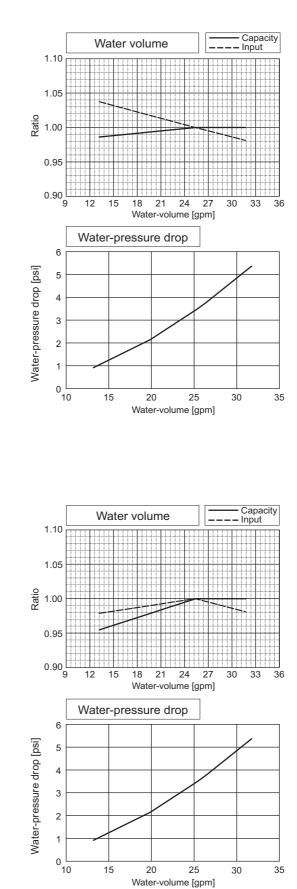


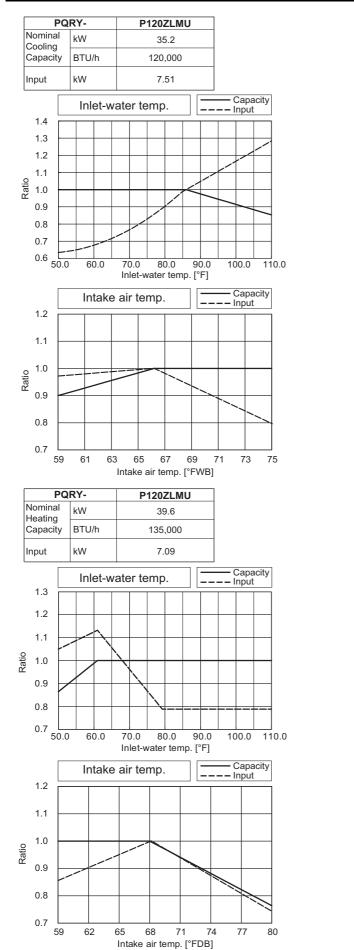


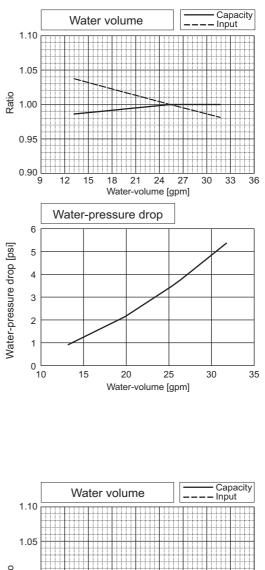


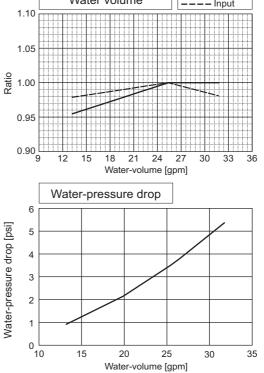


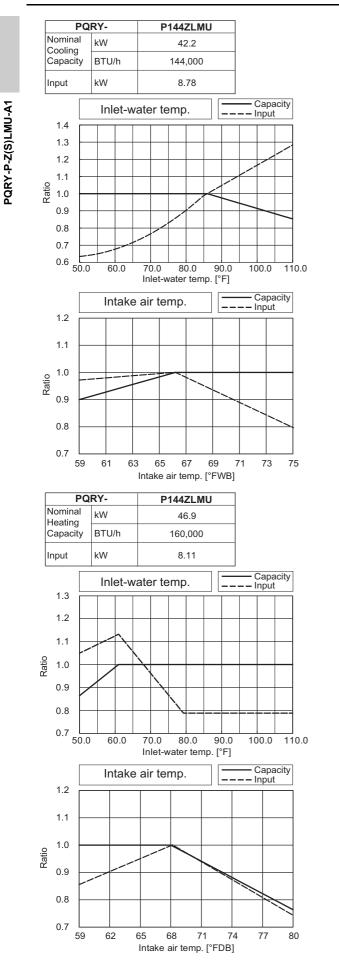


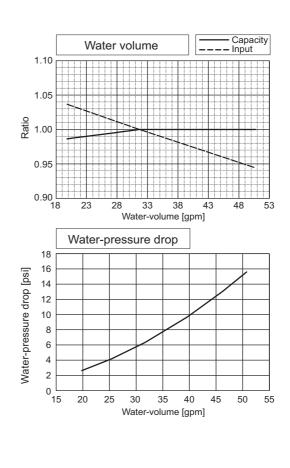


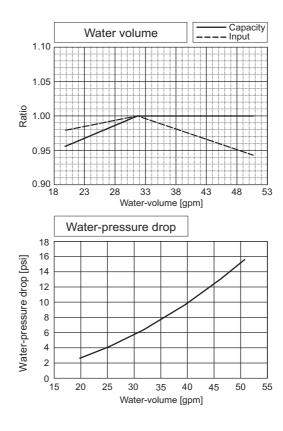


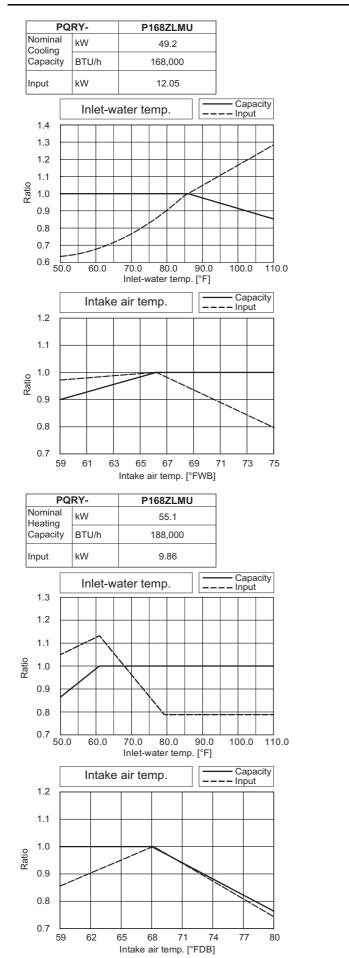


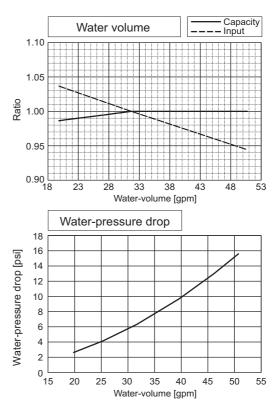


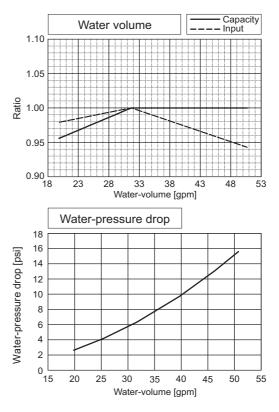


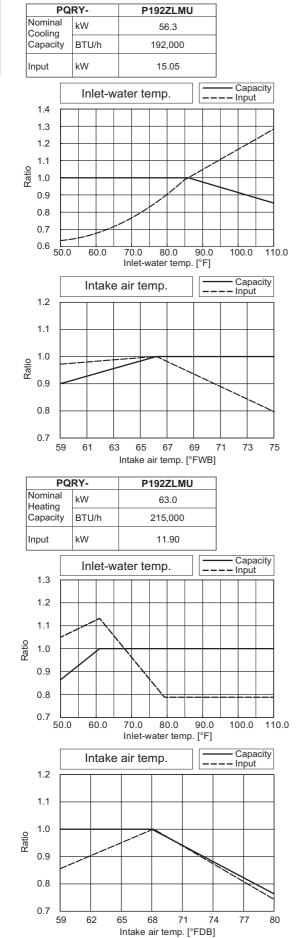


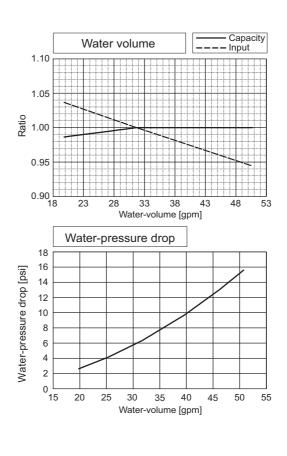


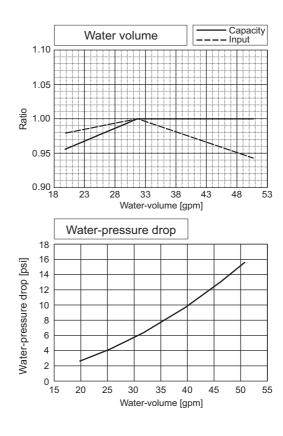


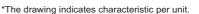


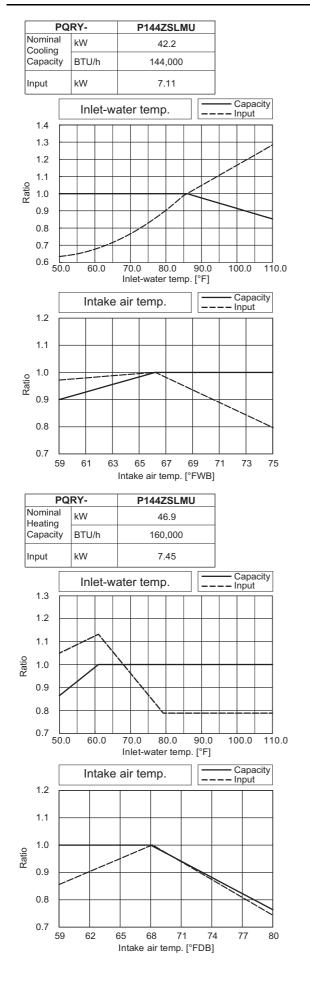


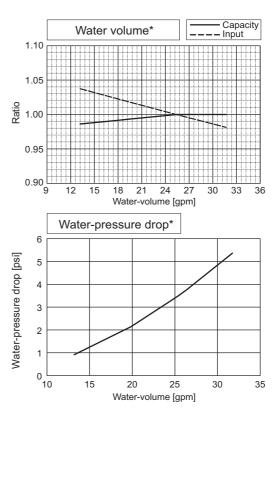


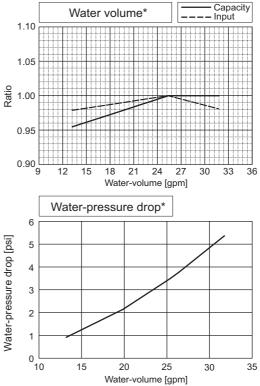


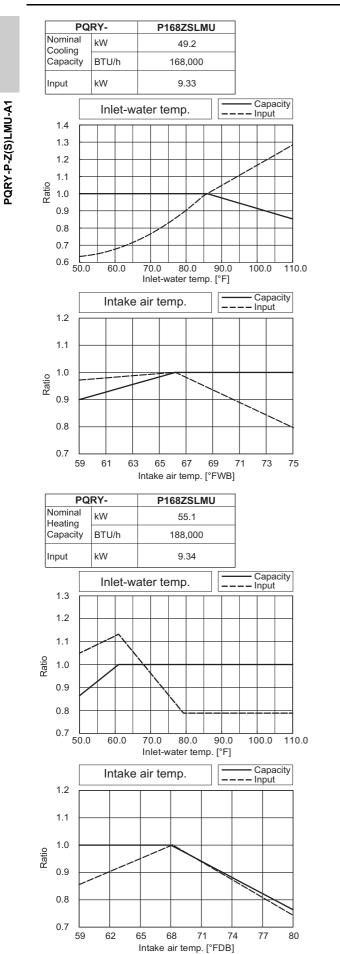




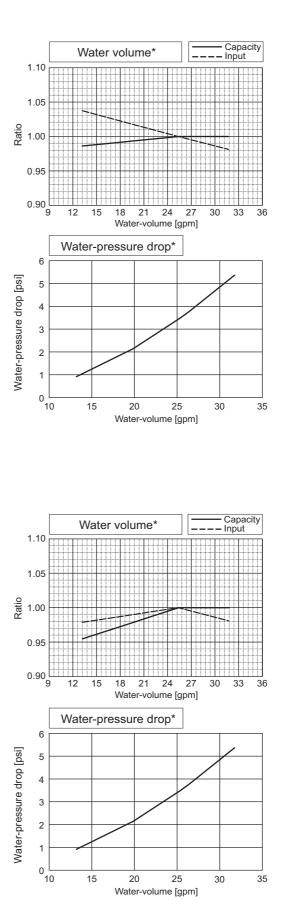


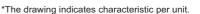


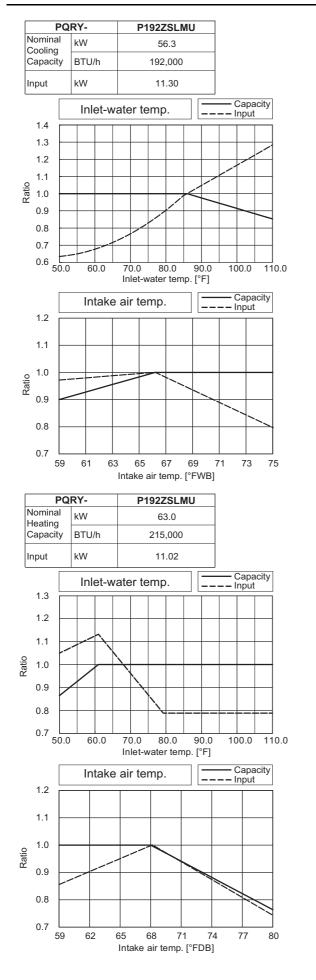


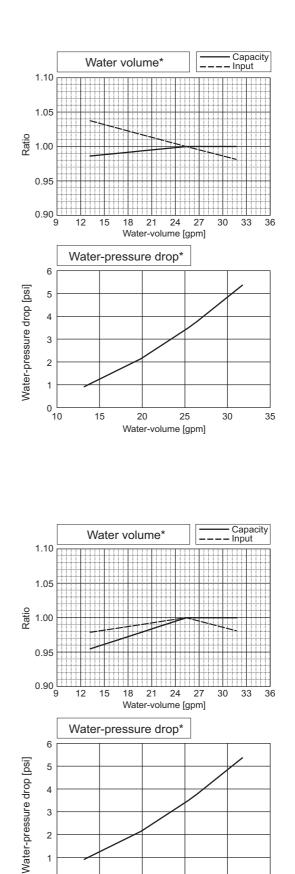


*The drawing indicates characteristic per unit.









0 └ 10

15

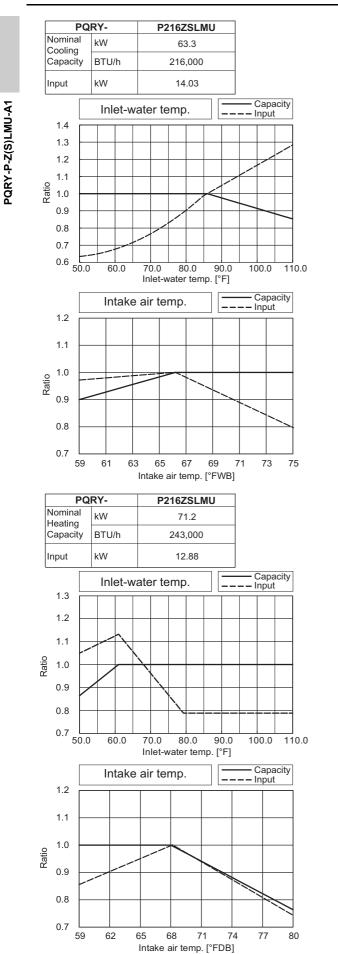
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25

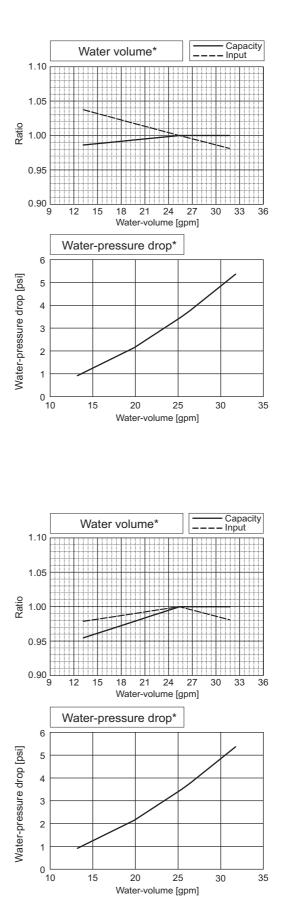
Water-volume [gpm]

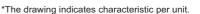
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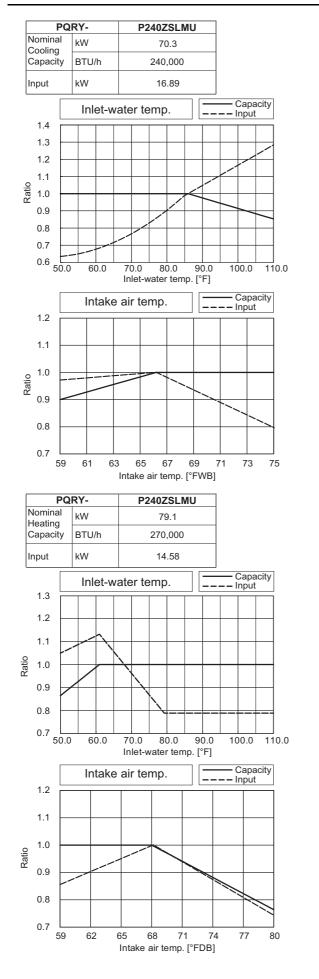
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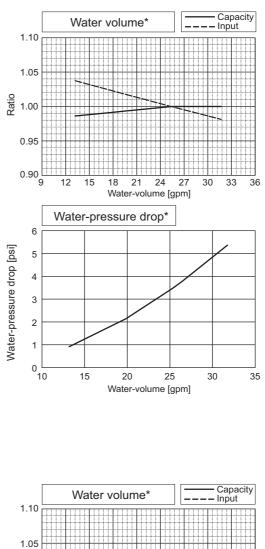


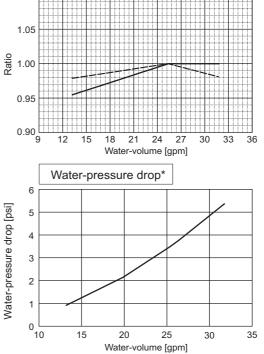
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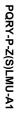


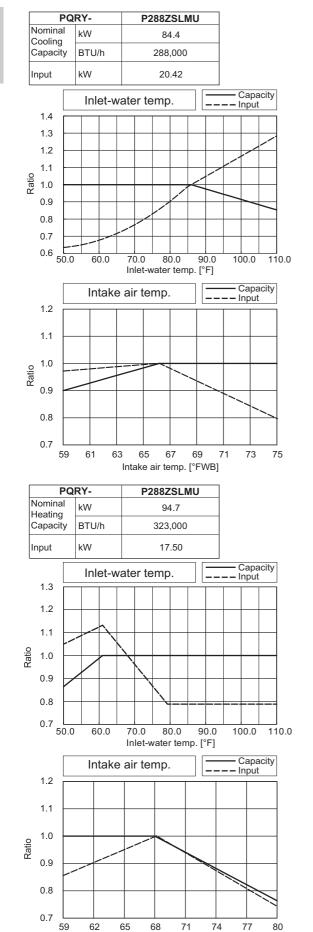






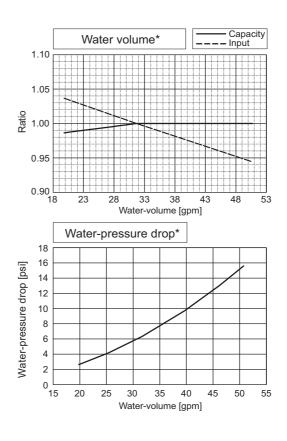


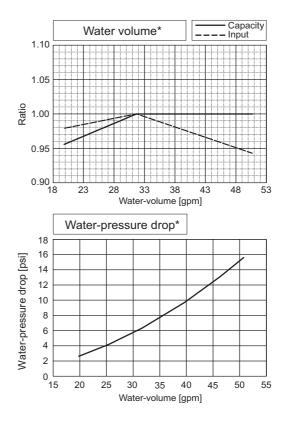


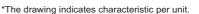


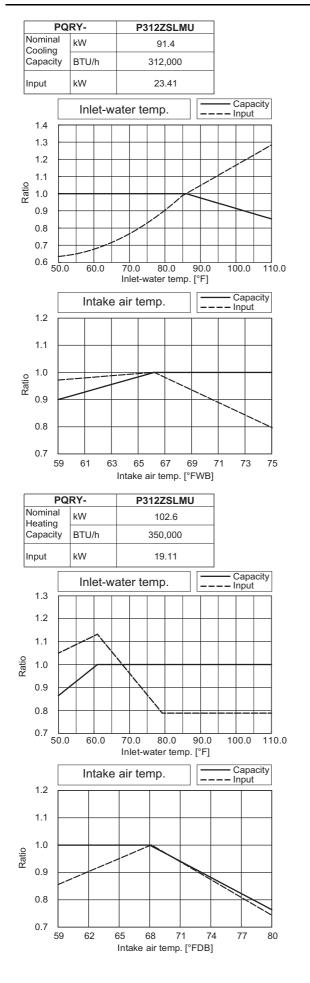
Intake air temp. [°FDB]

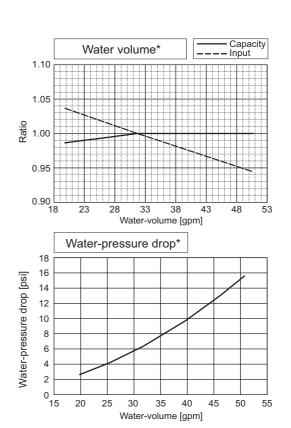
*The drawing indicates characteristic per unit.

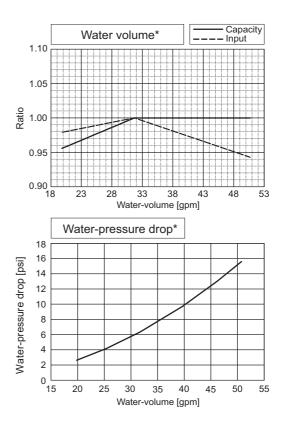


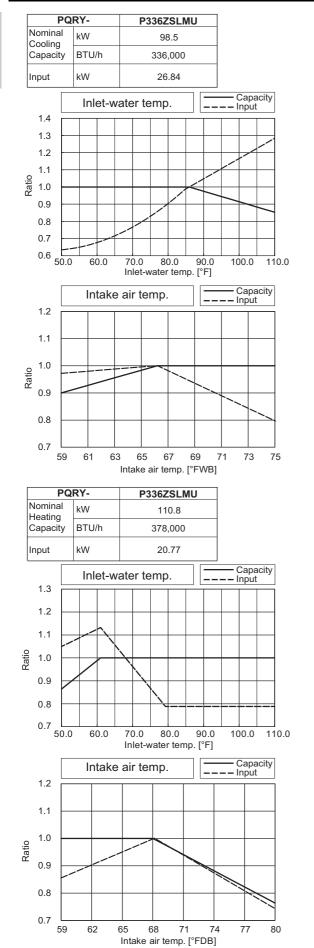




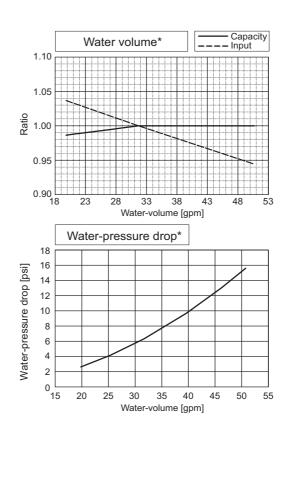


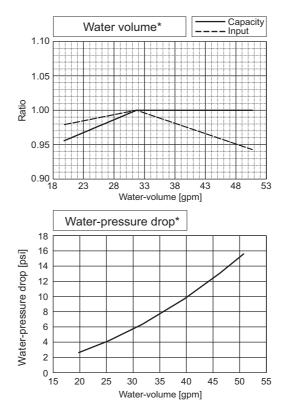






^{*}The drawing indicates characteristic per unit.



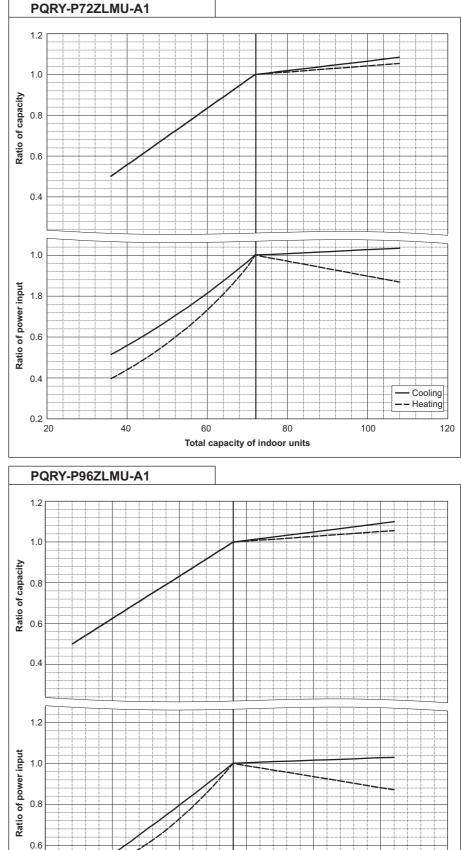


PQRY-P-Z(S)LMU-A1

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	
Nominal		BTU/h	72,000	
cooling		kW	21.1	
capacity	Input	kW	3.61	
PQRY-			P72ZLMU	
Nominal		BTU/h	80,000	
Heating		kW	23.4	
capacity	Input	kW	4.04	



PQRY-			P96ZLMU
Nominal		BTU/h	96,000
cooling	cooling		28.1
capacity	Input	kW	5.21
P	QRY-		P96ZLMU
P	QRY-	BTU/h	P96ZLMU 108,000

80

100

Total capacity of indoor units

120

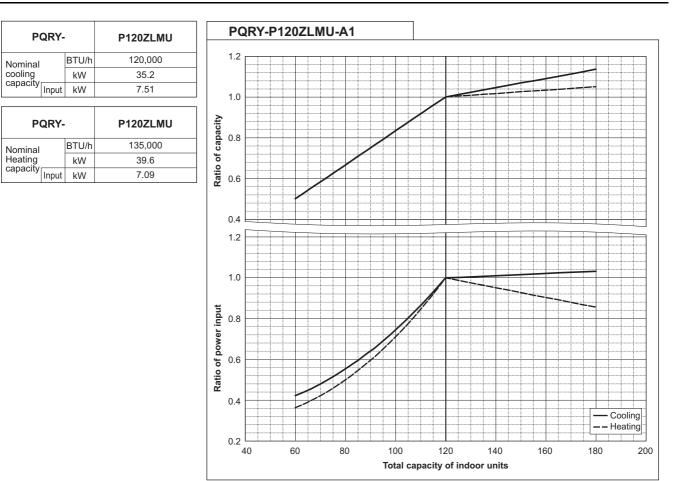
60

0.4 - 40

- Cooling

160

140

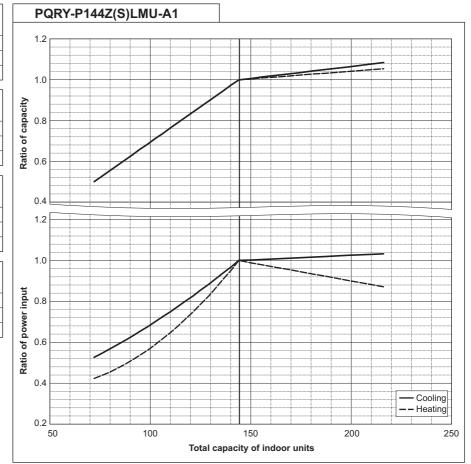


PQRY-		1	P144ZLMU
Nominal		BTU/h	144,000
cooling		kW	42.2
capacity	Input	kW	8.78

PQRY-		P144ZLMU
Nominal B ⁻	TU/h	160,000
	kW	46.9
Input I	kW	8.11

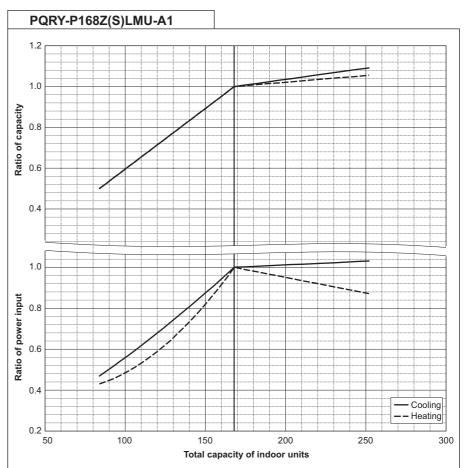
PQRY-			P144ZSLMU
Nominal		BTU/h	144,000
cooling		kW	42.2
capacity	Input	kW	7.11

PQRY-			P144ZSLMU
Nominal		BTU/h	160,000
Heating capacity Input	kW	46.9	
	kW	7.45	



P	QRY-		P168ZLMU
Nominal		BTU/h	168,000
cooling		kW	49.2
сарасну	Input kW		12.05
P	QRY-		P168ZLMU
Nominal		BTU/h	188,000
Heating		kW	55.1
capacity	Input	kW	9.86
P	PQRY-		P168ZSLMU
Nominal		BTU/h	168,000
cooling		kW	49.2
capacity	Input	kW	9.33
P	QRY-		P168ZSLMU

P	QRY-		P168ZSLMU
Nominal		BTU/h	188,000
Heating		kW	55.1
capacity	Input	kW	9.34

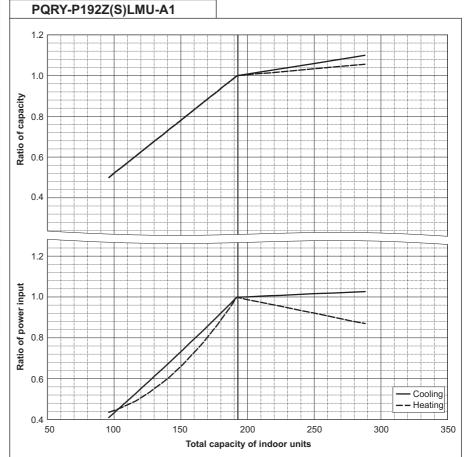


P	QRY-		P192ZLMU
Nominal		BTU/h	192,000
cooling		kW	56.3
capacity	Input	kW	15.05
	mput		10.00

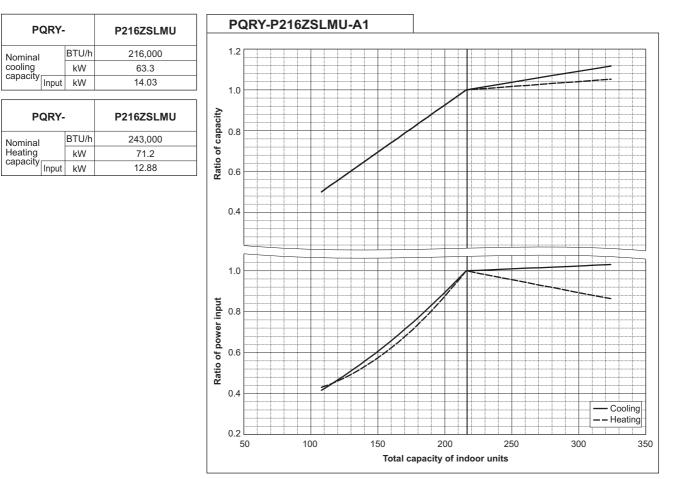
P	QRY-		P192ZLMU
Nominal		BTU/h	215,000
Heating		kW	63.0
capacity	Input	kW	11.90

P	QRY-		P192ZSLMU
Nominal		BTU/h	192,000
cooling		kW	56.3
capacity	Input	kW	11.30

P	QRY-		P192ZSLMU
Nominal		BTU/h	215,000
Heating		kW	63.0
capacity	Input	kW	11.02



7. CAPACITY TABLES



PQRY-			P240ZSLMU
Nominal	cooling kW		240,000
			70.3
capacity	Input	kW	16.89

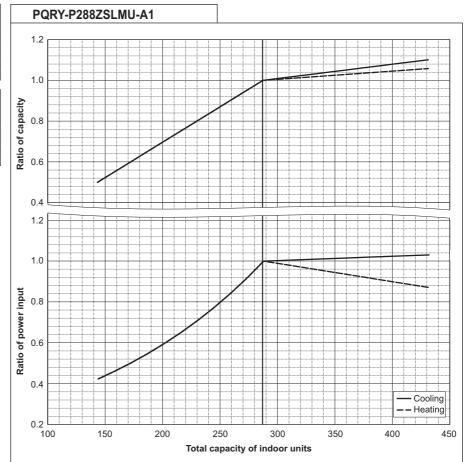
P	QRY-		P240ZSLMU
Nominal		BTU/h	270,000
Heating		kW	79.1
capacity	Input	kW	14.58

PQRY-P240ZSLMU-A1 1.2 1.0 Ratio of capacity 9.0 0.4 1.2 1.0 Ratio of power input 0. 0.4 Cooling - Heating 0.2 50 100 150 200 250 300 350 400 Total capacity of indoor units

Γ

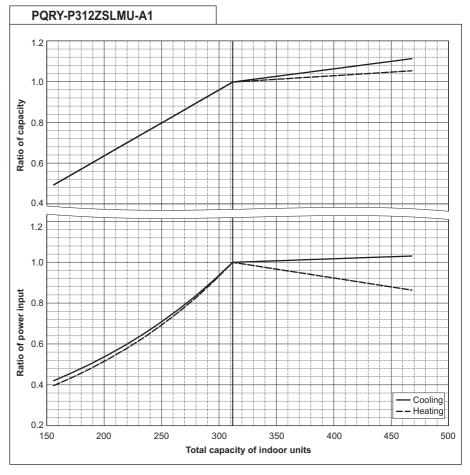
PQRY-P-Z(S)LMU-A1

P	QRY-		P288ZSLMU
Nominal		BTU/h	288,000
cooling		kW	84.4
capacity	Input	kW	20.42
P	QRY-		P288ZSLMU
P	QRY-	BTU/h	P288ZSLMU 323,000
	QRY-		



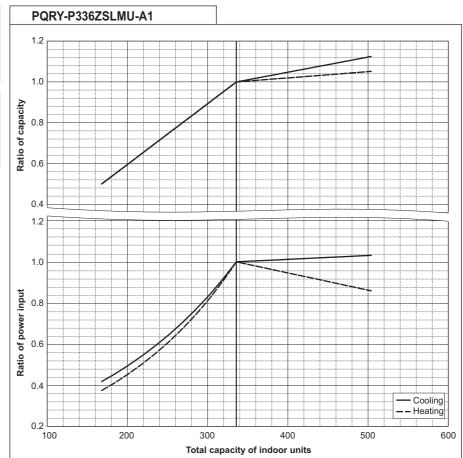
P	QRY-		P312ZSLMU
Nominal		BTU/h	312,000
cooling		kW	91.4
capacity	Input	kW	23.41
r			

P	QRY-		P312ZSLMU
Nominal		BTU/h	350,000
Heating		kW	102.6
capacity	Input	kW	19.11



7. CAPACITY TABLES

P	QRY-		P336ZSLMU
Nominal		BTU/h	336,000
cooling		kW	98.5
capacity	Input	kW	26.84
P	QRY-		P336ZSLMU
	QRY-	BTU/h	P336ZSLMU 378,000
Po Nominal Heating capacity	QRY-		

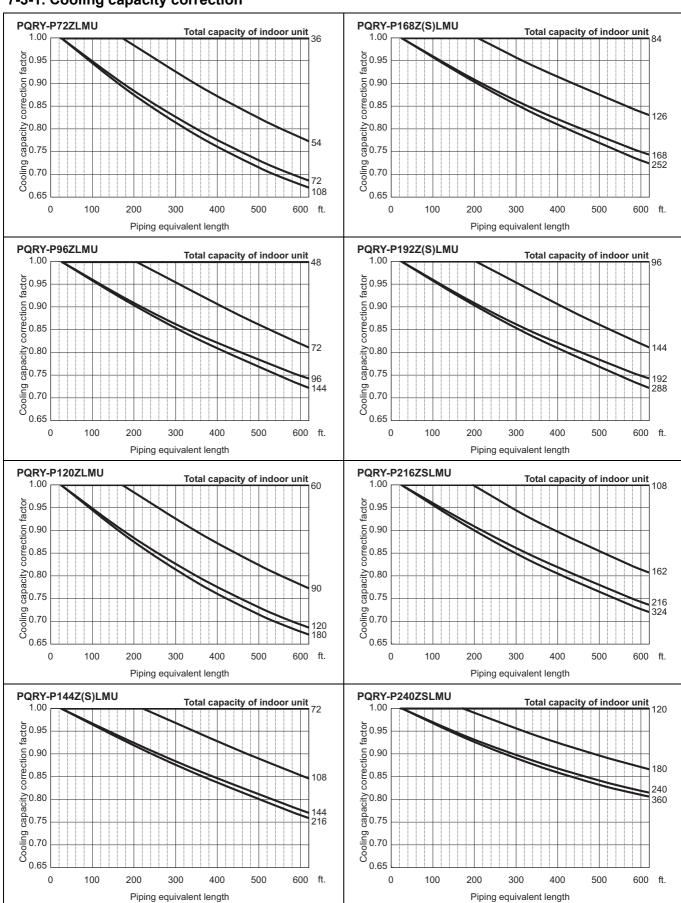


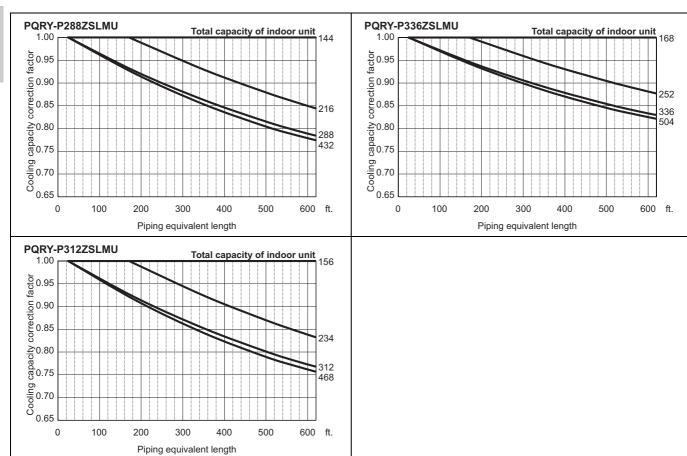
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PQRY-P-Z(S)LMU-A1

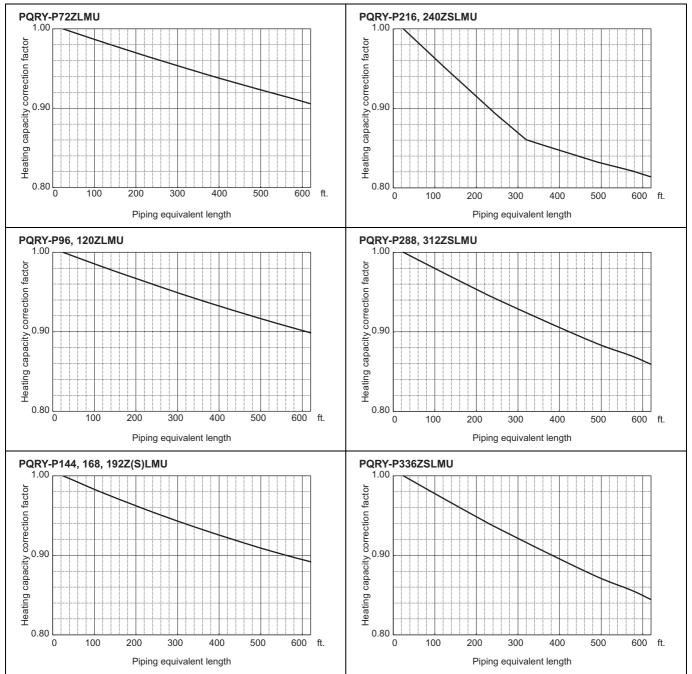
7-3. Correction by refrigerant piping length

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.





7-3-2. Heating capacity correction



MEES23K060

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

1. PQRY-P72ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + $(1.15 \times number of bent on the piping)$ [ft.] Equivalent length = (Actual piping length to the farthest indoor unit) + $(0.35 \times 10^{10} \text{ m})$

2. PQRY-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) + $(0.42 \times n)$ model of bent on the piping [m] 3. PQRY-P120ZLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + $(1.54 \times 10^{-1} \text{ m})$ 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, 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. PQRY-P288, 312ZSLMU

Equivalent length = (Actual piping length to the farthest indoor unit) + $(2.29 \times 10^{-1} \text{ m})$ Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 x number of bent on the piping) [m]

6. PQRY-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]

8-1. Designing of water circuit system

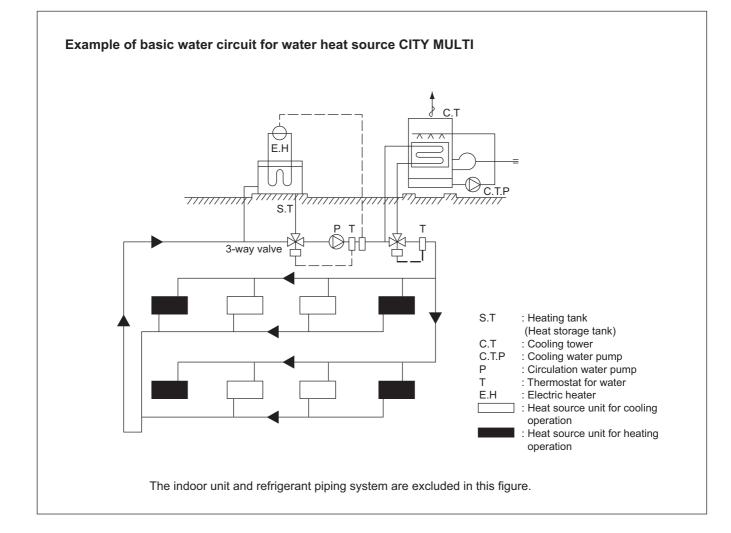
1) Example of basic water circuit

The water circuit of the water heat source CITY MULTI connects the heat source unit with the cooling tower/auxiliary heat source/heat storage tank/circulation pump with a single system water piping as shown in the figure below. The selector valve automatically controls to circulate water toward the cooling tower in the cooling season, while toward the heat storage tank in the heating season. If the inlet water temperature is kept in a range of 10~45°C [50~113°F]* regardless of the building load, the water heat source CITY MULTI can be operated for either cooling or heating. Therefore in the summer when only cooling load exists, the temperature rise of circulation water will be suppressed by operating the cooling tower. While in the winter when heating load increases, the inlet temperature of circulation water may be dropped below 10°C [50°F]. Under such situation, the circulation water will be heated with the auxiliary heat source if it drops below a certain temperature.

When the thermal balance between cooling and heating operation is in a correct proportion, the operation of the auxiliary heat source and cooling tower is not required.

In order to control the above thermal balance properly and use thermal energy effectively, utilizing of heat storage tanks, and night-time discounted electric power as a auxiliary heat source will be economical.

Meantime as this system uses plural sets of heat source unit equipped with water heat exchangers, water quality control is important. Therefore, a cooling tower should be a closed type that water is not exposed to the atmosphere.



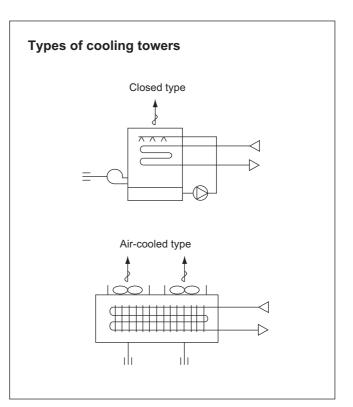
2) Cooling tower

a) Types of cooling tower

The cooling towers presently used include the open type cooling tower, open type cooling tower + heat exchanger, closed type cooling tower, and air-cooled type cooling tower. However, as the quality control of circulation water is essential, to preserve water quality, use the closed type of cooling tower for WY/WR2.

Although the circulation water will not be contaminated by atmospheric air, it is recommended to periodically blow water inside the system and replenish fresh water instead.

In a district where the coil may be frozen in the winter, it is necessary to apply antifreeze solution to the circulation water, or take freeze protection measures such as to automatically discharge water inside the cooling coil at the stopping of the pump.



b) Calculation method of cooling tower capacity

All units of the water heat source CITY MULTI may possibly be in cooling operation temporarily (at pulling down) in the summer, however, it is not necessary to determine the capacity according to the total cooling capacity of all CITY MULTI units as this system has a wide operating water temperature range.

It is determined in accordance with the value obtained by adding the maximum cooling load of an actual building, the input heat equivalent value of all CITY MULTI units, and the cooling load of the circulating pumps. Please check for the values of the cooling water volume and circulation water volume.

> $Qc + 860 \times (\Sigma Qw + Pw)$ Cooling tower capacity = (Refrigeration ton) 3.900

Qc : Maximum cooling load under actual state (kcal/h)

Qw : Total input of water heat source CITY MULTI at simultaneous operation under maximum state (kW) (kW)

Pw : Shaft power of circulation pumps

Cooling tower capacity =
$$\frac{Qc + 3,412 \times (\Sigma Qw + Pw)}{15,500}$$
 (Refrigeration ton)

* 1 Refrigerant ton of cooling tower capacity \approx US refrigerant ton \times (1 + 0.3) = 3,900 kcal/h = 15,500 BTU/h

3) Auxiliary heat source and heat storage tank

When the heating load is larger than the cooling load, the circulation water temperature lowers in accordance with the heat balance of the system. It should be heated by the auxiliary heat source in order to keep the inlet water temperature within the operating range of the water heat source CITY MULTI.

Further in order to operate the water heat source CITY MULTI effectively, it is recommended to utilize the heat storage tank to cover the warming up load in the morning and the insufficient heat amount.

Effective heat utilization can be expected to cover insufficient heat at the warming up in the next morning or peak load time by storing heat by installing a heat storage tank or operating a low load auxiliary heat source at the stopping of the water heat source CITY MULTI. As it can also be possible to reduce the running cost through the heat storage by using the discounted night-time electric power, using both auxiliary heat source and heat storage tank together is recommended. The effective temperature difference of an ordinary heat storage tank shows about 5°C [41°F] even with the storing temperature at 45°C [113°F].

However with the water heat source CITY MULTI, it can be utilized as heating heat source up to 15°C [59°F] with an effective temperature of a high 30°C [54°F] approximately, thus the capacity of the heat storage tank can be minimized.

a) Auxiliary heat source

The following can be used as the auxiliary heat source.

- Boiler (Heavy oil, kerosine, gas, electricity)
- Electric heat (Insertion of electric heater into heat storage tank)
- Outdoor air (Air-heat source heat pump chiller)
- Warm discharge water (Exhaust water heat from machines inside building and hot water supply)
- Utilization of night-time lighting
- Solar heat

Please note that the auxiliary heat source should be selected after studying your operating environment and economical feasibility.

Determining the auxiliary heat source capacity

For the CITY MULTI water heat source system, a heat storage tank is recommended to use. When employment of the heat storage tank is difficult, the warming up operation should be arranged to cover the starting up heating load. Since the holding water inside the piping circuit owns heat capacity and the warming up operation can be assumed for about one hour except that in a cold region, the heat storage tank capacity is required to be that at the maximum daily heating load including the warming up load at the next morning of the holiday. However the auxiliary heat source capacity should be determined by the daily heating load including warming up load on the week day. For the load at the next morning of the holiday, heat storage is required by operating the auxiliary heat source even outside of the ordinary working hour.

When heat storage tank is not used

QH = H	$HCT \left(1 - \frac{1}{COP_{h}}\right) - 1000 \times Vw \times \Delta T - 860 \times Pw$	
QH HC⊤ COPH Vw ∆T TwH TwL PW	 Auxiliary heat source capacity Total heating capacity of each water heat source CITY MULTI COP of water heat source CITY MULTI at heating Holding water volume inside piping Allowable water temperature drop = TwH - TwL Heat source water temperature at high temperature side Heat source water temperature at low temperature side Heat source water pump shaft power 	(kcal/h) (kcal/h) (°C) (°C) (°C) (kW)
QH = F	ICT $(1 - \frac{1}{COP_h}) = 8.343 \times Vw \times \Delta T - 3412 \times Pw$	~
QH HC⊤ COPH Vw ∆T TWH TWL PW	 Auxiliary heat source capacity Total heating capacity of each water heat source CITY MULTI COP of water heat source CITY MULTI at heating Holding water volume inside piping Allowable water temperature drop = TWH - TWL Heat source water temperature at high temperature side Heat source water temperature at low temperature side Heat source water pump shaft power 	(BTU/h) (BTU/h) (G) (°F) (°F) (°F) (kW)

When heat storage tank is not used

$$HQ_{1T} \cdot \left(1 - \frac{1}{COP_{h}}\right) - 860 \times Pw \times T_{2}$$

$$QH = \frac{1}{T_{1}} \times K \qquad (kcal)$$

$$QH_{1T} : Total of heating load on weekday including warming up \qquad (kcal/day)$$

QH1T	: I otal of heating load on weekday including warming up	(kcal/day)
T 1	: Operating hour of auxiliary heat source	(h)
T2	: Operating hour of heat source water pump	(h)
K	: Allowance factor (Heat storage tank, piping loss, etc.)	1.05~1.10

 HQ_{1T} is calculated from the result of steady state load calculation similarly by using the equation below. $HQ_{1T} = 1.15 \times (\Sigma Q'a + \Sigma Q'b + \Sigma Q'c + \Sigma Q'd + \Sigma Q'f) T_2 - \psi (\Sigma Qe_1 + \Sigma Qe_2 + \Sigma Qe_3) (T2 - 1)$

Q'a	: Thermal load from external wall/roof in each zone	(kcal/h)
Q'b	: Thermal load from glass window in each zone	(kcal/h)
Q'c	: Thermal load from partition/ceiling/floor in each zone	(kcal/h)
Q'd	: Thermal load by infiltration in each zone	(kcal/h)
Q'f	: Fresh outdoor air load in each zone	(kcal/h)
Q'e1	: Thermal load from human body in each zone	(kcal/h)
Q'e2	: Thermal load from lighting fixture in each zone	(kcal/h)
Q'e ₃	: Thermal load from equipment in each zone	(kcal/h)
Ψ	: Radiation load rate	0.6~0.8
T2	: Air conditioning hour	

$$HQ_{1T} \cdot \left(1 - \frac{1}{COP_{h}}\right) - 3,412 \times Pw \times T_{2}$$

$$QH = \frac{1}{T1} \times K \qquad (BTU)$$

QH1T	: Total of heating load on weekday including warming up	(BTU/day)
T 1	: Operating hour of auxiliary heat source	(h)
T2	: Operating hour of heat source water pump	(h)
K	: Allowance factor (Heat storage tank, piping loss, etc.)	1.05~1.10

 HQ_{1T} is calculated from the result of steady state load calculation similarly by using the equation below.

 $HQ_{1T} = 1.15 \times (\Sigma Q'a + \Sigma Q'b + \Sigma Q'c + \Sigma Q'd + \Sigma Q'f) T_2 - \Psi (\Sigma Qe_1 + \Sigma Qe_2 + \Sigma Qe_3) (T2 - 1)$

Q'a	: Thermal load from external wall/roof in each zone	(BTU/h)
Q'b	: Thermal load from glass window in each zone	(BTU/h)
Q'c	: Thermal load from partition/ceiling/floor in each zone	(BTU/h)
Q'd	: Thermal load by infiltration in each zone	(BTU/h)
Q'f	: Fresh outdoor air load in each zone	(BTU/h)
Q'e1	: Thermal load from human body in each zone	(BTU/h)
Q'e2	: Thermal load from lighting fixture in each zone	(BTU/h)
Q'e ₃	: Thermal load from equipment in each zone	(BTU/h)
Ψ	: Radiation load rate	0.6~0.8
T2	: Air conditioning hour	

b) Heat storage tank

Heat storage tank can be classified by types into the open type heat storage tank exposed to atmosphere, and the closed type heat storage tank with structure separated from atmosphere. Although the size of the tank and its installation place should be taken into account, the closed type tank should be used by considering corrosion problems. The capacity of heat storage tanks is determined in accordance with the daily maximum heating load that includes warming up load to be applied for the day after the holiday.

When auxiliary heat source is operated during operation and even after stopping of water heat source CITY MULTI unit

 $V = \frac{HQ_{2T} \left(1 - \frac{1}{COP_{h}}\right) - 860 \times Pw \times T_{2} - QH \times T_{2}}{\Delta T \times 1,000 \times \eta V}$ (ton)

 $\begin{array}{ll} HQ_{2T} & : \mbox{Maximum heating load including load required for the day after the holiday (kcal/day)} \\ \Delta T & : \mbox{Temperature difference utilized by heat storage tank} & (^{\circ}C) \\ \eta V & : \mbox{Heat storage tank efficiency} \end{array}$

HQ_{2T} : $1.3 \times (\Sigma Q'a + \Sigma Q'c + \Sigma Q'd + \Sigma Q'f) T_2 - \Psi (\Sigma Qe2 + \Sigma Qe3) (T_2 - 1)$

$$V = \frac{HQ_{2T} \left(1 - \frac{1}{COP_{h}}\right) - 3,412 \times Pw \times T_{2} - QH \times T_{2}}{\Delta T \times \eta V}$$
(Ibs)

$$HQ_{2T} \qquad : Maximum heating load including load required for the day after the holiday (BTU/day)
$$\Delta T \qquad : Temperature difference utilized by heat storage tank \qquad (°F)
$$\eta V \qquad : Heat storage tank efficiency$$

$$HQ_{2T} \qquad : 1.3 \times (\SigmaQ'a + \SigmaQ'c + \SigmaQ'd + \SigmaQ'f) T_{2} - \Psi (\SigmaQe2 + \SigmaQe3) (T2 - 1)$$$$$$

When auxiliary heat source is operated after stopping of water heat source CITY MULTI unit

$$V = \frac{HQ_{2T} \left(1 - \frac{1}{COP_{h}}\right) - 860 \times Pw \times T_{2}}{\Delta T \times 1,000 \times \eta V}$$
(ton)

 $\begin{array}{ll} HQ_{2T} & : \mbox{ Maximum heating load including load required for the day after the holiday (kcal/day)} \\ \Delta T & : \mbox{ Temperature difference utilized by heat storage tank} & (^{\circ}C) \\ \eta V & : \mbox{ Heat storage tank efficiency} \end{array}$

HQ_{2T} : 1.3 × (
$$\Sigma$$
Q'a + Σ Q'c + Σ Q'd + Σ Q'f) T₂ - ψ (Σ Qe2 + Σ Qe3) (T2 - 1)

$$V = \frac{HQ_{2T} \left(1 - \frac{1}{COP_{h}}\right) - 3,412 \times Pw \times T_{2}}{\Delta T \times \eta V}$$
(Ibs)

$$HQ_{2T} \quad : Maximum heating load including load required for the day after the holiday (BTU/day)
$$\Delta T \quad : Temperature difference utilized by heat storage tank (°F)
$$\eta V \quad : Heat storage tank efficiency$$

$$HQ_{2T} \quad : 1.3 \times (\SigmaQ'a + \SigmaQ'c + \SigmaQ'd + \SigmaQ'f) T_{2} - \psi (\SigmaQe2 + \SigmaQe3) (T2 - 1)$$$$$$

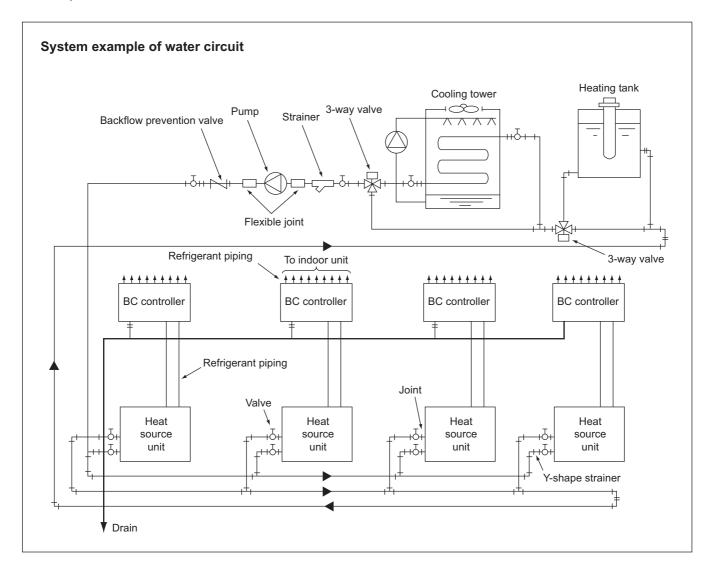
4) Piping system

The following items should be kept in your mind in planning / designing water circuits.

- a) All units should be constituted in a single circuit in principle.
- b) When plural numbers of the water heat source CITY MULTI unit are installed, the rated circulating water flow rate should be kept by making the piping resistance to each unit almost same value. As an example, the reverse return system as shown below may be employed.
- c) Depending on the structure of a building, the water circuit may be prefabricated by making the layout uniform.
- d) When a closed type piping circuit is constructed, install an expansion tank usable commonly for a make-up water tank to absorb the expansion/contraction of water caused by temperature fluctuation.
- e) If the operating temperature range of circulation water stays within the temperature near the normal temperature (summer :30°C [86°F], winter :20°C [68°F]), thermal insulation or anti-sweating work is not required for the piping inside buildings.

In case of the conditions below, however, thermal insulation is required.

- When well water is used for heat source water.
- When piped to outdoor or a place where freezing may be caused.
- When vapor condensation may be generated on piping due to an increase in dry bulb temperature caused by the entry of fresh outdoor air.



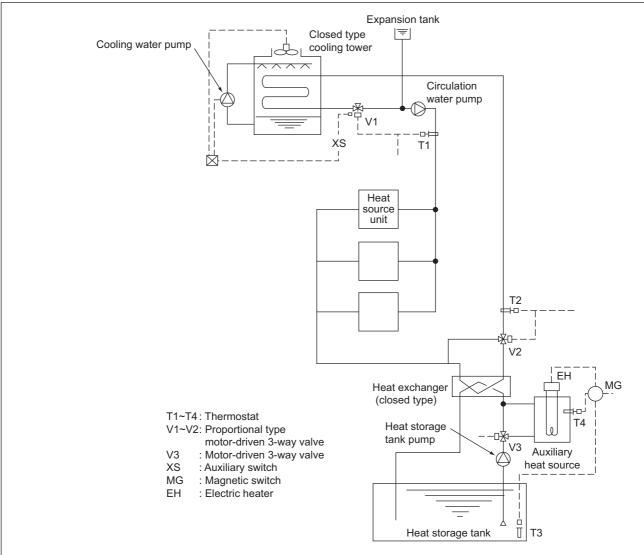
5) Practical System Examples and Circulation Water Control

Since the water heat source CITY MULTI is of water heat source system, versatile systems can be constituted by combining it with various heat sources.

The practical system examples are given below.

Either cooling or heating operation can be performed if the inlet water temperature of the water heat source CITY MULTI stays within a range of 10~45°C [50~113°F]. However, the inlet water temperature near 30°C [86°F] for cooling and 20°C [68°F] for heating is recommended by taking the life, power consumption and capacity of the air conditioning units into consideration. The detail of the control is also shown below.

Example-1 Combination of closed type cooling tower and hot water heat storage tank (using underground hollow slab)

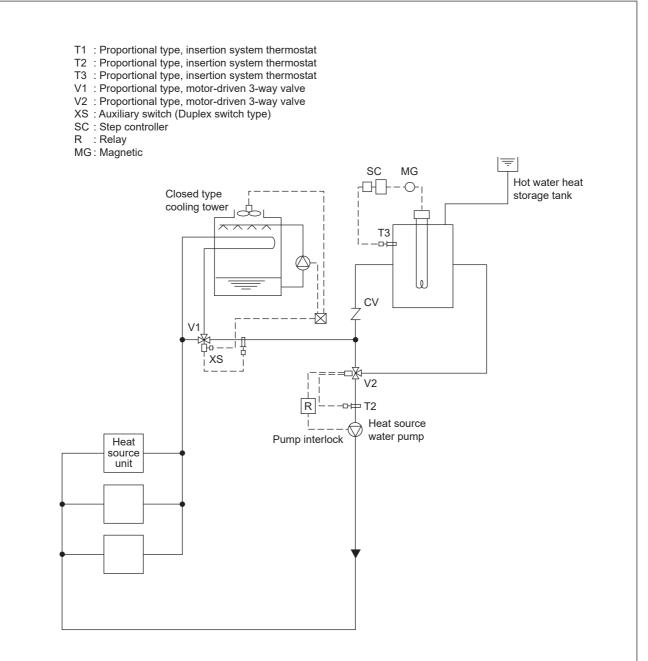


By detecting the inlet water temperature of the water heat source CITY MULTI system with T1 (around 30°C [86°F]) and T2 (around 20°C [68°F]), the temperature will be controlled by opening/closing V1 in the summer and V2 in the winter.

In the summer, as the inlet water temperature rises exceeding the set temperature of T1, the bypass port of V1 will open to lower the inlet water temperature. While in the winter, as the inlet water temperature drops, V2 will open following the command of T2 to rise the inlet water temperature.

The water inside the heat storage tank will be heated by the auxiliary heat source by V3 being opened with timer operation in the night-time. The electric heater of the auxiliary heat source will be controlled by T3 and the timer. The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control of the fan and pump following the command of the auxiliary switch XS of V1, that operates only the fan at the light load while the fan and pump at the maximum load thus controlling water temperature and saving motor power.

Example-2 Combination of closed type cooling tower and hot water heat storage tank



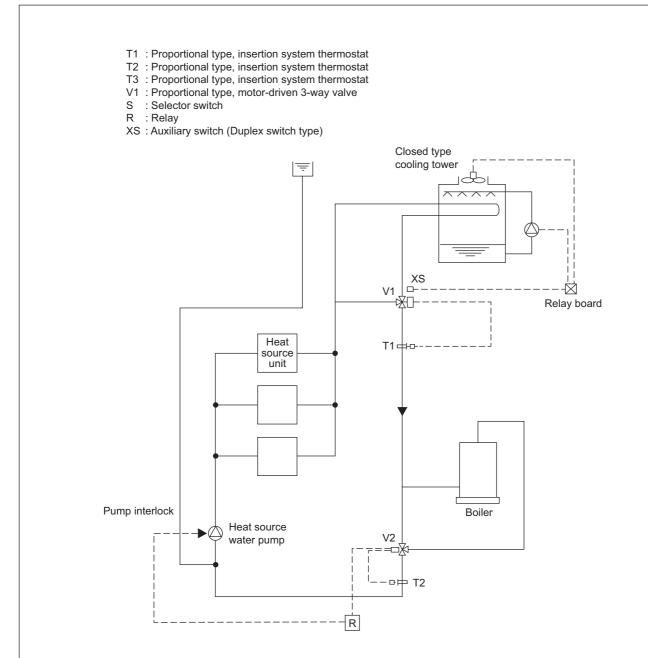
In the summer, as the inlet water temperature rises exceeding the set temperature of T1, the bypass port of V1 will open to lower the inlet water temperature. In the winter, if the inlet water temperature stays below 25°C [77°F], V2 will open/close by the command of T2 to keep the inlet water temperature constant.

The temperature of the hot water inside the heat storage tank will be controlled through the step control of the electric heater by step controller operation following the command of T3.

During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking thus preventing the high temperature water from entering into the system at the starting of the pump.

The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control of the fan and pump following the command of the auxiliary switch XS of V1, that operates only the fan at the light load while the fan and pump at the maximum load thus controlling water temperature and saving motor power.

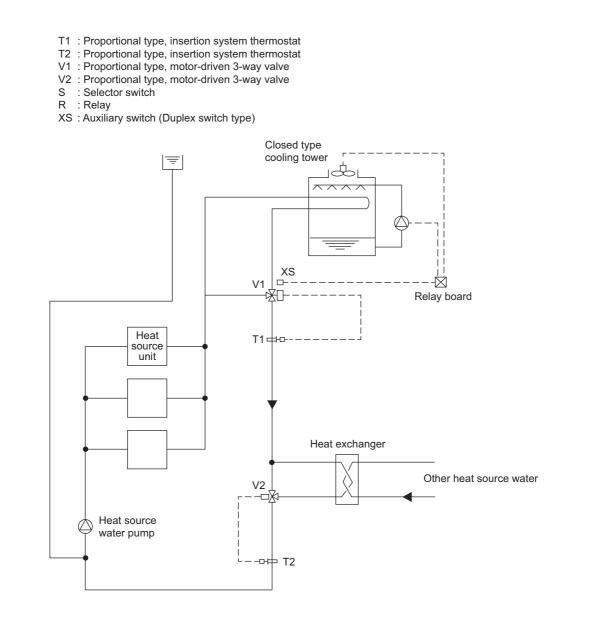
Example-3 Combination of closed type cooling tower and boiler



In the summer, as the inlet water temperature rises exceeding the set temperature of T1, the bypass port of V1 will close to lower the inlet water temperature. In the winter, if the inlet water temperature drops below 25°C [77°F], V2 will conduct water temperature control to keep the inlet water temperature constant.

During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking. The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control following the command of the auxiliary switch XS of V1, thus controlling water temperature and saving motor power.

Example-4 Combination of closed type cooling tower and heat exchanger (of other heat source)



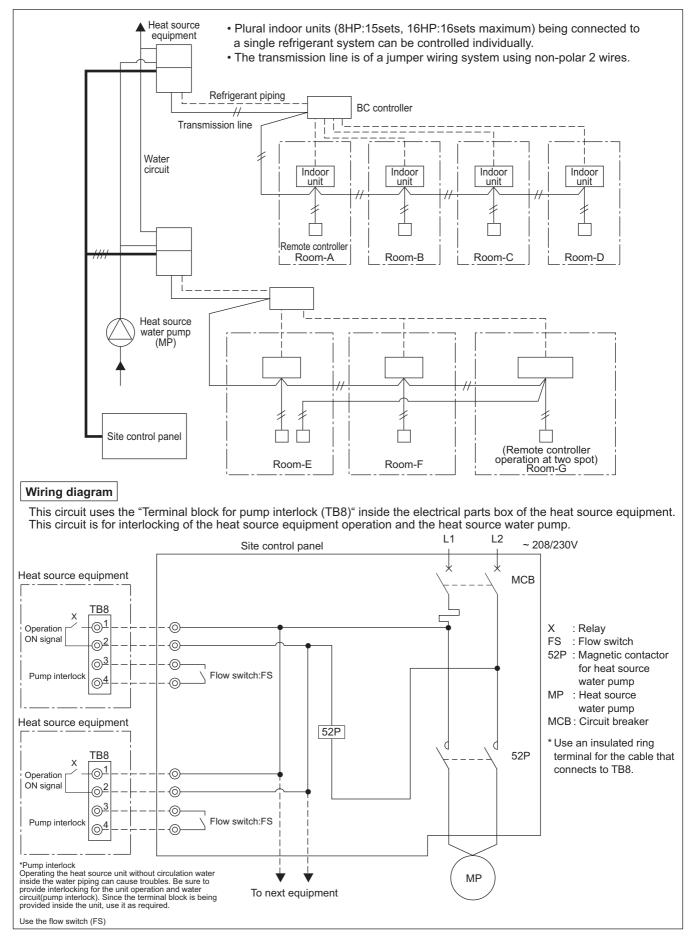
In the summer, as the inlet water temperature rises exceeding the set temperature of T1, the bypass port of V1 will close to lower the inlet water temperature. In the winter, if the inlet water temperature drops below 26°C [79°F], V2 will conduct water temperature control to keep the inlet water temperature constant.

During the stopping of the heat source water pump, the bypass port of V2 will be closed fully by interlocking.

The start/stop control of the fan and pump of the closed type cooling tower is applied with the step control following the command of the auxiliary switch XS of V1, thus controlling water temperature and saving motor power.

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6) Pump interlock circuit



Operation ON signal

Terminal No.	TB8-1, 2			
Output	Relay contacts output Rated voltage: 3~: 208/230V Rated load: 1 A			
Operation	When setting No.917 for Dip switch 4 (Dip switch 6-10 is ON) is OFF. The relay closes during compressor operation.			
	SW4 0: OFF, 1: ON			
	1 2 3 4 5 6 7 8 9 10			
	1 0 1 0 1 0 1 1 1 1			
	• When setting No.917 for Dip switch 4 (Dip switch 6-10 is ON) is ON. The relay closes during reception of cooling or the heating operation signal from the controlle (Note: It is output even if the thermostat is OFF (when the compressor is stopped).)			

Pump Interlock

Terminal No.	TB8-3, 4					
Input	Level signal	Level signal				
Operation	If the circuit b	If the circuit between TB8-3 and TB8-4 is open, compressor operation is prohibited.				
To prevent a fa		between 3 and 4 when wiring to TB8. Ferror resulting from contact failure, use a flow switch with a minimum below for FS. FS (Contact rating 208/230 VAC 1 A or above Minimum applicable load 5 mA or below) Quere of the supplied of the supplication of the				

7) Water flow rate control

The function described here calculates the amount of circulating water required for the heat-exchanger unit based on the operation status of the heat-exchanger, and then outputs signals that adjust the water control valve. Signals requesting to decrease the water control valve opening are output when the heat-source unit is in partial-load operation, which decreases the amount of circulating water supplied to the heat-source unit and helps reduce the power required to operate the circulating water pump in the water circuit system.

a) Specifications

1. Circuit board: Signals can be output from the I/O board that is standard-equipped in heat-source units.

2. Variable flow rate control signal output: 0V-10 VDC

 Signal output settings can be changed with the Dip SW on the heat-source unit. (Settings need to be changed to suit given specifications of the water control valve.)

Switch		Function	Operation according	to the switch setting	Switch setting timing	Lipit (Noto 2)	
		OFF (LED3: Unlit) ON (LED3: Lit)		ON (LED3: Lit)	Switch setting unning		
SW4 1-10 [0: OFF; 1: ON] (Note 1) SW6-10: ON	No. 810	0101010011	Outputs circulating water flow rate control signal	0 V: Fully open 10 V: Fully closed [Default]	0 V: Fully closed 10 V: Fully open	After power on and while the compressor is stopped	С

(Note 1) To switch between the ON/OFF settings, first set SW6-10 to ON, then set SW4, and finally press and hold SWP1 for two seconds or longer to reflect the change.

LED3 will be lit when the switch is set to ON, and LED3 will be unlit when the switch is set to OFF.

Check the LED3 indicator status to make sure the setting is set as intended.

The switch needs to be re-set at the replacement of the control board.

Note the settings on the electrical wiring diagram label on the control box.

- (Note 2) A: Requires the switch on OC to be set.
 - B: Requires the switches on both OC and OS to be set to the same setting.
 - C: Requires the switches on both OC and OS to be set.
 - D: Requires the switches on either OC or OS to be set.
- The amount of circulating water required for the heat-exchanger unit is calculated based on the operation status of the heat-exchanger, and signals are output in the range between 0 and 10 VDC. (See b)-1. for details.)
- 3. Power supply: 3~ 575 V ... for heat-source unit
 - 24 VAC or 24 VDC ... for (motor-powered) water flow rate control valve
 - See Figure c)-1 and Table c)-1 for information on supplying power to water flow rate control system.
- 4. Inlet water temperature range: 10 to 45°C (-5 to 45°C when using brine)
 - The same temperature range applies regardless of the Enable/Disable setting status of the circulating water flow rate control function.
- 5. Water flow rate range: The table below summarizes the water flow rate ranges for heat-source units.

Model		Water flow rate range
P72-P120	7.5-12.5HP	3.0-7.2 m ³ /h (50-120 L/min)
P144-P192	15-20HP	4.5-11.6 m ³ /h (75-192 L/min)

- The same water flow rate range applies regardless of the Enable/Disable setting status of the circulating water flow rate control function.
- 6. Water-circuit components: To be procured on site
 - Water-circuit components that are necessary to control circulating water include such components as (motor-powered) water flow rate control valve, control valve, and shut-off valve. Valves that meet the water-flow-rate specification of the heat-source unit must be used.
 - See Figure c)-1 and Table c)-1 for information on the components in the circuit that is subject to circulating water flow rate control.
 - When a system includes multiple heat-source units, each unit requires a water flow rate control valve.
- 7. Electrical wiring: To be procured on site
 - See Figure c)-1 and Table c)-2 for information on supplying power to water flow rate control system.

- b) Circulating water flow rate control signal output
 - Water flow rate control signal output Signal to control the water flow rate control valve is calculated by using the circulating water flow rate required, which is calculated based on the operating status of the unit. Table below shows the three signal output conditions.
 - Table below shows the three signal output conditions.

Status	А	B-1	B-2	С
Condition	Unit at stoppage	All heat-source units	During compressor operation	
Condition	Unit at stoppage	Dip SW4 (901) = ON	Dip SW4 (901) = OFF	During compressor operation
Dip SW4 (810)= OFF	10 V	10 V	5 V (Min. water flow rate)	5-0 V
Dip SW4 (810) = ON	0 V	0 V	7.6 V (Min. water flow rate)	7.6-9.1 V

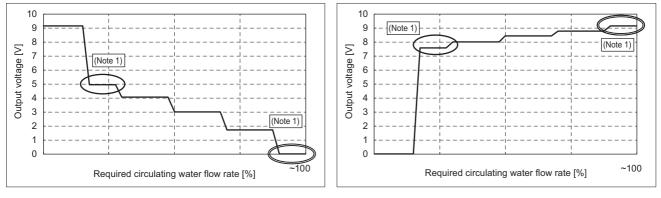


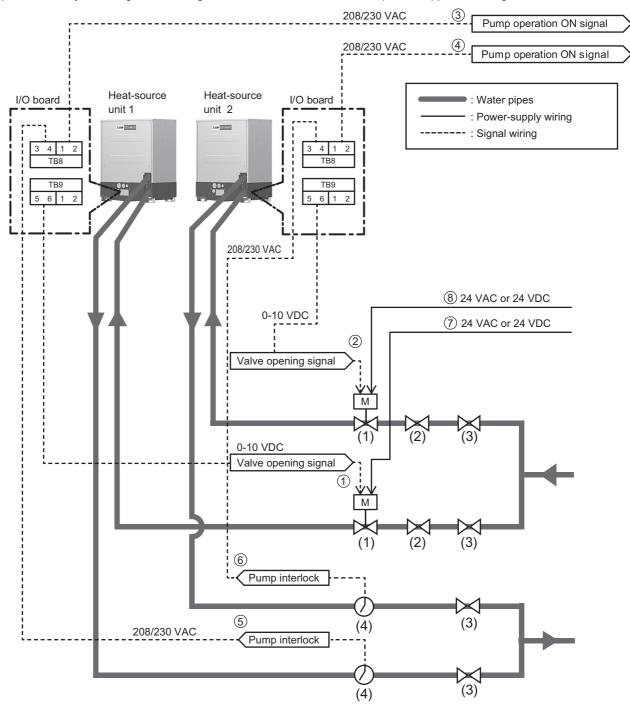


Figure b)-2 Analog signal output (when Dip SW4 (810) is set to ON)

- (Note 1) Output signals may deviate from the values shown in the tables by up to 10%.
 During the test run, check that the flow rate of the circulating water supplied to the heat-source units falls within the operating range, even with the variations in output signals.
 (Output voltage as indicated by a single circle: Greater than the minimum water flow rate; output voltage as indicated by double circles: Less than the maximum water flow rate)
- (Note 2) To stabilize the heat-source unit operation, valve opening signal may temporarily exceeds the operating range.
- (Note 3) It is recommended to use the type of water flow rate control valve that fully opens at 0 V and to set the Dip SW so that sufficient amount of circulating water will be supplied to the heat-source units even if the valve opening signal to the variable water flow control valve is lost.
- (Note 4) When a system includes multiple heat-source units, each unit requires a water flow rate control valve that controls the circulating water flow rate.
- 2. Specifications of (motor-powered) water flow rate control valve

Note the following regarding (motor-powered) water flow rate control valve.

- 1) Select the valve capacity based on the range of circulating water supply to heat-source units and on the analog signal output range.
- 2) The types of valves with an inverting function (fully opens at 0 V) are recommended to ensure that sufficient amount of circulating water is supplied to the heat-source unit, even if the valve opening signal to the water flow rate control valve is lost.
- It is recommended to use valves that allow for manual operation and for confirmation of present opening angle for easy test run and maintenance.



c) Schematic system diagram including heat-source units, water circuits, power supplies, and signals



Table c)	-1 Water-	circuit s	ystem
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Symbol	Component	Usage	Note
(1)	(Motor-powered) water flow rate control valve	For controlling water flow rate	To be procured on site (See b)-2.)
(2)	Control valve	For keeping the circulating water flow rate within the operating range	To be procured on site
(3)	Shut-off valve	For the maintenance of devices	To be procured on site
(4)	Flow switch	For detecting the lower limit of circulating water flow rate	To be procured on site

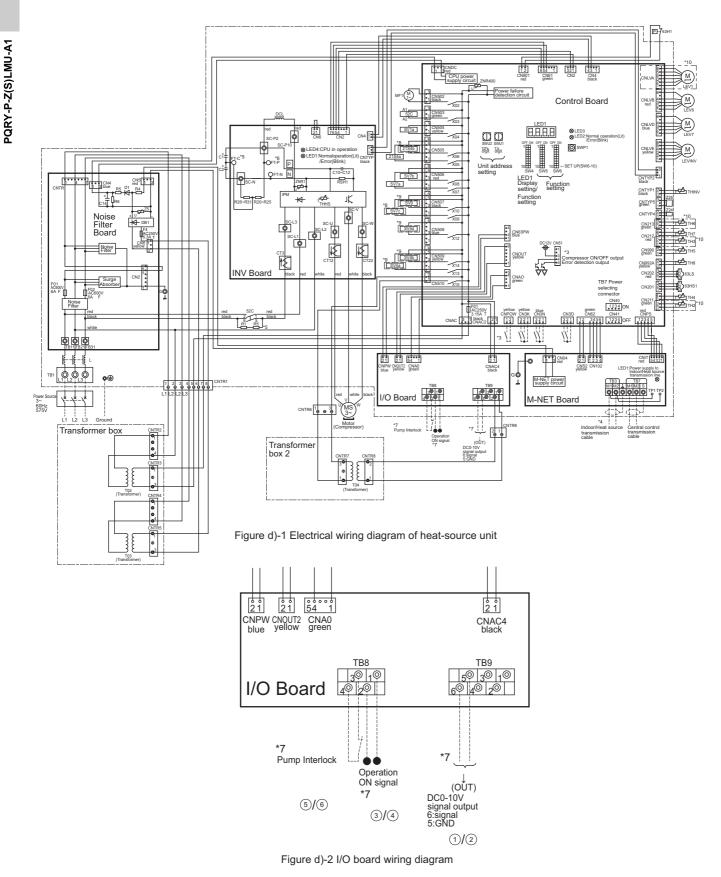
Table c)-2 Electrical wiring specification

Symbol	Component	Specification	Connection example	Note
1	Command to adjust valve opening (Unit 1)	0 to10 VDC	Unit 1 (TB9-5, 6) -Water flow rate control valve 1	Analog output
2	Command to adjust valve opening (Unit 2)	0 to10 VDC	Unit 2 (TB9-5, 6) -Water flow rate control valve 2	Analog output
3	Pump operation ON signal (Unit 1)	208/230 VAC	Unit 1 (TB8-1, 2) - Control board	Digital output
4	Pump operation ON signal (Unit 2)	208/230 VAC	Unit 2 (TB8-1, 2) - Control board	Digital output
5	Pump interlock (Unit 1)	208/230 VAC	Flow switch - Unit 1 (TB8-3, 4)	Digital input
6	Pump interlock (Unit 2)	208/230 VAC	Flow switch - Unit 2 (TB8-3, 4)	Digital input
7	Power supply for water flow rate control valve (Unit 1)	24 VAC or 24 VDC	Control board - Water flow rate control valve 1	Power supply
8	Power supply for water flow rate control valve (Unit 2)	24 VAC or 24 VDC	Control board - Water flow rate control valve 2	Power supply

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d) Electrical wiring diagram of heat-source unit

Terminal blocks TB8 and TB9 for controlling water flow rate are found on the I/O board. Wiring connections need to be made for each heat-source unit.



(Note 1) Use insulated terminals for connection to TB8 and TB9.

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e) Installation

Note the following for installing the circulating water flow rate control system.

- Make sure that water circuit components necessary to build a circulating water flow rate control system are in place.
 See Figure c)-1 and Table c)-1.
 - When a system includes multiple heat-source units, each unit requires a water flow rate control valve.
- 2. Connect all wirings (power-supply, signal, etc.) required by the circulating water flow rate control system.
 See Figure c)-1 and Table c)-2.
- 3. Check the circulating water flow rate control system (including the heat-source unit) for proper operation.
- 4. Check that the circulating water supplied to the heat-source unit is within the operating range.
 - Make sure the inlet water temperature is within the operating range.
 - Make sure the water strainer is not clogged.
 - Make sure the circulating water flow rate is within the operating range in both the single-heat-source-unit systems or in the multiple-heat-source-unit systems and both during Thermo-OFF and in operation.
 - When using a single pump for multiple heat-source units in multiple systems, make sure that the flow rate of the circulating water supplied to each unit is within the operating range regardless of the ON/OFF status of the heat-source units in the system.
 - To check for proper operation of water flow rate control valve and to check that the circulating water flow rate is within the operating range, the use of device that outputs a voltage between 0 VDC and 10 VDC is recommended.
- 5. Check the system for the following items to use the circulating water control system in the normal operating range.
 Management of supply water flow rate that takes strainer clogging and other possible problems that can occur during operation into consideration.
 - Adjustment of water-quality during operation
 - Measures against possible problems with the water-circuit system
 - (Examples: Water outage, circulating water flow rate outside the specification range, clogged strainer, air in the circulation system, water pump failure, water flow rate control valve problem, pump interlock failure, etc.)

Switch		Function	Operation according to the switch setting		Switch potting timing	Unit (Note 2)	
		OFF (LED3: Unlit)		ON (LED3: Lit)	Switch setting unling		
SW4 1-10 [0: OFF; 1: ON] (Note 1) SW6-10: ON	No. 901	1010000111	Changes signal output when all heat-source units (OC/OS) go into Thermo-OFF	Water flow rate control valve remains open when all heat-source units (OC/OS) go into Thermo-OFF. (Minimum water flow rate) [Default]	Water flow rate control valves will close when all heat-source units (OC/OS) go into Thermo-OFF.	After power on and while the compressor is stopped	С
SW4 1-10 [0: OFF; 1: ON] (Note 1) SW6-10: ON	No. 917	1010100111	Pump operation ON signal	Signals are output when heat-source units go into Ther- mo-OFF. [Default]	Signals are output when Cooling/Heat- ing operation signals are received from the controller.	After power on and while the compressor is stopped	С

f) Expansion function for the management of circulating water flow rate

Making the following settings can reduce the power required to operate the circulating water pump in the water circuit system. (Note that doing so may delay the start of heat-source units by a few minutes.)

(Note 1) To switch between the ON/OFF settings, first set SW6-10 to ON, then set SW4, and finally press and hold SWP1 for two seconds or longer to reflect the change.

LED3 will be lit when the switch is set to ON, and LED3 will be unlit when the switch is set to OFF.

Check the LED3 indicator status to make sure the setting is set as intended.

The switch needs to be re-set at the replacement of the control board.

Note the settings on the electrical wiring diagram label on the control box.

(Note 2) A: Requires the switch on OC to be set.

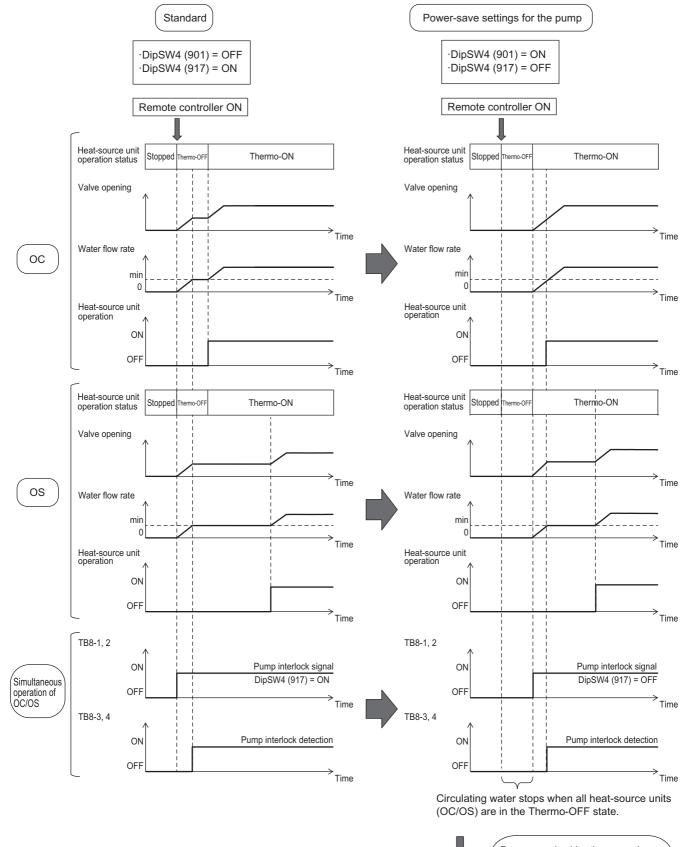
B: Requires the switches on both OC and OS to be set to the same setting.

- C: Requires the switches on both OC and OS to be set.
- D: Requires the switches on either OC or OS to be set.

(Note 3) To use the functions above, be sure to set the switches in the following combinations.

- Set SW4 (901) to OFF and SW4 (917) to ON to keep the pumps on all heat-source units (OC/OS) to operate during Thermo-OFF and to keep the water flow rate control valve open.
- \cdot Set SW4 (901) to ON and SW4 (917) to OFF to stop the pumps on all heat-source units (OC/OS) during Thermo-OFF and to close the water flow rate control valve.

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Power required by the pump is reduced compared to the standard settings.

8-2. Water piping work

Although the water piping for the CITY MULTI WR2 system does not differ from that for ordinary air conditioning systems, pay special attention to the items below in conducting the piping work.

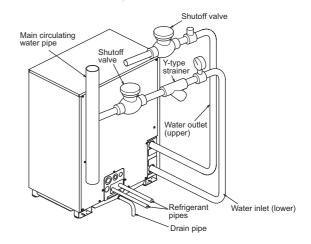
1) Items to be observed on installation work

- The water pressure resistance of the water pipes in the heat source unit is 2.0MPa [290psi].
- In order to equalize piping resistance for each unit, adapt the reverse return system.
- Mount a joint and a valve onto the water outlet/inlet of the unit to allow for maintenance, inspection and replacement work. Be sure to mount a strainer at the water inlet piping of the unit. (The strainer is required at the circulation water inlet to protect the heat source unit.)
- * The installation example of the heat source unit is shown right.
- Be sure to provide an air relief opening on the water piping properly, and purge air after feeding water to the piping system.
- Condensate will generate at the low temperature part inside the heat source equipment. Connect drain piping to the drain piping connection located at the bottom of the heat source equipment to discharge it outside the equipment.
- Mount a backflow prevention valve and a flexible joint for vibration control onto the pump.
- Provide a sleeve to the penetrating parts of the wall to prevent the piping.
- Fasten the piping with metal fitting, arrange the piping not to expose to cutting or bending force, and pay sufficient care for possible vibration.
- Be careful not to erroneously judge the position of the inlet and outlet of water.
 - (Lower position : Inlet, Upper position : Outlet)
- When connecting heat source unit water piping and water piping on site, apply liquid sealing material for water piping over the sealing tape before connection.
- This unit doesn't include a heater to prevent freezing within tubes. If the water flow is stopped on low ambient, drain the water out.
- The unused knockout holes should be closed and the refrigerant pipes, water pipes, power source and transmission wires access holes should be filled with putty.
- The drain plug is installed on the back of the unit at factory for field-connection of the drain pipes on the front of the unit. Move the plug to the front to connect the drain pipes on the back. Verify that there are no leaks from pipe connections.
- For installing two units, install water pipes in parallel to each other so that the water flow rate through both units will be equal.
- Wrap the sealing tape as follows.
- a) Wrap the joint with sealing tape in the direction of the threads (clockwise), and do not let the tape run over the edge.
- b) Overlap the sealing tape by two-thirds to three-fourths of its width on each turn. Press the tape with your fingers so that it is pressed firmly against each thread.
- c) Leave the 1.5th through 2nd farthest threads away from the pipe end unwrapped.
- Hold the pipe on the unit side in place with a spanner when installing the pipes or strainer. Tighten screws to a torque of 150N·m.
- Consider the circulating-water temperature and the water pressure range when deciding on the piping specifications.

2) Thermal insulation work

- Thermal insulation or anti sweating work is not required for the piping inside buildings in the case of the CITY MULTI WR2 system if the operating temperature range of inlet water stays within the temperature near the normal (summer : 30°C[86°F], winter : 20°C[68°F]).
- In case of the conditions below, however, thermal insulation is required.
- · Use of well water for heat source water
- Outdoor piping portions
- · Indoor piping portions where freezing may be caused in winter
- A place where vapor condensation may be generated on piping due to an increase in dry bulb temperature inside the ceiling

Installation example of heat source unit



caused by the entry of fresh outdoor air • Drain piping portions

3) Water treatment and water quality control

To preserve water quality, use the closed type of cooling tower for WY/WR2. In the case that an open type cooling tower is employed or the circulating water quality is inferior, scale will adhere onto the water heat exchanger leading to the decreased heat exchange capacity or the corrosion of the heat exchanger. Be sufficiently careful for water quality control and water treatment at the installation of the circulation water system

- Removal of impurities inside piping
- Be careful not to allow impurities such as welding fragment, remaining sealing material and rust from mixing into the piping during installation work.
- Water treatment

The water quality standards have been established by the industry (Japan Refrigeration, Air Conditioning Industry Association, in case of Japan) for water treatment to be applied.

			Lower mid-range temperature water system		Tendency	
	Items	Recirculating water [20 <t<60°c] [68<t<140°f]< td=""><td>Make-up water</td><td>Corrosive</td><td>Scale- forming</td></t<140°f]<></t<60°c] 	Make-up water	Corrosive	Scale- forming	
	pH (25°C[77°F])		7.0 ~ 8.0	7.0 ~ 8.0	0	0
	Electric conductivity	(mS/m) (25°C[77°F])	30 or less	30 or less		0
	((µS/cm) (25°C[77°F])	[300 or less]	[300 or less]	0	
	Chloride ion	(mg Cl ⁻ / (/)	50 or less	50 or less	0	
Standard	Sulfate ion	(mg SO427/ ()	50 or less	50 or less	0	
items	Acid consumption	(pH4.8) (mg CaCO₃/ (/)	50 or less	50 or less		0
	Total hardness	(mg CaCO ₃ / (/)	70 or less	70 or less		0
	Calcium hardness	(mg CaCO₃/ 🦉)	50 or less	50 or less		0
	Ionic silica	(mg SiO ₂ / (/)	30 or less	30 or less		0
Refer-	Iron	(mg Fe/ 🖉)	1.0 or less	0.3 or less	0	0
ence	Copper	(mg Cu/ 🖉)	1.0 or less	0.1 or less	0	
items	Sulfide ion	(mg S²-/ 🧷)	not to be	not to be	0	
			detected	detected		
	Ammonium ion	(mg NH₄*/ ∉)	0.3 or less	0.1 or less	0	
	Residual chlorine	(mg Cl/ 🦉)	0.25 or less	0.3 or less	0	
	Free carbon dioxid	le (mg CO₂/ (/)	0.4 or less	4.0 or less	0	
	Ryzner stability inc	lex	-	-	0	0

Reference : Guideline of Water Quality for Refrigeration and Air Conditioning Equipment. (JRA GL02E-1994) In order to keep the water quality within such standards, you are kindly requested to conduct bleeding-off by overflow and periodical water quality tests, and use inhibitors to suppress condensation or corrosion. Since piping may be corroded by some kinds of inhibitor, consult an appropriate water treatment expert for proper water treatment.

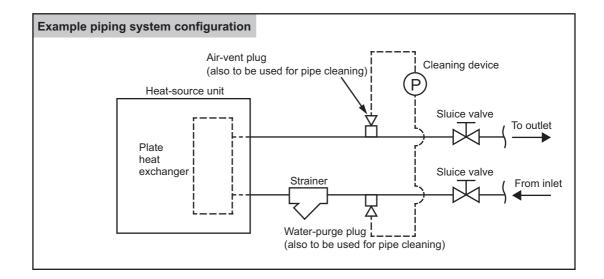
4) Pump interlock

Operating the heat source unit without circulation water inside the water piping can cause a trouble. Be sure to provide interlocking for the unit operation and water circuit. Since the terminal block is being provided inside the unit, use it as required.

5) Handling plate heat exchangers for heat-source units

<Designing the piping system>

- Install a strainer (50 mesh or finer recommended) near the heat-source unit on the inlet side of the hot/cold water pipe and cooling-water pipe (hereafter referred to as water pipes) to prevent an infiltration of foreign materials of solid nature, such as dirt and sand, into the plate heat exchanger.
- Depending on the water quality, scale may form inside plate heat exchangers. Plate heat exchangers must be chemically cleaned regularly to remove scale formation. Install sluice valves on the water pipes, and provide ports for connecting a pipe between the sluice valves and the heat-source unit for chemical cleaning.
- On both the inlet and outlet sides of water pipes, provide a plug to remove trapped air and water (also to be used for cleaning heat-source units and for purging water before a period of nonuse in winter or at the end of an air conditioning season). Also, provide automatic air-vent valves where air is likely to be trapped (such as a pipe that runs vertically).
- In addition to installing the above-mentioned strainers, install a cleanable strainer near the pump pipe inlet.
 Keep the pipes properly insulated and take an appropriate measure against humidity to minimize heat loss and prevent freeze damage in severe cold climate.
- If the system is stopped during winter or at night in subfreezing temperatures, take appropriate measures to protect pipes from freezing (i.e., pipe purging and use of water-circulation pump or heater) and prevent resultant damage to the plate heat exchanger.



<Test run>

- Before performing a test run, check that the piping system is properly installed, especially the strainers, air-vents, automatic water-supply valves, expansion tanks, and systems.
- After the pipe system is filled with water, first, operate the pump alone to check the system for trapped air and adjust the water flow rate to prevent the plate heat exchanger from freezing. Take into consideration the water pressure loss before and after each heat-source unit, and make sure the water flow rate falls within the design water flow rate range. Stop the test run and correct any problems found, if any.
- At the completion of a test run, check the strainer at the inlet pipe of the heat-source unit and clean it as necessary.

<Daily maintenance>

· Controlling the water quality

Plate heat exchangers cannot be disassembled for cleaning and have no replaceable parts. Watch the water quality to prevent corrosion and scale formation. The quality of the water to be used for plate heat exchangers must meet the water quality guidelines JRA GL-02-1994 specified by Japan Refrigeration and Air conditioning Industry Association (JRAIA). (Refer to 3) Water treatment and water quality control.)

- Controlling the circulation water flow rate Insufficient water rate will cause freeze damage to plate heat exchangers. Check for insufficient water flow caused by clogged strainer, trapped air in the system, or malfunction of the circulation water pump. Flow rate can also be checked by measuring the temperature or pressure difference between the inlet and outlet of plate heat exchangers. If the temperature or pressure difference goes outside of the specified range, stop the operation, remove the cause of the problem, and resume operation.
- What to do when the freeze protection trips
 If the freeze protection trips during operation, be sure to remove its cause before resuming operation. Tripped freeze
 protection indicates that the system is partially frozen, and resuming operation without removing the cause of the
 problem will result in freeze damage to plate heat exchangers and/or pipes as well as resultant refrigerant leaks and
 infiltration of water into the refrigerant circuit.

<Maintaining plate heat exchangers>

Plate heat exchangers must be maintained in a planned and periodical manner to prevent scale formation, which may cause performance loss or decrease water flow rate that result in freeze damage to the plate heat exchanger.

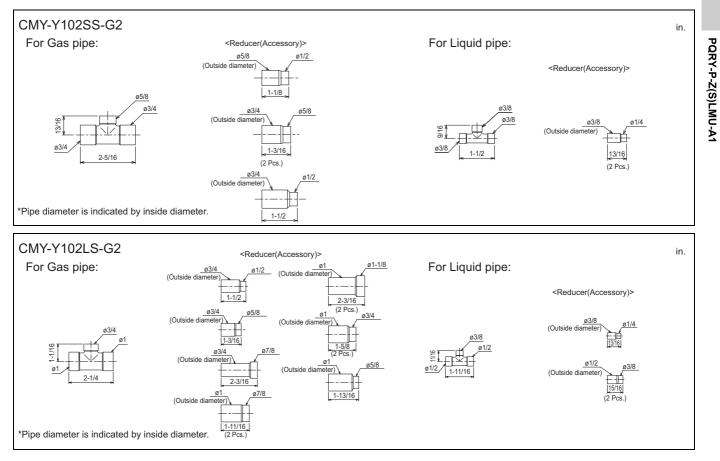
- Check the following items before the operating season.
 - 1. Check that the water quality meets the specified water quality.
- 2. Clean the strainers.
- 3. Check that the water flow rate is adequate.
- 4. Check for proper operation (e.g., pressure, flow rate, inlet/outlet temperatures).

• Plate heat exchangers cannot be disassembled for cleaning. Clean them in the following way.

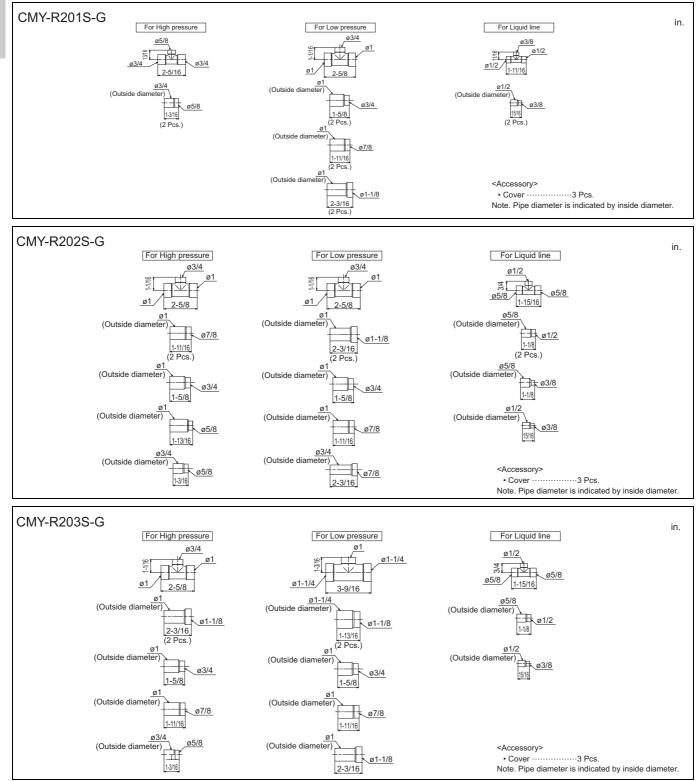
- 1. Make sure that there is a pipe connection port on the water inlet pipe.
- Use formic acid, citric acid, oxalic acid, acetic acid, or phosphoric acid diluted to 5% to clean plate heat exchangers. Do not use highly corrosive acids, such as hydrochloric acid, sulfuric acid, or nitric acid.
- 2. Make sure that valves are installed before the inlet connection port and after the outlet connection port.
- 3. Connect a pipe for circulating cleaning solution to the inlet/outlet pipes of the plate heat exchanger, fill the plate heat exchanger with cleaning solution at a temperature between 50 and 60°C, and circulate the cleaning solution with a pump for 2 to 5 hours. The cleaning time will depend on the temperature of the cleaning solution and the degree of scale formation. Use the color of the cleaning solution as a guide to determine how long the system needs to be cleaned.
- 4. When done, discharge the cleaning solution out of the plate heat exchanger, fill it with sodium hydrate (NaOH) or sodium bicarbonate (NaHCO₃) diluted with water to 1 to 2%, and let the solution be circulated for 15 to 20 minutes until the cleaning solution is neutralized.
- 5. After neutralizing the cleaning solution, thoroughly rinse the plate heat exchanger with clean water.
- 6. When using a commercially available cleaning solution, make sure to use a solution not corrosive to stainless steel or copper.
- 7. Consult the cleaning solution manufacture for details.
- At the completion of cleaning, check the system for proper operation.

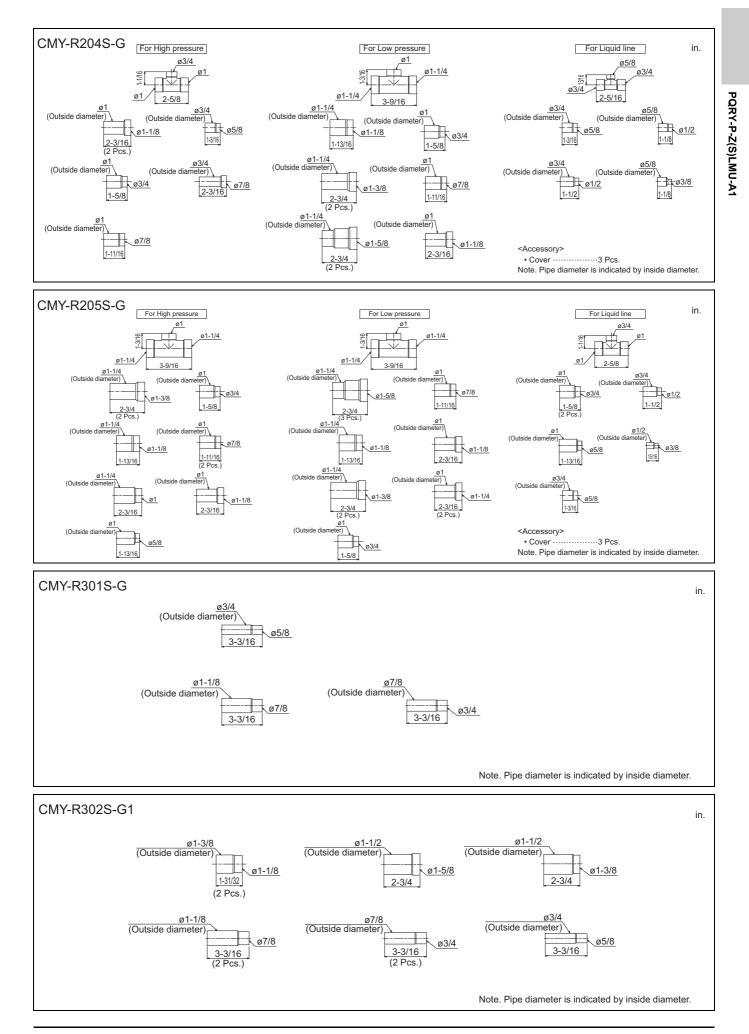
9-1. JOINT and REDUCER

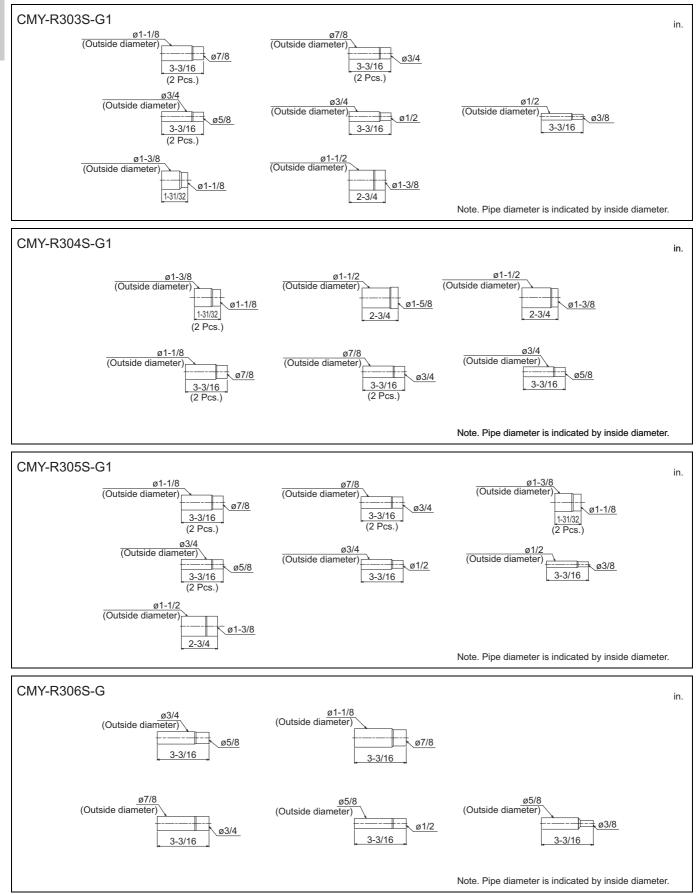
CITY MULTI units can be easily connected by using Joint sets and Reducer sets provided by Mitsubishi Electric. Refer to section "Piping Design" or the Installation Manual that comes with the Joint set or Reducer set for how to install the Joint set or Reducer set.



9. OPTIONAL PARTS

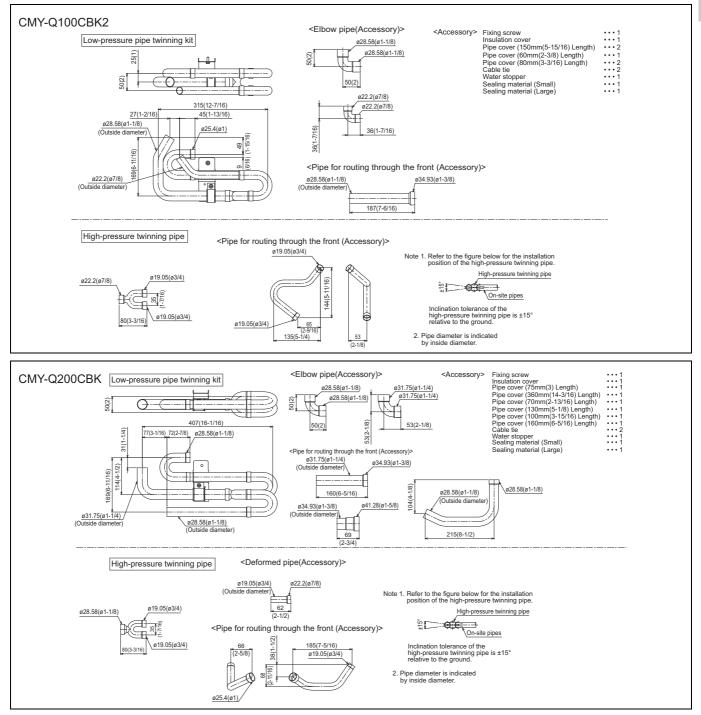






9-2. OUTDOOR TWINNING KIT

The following optional Outdoor Twinning Kit is needed to use to combine multiple refrigerant pipes. Refer to section "Piping Design" for the details of selecting a proper twinning kit.



Note 1. Reference the attitude angle of the twinning pipe below the fig.

Twinning pipe ŝ

- The angle of the twinning pipe is within ±15° against the horizontal plane.
- 2. Use the attached pipe to braze the port-opening of the twinning pipe.
- 3. Pipe diameter is indicated by inside diameter.

9-3. JOINT KIT "CMY-R160-J1" FOR BC CONTROLLER

Joint kit "CMY-R160-J1" for BC controller is used to combine 2 ports of the BC controller at a PURY/PQRY system so as to enable down-stream Indoor capacity above P54 as shown in Fig. 1.

The Joint kit include following items: ①Instruction ②Joint pipe(Small) ③Joint pipe(Large) 4 Cover 1 ⑤Cover 2 6 Cover 3 ⑦Band 8 Reducer 1 9 Reducer 2 OD19.05-ID22.2 OD19.05-ID15.88 ((1pc for gas side This sheet 1pc 1pc 1pc 2pcs 1pc for liquid side 8pcs 1pc 1pc Please prepare the following items in the field. (1) Tape for insulation material sealing (2) Extension pipe for refrigerant circuit 2 Joint pipe (for liquid side) ③Joint pipe (for gas side) mm (in.) ø19.05(3/4") ø9.52(3/8") ø15.88(5/8") 52(3/8") õ 60(2-3/8") 60(2-3/8") ø9.52(3/8") 226(8-29/32") 226(8-29/32"

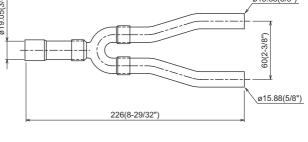
1. Designing CMY-R160-J1 to a PURY/PQRY system

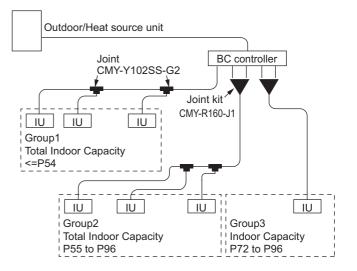
The maximum down-stream Indoor capacity for 1 port of BC controller is P54. When the down-stream Indoor capacity is above P54, Joint kit CMY-R160-J1 is needed to combined 2 ports of BC controller to enlarge the capacity, like Group 2 and 3 in Fig. 1.

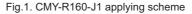
Maximum 3 Indoor units are allowed to connect to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1.

When connecting Indoor units to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1 or CMY-Y102SS-G2 is applicable, like Group 1 and 2 in Fig. 1

Caution: Mixed cooling and heating mode at the same time for Indoor units connecting to 1 port or 2 combined ports is not available.



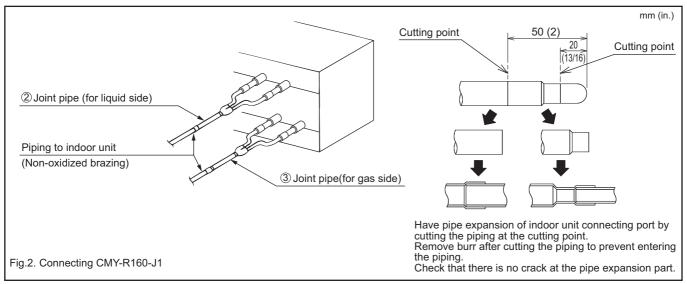




2. Piping at the installation site

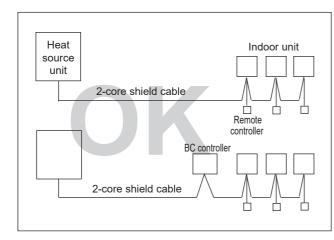
The connection of CMY-R160-J1 to BC controller and pipe leading to Indoor units is referable to Fig. 2. Non-oxidized brazing is necessary. All piping must be careful to avoid foreign material getting inside.

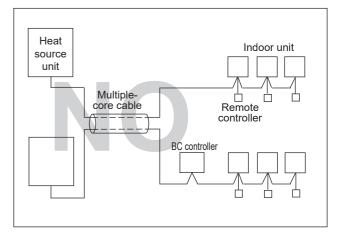
After piping and air-tight testing, insulation work to the Joint and pipe should be done. Details is available at the Installation Manual.



10-1. General cautions

- ① Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations, and guidance of each electric power company.
- ② Wiring for control (hereinafter referred to as transmissioncable) shall be (50mm[1-5/8in] or more) apart from power source wiring so that it is not influenced by electric noise from power source wiring. (Do not insert transmission cable and power source wire in the same conduit.)
- ③ Be sure to provide designated grounding work to heat source unit.
- ④ Give some allowance to wiring for electrical part box of indoor and heat source unit, because the box is sometimes removed at the time of service work.
- ⑤ Never connect 100V, 208-230V, 575V power source to terminal block of transmission cable. If connected, electrical parts will be damaged.
- Ise 2-core shield cable for transmission cable. If transmission cables of different systems are wired with the same multiplecore cable, the resultant poor transmitting and receiving will cause erroneous operations.
- $\ensuremath{\textcircled{}}$ When extending the transmission line, make sure to extend the shield cable as well.





10-2. Power supply for Heat source unit

10-2-1. Electrical characteristics of Heat source unit at cooling mode

Symbols: MCA: Minimum Circuit Ampacity SC: Starting Current, RLA: Rated Load Amps

Marial	Linit Orachia atian		Heat source unit					Compressor	
Model	Unit Combination	Hz	Volts	Voltage range	MCA(A)	MOP(A)	Output (kW)	SC(A)	
PQRY-P72ZLMU	-				5	15	4.3	7	
PQRY-P96ZLMU	-				7	15	6.0	7	
PQRY-P120ZLMU	-				11	15	7.7	7	
PQRY-P144ZLMU	-				13	20	9.5	7	
PQRY-P168ZLMU	-				16	25	11.0	7	
PQRY-P192ZLMU	-				20	30	12.4	7	
PQRY-P144ZSLMU	PQRY-P72ZLMU				5	15	4.3	7	
	PQRY-P72ZLMU				5	15	4.3	7	
PQRY-P168ZSLMU	PQRY-P72ZLMU				5	15	4.3	7	
	PQRY-P96ZLMU				7	15	6.0	7	
PQRY-P192ZSLMU	PQRY-P96ZLMU	60Hz	575V	518 to 633V	7	15	6.0	7	
	PQRY-P96ZLMU		5750	516106330	7	15	6.0	7	
PQRY-P216ZSLMU	PQRY-P96ZLMU				7	15	6.0	7	
	PQRY-P120ZLMU				11	15	7.7	7	
PQRY-P240ZSLMU	PQRY-P120ZLMU				11	15	7.7	7	
	PQRY-P120ZLMU				11	15	7.7	7	
PQRY-P288ZSLMU	PQRY-P144ZLMU				13	20	9.5	7	
	PQRY-P144ZLMU				13	20	9.5	7	
PQRY-P312ZSLMU	PQRY-P144ZLMU				13	20	9.5	7	
	PQRY-P168ZLMU				16	25	11.0	7	
PQRY-P336ZSLMU	PQRY-P168ZLMU				16	25	11.0	7	
	PQRY-P168ZLMU				16	25	11.0	7	

10-3. Power cable specifications

Thickness of wire for main power supply, capacities of the switch and system impedance

	Model	Minimum wire thickness [mm ² (AWG)]			Breaker for current leakage
	Model	Main cable	Branch	Ground	bleaker for current leakage
Heat source unit	PQRY-P72ZLMU	2.1 (14)	-	2.1 (14)	30 mA or 100 mA 0.1sec. or less
	PQRY-P96ZLMU	2.1 (14)	-	2.1 (14)	30 mA or 100 mA 0.1sec. or less
	PQRY-P120ZLMU	2.1 (14)	-	2.1 (14)	30 mA or 100 mA 0.1sec. or less
	PQRY-P144ZLMU	3.3 (12)	-	3.3 (12)	30 mA or 100 mA 0.1sec. or less
	PQRY-P168ZLMU	5.3 (10)	-	5.3 (10)	30 mA or 100 mA 0.1sec. or less
	PQRY-P192ZLMU	5.3 (10)	-	5.3 (10)	30 mA or 100 mA 0.1sec. or less

1. Use dedicated power supplies for the heat source unit and indoor unit. Ensure OC and OS are wired individually.

- 2. Bear in mind ambient conditions (ambient temperature, direct sunlight, rain water, etc.) when proceeding with the wiring and connections.
- 3. The wire size is the minimum value for metal conduit wiring. If the voltage drops, use a wire that is one rank thicker in diameter. Make sure the power-supply voltage does not drop more than 10%. Make sure that the voltage imbalance between the phases is 2% or less.

4. Specific wiring requirements should adhere to the wiring regulations of the region.

5. Power supply cords of parts of appliances for heat source use shall not be lighter than polychloroprene sheathed flexible cord (design 245 IEC57). For example, use wiring such as YZW.

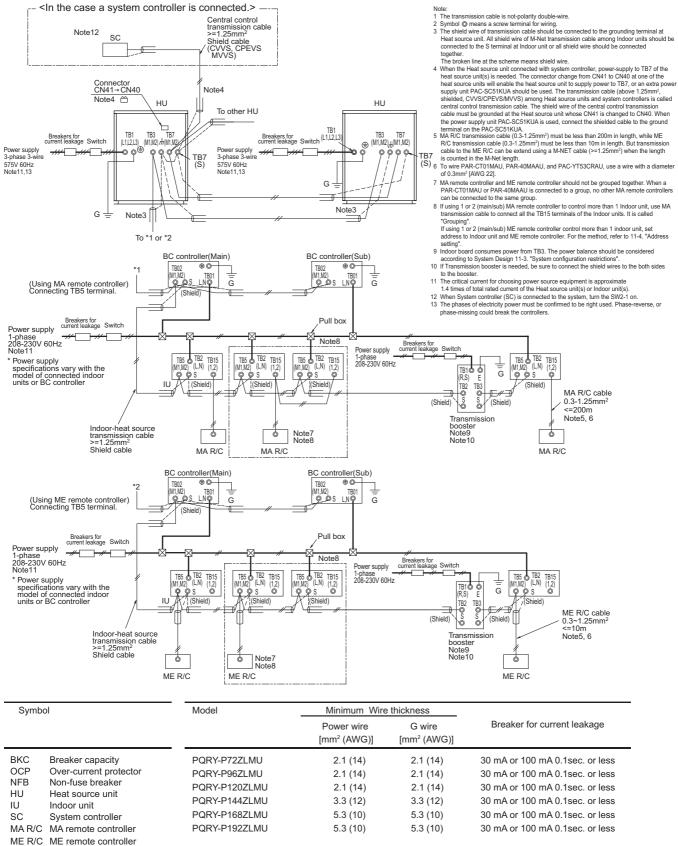
6. A switch with at least 3 mm [1/8 in.] contact separation in each pole shall be provided by the Air Conditioner installer.

- Be sure to use specified wires for connections and ensure no external force is imparted to terminal connections. If connections are not fixed firmly, heating or fire may result.
- Be sure to use the appropriate type of overcurrent protection switch. Note that generated overcurrent may include some amount of direct current.

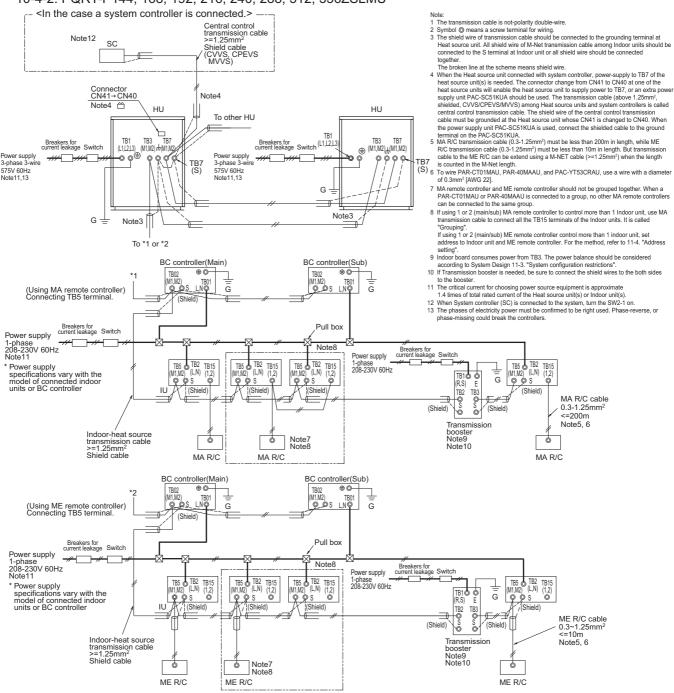
- The breakers for current leakage should support Inverter circuit. (e.g. Mitsubishi Electric's NV-C series or equivalent). If no earth leakage breaker is installed, it may cause an electric shock.
- Breakers for current leakage should combine using of switch.
- Do not use anything other than a breaker with the correct capacity. Using a breaker of too large capacity may cause malfunction or fire.
- If a large electric current flows due to malfunction or faulty wiring, earth-leakage breakers on the unit side and on the upstream side of the power supply system may both operate.
- Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.

10-4. Power supply examples

The local standards and/or regulations is applicable at a higher priority. 10-4-2. PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU



The local standards and/or regulations is applicable at a higher priority. 10-4-2. PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU



Symbol	Model	Minimum Wire thickness			
		Power wire [mm ² (AWG)]	G wire [mm ² (AWG)]	Breaker for current leakage	
BKC Breaker capacity	PQRY-P72ZLMU	2.1 (14)	2.1 (14)	30 mA or 100 mA 0.1sec. or less	
OCP Over-current protector NFB Non-fuse breaker	PQRY-P96ZLMU	2.1 (14)	2.1 (14)	30 mA or 100 mA 0.1sec. or less	
	PQRY-P120ZLMU	2.1 (14)	2.1 (14)	30 mA or 100 mA 0.1sec. or less	
HU Heat source unit IU Indoor unit	PQRY-P144ZLMU	3.3 (12)	3.3 (12)	30 mA or 100 mA 0.1sec. or less	
SC System controller	PQRY-P168ZLMU	5.3 (10)	5.3 (10)	30 mA or 100 mA 0.1sec. or less	
MA R/C MA remote controller ME R/C ME remote controller	PQRY-P192ZLMU	5.3 (10)	5.3 (10)	30 mA or 100 mA 0.1sec. or less	

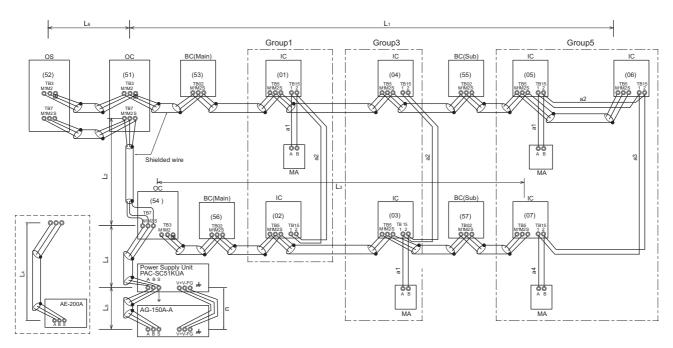
11-1. Transmission cable length limitation

11-1-1. Using MA Remote controller

MA remote controller refers to Simple MA remote controller and wireless remote controller.

Long transmission cable causes voltage down, therefore, the length limitation should be obeyed to secure proper transmission.

Max. length via Heat source (M-NET cable)	L1+L2+L3, L1+L2+L4+L5, L3+L4+L5, L6+L2+L3, L6+L2+L4+L5	<=500m[1640ft.]	1.25mm ² [AWG16] or thicker
Max. length to Heat source (M-NET cable)	L1+L6, L3, L2+L4+L6, L5	<=200m[656ft.]	1.25mm ² [AWG16] or thicker
Max. length from MA to Indoor for each group	a1+a2, a1+a2+a3+a4	<=200m[656ft.]	0.3-1.25 mm ² [AWG22-16]
24VDC to AG-150A-A	n	<=50m[164ft.]	0.75-2.0 mm ² [AWG18-14]



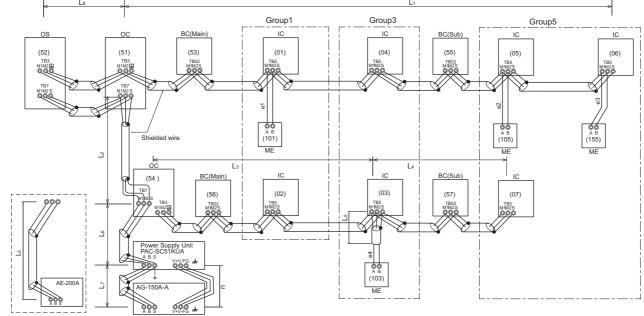
OC, OS: Heat source unit controller; IC: Indoor unit controller; ME: ME remote controller

11-1-2. Using ME Remote controller

ME remote controller refers to Smart ME Controller.

Long transmission cable causes voltage down, therefore, the length limitation should be obeyed to secure proper transmission.					
Max. length via Heat source (M-NET cable) L1+L2+L3+L4, L1+L2+L6+L7, L1+L2+L3+L5, L3+L4+L6+L7, L8+L2+L3+L4,	<=500m[1640ft.]	1.25mm ² [AWG16] or thicker		
	L8+L2+L3+L5, L8+L2+L6+L7, L3+L5+L6+L7				
Max. length to Heat source (M-NET cable)	L1+L8, L3+L4, L2+L6+L8, L7, L3+L5	<=200m[656ft.]	1.25mm ² [AWG16] or thicker		
Max. length from ME to Indoor	e1, e2, e3, e4	<=10m[32ft.]*1	0.3-1.25 mm ² [AWG22-16]*1		
24VDC to AG-150A-A	n	<=50m[164ft.]	0.75-2.0 mm ² [AWG18-14]		

*1. If the length from ME to Indoor exceed 10m, use 1.25 mm² [AWG16] shielded cable, but the total length should be counted into Max. length via Heat source.



OC, OS: Heat source unit controller; IC: Indoor unit controller; ME: ME remote controller

11-2. Transmission cable specifications

	Transmission cables (Li)	ME Remote controller cables	MA Remote controller cables
Type of cable Shielding wire (2-core) CVVS, CPEVS or MVVS		Sheathed 2-core cable (unshielded) CVV	
Cable size	More than 1.25mm ² [AWG16]	0.3~1.25mm ² [AWG22~16]	0.3 ~1.25mm ² [AWG22~16]*1
Remarks —		When 10m [32ft] is exceeded, use cables with the same specification as transmission cables.	Max length : 200m [656ft]
*1 To wire PAR CT01MALL PAR 40M		CVV/S_MV//S: PVC insulated	PVC sheathed shielded control cable

1 To wire PAR-CT01MAU, PAR-40MAAU, and PAC-YT53CRAU, use a wire with a diameter of 0.3 mm² [AWG22]

CVVS, MVVS: PVC insulated PVC sheathed shielded control cable CPEVS: PE insulated PVC sheathed shielded communication cable CVV: PVC insulated PVC sheathed control cable

11-3. System configuration restrictions

11-3-1. Common restrictions for the CITY MULTI system

For each Outdoor/Heat source unit, the maximum connectable quantity of Indoor unit is specified at its Specifications table. A) 1 Group of Indoor units can have 1-16 Indoor units;

B) Maximum 2 remote controllers for 1 group;

*MA/ME remote controllers cannot be present together in 1group.

*When a PAR-CT01MAU or PAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.

*To wire PAR-CT01MAU, PAR-40MAAU, and PAC-YT53CRAU, use a wire with a diameter of 0.3 mm² [AWG22]

- C) 1 Lossnay unit can interlock maximum 16 Indoor units; 1 Indoor unit can interlock only 1 Lossnay unit.
- D) Maximum 3 System controllers are connectable when connecting to TB3 of the Outdoor/Heat source unit.

E) A maximum of 6 system controller are connectable to TB3 and TB7 of Outdoor/Heat source unit.

F) 4 System controllers or more are connectable when connecting to TB7 of the Outdoor/Heat source unit, if the transmission power is supplied by the power supply unit PAC-SC51KUA.

*System controller connected as described in D) would have a risk that the failure of connected

Outdoor/Heat source unit would stop power supply to the System controller.

11-3-2. Ensuring proper communication power and the number of connected units for M-NET

In order to ensure proper communication among Outdoor/Heat source unit, Indoor unit, Lossnay, and Controllers, the transmission power situation for the M-NET should be observed. In some cases, Transmission booster should be used. Taking the power consumption of Indoor unit as 1, the equivalent power consumption or supply of others are listed at Table 1 and Table 2.

Both the transmission line for centralized controller and indoor-outdoor transmission line must meet the conditions listed below. (Both conditions a) and b) must be met.)

a) [Total equivalent power consumption] ≤ [The equivalent power supply]

b) [Total equivalent number of units (Table1)] \leq [40]

Category	Model	The equivalent power consumption	The equivalent number of units
Indoor unit	Sized P04-P96, PEFY-AF1200CFM-E	1	1
	PEFY-AF1200CFMR-E	2	2
BC controller	СМВ	2	1
	P36NMU-E-BU	6	1
PWFY *1	P36NMU-E2-AU	1	1
	P72NMU-E2-AU	5	1
PAR-CT01MAU PAR-40MAAU PAC-YT53CRAU PAR-FA32MA LGH-F-RX ₅ -E1 LGH-F-RVX-E PZ-60DR-E PZ-61DR-E PZ-43SMF-E		0	0
ME remote controller	PAR-U01MEDU	0.5	1
	AE-200A AE-50A EW-50A LM-AP	0	0
System controller	AG-150A-A EB-50GU-A PAC-IF01AHC-J	0.5	1
	TC-24B	1.5	5
	PAC-YG60MCA PAC-YG66DCA PAC-YG63MCA	0.25	1
ON/OFF controller	PAC-YT40ANRA	1	1
MN converter	CMS-MNG-E	2	1
Outdoor/Heat source unit	TB7 power consumption	0	0
System control interface	MAC-333IF-E	0	0
A-M converter	PAC-IF01MNT-E	1	2

Table 1 The equivalent power consumption and the equivalent number of units

*1 PWFY cannot be connected to PUMY model.

Table 2 The equivalent power supply

Category	Model	The equivalent power supply				
Transmission Booster	PAC-SF46EPA-G		25 *1			
Power supply unit	PAC-SC51KUA		5			
Expansion controller	PAC-YG50ECA		6			
BM ADAPTER	BAC-HD150	6				
	AE-200A/AE-50A	0.75				
System controller	EW-50A		1.5			
	LM-AP	0				
		TB3 and TB7 total	TB7 only	TB3 only		
	Outdoor unit other than the following units *2	32 *1	6	32*1 - equivalent power supplied to TB7		
Outdoor/Heat source unit	S-Series outdoor unit	12 *1	0	12 *1		
	TLMU/TKMU outdoor unit	32 *1	- *3	32 *1		

*1 When one or more indoor units listed below is connected, subtract 3 from the equivalent power supply.

Table 3

Category	Model	
Indoor unit	Sized P72, P96 PEFY-AF1200CFM(R)-E	

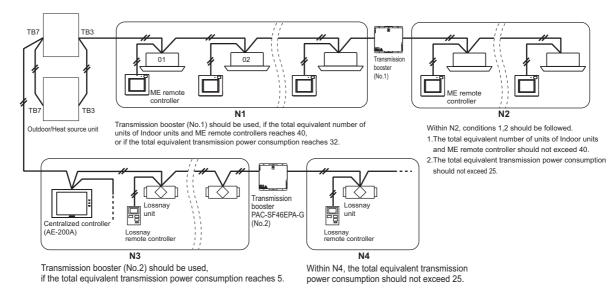
*2 If PAC-SC51KUA is used to supply power at TB7 side, no power supply need from Outdoor/Heat source unit at TB7, Connector TB3 itself will therefore have 32.

With the equivalent power consumption values and the equivalent number of units in Table 1 and Table 2, PAC-SF46EPA-G can be designed into the air-conditioner system to ensure proper system communication according to (A), (B), (C).

- (A) Firstly, count from TB3 at TB3 side the total equivalent number of units of Indoor units, ME remote controller, and System controllers. If the total equivalent number of units reaches 40, a PAC-SF46EPA-G should be set.
- (B) Secondly, count from TB7 side to TB3 side the total transmission power consumption. If the total equivalent power supply reaches 32, a PAC-SF46EPA-G should be set. Yet, if a PAC-SC51KUA or another controller with a built-in power supply, such as PAC-YG50ECA, is used to supply power at TB7 side, count from TB3 side only.
- (C) Thirdly, count from TB7 at TB7 side the total transmission power consumption, If the total equivalent power supply for only TB7 reaches 6, a PAC-SF46EPA-G should be set. Also, count from TB7 at TB7 side the total equivalent number of units of System controllers, and so on. If the total equivalent number of units reaches 40, a PAC-SF46EPA-G should be set.
- * The equivalent power supply of S-Series outdoor unit is 12.

* When one or more indoor units listed in Table 3 is connected, subtract 3 from the equivalent power supply.

System example



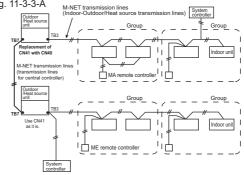
11-3-3. Ensuring proper power supply to System controller

The power to System controller (excluding AE-200A, AE-50A, EW-50A, BAC-HD150, LM-AP) is supplied via M-NET transmission line. M-NET transmission line at TB7 side is called Centralized control transmission line while one at TB3 side is called Indoor-Outdoor/Heat source transmission line. There are 3 ways to supply power to the System controller.

- A) Connecting to TB3 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.
- B) Connecting to TB7 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.
- (Not applicable to the PUMY model)
- C) Connecting to TB7 of the Outdoor/Heat source unit but receiving power from power supply unit PAC-SC51KUA.
- * System controllers (AE-200A, AE-50A, EW-50A, BAC-HD150, LM-AP) have a built-in function to supply power to the M-NET transmission lines, so no power needs to be supplied to the M-NET transmission lines from the Outdoor/Heat source units or from PAC-SC51KUA.

11-3-3-A. When connecting to TB3 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit.

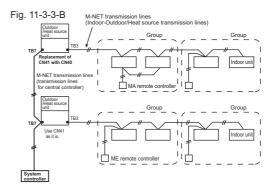
Maximum 3 System controllers can be connected to TB3. If there is more than 1 Outdoor/Heat source unit, it is necessary to replace power supply switch connector CN41 with CN40 on one Outdoor/Heat source unit.



- 11-3-3-B. When connecting to TB7 of the Outdoor/Heat source unit and receiving power from the Outdoor/Heat source unit. (Not applicable to the PUMY model)
- A maximum of 6 system controller are connectable to TB3 and TB7 of Outdoor/Heat source unit.

(Not applicable to the PUMY model)

It is necessary to replace power supply switch connector CN41 with CN40 on one Outdoor/Heat source unit.

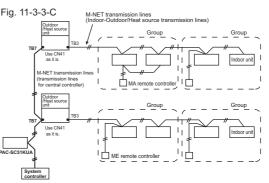


11-3-3-C. When connecting to TB7 of the Outdoor/Heat source unit but receiving power from PAC-SC51KUA.

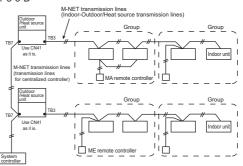
When using PAC-SC51KUA to supply transmission power, the power supply connector CN41 on the Outdoor/Heat source units should be kept as it is. It is also a factory setting. 1 PAC-SC51KUA supports maximum 1 AG-150A-A or

1 EB-50GU-A unit due to the limited power 24VDC at its TB3. However, 1 PAC-SC51KUA supplies transmission power at its TB2 equal to 5 Indoor units, which is referable at Table 2. If System controller, ON/OFF controller connected to TB7 consume transmission power more than 5 (Indoor units), Transmission booster PAC-SF46EPA-G is needed. PAC-SF46EPA-G supplies transmission power equal to 25 Indoor units.

- How to connect system controllers (AE-200A, AE-50A, EW-50A, BAC-HD150, LM-AP) to a given system System controllers (AE-200A, AE-50A, EW-50A, BAC-HD150, LM-AP) have a built-in function to supply power to the M-NET transmission lines, so no power needs to be supplied to the M-NET transmission lines from the Outdoor/Heat source units or from PAC-SC51KUA.
- Leave the power supply connector on the Outdoor/Heat source unit connected to CN41 as it is. Refer to 11-3-2 for information about the power-supply capacity of each system controller (EW-50A, BAC-HD150, LM-AP) to the low-level system controllers.







11-3-4. Power supply to LM-AP

1-phase 208-230VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when connecting only the LM-AP. Yet, make sure to change the power supply changeover connector CN41 to CN40 on the LM-AP.

11-3-5. Power supply to expansion controller

1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary.

The expansion controller supplies power through TB3, which equals 6 indoor units. (refer to Table 2)

11-3-6. Power supply to BM ADAPTER

1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when only BM ADAPTER is connected. Yet, make sure to move the power jumper from CN41 to CN40 on the BM ADAPTER.

11-3-7. Power supply to AE-200A/AE-50A/EW-50A

1-phase 100-240VAC power supply is needed.

The power supply unit PAC-SC51KUA is not necessary when connecting only the AE-200A/AE-50A/EW-50A.

11-4-1. Switch operation

In order to constitute CITY MULTI in a complete system, switch operation for setting the unit address No. and connection No. is required.

0 Address No. of heat source unit, indoor unit and ME remote controller. The address No. is set at the address setting board.

In the case of WR2 system, it is necessary to set the same No. at the branch No. switch of indoor unit as that of the BC controller connected. (When connecting two or more branches, use the lowest branch No.)

⁽²⁾ Caution for switch operations

- Be sure to shut off power source before switch setting. If operated with power source on, switch can not operate properly.
- No units with identical unit address shall exist in one whole air conditioner system. If set erroneously, the system can not operate.

③ MA remote controller

- When connecting only one remote controller to one group, it is always the main remote controller. When connecting two remote controllers to one group, set one remote controller as the main remote controller and the other as the sub remote controller.
- The factory setting is "Main".

PAR-CT01MAU, PAR-40MAAU

The MA remote controller does not have the switches listed above. Refer to the installation manual for the function setting.

PAC-YT53CRAU

Setting the dip switches

There are switches on the back of the top case. Remote controller Main/Sub and other function settings are performed using these switches. Ordinarily, only change the Main/Sub setting of SW1. (The factory settings are ON for SW1, 3, and 4 and OFF for SW2.)

SW No	SW contents Main	ON	OFF	Comment
1	Remote controller Main/Sub setting	Main	Sub	Set one of the two remote controllers at one group to "ON".
2	Temperature display units setting	Celsius	Fahrenheit	When the temperature is displayed in [Fahrenheit], set to "OFF".
3	Cooling/heating display in AUTO mode	Yes	No	When you do not want to display "Cooling" and "Heating" in the AUTO mode, set to "OFF".
4	Indoor temperature display	Yes	No	When you do not want to display the indoor temperature, set to "OFF".

Rotary switch		
Branch No. setting	Unit address No. setting	
173456 44 40 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	$ \begin{array}{c} $	

11-4-2. Rule of setting address

	Unit	Address setting	Example	Note
Sys (MA A-N	oor unit stem control interface AC-333IF-E) A converter IC-IF01MNT-E)	01 ~ 50	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $	Use the most recent address within the same group of indoor units. Make the indoor units address connected to the BC controller (Sub) larger than the indoor units address connected to the BC controller (Main). If applicable, set the sub BC controllers in an PQRY system in the following order: (1) Indoor unit to be connected to the BC controller (Main) (2) Indoor unit to be connected to the BC controller (No.1 Sub) (3) Indoor unit to be connected to the BC controller (No.2 Sub) Set the address so that (1)<(2)<(3)
He	eat source unit	51 ~ 99, 100 (Note1)	$ \begin{array}{c} $	The smallest address of indoor unit in same refrigerant system + 50 Assign sequential address numbers to the heat source units in one refrigerant circuit system. OC and OS are automatically detected. (Note 2) * Please reset one of them to an address between 51 and 99 when two addresses overlap. * The address automatically becomes "100" if it is set as "01~ 50"
	controller ain)	52 ~ 99, 100	$ \begin{array}{c} $	The address of heat source unit + 1 * Please reset one of them to an address between 51 and 99 when two addresses overlap. * The address automatically becomes "100" if it is set as "01~ 50"
	C controller ub)	52 ~ 99, 100	$ \begin{array}{c} $	Lowest address within the indoor units connected to the BC controller (Sub) plus 50.
remote controller	ME, Lossnay Remote controller (Main)	101 ~ 150	$1_{\text{Fixed}} 1_{0} $	The smallest address of indoor unit in the group + 100 *The place of "100" is fixed to "1"
Local remot	ME, Lossnay Remote controller (Sub)	151 ~ 199, 200	Fixed $10 \qquad \qquad$	The address of main remote controller + 50 *The address automatically becomes "200" if it is set as "00"
	ON/OFF remote controller	201 ~ 250	$\begin{bmatrix} 0 & 0 & - f_{1} \\ 0 & 0 & - f_{2} \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 100 \end{bmatrix} \begin{bmatrix} 0 & 0 & - f_{2} \\ 0 & 0 & - f_{2} \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix} \begin{bmatrix} 0 & 0 & - f_{2} \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$	The smallest group No. to be managed + 200 * The smallest group No. to be managed is changeable.
ontroller	AE-200A/AE-50A AG-150A-A EB-50GU-A EW-50A TC-24B	000, 201 ~ 250	0 0 0	* TC-24B cannot be set to "000".
System controller	PAC-YG50ECA	000, 201 ~ 250	0 0 0	* Settings are made on the initial screen of AG-150A-A.
0,	BAC-HD150	000, 201 ~ 250	0 0 0	* Settings are made with setting tool of BM ADAPTER.
	LMAP04U-E	201 ~ 250	$\begin{array}{c} 2 \\ Fixed \end{array} \qquad \begin{array}{c} \overbrace{\left[\begin{smallmatrix} 0 & 0 \\ 1 & 0 \\ 0 \\ 0 \\ 10 \end{array}\right]}^{0} \overbrace{\left[\begin{smallmatrix} 0 & 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 10 \end{array}\right]}^{0} \overbrace{\left[\begin{smallmatrix} 0 & 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	
	PAC-YG60MCA	01 ~ 50	$10 \qquad \qquad$	
PI, AI, DIDO	PAC-YG63MCA	01 ~ 50	$10 \begin{bmatrix} a_1 & b_1 \\ a_2 & b_2 \\ a_3 & b_4 \\ a_4 & b_4 \\ a_5 & b_5 \\ a_5 & b_6 \\$	
ш	PAC-YG66DCA	01 ~ 50	$10 \begin{bmatrix} \frac{1}{2} & 0 & -\frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \end{bmatrix} \begin{bmatrix} \frac{1}{2} & 0 & -\frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \\ \frac{1}{2} & 0 & \frac{1}{2} \end{bmatrix}$	
Lo	ssnay	01 ~ 50	$10 \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 &$	After setting the addresses of all the indoor units, assign an arbitrary address.
PA	C-IF01AHC-J	201 ~ 250	$\underset{\text{Fixed}}{2} \qquad \overbrace{10}^{a_{1}} \overbrace{- \underset{q}{0} \underset{q}{0}} \overbrace{- \underset{q}{0} \underset{q}{0}} \overbrace{- \underset{q}{0} \underset{q}{0}$	

Note1: To set the address to "100", set it to "50" Note2: Heat source units OC and OS in one refrigerant circuit system are automatically detected. OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.

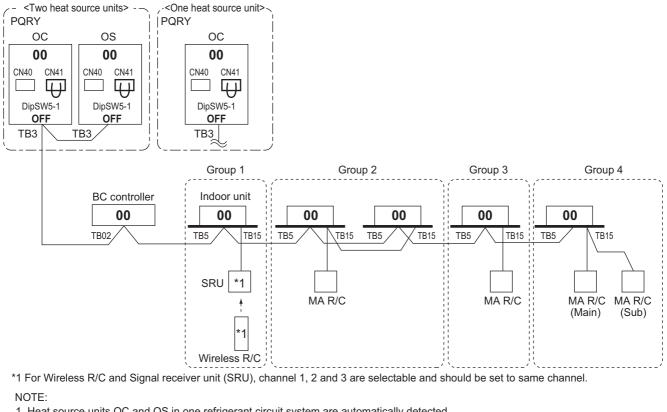
11-4-3. System examples

Factory setting	
Original switch setting of t	he heat sources, indoors, controllers, LM-AP, and BM ADAPTER at shipment is as follows.
Heat source unit	: Address: 00, CN41: ON (Jumper), DipSW5-1: OFF
 Indoor unit 	: Address: 00
 BC controller 	: Address: 00
ME remote controller	: Address: 101
• LM-AP	: Address: 247, CN41: ON (Jumper), DipSW1-2: OFF
 BM ADAPTER 	: Address: 000, CN41: ON (Jumper)
• AE-200A/AE-50A/EW-50A	x : Address: 000, CN21: ON (Jumper)
Setting at the site	
DipSW5-1(Heat source)	: When the System Controller is used, all the Dip SW5-1 at the heat source units should be set to "ON". * Dip SW5-1 remains OFF when only LM-AP is used.
• DipSW1-2(LM-AP)	: When the LM-AP is used together with System Controller, DipSW1-2 at the LM-AP should be set to "ON".
• CN40/CN41	: Change jumper from CN41 to CN 40 at heat source control board will activate central transmission power supply to TB7;
	(Change jumper at only one heat source unit when activating the transmission power supply without using a power supply unit.)
	Change jumper from CN/1 to CN 40 at LM AD/DM ADADTED will activate transmission power

(Change jumper at only one heat source unit when activating the transmission power supply without using a power supply unit.)
 Change jumper from CN41 to CN 40 at LM-AP/BM ADAPTER will activate transmission power supply to LM-AP/BM ADAPTER itself;
 Power supply unit is recommended to use for a system having more than 1 heat source unit, because the central transmission power supply from TB7 of one of heat source units is risking that the heat source unit failure may let down the whole central control system.
 CN21(AE-200A/AE-50A/EW-50A) : Activates the power supply to M-NET transmission line from AE-200A/AE-50A/EW-50A

(CN21: ON (power supplied), OFF (power not supplied)

11-4-3-1. MA remote controller, Single-refrigerant-system, No System Controller



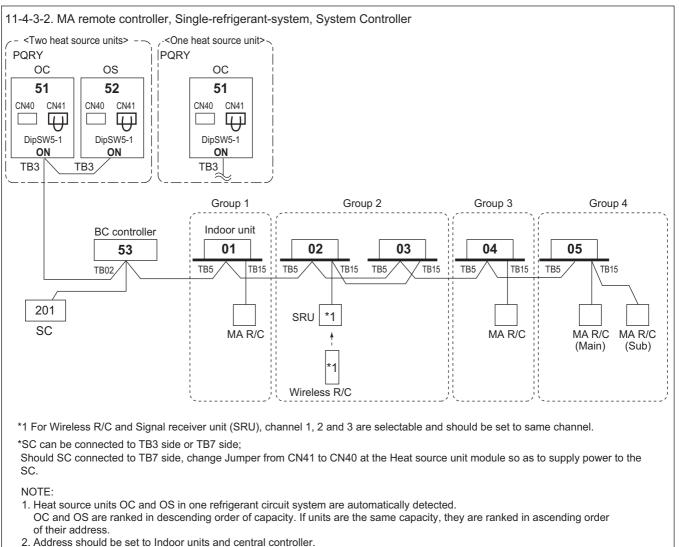
1. Heat source units OC and OS in one refrigerant circuit system are automatically detected. OC and OS are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.

2. No address setting is needed.

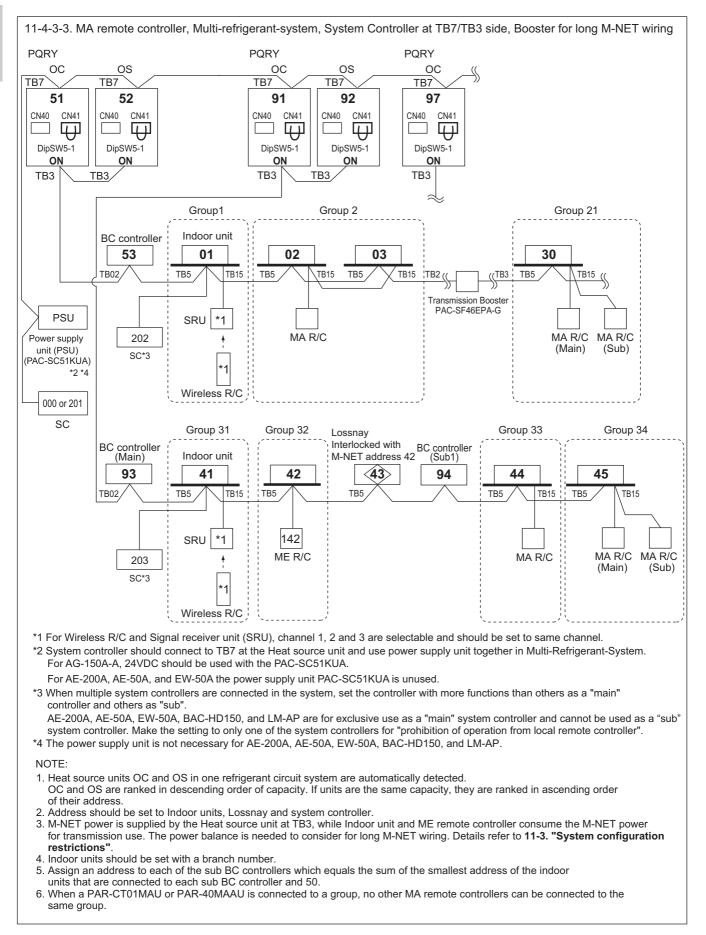
3. For a system having more than 32 indoor unit, confirm the need of Booster at 11-3. "System configuration restrictions".

4. Indoor units should be set with a branch number.

- 5. Address setting is required if a sub BC controller is connected.
- 6. When a PAR-CT01MAU or PAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.

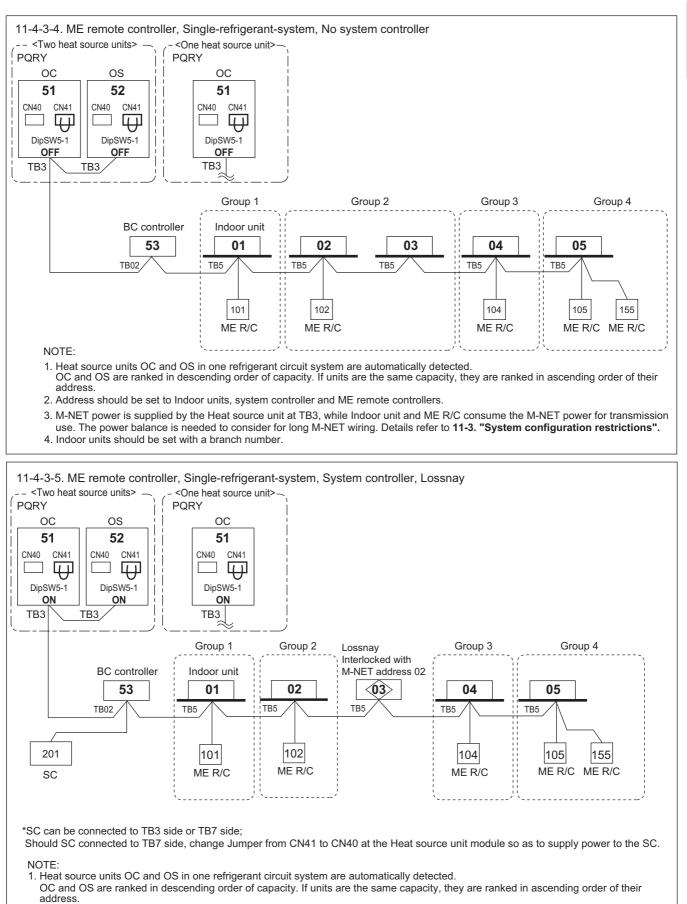


- 3. For a system having more than 32 indoor unit, confirm the need of Booster at 11-3. "System configuration restrictions".
- 4. Indoor units should be set with a branch number.
- 5. When a PAR-CT01MAU or PAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.



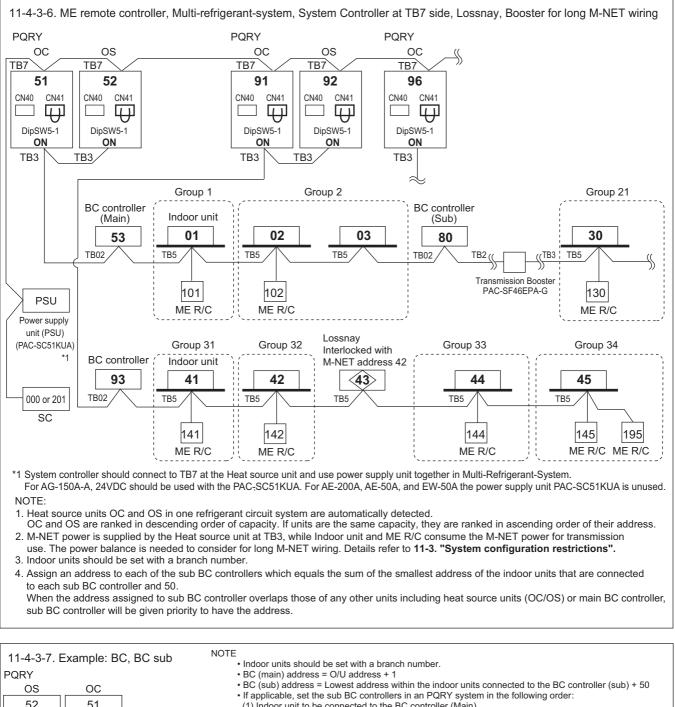


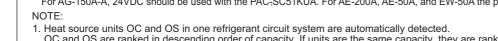
PQRY-P-Z(S)LMU-A1

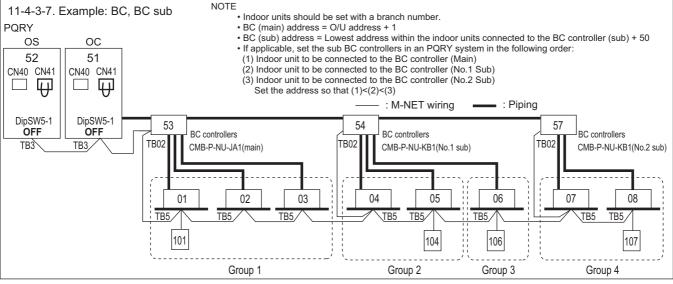


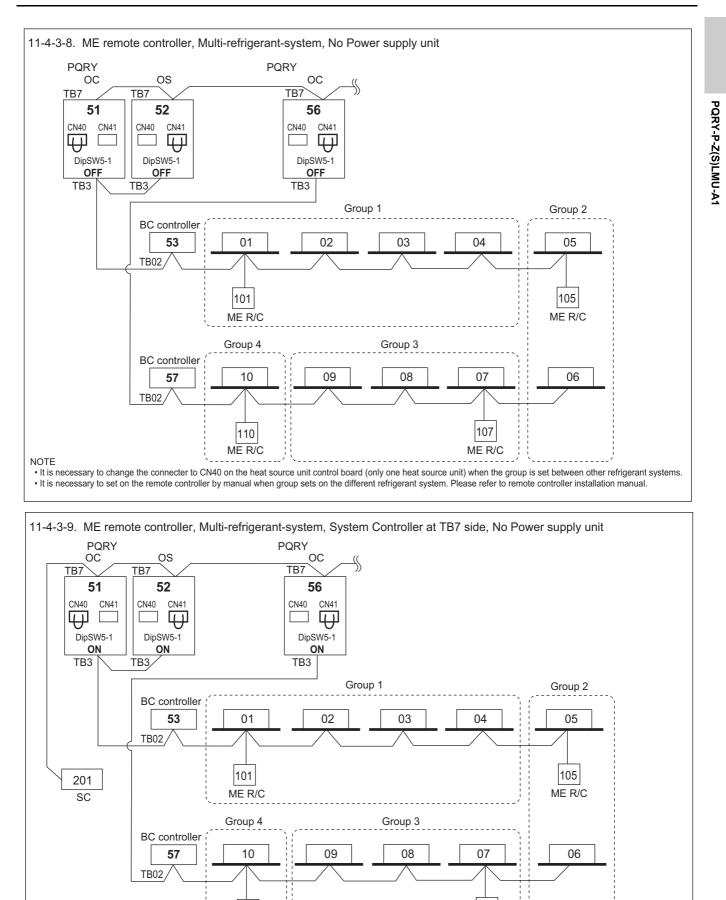
2. Address should be set to Indoor units, Lossnay, system controller, and ME remote controllers.

- 3. For a system having more than 32 indoor unit, confirm the need of Booster at 11-3. "System configuration restrictions".
- 4. Indoor units should be set with a branch number.



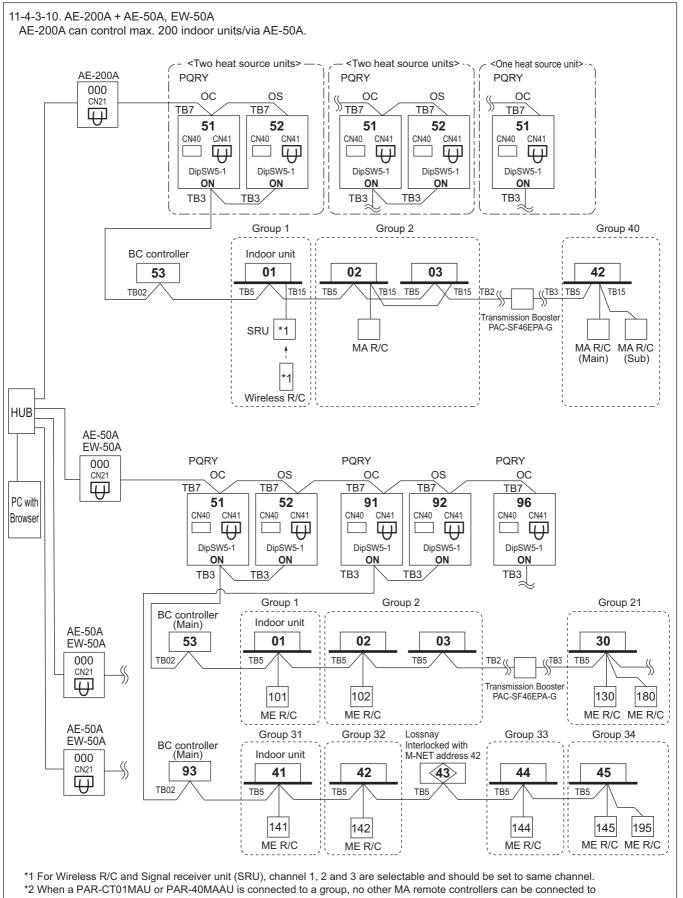




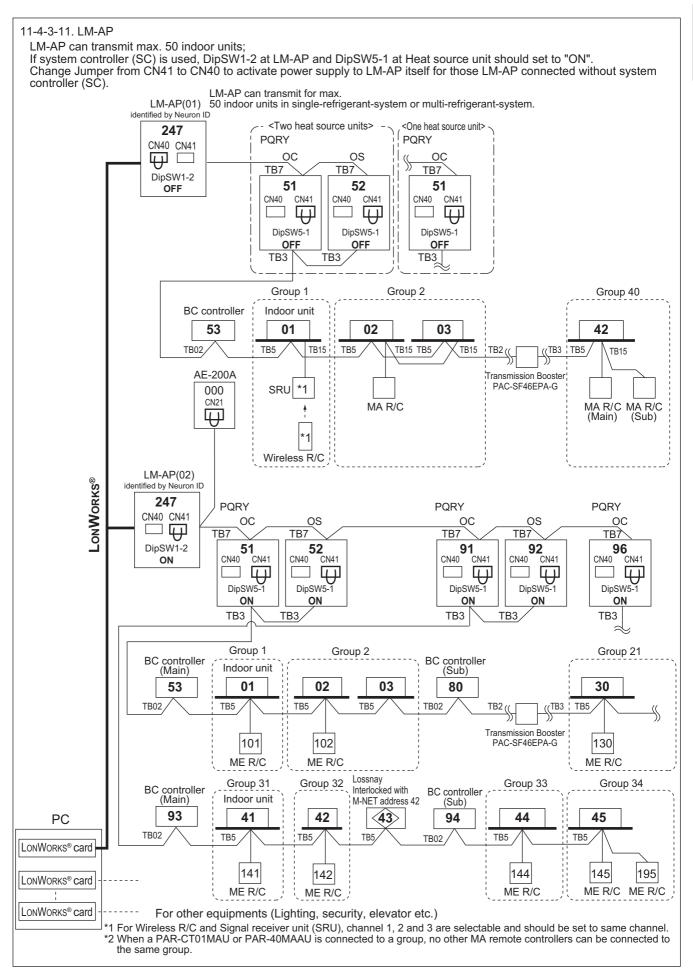


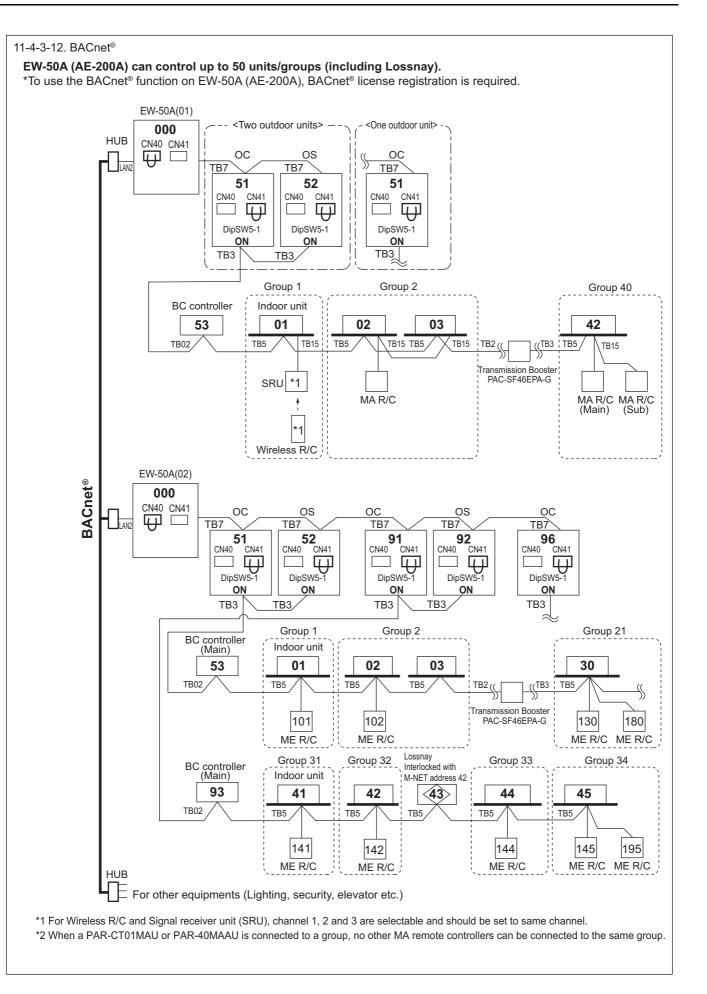
110 ME R/C 107

ME R/C



the same group.





Section 12-2.

Explains the piping design including piping length limitation and piping size selection rule.

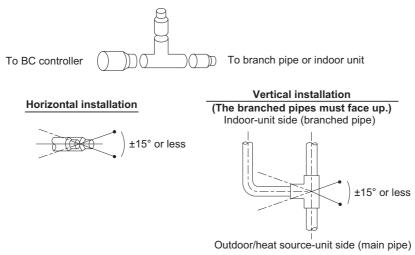
12-1. R410A Piping material

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.

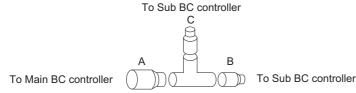
Procedures for installing the branched pipes

Refer to the instructions that came with the branched pipe kit (separately sold) for details. [1] Branches on the indoor-unit side

•Restriction on installing the branch joint between BC and indoor units on the gas piping

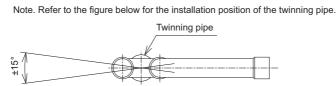


- •Branch joint between BC and indoor units in the gas line must be installed horizontally (see figure above) or with the branched pipes facing up.
- •If the size of the refrigerant pipe that is selected by following the instructions under "Piping Design" section does not match the size of the joint, use a reducer to connect them. A reducer is included in the kit.
- •Restriction on installing the branch joint between Main BC and Sub BC on the high-pressure piping, low-pressure piping, and liquid piping.



-Regarding the branch joint between Main BC and Sub BC on the high-pressure/low-pressure/liquid piping, A and B must be installed horizontally, and C must be installed upward higher than the horizontal plane of A and B.

[2] Branches on the outdoor/heat source-unit side



Slope of the twinning pipes are at an angle within ±15° to the horizontal plane.

Inclination of the twinning pipes

The inclination of the twinning pipes must be $\pm 15^{\circ}$ or less against the horizontal plane. Excessive inclination of the branched pipes may damage the unit.

- •Minimum length of the straight section of the pipe before the branched pipes
 - Always use the pipes supplied in the branched pipe kit, and make sure the straight section of the pipe immediately before it connects to the branched pipe is at least 500 mm (19-11/16 in.). Failure to do so may damage the unit.

Joint CMY-R160-J1 Liquid side

Joint CMY-R160-J1 Gas side

M)ø3/8"(Brazing) €

ŧ

226 S)ø5/8"(Brazing)

∎ (N)ø9.52IE

CMY-R160-J1 (Liquid side) MBCO

CMY-R160-11

(Gas side)

Fig. 12-2-1AA

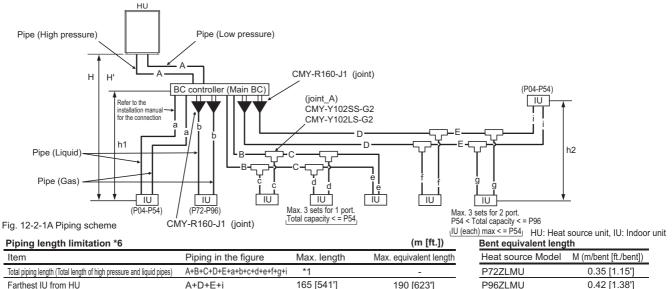
12-2. Piping Design

12-2-1. IF 16 ports or less are in use, i.e., if only one BC controller is in use with no sub BC controller.

"BC controller," "BC controller (Main)," and "BC controller (Sub)" that appear in this section refer to the J1-type, JA1/KA1 type, and KB1 type.

When mixing GA1/HA1/GB1/HB1 type and JA1/KA1/KB1 type, specifications and restrictions is according to GA1/HA1/GB1/HB1type. (piping length, connectable number of Sub BC)

- Note1. No Header usable on PQRY system. Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1. Note3. Indoor unit sized P72-P96 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted
- Equivalent piping length (m)=Actual piping length+"M" x Number of bent. Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P72-P96 with 2 ports Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note7. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24. Note8. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3: Total Indoor capacity = P24 + P06 = P30. Note9. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1). Note10. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes.

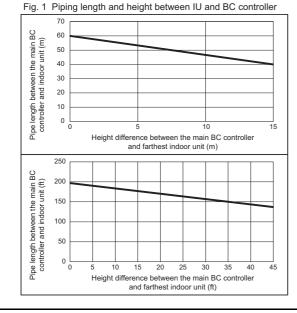


Farthest IU from HU	A+D+E+i	165 [541']	190 [623']	P96ZLMU	0.42 [1.38']
Distance between HU and BC	А	110 [360'] *1	110 [360'] *1	P120ZLMU	0.47 [1.54']
Farthest IU from BC controller	D+E+i	60 [197'] *2*3	60 [197'] *2*3	P144ZLMU	0.50 [1.64']
Height between HU and IU (HU above IU)	Н	50 [164']	-	P168ZLMU	0.50 [1.64']
Height between HU and IU (HU under IU)	H'	40 [131']	-	P192ZLMU	0.50 [1.64']
Height between IU and BC	h1	15 [49'] (10 [32']) *4	-		
Height between IU and IU	h2	30 [98'] (20 [65']) *5	-		

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Refer to the section 12-2-4.
*2. Details refer to Fig. 1.
*3. When the P72 or P96 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit indicated as "D + E + i" in the figure is 40 meters.
*4. Distance of Indoor sized P72, P96 from BC must be less than 10 m, if any.
*5. Distance of Indoor sized P72, P96 from IU must be less than 20 m, if any.

*6 Total length of high-pressure pipes and liquid pipes



Heat source Model Pi	rule pe(High pressure		(mm [in.] e(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"]	9	ø28.58 [1-1/8"]
*9. When the piping length is [1-1/8] pipe for the part t			28.58
Piping "B", "C", "D", "E"	size seleciton i	ule	(mm [in.]
Total down-stream Indoor of	apacity Pipe(Li	quid)	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", "i" size se	election	rule (mm [in.
Indoor Unit size	Pipe(Li	quid)	Pipe(Gas)
P04-P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24-P54	ø9.52 [3/8"]	ø15.88 [5/8"]
	ø9.52 [3/8"]	ø19.05 [3/4"]
P72			ø22.20 [7/8"]
P72 P96	ø9.52 [3/8"]	ØZZ.20 [1/0]
P96		3/8"]	022.20 [7/0]
P96	ts_A	3/8"] Joint	022.20 [770]
P96 Selection criteria for join	ts_A	Joint	-Y102SS-G2

Joint CMY-R160-J1 Liquid side

CMY-R160-J1 Gas side

S)ø5/8"(Brazing)

<u>عو</u>

226 ø5/8"(Brazing)

CMY-R160-J1 (Liquid side)

Fig. 12-2-2AA

M BC contr

12-2-2. 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. No Header usable on PQRY system.

Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1.

- Note3. Indoor unit sized P72-P96 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better Piping length needs to consider the actual length and equivalent length which bents are counted.
 - Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P72-P96 with 2 ports. Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling behating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoo units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note7. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P•NU-KB1 is 126.
- Note8. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24.
- Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example,
- PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3 : Total Indoor capacity = P24 + P06 = P30.
- Note10. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1).
- Note11. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G1, CMY-R305S-G1, or CMY-R306S-G).
- Note12. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes."



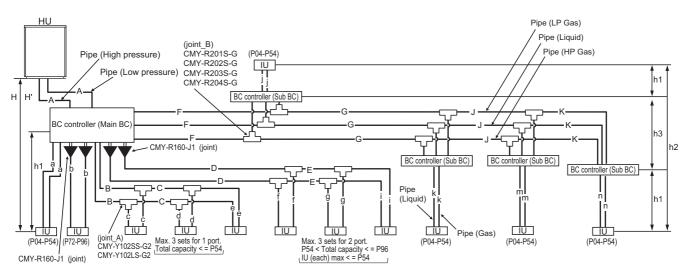


Fig. 12-2-2A Piping scheme

HU: Heat source unit, IU: Indoor unit

Pij

Piping length limitation *8			(m [ft.])
Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length (Total length of high pressure and liquid pipes)	A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+i+j+k+m+n	*1	-
Farthest IU from HU	A+F+G+J+K+n	165 [541']	190 [623']
Distance between HU and BC	A	110 [360'] *1	110 [360'] *1
Farthest IU from BC controller	D+E+i	60 [197'] *2*3	60 [197'] *2*3
Farthest IU from BC controller via Sub BC controller	F+G+J+K+n	90 [295'] *7	90 [295'] *7
Height between HU and IU (HU above IU)	Н	50 [164']	-
Height between HU and IU (HU under IU)	H'	40 [131']	-
Height between IU and BC	h1	15 [49'] (10 [32']) [•]	*4 -
Height between IU and IU	h2	30 [98'] (20 [65'])	*5 -
Height between BC(Main or Sub) and BC(Sub)	h3	15 [49'] (10 [32'])	*6 -

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1 Refer to the section 12-2-4

*2. Details refer to Fig. 2.

- *3. When the P72 or P96 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit indicated as "D + E + i" in the figure is 40 meters.
- *4. Distance of Indoor sized P72, P96 from BC must be less than 10 m, if any.

*5. Distance of Indoor sized P72, P96 from IU must be less than 20 m, if any.

*6. When using 2 or more Sub BC controllers, max. height "h3" should be considered. *7. When the piping length or the vertical separation exceeds the limit specified in Fig. 2,

connect a sub BC to the system. The restriction for a system with a sub BC connection is

shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. When using P12, P15, P18, P36, or P48 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size.

When using indoor models P54 or larger, the restrictions shown in Fig. 2 cannot be exceeded. *8. Total length of high-pressure pipes and liquid pipes

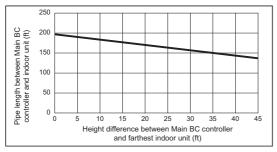
Bent equivalent length M (m/bent [ft./bent]) Heat source Model P72ZLMU 0.35 [1.15'] P96ZLMU 0.42 [1.38] P120ZLMU 0.47 [1.54'] 0.50 [1.64'] P144ZLMU

0.50 [1.64]

0.50 [1.64]

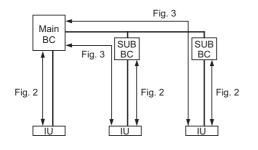
P168ZLMU

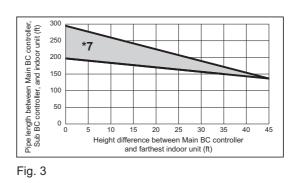
P192ZLMU



Piping length and height between IU and BC controller

Fig. 2





*7. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. The maximum liquid branch pipe diameter is ø19.05. If a given system already has a ø19.05-pipe between the main BC and sub BC, there is no need to increase the pipe size. When using P12, P15, P18, P36, or P48 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size.

When using indoor models P54 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

Piping "A"size selection	(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"]

Selection criteria for joints_A	
Total down-stream Indoor capacity	Joint
-P72	CMY-Y102SS-G2
P73-P96	CMY-Y102LS-G2

Piping "B", "C", "D", "E" size se	(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"]

Selection	criteria	for	joints_	В
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	Total down-stream Indoor capacity	Joint
_	-P126	CMY-R201S-G
	P127-P216	CMY-R202S-G
	P217-P234	CMY-R203S-G
	P235-P288	CMY-R204S-G

Piping "a", "b", "c", "d", "e", "f", "g", "i", "j", "k", "m", "n" size selection rule (mm [in.])

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P04-P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24-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"]

(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 P216	ø15.88 [5/8"]	ø22.20 [7/8"]	ø28.58 [1-1/8"]
P217 to P234	ø15.88 [5/8"]	ø28.58 [1-1/8"]	ø28.58 [1-1/8"]
P235 to P288	ø19.05 [3/4"]	ø28.58 [1-1/8"]	ø34.93 [1-3/8"]
P289 or above	ø19.05 [3/4"]	ø28.58 [1-1/8"]	ø41.28 [1-5/8"]

HP: High pressure, LP: Low pressure

12-2-3. 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. No Header usable on PQRY system. Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1. Joint CMY-R160-J1 Liquid side CMY-R160-J1 Note3. Indoor unit sized P72-P96 does NOT share BC controller ports with other Indoor units ; M BC cont Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better (N)ø9.52IC Piping length needs to consider the actual length and equivalent length which bents are counted Equivalent piping length (m)=Actual piping length+"M" x Number of bent Joint CMY-R160-J1 Gas side Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P72-P96 with 2 ports. 226 Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, S)ø5/8"(Brazing) CMY-R160-J1 (Gas side) heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat Fig. 12-2-3AA built in the remote controller) are recommended. Note7. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P•NU-KB1 is P126. Note8. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24. Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3 : Total Indoor capacity = P24 + P06 = P30. Note10. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G, CMY-R302S-G1, or CMY-R304S-G1). Note11. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G1, CMY-R305S-G1, or CMY-R306S-G). Note12. Install the pipes correctly referring to the section titled "Procedures for installing the branched pipes." Note13. Up to 11 sub BC controllers can be connected. HU Heat source Twinning kit (High/Low press.) CMY-Q100CBK2: Heat source unit P144 to P240 CMY-Q200CBK: Heat source unit P288 to P336 The Low press. kit is set in the Main unit; The High press. kit is to be installed in the field. нι Pipe (LP Gas) Pipe (Liquid) Pipe (HP Gas) (joint_B) CMY-R201S-G - N Pipe (High pressure) IU CMY-R202S-G CMY-R203S-G CMY-R204S-G CMY-R205S-G BC cont (Sub BC) Pipe (Low pressure BC controller (Main BC CMY-R160-J1 (joint) (Sub BC) BC contro er (Sub BC) BC cont BC contr r (Sub BC) Pipe Pipe (Gas) (P04-P54 (Liquid) ĪU IU (P04-P 3 sets fo Max. 3 sets for 2 port joint_A) CMY-Y102SS-G2 Total capacity < = P54 = P96 P54 < Total capacity < ,IU (each) max < = P54 CMY-Y102LS-G2 CMY-R160-J1 (joint HU: Heat source unit, IU: Indoor unit Fig. 12-2-3A Piping scheme

Piping length limitation *9

(m [ft.]) Piping in the figure Max. length Max. equivalent length Item Total piping length (Total length of high pressure and liquid pipes) L+M+A+B+C+D+E+F+G+J+K+a+b+c+d+e+f+g+i+j+k+m+n *1 190 [623' Farthest IU from HU L(M)+A+F+G+J+K+n 165 [541] Distance between HU and BC L(M)+A 110 [360'] *1 110 [360'] 60 [197'] *2 *3 60 [197'] *2*3 Farthest IU from BC controller D+E+i Farthest IU from BC controller via Sub BC controller 90 [295'] *7 90 [295'] *7 F+G+J+K+n Height between HU and IU (HU above IU) 50 [164'] н Height between HU and IU (HU under IU) 40 [131'] H' Height between IU and BC 15 [49'] (10 [32']) *4 h1 Height between IU and IU h2 30 [98'] (20 [65']) *5 Height between BC(Main or Sub) and BC(Sub) 15 [49'] (10 [32']) *6 h3 Distance between Main unit and Sub unit 5 [16] I+M or N Height between Main unit and Sub unit h4 0.1 [0.3]

HU: Heat source Unit; IU: Indoor Unit; BC: BC controller

*1. Refer to the section 12-2-4

 Neter to the section 12-2-4.
 2. Details refer to Fig. 2.
 3. When the P72 or P96 model of indoor units are connected to the system, the maximum distance from the BC controller to the farthest indoor unit (indicated as "D + E + i" in the figure is 40 meters.)

*4. Distance of Indoor sized P72, P96 from BC must be less than 10 m, if any.
*5. Distance of Indoor sized P72, P96 from IU must be less than 20 m, if any.
*6. When using 2 or more Sub BC controllers, max. height "h3" should be considered.

*7. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3. When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size.

When using P12, P15, P18, P36, or P48 model of indoor units, increase the size of the liquid branch pipe between the sub BC and indoor unit by one size. When using indoor models P54 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

When the high pressure piping length is 65 m or less, use ø22.2 (ø7/8) pipe.

When the high pressure piping length exceeds 65 m, use ø22.2 (ø7/8) pipe until 65 m, use ø28.58 (ø1-1/8) pipe for the part that exceeds 65 m. *9. Total length of high-pressure pipes and liquid pipes

Bent equivalent length

Bent equivalent length						
Heat source Model	M (m/bent [ft./bent])					
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']					

PQRY-P-Z(S)LMU-A1

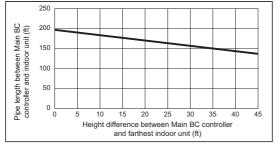
Pipe(Low pressure)

ø19.05 [3/4"]

ø22.20 [7/8" ø22.20 [7/8"]

ø28.58 [1-1/8"]

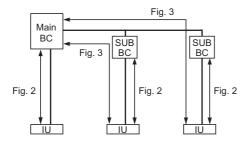
ø28.58 [1-1/8"]

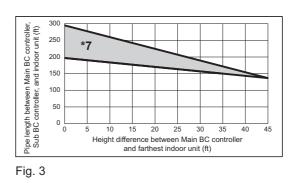


Piping length and height between IU and BC controller

Fig. 2

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*7. When the piping length or the vertical separation exceeds the limit specified in Fig. 2, connect a sub BC to the system.

The restriction for a system with a sub BC connection is shown in Fig. 3.

P72ZLMU

P96ZLMU

P120ZLMU

P144ZLMU

P168ZLMU

When a given system configuration falls within the shaded area in Fig. 3, increase the size of the high-pressure pipe and the liquid pipe between the main BC and sub BC by one size. The maximum liquid branch pipe diameter is ø19.05. If a given system already has a ø19.05-pipe between the main BC and sub BC, there is no need to increase the pipe size. When using P12, P15, P18, P36, or P48 model of indoor units, increase the size of the liquid

branch pipe between the sub BC and indoor unit by one size. When using indoor models P54 or larger, the restrictions shown in Fig. 2 cannot be exceeded.

Heat source Model Pipe(High pressure)

Piping "L", "M", "N" size selection rule (mm [in.])

ø15.88 [5/8"]

ø19.05 [3/4"]

ø19.05 [3/4"]

ø22.20 [7/8"]

ø22.20 [7/8"

Piping "A"size selection rule

Piping "A"size selection	on rule	(mm [in.])
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"] *10	ø28.58 [1-1/8"]
P240ZSLMU	ø22.20 [7/8"] *10	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"]

*10. 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 sel	eciton rule	(mm [in.])	Selection criteria for join
Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)	Total down-stream Indoor ca
P54 or less	ø9.52 [3/8"]	ø15.88 [5/8"]	-P72
P55-P72	ø9.52 [3/8"]	ø19.05 [3/4"]	P73-P96
P73-P96	ø9.52 [3/8"]	ø22.20 [7/8"]	

ints A

Total down-stream Indoor capacity	Joint
-P72	CMY-Y102SS-G2
P73-P96	CMY-Y102LS-G2

Selection criteria for joints B

Piping "a", "b", "c", "d", "e", "f", "g	', "i", "j", "k", "m", "n" size	selection rule (mm [in.])
Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P04-P18	ø6.35 [1/4"]	ø12.70 [1/2"]
P24-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"]

	Total down-stream Indoor capacity	Joint
-	-P126	CMY-R201S-G
-	P127-P216	CMY-R202S-G
-	P217-P234	CMY-R203S-G
-	P235-P360	CMY-R204S-G
-	P361-	CMY-R205S-G

Piping "F", "G", "J", "K" size selection rule

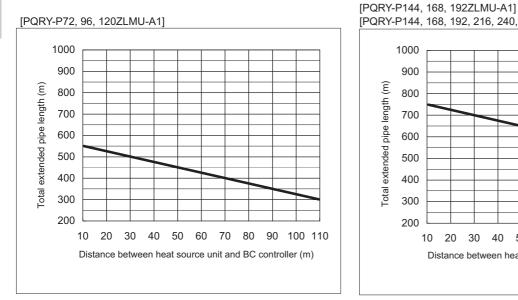
(mm [in.]) Pipe(HP Gas) Pipe(LP Gas) Total down-stream Indoor capacity Pipe(Liquid) P72 or less ø9.52 [3/8"] ø15.88 [5/8"] ø19.05 [3/4" P73 to P108 ø9.52 [3/8" ø19.05 [3/4"] ø22.20 [7/8" P109 to P126 ø12.70 [1/2"] ø19.05 [3/4"] ø28.58 [1-1/8] P127 to P144 ø12.70 [1/2" ø22.20 [7/8" ø28.58 [1-1/8" P145 to P216 ø15.88 [5/8"] ø22.20 [7/8"] ø28.58 [1-1/8" P217 to P234 ø15.88 [5/8"] ø28.58 [1-1/8" ø28.58 [1-1/8" P235 to P288 ø19.05 [3/4"] ø28.58 [1-1/8"] ø34.93 [1-3/8"] ø19.05 [3/4"] ø28.58 [1-1/8"] ø41.28 [1-5/8"] P289 or above

HP: High pressure, LP: Low pressure

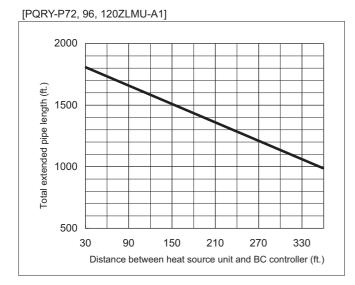
PQRY-P-Z(S)LMU-A1

100 110

12-2-4. Total piping length restrictions (m)



Total piping length restrictions (ft.)



[PQRY-P144, 168, 192ZLMU-A1] [PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU-A1]

[PQRY-P144, 168, 192, 216, 240, 288, 312, 336ZSLMU-A1]

1000

900

800

700

600

500

400

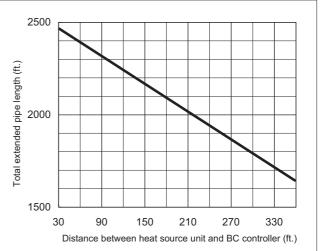
300

200

10 20 30 40 50 60 70 80 90

(E

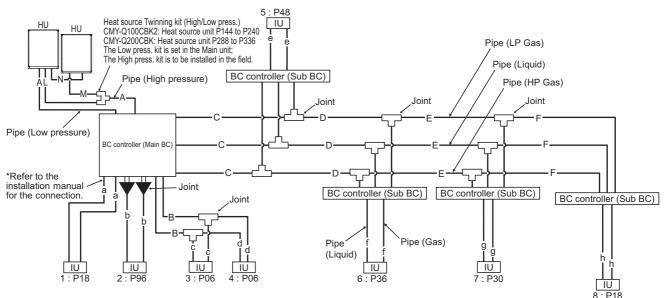
Total extended pipe length



Distance between heat source unit and BC controller (m)

12-3. Refrigerant charging calculation

Sample connection (with 5 BC controllers and 8 indoor units) (PQRY-P288ZSLMU-A1)



Amount of additional refrigerant to be charged

Refrigerant for extended pipes (field piping) is not factory-charged to the outdoor 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 amout of refrigerant that was charged on the outdoor 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.

Round up the calculation result to the nearest 0.1kg. (i.e., 16.03 kg = 16.1 kg)

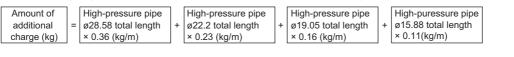
<Amount of additional refrigerant to be charged>

Calculating the amount of additional refrigerant to be charged

Units "m" and "kg" (In an WR2 system)

<Formula>

• When the piping length from the outdoor unit to the farthest indoor unit is 30.5 m (100 ft) or shorter



	Liquid pipe ø19.05		Liquid pipe ø15.88		Liquid pipe ø12.7		Liquid pipe ø9.52		Liquid pipe ø6.35
+	total length	+	total length	+	total length	+	total length	+	total length
	× 0.29 (kg/m)		× 0.2 (kg/m)		× 0.12 (kg/m)		× 0.06 (kg/m)		× 0.024 (kg/m)

Main or Sub BC controller	Amount (kg/unit)		Total capacity of connected indoor units	Amount (kg) (to be added for indoor unit)
J-type	1.5		27 or below	2.0
JA-type	3.0	1	28 to 54	2.5
KA-type	4.7	1	55 to 126	3.0
KB-type	0.4		127 to 144	3.5
		+	145 to 180	4.5
			181 to 234	5.0
			235 to 273	6.0
			274 to 307	8.0
			308 to 342	9.0
			343 to 411	10.0
			412 to 450	12.0
			451 or above	14.0

* High-pressure pipe: Main high-pressure pipe between outdoor unit and BC controller

* Liquid pipe: Liquid pipe between BC controller and indoor unit or between main BC controller and sub BC controller

* When connecting the CMB-P**-NU-G1, CMB-P**-NU-GA1, CMB-P**-NU-HA1, CMB-P**-NU-GB1, or CMB-P**-NU-HB1 to a given system, add the amount of refrigerant as indicated in the table below.

Amount (kg/unit)
3.0
5.0
1.0

• When the piping length from the outdoor unit to the farthest indoor unit is longer than 30.5 m (100 ft)

Amount of additional charge (kg) High-pressure pipe #28.58 total length * 0.33 (kg/m) High-pressure pipe #22.2 total length * 0.21 (kg/m) High-pressure pipe #22.2 total length * 0.14 (kg/m) High-pressure pipe #15.88 total length * 0.14 (kg/m) High-pressure pipe #15.88 total length * 0.14 (kg/m) High-pressure pipe #15.88 total length * 0.14 (kg/m) Liquid pipe #12.7 total length * 0.11 (kg/m) Liquid pipe #9.52 total length * 0.054 (kg/m) Liquid pipe #0.52 total length * 0.021 (kg/m) Liquid pipe #	
+ total length × 0.26 (kg/m) + total length × 0.18 (kg/m) + total length × 0.11 (kg/m) + total length × 0.054 (kg/m) + total length × 0.054 (kg/m) + total length × 0.021 (kg/m) Main or Sub BC controller Amount (kg/unit) Total capacity of connected indoor units Amount (kg) (to be added for indoor unit) + ± total length × 0.021 (kg/m) + ± ± ± ± ± ± 0.021 (kg/m) ± ± 0.021 (kg/m) ± ± 0.021 (kg/m) ± 0.021 (kg/m) ± 0.021 (kg/m) ±	
Main or Sub BC controllerAmount (kg/unit)Iotal capacity of connected indoor units(to be added for indoor unit)+J-type1.527 or below2.0JA-type3.028 to 542.5	j
JA-type 3.0 28 to 54 2.5	
KA-type 4.7 55 to 126 3.0	
KB-type 0.4 127 to 144 3.5	
+ 145 to 180 4.5	
181 to 234 5.0	
235 to 273 6.0	
274 to 307 8.0	
308 to 342 9.0	
343 to 411 10.0	
412 to 450 12.0	
451 or above 14.0	

* If the following (1) and (2) are met, add 0.55 kg [20 oz] of refrigerant per indoor unit.

(1) When only PEFY-P18NMAU-E**, PEFY-P24NMAU-E**, or PEFY-P30NMAU-E** are connected

(2) When the total number of connected indoor units is 6 or less

* When connecting PLFY-EP18NEMU**-E**, PLFY-EP24NEMU**-E**, or PLFY-EP36NEMU**-E**, add 0.5 kg [18 oz] of refrigerant per indoor unit.

* High-pressure pipe: Main high-pressure pipe between outdoor unit and BC controller

* Liquid pipe: Liquid pipe between BC controller and indoor unit or between main BC controller and sub BC controller

* When connecting the CMB-P**-NU-G1, CMB-P**-NU-GA1, CMB-P**-NU-HA1, CMB-P**-NU-GB1, or CMB-P**-NU-HB1 to a given system, add the amount of refrigerant as indicated in the table below.

BC controller	Amount (kg/unit)
G1/GA1-type	0
HA1-type	2.0
GB1/HB1-type	1.0

Units "ft" and "oz" (In an WR2 system)

<Formula> • When the piping length from the outdoor unit to the farthest indoor unit is 30.5 m (100 ft) or shorter

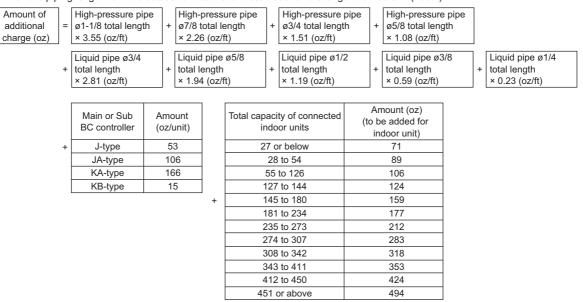
when the pipin	ig i	engun nom the ot	110001	unit to	une i	annestin	100	51 unit is 50.5 fi	1(100	11)	or shorter			
Amount of additional charge (oz)	=	High-pressure pip ø1-1/8 total lengtl × 3.88 (oz/ft)		ø7/8 t	High-pressure pipe ø7/8 total length × 2.48 (oz/ft)			High-pressure pipe ø3/4 total length × 1.73 (oz/ft)		+ High-pressure pipe ø5/8 total length × 1.19 (oz/ft)				
	+	Liquid pipe ø3/4 total length × 3.13 (oz/ft)	+	total l	Liquid pipe ø5/8 total length × 2.16 (oz/ft)		+	Liquid pipe ø1/ total length × 1.30 (oz/ft)	2	+	Liquid pipe ø3 total length × 0.65 (oz/ft)	3/8	+	Liquid pipe ø1/4 total length × 0.26 (oz/ft)
		Main or Sub BC controller	Amo (oz/	ount unit)				ty of connected or units		Amount (oz) (to be added for indoor unit)				
	+	J-type	5	3		2	7 o	or below		71				
		JA-type	1()6			28 to 54				89			
		KA-type	16	6			55 to 126			106				
		KB-type	1	5		1	127 to 144		124					
					+	145 to 180		159						
						1	81	to 234			177			
						2	35	to 273			212			
						2	74	to 307			283			
						3	08	to 342			318			
						34		to 411			353			
						4	12	to 450			424			
						45	i1 c	or above			494			

* High-pressure pipe: Main high-pressure pipe between outdoor unit and BC controller * Liquid pipe: Liquid pipe between BC controller and indoor unit or between main BC controller and sub BC controller

* When connecting the CMB-P**-NU-G1, CMB-P**-NU-GA1, CMB-P**-NU-HA1, CMB-P**-NU-GB1, or CMB-P**-NU-HB1 to a given system, add the amount of refrigerant as indicated in the table below.

BC controller	Amount (oz/unit)
G1/GA1-type	106
HA1-type	177
GB1/HB1-type	36

• When the piping length from the outdoor unit to the farthest indoor unit is longer than 30.5 m (100 ft)



* If the following (1) and (2) are met, add 0.55 kg [20 oz] of refrigerant per indoor unit.

(1) When only PEFY-P18NMAU-E**, PEFY-P24NMAU-E**, or PEFY-P30NMAU-E** are connected

(2) When the total number of connected indoor units is 6 or less

* When connecting PLFY-EP18NEMU**-E**, PLFY-EP24NEMU**-E**, or PLFY-EP36NEMU**-E**, add 0.5 kg [18 oz] of refrigerant per indoor unit.

* High-pressure pipe: Main high-pressure pipe between outdoor unit and BC controller

* Liquid pipe: Liquid pipe between BC controller and indoor unit or between main BC controller and sub BC controller

* When connecting the CMB-P**-NU-G1, CMB-P**-NU-GA1, CMB-P**-NU-HA1, CMB-P**-NU-GB1, or CMB-P**-NU-HB1 to a given system, add the amount of refrigerant as indicated in the table below.

BC controller	Amount (oz/unit)
G1/GA1-type	106
HA1-type	177
GB1/HB1-type	36

Amount of factory charged refrigerant

Heat source unit Model	Charged amount
P72	
P96	5.0 kg
P120	
P144	
P168	6.0 kg
P192	

Sample calculation

Sample calculatio	1	Inc	door							
 A: ø28.58 [1-1/8"] B: ø9.52 [3/8"] C: ø12.70 [1/2"] D: ø9.52 [3/8"] E: ø9.52 [3/8"] F: ø9.52 [3/8"] L: ø22.20 [7/8"] 	40 m [131ft.] 10 m [32ft.] 20 m [65ft.] 5 m [16ft.] 5 m [16ft.] 3 m [9ft.]	1: 2: 3: 4: 5: 6: 7:	P18 P96 P06 P48 P36 P30	a: b: c: d: e: f: g:	ø6.35 [1/4"] ø9.52 [3/8"] ø6.35 [1/4"] ø6.35 [1/4"] ø9.52 [3/8"] ø9.52 [3/8"]	10 m [32ft.] 10 m [32ft.] 5 m [16ft.] 5 m [16ft.] 5 m [16ft.] 5 m [16ft.] 5 m [16ft.]	Heat source unit: P288 Total capacity of indoor units: 258 Main BC controller: CMB-P108NU-JA1 Sub BC controller: CMB-P104NU-KB1 × 4			
M: ø22.20 [7/8"] Total length for each p	1 m [3ft.] pe size:		C = 2 B + D	= 3 + 0 m [6 + E +	1 = 4 m [12ft.] 5ft.]	10 m [32ft.] g = 50 m [160ft.]				
Therefore, additional re	əfrigerant charge (kg)	=	= 40 × 0 = 30.17 = 30.2		4 × 0.21 + 20 × kg kg	0.11 + 50 × 0.054	. + 30 × 0.021 + 3 + 0.4 × 4 + 6			
C	r									
Therefore, additional re	efrigerant charge	=	= 131 × 3.55 + 12 × 2.26 + 65 × 1.19 + 160 × 0.59 + 96 × 0.23 + 106 + 15 × 4 + 212							
	(oz)	=	= 1064		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. If the amount of refrigerant exceeds the value in the below table, please redesign the system.

Total index of the heat sou	rce units	P72 ZLMU	P96 ZLMU	P120 ZLMU	P144 ZLMU	P168 ZLMU	P192 ZLMU	P144 ZSLMU	P168 ZSLMU
	Factory charged	5.0kg	5.0kg	5.0kg	6.0kg	6.0kg	6.0kg	10.0kg	10.0kg
	Charged on site	28.0kg	30.0kg	31.0kg	46.0kg	47.0kg	48.0kg	49.0kg	50.0kg
Movimum refrigerent charge	Total for system	33.0kg	35.0kg	36.0kg	52.0kg	53.0kg	54.0kg	59.0kg	60.0kg
Maximum refrigerant charge	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	66 lbs 3 oz	68 lbs 6 oz	101 lbs 7 oz	103 lbs 10 oz	105 lbs 14 oz	108 lbs 1 oz	110 lbs 4 oz
	Total for system	72 lbs 13 oz	77 lbs 3 oz	79 lbs 6 oz	114 lbs 11 oz	116 lbs 14 oz	119 lbs 1 oz	130 lbs 2 oz	132 lbs 5 oz
Total index of the heat sou	rce units	P192 ZSLMU	P216 ZSLMU	P240 ZSLMU	P288 ZSLMU	P312 ZSLMU	P336 ZSLMU		
	Factory charged	10.0kg	10.0kg	10.0kg	12.0kg	12.0kg	12.0kg		
	Charged on site	51.0kg	52.0kg	54.0kg	70.0kg	70.0kg	73.0kg		
Maximum refrigerant charge	Total for system	61.0kg	62.0kg	64.0kg	82.0kg	82.0kg	85.0kg		
	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	112 lbs 7 oz	114 lbs 11 oz	119 lbs 1 oz	154 lbs 6 oz	154 lbs 6 oz	160 lbs 15 oz		
	Total for system	134 lbs 8 oz	136 lbs 11 oz	141 lbs 2 oz	180 lbs 13 oz	180 lbs 13 oz	187 lbs 7 oz		

12-4. Compatibility

Outdoor/Heat source unit	BC controller	Compatibility
PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	J1 type	Compatible
PQRY-P-Z(S)LMU	G1 type	Compatible
PQRY-P-Z(S)LMU	G type	Compatible

Outdoor/Heat source unit	E	Compatibility			
	Main	S	du	Compatibility	
	JA1/KA1 type	GB1/HB1 type	GB1/HB1 type	Compatible	
	JA1/KA1 type	KB1 type	GB1/HB1 type	Not compatible	
	JA1/KA1 type	GB1/HB1 type	GB/HB type	Compatible	
	JA1/KA1 type	GB/HB type	GB/HB type	Compatible	
	JA1/KA1 type	KB1 type	GB/HB type	Not compatible	
	JA1/KA1 type	GB1/HB1 type	-	Compatible	
	JA1/KA1 type	GB/HB type	-	Compatible	
PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	GA1/HA1 type	KB1 type	KB1 type	Compatible	
	GA1/HA1 type	KB1 type	GB1/HB1 type	Not compatible	
	GA1/HA1 type	KB1 type	GB/HB type	Not compatible	
	GA1/HA1 type	KB1 type	-	Compatible	
	GA/HA type	KB1 type	KB1 type	Compatible	
	GA/HA type	KB1 type	GB1/HB1 type	Not compatible	
	GA/HA type	KB1 type	GB/HB type	Not compatible	
	GA/HA type	KB1 type	-	Compatible	

Outdoor/Heat source unit	BC cor	Compatibility		
	Main	Sub	Compatibility	
PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	JA1/KA1 type	KB1 type	Compatible(*)	

*Up to 11 Sub BC controllers can be connected (KB1 type only).

GA(1)/HA(1)/GB(1)/HB(1) type and JA1/KA1/KB1 type can be mixed.

The only combination that is not available is mix of GB(1)/HB(1) type and KB1 type.

When mixing GA(1)/HA(1)/GB(1)/HB(1) type and JA1/KA1/KB1 type, specifications and restrictions are according to GA(1)/HA(1)/GB(1)/HB(1) type. (piping length, connectable number of Sub BC)

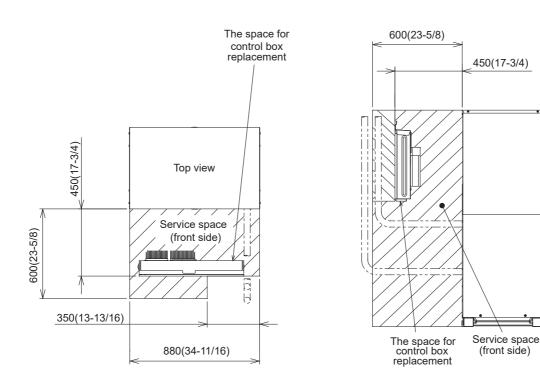
13-1. General requirements for installation

- 1. If possible, locate the unit to reduce the direct thermal radiation to the unit.
- 2. Consider the amount of noise the unit produces when choosing an installation location.
- Valves and refrigerant flow on the outdoor/heat source unit may generate noise.
- 3. Avoid sites that may encounter strong winds.
- 4. Ensure the installation site can bear the weight of the unit.
- 5. Condensation should be moved away from the unit, particularly in heating mode.
- 6. Provide enough space for installation and service as shown in section 13-2. Spacing.
- 7. Avoid sites where acidic solutions or chemical sprays (such as sulfur sprays) are used frequently.
- 8. The unit should be provided from combustible gas, oil, steam, chemical gas like acidic solution, sulfur gas and so on.

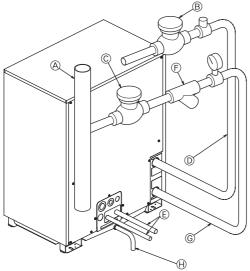
13-2. Spacing

In case of single installation, 600mm or more of back space as front space makes easier access when servicing the unit from rear side.





13-3. Piping direction



- (A) Main circulating water pipe
- Shutoff valve B
- \bigcirc Shutoff valve
- \bigcirc Water outlet (upper)
- Refrigerant pipes (E)
- F Y-type strainer
- Water inlet (lower) G

- Drain pipe (H)

- water circulation system. · Removal of foreign objects or impurities within the pipes.
 - During installation, be careful that foreign objects, such as welding fragments, sealant particles, or rust, do not enter the pipes. Water Quality Processing

1. Insulation installation

in the following situations: • Any heat source piping.

· Any drainage piping.

piping.

① Depending on the quality of the cold-temperature water used in the air conditioner, the copper piping of the heat exchanger may become corroded. We recommend regular water quality processing. Cold water circulation systems using open heat storage tanks are particularly prone to corrosion.

With City Multi WY/ WR2 Series piping, as long as the temperature range of the inlet water is kept to average temperatures year-round (30°C[86°F] in the summer, 20°C[68°F] in the winter), there is no need to insulate or otherwise protect indoor piping from exposure. You should use insulation

· Indoor piping in cold-weather regions where frozen pipes are a problem.

• When air coming from the outside causes condensation to form on

To preserve water quality, use the closed type of cooling tower for WY/ WR2. When the circulating water quality is poor, the water heat

exchanger can develop scales, leading to a reduction in heat-exchange power and possible corrosion of the heat exchanger. Please pay careful attention to water processing and water quality control when installing the

2. Water processing and water quality control

When using an open-type heat storage tank, install a water-to-water heat exchanger, and use a closed-loop circuit on the air conditioner side. If a water supply tank is installed, keep contact with air to a minimum, and keep the level of dissolved oxygen in the water no higher than $1 mg/\ell$.

2 Water quality standard

			Lower mid-range emperature water system		ency	
	Items		Recirculating water [20 <t<60°c] [68<t<140°f]< td=""><td>Make-up water</td><td>Corrosive</td><td>Scale- forming</td></t<140°f]<></t<60°c] 	Make-up water	Corrosive	Scale- forming
	pH (25°C)[77°F]		7.0 ~ 8.0	7.0 ~ 8.0	0	0
	Electric conductivity (n	nS/m) (25°C)[77°F] IS/cm) (25°C)[77°F]		30 or less [300 or less]	0	0
	Chloride ion	(mg Cl⁻/ ℓ)	50 or less	50 or less	0	
Standard	Sulfate ion	(mg SO4 2-/ l)	50 or less	50 or less	0	
items	Acid consumption	(pH4.8) (mg CaCO₃/ ℓ)	50 or less	50 or less		0
	Total hardness	(mg CaCO₃/ ℓ)	70 or less	70 or less		0
	Calcium hardness	(mg CaCO₃/ ℓ)	50 or less	50 or less		0
	lonic silica	(mg SiO₂/ ℓ)	30 or less	30 or less		0
Refer-	Iron	(mg Fe/ ℓ)	1.0 or less	0.3 or less	0	0
ence	Copper	(mg Cu/ ℓ)	1.0 or less	0.1 or less	0	
items	Sulfide ion	(mg S ²⁻ / ℓ)	not to be detected	not to be detected	0	
	Ammonium ion	(mg NH₄⁺/ℓ)	0.3 or less	0.1 or less	0	
	Residual chlorine	(mg Cl/ ℓ)	0.25 or less	0.3 or less	0	
	Free carbon dioxide	e (mg CO₂/ℓ)	0.4 or less	4.0 or less	0	
	Ryzner stability ind	ex	-	-	0	0

Reference : Guideline of Water Quality for Refrigeration and Air Conditioning Equipment. (JRA GL02E-1994)

- ^③ Please consult with a water quality control specialist about water quality control methods and water quality calculations before using anti-corrosive solutions for water quality management.
- ${}^{\textcircled{}}$ When replacing a previously installed air conditioning device (even when only the heat exchanger is being replaced), first conduct a water quality analysis and check for possible corrosion. Corrosion can occur in cold-water systems even if there has been no prior signs of corrosion. If the water quality level has dropped, please adjust water quality sufficiently before replacing the unit.

Installation information

1. Installation information	2
1-1. General precautions	2
1-2. Precautions for Indoor unit and BC controller	
1-3. Precautions for outdoor unit/heat source unit	5
1-4. Precautions for control-related items	6

* Refer to the enclosed Installation Manual for details on installation. Arrange to have an expert install the system correctly.

1-1. General precautions

1-1-1. Usage

- •The air-conditioning system described in this DATA BOOK is designed for human comfort.
- •This product is not designed to assist in the preservation of food, provide conditions to maintain plants or animals, or stabilize environments for the preservation of precision equipment or art objects. To prevent loss of quality, do not use the product for purposes other than those it is designed for.
- *To reduce the risk of water leakage and electric shock, do not use the product for air-conditioning vehicles or vessels.

1-1-2. Installation environment

•Do not install any unit other than the dedicated unit in an area where the voltage changes significantly, large amounts of mineral oil (e.g., cutting oil) are present, cooking oil may splash, or a large quantity of steam can be generated, such as a kitchen.

- •Do not install the unit in acidic or alkaline environments.
- •Installation should not be performed in locations exposed to chlorine or other corrosive gases. Avoid installation near sewers.

•To reduce the risk of fire, do not install the unit in an area where flammable gas may leak or flammable material is present.

•This air-conditioning unit has a built-in microcomputer. The effects of noise should be taken into consideration when deciding on the installation position. It is recommended that the air-conditioning unit be installed in a position away from antennas or electronic devices.

•Install the unit on a solid foundation in accordance with local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, or falling.

1-1-3. Backup system

•In regions in which the malfunctioning of the air conditioner may have a critical effect, it is recommended to have two or more systems made up of single outdoor/heat source units and multiple indoor units.

1-1-4. Unit characteristics

•The heat pump efficiency of the outdoor unit depends on the outdoor temperature. In heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air will continue to be trapped near the ceiling and the floor level will remain cold. In such cases, heat pumps require a supplemental heating system or air circulator. Before purchasing, consult your local distributor for assistance in selecting the unit and system.

- •When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor/heat source unit side tends to collect frost, which reduces its heating performance. The Auto-defrost function will be activated in order to remove the frost, and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of the defrost process.
- •An air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.
- •Sound levels were obtained in an anechoic room. Sound levels during actual operation are usually higher than the simulated values due to ambient noise and echoes. Refer to the section on "SOUND LEVELS" in the DATA BOOK for the measurement location.
- •Depending on the operating conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Try to avoid positioning the air conditioner in locations where quietness is required. With regard to the BC/HBC controller, it is recommended that the unit be installed in areas such as corridor ceilings, restrooms and plant rooms.
- •The total capacity of the connected indoor units can be greater than the capacity of the outdoor/heat source unit. However, when the connected indoor units operate simultaneously, each unit's capacity may become smaller than the rated capacity.
- •When the unit is started up for the first time within 12 hours after the power comes on, i.e. after a power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires a maximum of 90 minutes to complete, depending on the operating load.

1-1-5. Related equipment

•Use an earth leakage breaker (ELB) with medium sensitivity, and an activation speed of 0.1 second or less. •Consult your local distributor or a gualified technician when installing an earth leakage breaker.

•If the unit is an inverter type, select an earth leakage breaker able to respond to high harmonic waves and surges.

•Leakage current is generated not only through the air-conditioning unit but also through the power wires. The leakage current of the main power supply is therefore greater than the total leakage current of each unit. Take the capacity of the earth leakage breaker or leakage alarm into consideration when installing one at the main power supply. To measure the leakage current simply on site, use a measurement tool equipped with a filter, and clamp all the four power wires together. The leakage current measured on the ground wire may not be accurate because the leakage current from other systems may be included in the measurement value.

•Do not install a phase-advancing capacitor on a unit connected to the same power system as an inverter-type unit and its related equipment.

•If a large current flows due to the malfunctioning of the product or faulty wiring, both the earth leakage breaker on the product side and the upstream overcurrent breaker may trip almost at the same time. Separate the power system or coordinate all the breakers depending on the system's priority level.

1-1-6. Unit installation

•Your local distributor or a qualified technician must read the Installation Manual that is provided with each unit carefully before performing installation work.

•Consult your local distributor or a qualified technician when installing the unit. Improper installation by an unqualified person may result in water leakage, electric shock, or fire.

•Ensure that there is enough space around each unit.

1-1-7. Optional accessories

•Only use accessories recommended by Mitsubishi Electric. Consult your local distributor or a qualified technician when installing them. Improper installation by an unqualified person may result in water leakage, power leakage, system breakdown, or fire.

•Some optional accessories may not be compatible for use with the air-conditioning unit or may not be suitable for the installation conditions. Check the compatibility when considering any accessories.

•Note that some optional accessories may affect the air conditioner's external form, appearance, weight, operating sound, and other characteristics.

1-1-8. Operation/Maintenance

•Read the Instruction Book that is provided with each unit carefully prior to use.

•Maintenance or cleaning of each unit may be risky and require expertise. Read the Instruction Book to ensure safety. Consult your local distributor or a qualified technician when special expertise is required, such as when the indoor unit needs to be cleaned.

1-2. Precautions for Indoor unit and BC controller

1-2-1. Operating environment

- •The refrigerant (R410A) used in the air conditioner is non-toxic and nonflammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant leaks.
- •If the units operate in cooling mode at a humidity above 80%, condensation may collect and drip from the indoor units.
- •Regular checking and cleaning of the drain drainage paths, such as the drain pan or the drain pump, is recommended to prevent clogging. The neglect of a clogged drain pump may trigger the water-leakage protection function which stops operation of the entire system.

1-2-2. Unit characteristics

- •The return air temperature display on the remote controller may differ from the displays on the other thermometers.
- •The clock on the remote controller may be displayed with a time lag of approximately one minute every month.
- •The temperature measured by the built-in temperature sensor on the remote controller may differ from the actual room temperature due to the effect of the wall temperature.
- •Use the built-in thermostat on the remote controller or a separately-sold thermostat when indoor units installed on or in the ceiling operate the automatic cooling/heating switchover.
- •The room temperature may rise drastically due to Thermo OFF in areas where the air-conditioning load is large, such as computer rooms.
- •Be sure to use a regular filter. If an irregular filter is installed, the unit may not operate properly, and operating noise may increase.
- •The room temperature may increase above the preset temperature in environments in which the heating or air-conditioning load is small.

1-2-3. Unit installation

- •The insulation for the low-pressure pipe between the BC controller and the outdoor/heat source unit must be at least 20 mm (13/16 in.) thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- •Do not have any branching points on the downstream of the refrigerant pipe header.
- •When a field-supplied external thermistor is installed or when a device for demand control is used, the unit may stop abnormally or damage may occur to the electromagnetic contactor. Consult your local distributor for details.
- •When indoor units employ fresh air intake, install a filter in the duct (locally procured) to remove dust from the air.
- •The 4-way Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" for the available range for fresh air intake volume.
- •Employing fresh air intake for the indoor unit may increase the sound pressure level.
- •Do not install the unit above the cooking or food processing area.

1-2-4. Noise level (Sound pressure level)

•The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this DATA BOOK due to the influence of ambient noise and echoes.

1-3. Precautions for outdoor unit/heat source unit

1-3-1. Installation environment

- •The outdoor unit with the salt-resistant specification is recommended for use in an area in which it will be exposed to salt air.
- Even when the unit with the salt-resistant specification is used, it is not completely protected against corrosion. Be sure to follow the directions or precautions described in the Instruction Book and Installation Manual for installation and maintenance. The salt-resistant specification is referred to in the guidelines published by JRAIA (JRA9002).
 Install the unit in an area where the flow of discharge air is not obstructed. If the flow of discharge air is obstructed, short-cycling of discharge air may occur.
- •Provide proper drainage around the base of the units; condensation may collect and drip from outdoor units. Provide water-proofing protection to the floor when installing the unit on the rooftop.
- •In regions where snowfall can be expected, install the unit so that the outlet faces away from the direction of the wind, and install a snow guard to protect the unit from snow. Install the unit on a base approximately 50 cm (19-11/16 in.) higher than the expected snowfall. Close the openings for pipes and wiring, because the ingress of water and small animals may cause equipment damage. If a SUS snow guard is used, refer to the Installation Manual that comes with the snow guard and be careful with the installation to avoid the risk of corrosion.
- •When the unit is expected to operate continuously for a long period of time at outside air temperatures of below 0°C (32°F), take appropriate measures, such as the use of a unit base heater, to prevent ice forming on the unit base. (Not applicable to the PUMY-Series)
- •Install the snow guard so that the outlet/inlet faces away from the direction of the wind.
- •When approximately 50 cm (19-11/16 in.) or more of snow accumulates on the snow guard, remove the snow from the guard. Install a roof that is strong enough to withstand loads caused by snow in areas where snow accumulates.
- •Provide proper protection around the outdoor units in places such as schools to avoid the risk of injury.
- •A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air to ensure that the oxygen dissolved in the water is 1 mg/L or less.
- Install a strainer (50 mesh or more recommended) on the water pipe inlet on the heat source unit.
- Interlock the heat source unit and water circuit pump.
- •Note the following to prevent the freezing and bursting of pipes when the heat source unit is installed in an area where the ambient temperature can be 0°C (32°F) or below.
- *Keep the water circulating to prevent it from freezing when the ambient temperature is 0°C (32°F) or below.
- •Before a long period of non-use, be sure to purge the water from the unit.
- •The salt-resistant unit is resistant to salt corrosion, but not salt-proof.
- Please note the following when installing and maintaining outdoor units in a marine environment.
- 1. Install the salt-resistant unit in an area in which it is not directly exposed to sea breezes, and minimize exposure to salt water mist.
- 2. Avoid installing a sun shade over the outdoor unit, so that rain will wash away salt deposits off the unit.
- Install the unit horizontally to ensure proper water drainage from the base of the unit. Accumulation of water in the base of the outdoor unit will significantly accelerate corrosion.
- 4. Periodically wash salt deposits off the unit, especially when the unit is installed in a coastal area.
- 5. Repair all noticeable scratches after installation and during maintenance.
- 6. Periodically check the unit, and apply an anti-rust agent and replace corroded parts as necessary.

1-3-2. Circulating water

•Regularly check the quality of the water in the heat source unit, following the guidelines published by JRAIA (JRA-GL02-1994).

•A cooling tower and heat source water circuit should be a closed circuit so that water is not exposed to the atmosphere. When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air to ensure that the oxygen dissolved in the water is 1 mg/L or less.

1-3-3. Unit characteristics

•When the Thermo ON and OFF is frequently repeated on the indoor unit, the operating status of outdoor/heat source units may become unstable.

1-3-4. Related equipment

•Provide grounding in accordance with the local regulations.

1-3-5. Noise level (Sound pressure level)

•The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JIS standard. The sound pressure level actually measured at the installation site is usually higher than the value indicated in this DATA BOOK due to the influence of ambient noise and echoes.

Valve operation noise and refrigerant flow noise may occur from inside the outdoor unit/heat-source unit.

1-4. Precautions for control-related items

1-4-1. Product specification

•To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge-apportioning function or energy save function, further detailed consultation is required. Consult your local distributor for details.

•Billing calculation for AE-200A/AE-50A/EW-50A, or the billing calculation unit is unique and based on our original method. (Backup operation is included.) It is not based on the metering method, and do not use it for official business purposes. It is not the method that the amount of electric power consumption (input) by air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.

•In the apportioned billing function for AE-200A/AE-50A and EW-50A, separate watt-hour meters should be used for A-control units, K-control units, and CITY MULTI packaged air conditioners. It is recommended that an individual watt-hour meter should be used for large-capacity indoor units (with two or more addresses).

•When using the peak cut function on the AE-200A/AE-50A or EW-50A, note that the control is performed once every minute and it takes time to obtain the effect of the control. Take appropriate measures such as lowering the criterion value. Power consumption may exceed the limits if the AE-200A/AE-50A or EW-50A malfunctions or stops. Provide a back-up remedy as necessary.

•The controllers cannot operate while the indoor unit is OFF. (No error)

Turn ON the power to the indoor unit when operating the controllers.

•When using the interlocked control function on the AE-200A/AE-50A/EW-50A/PAC-YG66DCA or PAC-YG63MCA, do not use the control for fire prevention or security. (This function should never be used in a way that would put people's lives at risk.) Employ any methods or circuits that allow ON/OFF operation using an external switch in case of failure.

1-4-2. Installation environment

*Surge protection may be required for the transmission line in areas where lightning strikes occur frequently.

•The receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and the receiver.

•When the auto-elevating panel is used and the system is operated using a wired remote controller, install the wired remote controller in a place where all the air conditioners being controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury; be sure to use a wireless remote controller designed for use with the elevating panel (sold separately).

•Install the wired remote controller (switch box) in a place where the following conditions are met.

- •Where the installation surface is flat
- •Where the remote controller can detect an accurate room temperature

The temperature sensors that detect the room temperature are installed both in the remote controller and in the indoor unit.

When the room temperature is detected using the sensor in the remote controller, the main remote controller is used to detect the room temperature. In this case, follow the instructions below.

• Install the controller in a place where it is not affected by a heat source.

(If the remote controller faces direct sunlight or the direction of the supply air flow, the remote controller cannot detect the accurate room temperature.)

- Install the controller in a place where the average room temperature can be detected.
- Install the controller in a place where no other wires are present around the temperature sensor.

(If other wires are present, the remote controller cannot detect an accurate room temperature.)

•To prevent unauthorized access, always use a security device such as a VPN router when connecting the AE-200A/AE-50A or EW-50A to the Internet.

1.	Caution for refrigerant leakage	Ub-1-2
	1-1. Refrigerant property	
	1-2. Confirm the Critical concentration and take countermeasure	Ub-1-2

1. Caution for refrigerant leakage

The installer and/or air conditioning system specialist shall secure safety against refrigerant leakage according to local regulations or standards. The following standard may be applicable if no local regulation or standard is available.

1-1. Refrigerant property

R410A refrigerant is harmless and incombustible. The R410A is heavier than the indoor air in density. Leakage of the refrigerant in a room has possibility to lead to a hypoxia situation. Therefore, the critical concentration specified below shall not be exceeded even if the leakage happens.

Critical concentration

Critical concentration hereby is the refrigerant concentration in which no human body would be hurt if immediate measures can be taken when refrigerant leakage happens.

Critical concentration	of R410A: 0.44kg/m ³

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(The weight of refrigeration gas per 1 m<sup>3</sup> air conditioning space.);
* The Critical concentration is subject to ISO5149, EN378-1.
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For the CITY MULTI system, the concentration of refrigerant leaked should not have a chance to exceed the critical concentration in any situation.

1-2. Confirm the Critical concentration and take countermeasure

The maximum refrigerant leakage concentration (Rmax) is defined as the result of the possible maximum refrigerant weight (Wmax) leaked into a room divided by its room capacity (V). It is referable to Fig.1-1. The refrigerant of Outdoor/Heat source unit here includes its original charge and additional charge at the site.

The additional charge is calculated according to the refrigerant charging calculation of each kind of Outdoor/Heat source unit, and shall not be over charged at the site. Procedure 1-2-1~3 tells how to confirm maximum refrigerant leakage concentration (Rmax) and how to take countermeasures against a possible leakage.

Outdoor/Heat source unit (No.1) Outdoor/Heat source unit (No.1)

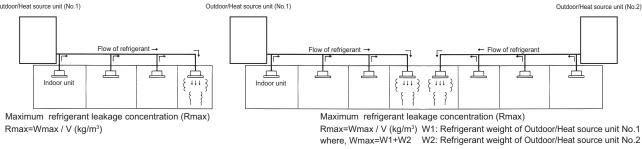


Fig. 1-1 The maximum refrigerant leakage concentration

1-2-1. Find the room capacity (V).

If a room having total opening area more than 0.15% of the floor area at a low position with another room/space, the two rooms/space are considered as one. The total space shall be added up.

- 1-2-2. Find the possible maximum leakage (Wmax) in the room. If a room has Indoor unit(s) from more than 1 Outdoor/Heat source unit, add up the refrigerant of the Outdoor/Heat source units.
- 1-2-3. Divide (Wmax) by (V) to get the maximum refrigerant leakage concentration (Rmax).
- 1-2-4.Find if there is any room in which the maximum refrigerant leakage concentration (Rmax) is over 0.44kg/m³.

If no, then the CITY MULTI is safe against refrigerant leakage.

If yes, following countermeasure is recommended to do at site.

- Countermeasure 1: Let-out (making V bigger)
- Design an opening of more than 0.15% of the floor area at a low position of the wall to let out the refrigerant whenever leaked.
- e.g.make the upper and lower seams of door big enough.
- Countermeasure 2: Smaller total charge (making Wmax smaller)

e.g.Avoid connecting more than 1 Outdoor/Heat source unit to one room. e.g.Using smaller model size but more Outdoor/Heat source units.

- e.g.Shorten the refrigerant piping as much as possible.
- Countermeasure 3: Fresh air in from the ceiling (Ventilation)

As the density of the refrigerant is bigger than that of the air. Fresh air supply from the ceiling is better than air exhausting from the ceiling.



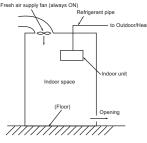


Fig.1-2.Fresh air supply always ON

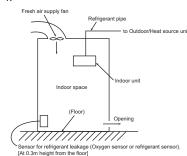


Fig.1-3.Fresh air supply upon sensor action

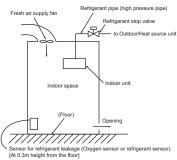


Fig.1-4.Fresh air supply and refrigerant shut-off upon sensor action

Note 1. Countermeasure 3 should be done in a proper way in which the fresh air supply shall be on whenever the leakage happens Note 2. In principle, MITSUBISHI ELECTRIC requires proper piping design, installation and air-tight testing after installation to avoid leakage happening. In the area should earthquake happen, anti-vibration measures should be fully considered. The piping should consider the extension due to the temperature variation.

∆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, 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 equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

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