OUTDOOR UNITS

1. SPECIFICATIONS

Outdoor Model			PURY-HP72TKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity *1		BTU/h	72,000	
(Nominal)		kW	21.1	
	Power input	kW	5.08	
(208-230)	Current input	A	15.6-14.1	
(Rated)		BTU/h	69,000	
		kW	20.2	
	Power input	kW	4.95	4.45
(208-230)	Current input	A	15.2-13.8	13.7-12.4
Temp. range of	Indoor	W.B.	59~75°F (15~24°C)	
cooling	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity *2		BTU/h	80,000	
(Nominal)		kW	23.4	
	Power input	kW	6.26	
(208-230)	Current input	A	19.3-17.4	
(Rated)		BTU/h	76,000	
		kW	22.3	
	Power input	kW	5.98	5.60
(208-230)	Current input	A	18.4-16.6	17.2-15.6
Temp. range of	Indoor	D.B.	59~81°F (15~27°C)	
heating	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit	Total capacity		50~150% of outdoor unit capacity	
connectable	Model/Quantity		P06~P96/1~18	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant	High pressure	in. (mm)	5/8 (15.88) Brazed	
piping diameter	Low pressure	in. (mm)	3/4 (19.05) Brazed	
Minimum Circuit Ampacity		A	44-40	
Maximum Overcurrent Protection		A	76-69	
FAN	Type x Quantity		Propeller fan x 1	
	Airflow rate	cfm	6,200	
		m^3/min	175	
		L/s	2,920	
	Control, Driving mechanism		Inverter-control, Brushless DC motor	
	Motor output	kW	0.92	
*3	External static press.		0 in.WG (0 Pa)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	5.3	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	
		mm	1,650 x 1,220 x 740	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-current protection	
	Fan motor		Thermal switch	
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	552 (250)	
Heat exchanger			Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			-	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G386	
	Wiring		KE94C883	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 BC controller: CMB-P104,105,106,108,1010,1013,1016NU-G1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108, 1010, 1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

1. SPECIFICATIONS

Outdoor Model			PURY-HP96TKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU/h	96,000	
		kW	28.1	
	Power input	kW	7.66	
(208-230)	Current input	A	23.6-21.3	
(Rated)		BTU/h	92,000	
		kW	27.0	
	Power input	kW	6.84	7.34
(208-230)	Current input	A	21.0-19.0	22.6-20.4
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal)	*2	BTU/h	108,000	
		kW	31.7	
	Power input	kW	8.88	
(208-230)	Current input	A	27.3-24.7	
(Rated)		BTU/h	103,000	
		kW	30.2	
	Power input	kW	8.33	8.10
(208-230)	Current input	A	25.6-23.2	24.9-22.5
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model/Quantity		P06~P96/1~24	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant piping diameter	High pressure	in. (mm)	3/4 (19.05) Brazed	
	Low pressure	in. (mm)	7/8 (22.2) Brazed	
Minimum Circuit Ampacity		A	60-54	
Maximum Overcurrent Protection		A	104-94	
FAN	Type x Quantity		Propeller fan x 1	
	Airflow rate	cfm	6,200	
		m^3/min	175	
		L/s	2,920	
	Control, Driving mechanism		Inverter-control, Brushless DC motor	
	Motor output	kW	0.92	
*3	External static press.		0 in.WG (0 Pa)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	6.8	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	
		mm	1,650 x 1,220 x 740	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-current protection	
	Fan motor		Thermal switch	
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	552 (250)	
Heat exchanger			Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			-	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G386	
	Wiring		KE94C883	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 BC controller: CMB-P104,105,106,108,1010,1013,1016NU-G1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

1. SPECIFICATIONS

Outdoor Model			PURY-HP144TSKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU/h	144,000	
		kW	42.2	
	Power input	kW	10.85	
(208-230)	Current input	A	33.4-30.2	
(Rated)		BTU/h	137,000	
		kW	40.2	
	Power input	kW	10.23	9.86
(208-230)	Current input	A	31.5-28.5	30.4-27.5
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal)	*2	BTU/h	160,000	
		kW	46.9	
	Power input	kW	13.16	
(208-230)	Current input	A	40.5-36.7	
(Rated)		BTU/h	152,000	
		kW	44.5	
	Power input	kW	12.50	11.87
(208-230)	Current input	A	38.5-34.8	36.6-33.1
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model/Quantity		P06~P96/1~36	
Sound pressure level (measured in anechoic room)		dB <A>	61.0	
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed	
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed	

Set Model

Model			PURY-HP72TKMU-A-H (-BS)	PURY-HP72TKMU-A-H (-BS)
Minimum Circuit Ampacity		A	44-40	44-40
Maximum Overcurrent Protection		A	76-69	76-69
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Airflow rate	cfm	6,200	6,200
		m^3/min	175	175
		L/s	2,920	2,920
	Control, Driving mechanism		Inverter-control, Brushless DC motor	Inverter-control, Brushless DC motor
	Motor output	kW	0.92	0.92
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	5.3	5.3
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	64-31/32 x 48-1/16 x 29-5/32
		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-current protection	Over-current protection
	Fan motor		Thermal switch	Thermal switch
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	R410A x 26 lbs + 1 oz (11.8 kg)
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	552 (250)	552 (250)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	5/8 (15.88) Brazed	5/8 (15.88) Brazed
	Low pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G492	
	Wiring		KE94C883	KE94C883
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - Outdoor Twinning kit: CMY-R100CBK2 joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Systems with considerably long pipe runs, in heating mode, may be subject to slightly louder than normal noise from the outdoor unit/s. The outdoor twinning kit (low pressure) should be connected to the low pressure side of the outdoor unit. If the connected units are of different capacities, the outdoor twinning kit (low pressure) should be installed in the unit with the largest capacity.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

Outdoor Model			PURY-HP192TSKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 208-230 V ±10% 60 Hz	
Cooling capacity (Nominal) *1		BTU/h	192,000	
		kW	56.3	
	Power input	kW	15.86	
(208-230)	Current input	A	48.9-44.2	
(Rated)		BTU/h	183,000	
		kW	53.6	
	Power input	kW	14.36	15.01
(208-230)	Current input	A	44.2-40.0	46.2-41.8
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal) *2		BTU/h	215,000	
		kW	63.0	
	Power input	kW	18.52	
(208-230)	Current input	A	57.1-51.6	
(Rated)		BTU/h	205,000	
		kW	60.1	
	Power input	kW	17.44	16.84
(208-230)	Current input	A	53.7-48.6	51.9-46.9
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model/Quantity		P06~P96/1~48	
Sound pressure level (measured in anechoic room)		dB <A>	61.0	
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed	
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed	

Set Model

Model			PURY-HP96TKMU-A-H (-BS)	PURY-HP96TKMU-A-H (-BS)
Minimum Circuit Ampacity		A	60-54	60-54
Maximum Overcurrent Protection		A	104-94	104-94
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Airflow rate	cfm	6,200	6,200
		m^3/min	175	175
		L/s	2,920	2,920
	Control, Driving mechanism		Inverter-control, Brushless DC motor	Inverter-control, Brushless DC motor
	Motor output	kW	0.92	0.92
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.8	6.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	64-31/32 x 48-1/16 x 29-5/32
		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-current protection	Over-current protection
	Fan motor		Thermal switch	Thermal switch
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	R410A x 26 lbs + 1 oz (11.8 kg)
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	552 (250)	552 (250)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed
	Low pressure	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G492	
	Wiring		KE94C883	KE94C883
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - Outdoor Twinning kit: CMY-R100CBK2 joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Systems with considerably long pipe runs, in heating mode, may be subject to slightly louder than normal noise from the outdoor unit/s. The outdoor twinning kit (low pressure) should be connected to the low pressure side of the outdoor unit. If the connected units are of different capacities, the outdoor twinning kit (low pressure) should be installed in the unit with the largest capacity.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

Outdoor Model			PURY-HP72YKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)	*1	BTU/h	72,000	
		kW	21.1	
	Power input	kW	5.08	
(460)	Current input	A	7.0	
(Rated)		BTU/h	69,000	
		kW	20.2	
	Power input	kW	4.95	4.45
(460)	Current input	A	6.9	6.2
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal)	*2	BTU/h	80,000	
		kW	23.4	
	Power input	kW	6.26	
(460)	Current input	A	8.7	
(Rated)		BTU/h	76,000	
		kW	22.3	
	Power input	kW	5.98	5.60
(460)	Current input	A	8.3	7.8
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model/Quantity		P06~P96/1~18	
Sound pressure level (measured in anechoic room)		dB <A>	58.0	
Refrigerant piping diameter	High pressure	in. (mm)	5/8 (15.88) Brazed	
	Low pressure	in. (mm)	3/4 (19.05) Brazed	
Minimum Circuit Ampacity		A	26	
Maximum Overcurrent Protection		A	45	
FAN	Type x Quantity		Propeller fan x 1	
	Airflow rate	cfm	6,200	
		m^3/min	175	
		L/s	2,920	
	Control, Driving mechanism		Inverter-control, Brushless DC motor	
	Motor output	kW	0.92	
*3	External static press.		0 in.WG (0 Pa)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	5.3	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	
		mm	1,650 x 1,220 x 740	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-current protection	
	Fan motor		Thermal switch	
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	580 (263)	
Heat exchanger			Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			-	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G387	
	Wiring		KE94C884	
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 BC controller: CMB-P104,105,106,108,1010,1013,1016NU-G1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

1. SPECIFICATIONS

Outdoor Model				PURY-HP96YKMU-A-H (-BS)	
Indoor Model				Non-Ducted	Ducted
Power source				3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)		*1	BTU/h	96,000	
			kW	28.1	
		Power input	kW	7.66	
	(460)	Current input	A	10.6	
	(Rated)		BTU/h	92,000	
			kW	27.0	
		Power input	kW	6.84	7.34
	(460)	Current input	A	9.5	10.2
Temp. range of cooling		Indoor	W.B.	59~75°F (15~24°C)	
		Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal)		*2	BTU/h	108,000	
			kW	31.7	
		Power input	kW	8.88	
	(460)	Current input	A	12.3	
	(Rated)		BTU/h	103,000	
			kW	30.2	
		Power input	kW	8.33	8.10
	(460)	Current input	A	11.6	11.2
Temp. range of heating		Indoor	D.B.	59~81°F (15~27°C)	
		Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	
		Model/Quantity		P06~P96/1~24	
Sound pressure level (measured in anechoic room)			dB <A>	58.0	
Refrigerant piping diameter		High pressure	in. (mm)	3/4 (19.05) Brazed	
		Low pressure	in. (mm)	7/8 (22.2) Brazed	
Minimum Circuit Ampacity			A	32	
Maximum Overcurrent Protection			A	56	
FAN		Type x Quantity		Propeller fan x 1	
		Airflow rate	cfm	6,200	
			m^3/min	175	
			L/s	2,920	
		Control, Driving mechanism		Inverter-control, Brushless DC motor	
		Motor output	kW	0.92	
	*3	External static press.		0 in.WG (0 Pa)	
Compressor		Type x Quantity		Inverter scroll hermetic compressor x 1	
		Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	
		Starting method		Inverter	
		Motor output	kW	6.8	
		Case heater	kW	-	
		Lubricant		MEL32	
External finish				Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
External dimension H x W x D			in.	64-31/32 x 48-1/16 x 29-5/32	
			mm	1,650 x 1,220 x 740	
Protection devices		High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
		Inverter circuit (COMP./FAN)		Over-current protection	
		Fan motor		Thermal switch	
Refrigerant		Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	
		Control		Indoor LEV and BC controller	
Net weight			lbs (kg)	583 (264)	
Heat exchanger				Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)				-	
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle)	
Drawing		External		KJ94G387	
		Wiring		KE94C884	
Standard attachment		Document		Installation Manual	
		Accessory		Details refer to External Drw	
Optional parts				Outdoor Connection pipe: - joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 BC controller: CMB-P104,105,106,108,1010,1013,1016NU-G1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

Outdoor Model			PURY-HP144YSKMU-A-H (-BS)	
Indoor Model			Non-Ducted	Ducted
Power source			3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal) *1		BTU/h	144,000	
		kW	42.2	
	Power input	kW	10.85	
(460)	Current input	A	15.1	
(Rated)		BTU/h	137,000	
		kW	40.2	
	Power input	kW	10.23	9.86
(460)	Current input	A	14.2	13.7
Temp. range of cooling	Indoor	W.B.	59~75°F (15~24°C)	
	Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal) *2		BTU/h	160,000	
		kW	46.9	
	Power input	kW	13.16	
(460)	Current input	A	18.3	
(Rated)		BTU/h	152,000	
		kW	44.5	
	Power input	kW	12.50	11.87
(460)	Current input	A	17.4	16.5
Temp. range of heating	Indoor	D.B.	59~81°F (15~27°C)	
	Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model/Quantity		P06~P96/1~36	
Sound pressure level (measured in anechoic room)		dB <A>	61.0	
Refrigerant piping diameter	High pressure	in. (mm)	7/8 (22.2) Brazed	
	Low pressure	in. (mm)	1-1/8 (28.58) Brazed	

Set Model

Model			PURY-HP72YKMU-A-H (-BS)	PURY-HP72YKMU-A-H (-BS)
Minimum Circuit Ampacity		A	26	26
Maximum Overcurrent Protection		A	45	45
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Airflow rate	cfm	6,200	6,200
		m^3/min	175	175
		L/s	2,920	2,920
	Control, Driving mechanism		Inverter-control, Brushless DC motor	Inverter-control, Brushless DC motor
	Motor output	kW	0.92	0.92
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	5.3	5.3
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	64-31/32 x 48-1/16 x 29-5/32
		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-current protection	Over-current protection
	Fan motor		Thermal switch	Thermal switch
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	R410A x 26 lbs + 1 oz (11.8 kg)
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	580 (263)	580 (263)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	5/8 (15.88) Brazed	5/8 (15.88) Brazed
	Low pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G493	
	Wiring		KE94C884	KE94C884
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - Outdoor Twinning kit: CMY-R100CBK2 joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Systems with considerably long pipe runs, in heating mode, may be subject to slightly louder than normal noise from the outdoor unit/s. The outdoor twinning kit (low pressure) should be connected to the low pressure side of the outdoor unit. If the connected units are of different capacities, the outdoor twinning kit (low pressure) should be installed in the unit with the largest capacity.	

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

Outdoor Model				PURY-HP192YSKMU-A-H (-BS)	
Indoor Model				Non-Ducted	Ducted
Power source				3-phase 3-wire 460 V ±10% 60 Hz	
Cooling capacity (Nominal)		*1	BTU/h	192,000	
			kW	56.3	
		Power input	kW	15.86	
	(460)	Current input	A	22.1	
	(Rated)		BTU/h	183,000	
			kW	53.6	
		Power input	kW	14.36	15.01
	(460)	Current input	A	20.0	20.9
Temp. range of cooling		Indoor	W.B.	59~75°F (15~24°C)	
		Outdoor	D.B.	23~115°F (-5~46°C)	
Heating capacity (Nominal)		*2	BTU/h	215,000	
			kW	63.0	
		Power input	kW	18.52	
	(460)	Current input	A	25.8	
	(Rated)		BTU/h	205,000	
			kW	60.1	
		Power input	kW	17.44	16.84
	(460)	Current input	A	24.3	23.4
Temp. range of heating		Indoor	D.B.	59~81°F (15~27°C)	
		Outdoor	W.B.	-13~60°F (-25~15.5°C)	
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	
		Model/Quantity		P06~P96/1~48	
Sound pressure level (measured in anechoic room)			dB <A>	61.0	
Refrigerant piping diameter		High pressure	in. (mm)	7/8 (22.2) Brazed	
		Low pressure	in. (mm)	1-1/8 (28.58) Brazed	

Set Model

Model			PURY-HP96YKMU-A-H (-BS)	PURY-HP96YKMU-A-H (-BS)
Minimum Circuit Ampacity		A	32	32
Maximum Overcurrent Protection		A	56	56
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Airflow rate	cfm	6,200	6,200
		m^3/min	175	175
		L/s	2,920	2,920
	Control, Driving mechanism		Inverter-control, Brushless DC motor	Inverter-control, Brushless DC motor
	Motor output	kW	0.92	0.92
*3	External static press.		0 in.WG (0 Pa)	0 in.WG (0 Pa)
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION	AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter	Inverter
	Motor output	kW	6.8	6.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>
External dimension H x W x D		in.	64-31/32 x 48-1/16 x 29-5/32	64-31/32 x 48-1/16 x 29-5/32
		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-current protection	Over-current protection
	Fan motor		Thermal switch	Thermal switch
Refrigerant	Type x original charge		R410A x 26 lbs + 1 oz (11.8 kg)	R410A x 26 lbs + 1 oz (11.8 kg)
	Control		Indoor LEV and BC controller	
Net weight		lbs (kg)	583 (264)	583 (264)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			-	-
Pipe between unit and distributor	High pressure	in. (mm)	3/4 (19.05) Brazed	3/4 (19.05) Brazed
	Low pressure	in. (mm)	7/8 (22.2) Brazed	7/8 (22.2) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KJ94G493	
	Wiring		KE94C884	KE94C884
Standard attachment	Document		Installation Manual	
	Accessory		Details refer to External Drw	
Optional parts			Outdoor Connection pipe: - Outdoor Twinning kit: CMY-R100CBK2 joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-Y202S-G2,CMY-R160-J1 Main BC controller: CMB-P108,1010,1013,1016NU-GA1,108,1010,1016NU-HA1 Sub BC controller: CMB-P104,108NU-GB1,CMB-P1016NU-HB1	
Remarks				

Notes:

1.Nominal cooling conditions (Test conditions are based on AHRI 1230)
Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
2.Nominal heating conditions (Test conditions are based on AHRI 1230)
Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
3.External static pressure option is available (0.12 in.WG, 0.24 in.WG/30 Pa, 60 Pa).

* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

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

*Above specification data is subject to rounding variation.

H2i R2

PURY-HP72, 96TKMU-A-H(-BS)

Unit : mm(in)

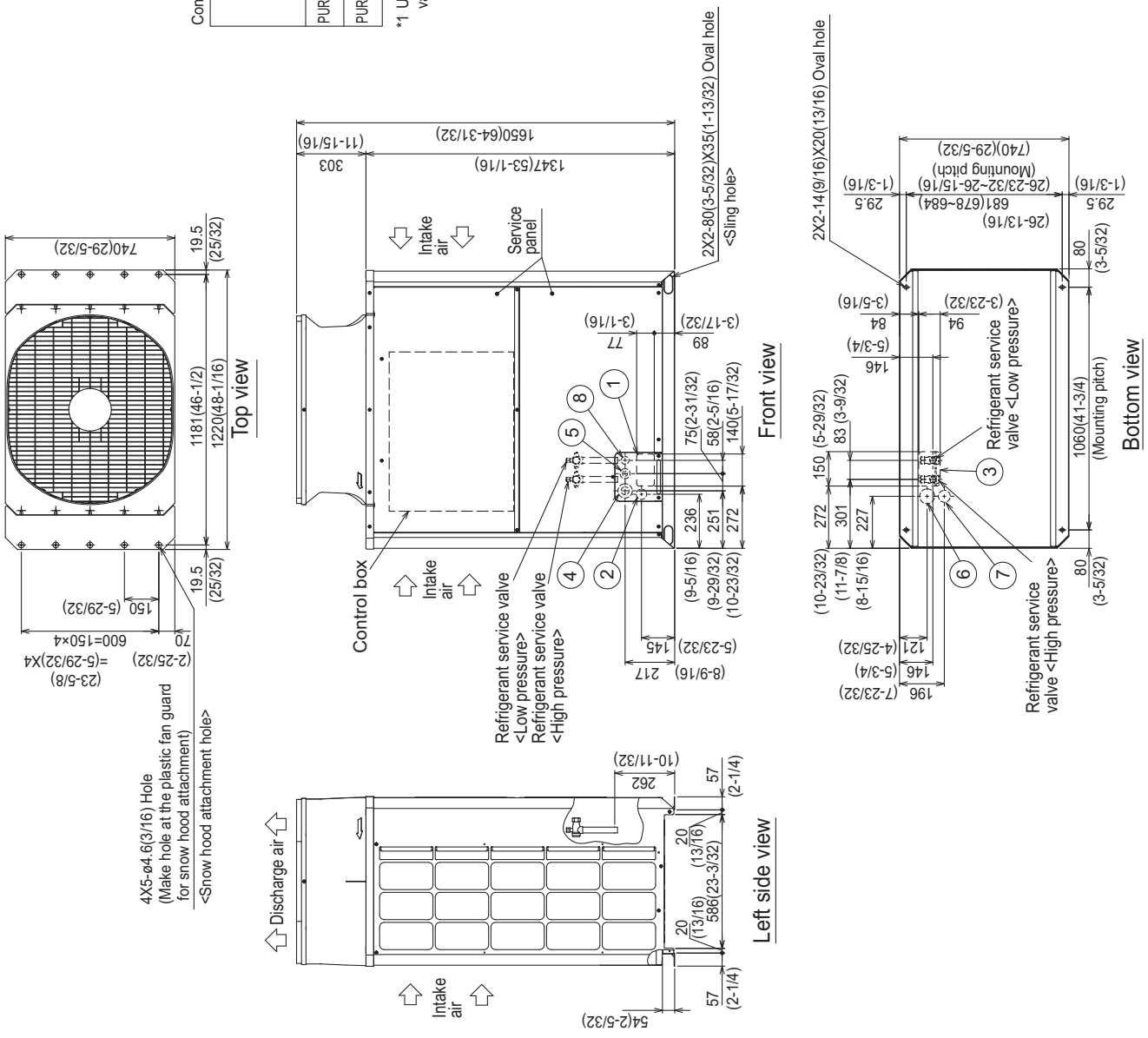
Note1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2. At brazing of pipes,wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-HP72TKMU-A-H(-BS)	ø15.88 Brazed (5/8) *1	ø19.05 Brazed (3/4) *1	ø25.4 (1)	ø25.4 (1)
PURY-HP96TKMU-A-H(-BS)	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1	ø25.4 (1)	ø25.4 (1)

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

NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-17/32) (3-1/16)
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-25/32)
③		Bottom through hole	150 × 94 Knockout hole (5-29/32) (3-23/32)
④	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-15/32) (1-3/8)
⑤		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑥		Bottom through hole	ø65 Knockout hole (2-9/16)
⑦		Bottom through hole	ø52 Knockout hole (2-1/16)
⑧	For transmission cables	Front through hole	ø34 Knockout hole (1-11/32)



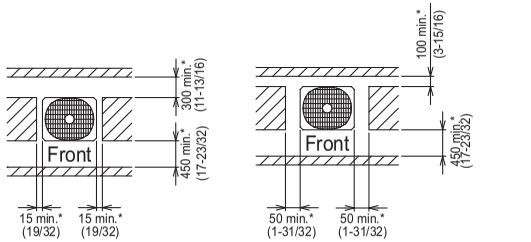
H2i R2

1. Required space around the unit

●In case of single installation

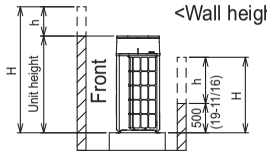
① Secure enough space around the unit as shown in the figure below.

- With a space of at least 300mm(11-13/16) to the wall on the back of the unit
- With a space of at least 100mm(3-15/16) to the wall on the back of the unit



<Top view> <Top view> <Unit:mm(in)>

② When the height of the walls on the front,back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.



<Side view>

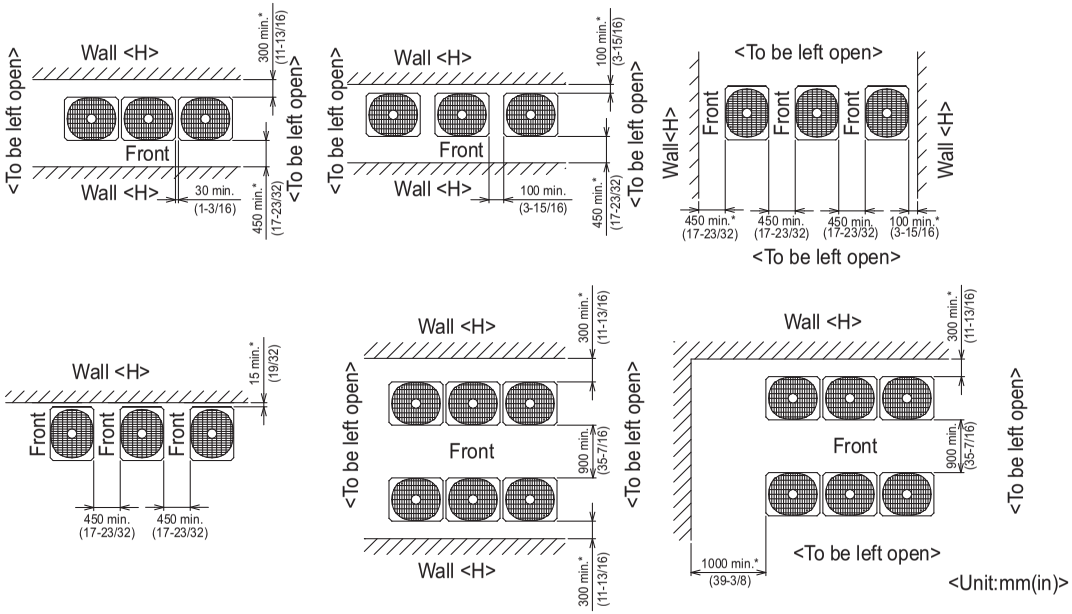
<Wall height limit> Front: Up to the unit height
Back : Up to 500mm(19-11/16) from the unit bottom
Side : Up to the unit height

2. Foundation work

① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site. <Note that the drain water comes out of the unit during operation.>
② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A) When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
③ The protrusion length of the anchor bolt must not exceed 30mm(1-3/16).(Fig.A)
④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.B)
⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
⑦ Refer to the Installation Manual when installing units on an installation base.

●In case of collective installation

① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
② At least two sides must be left open.
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.



<Unit:mm(in)>

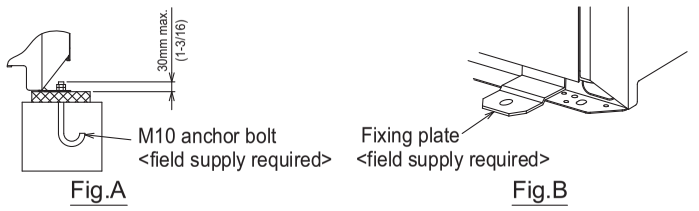


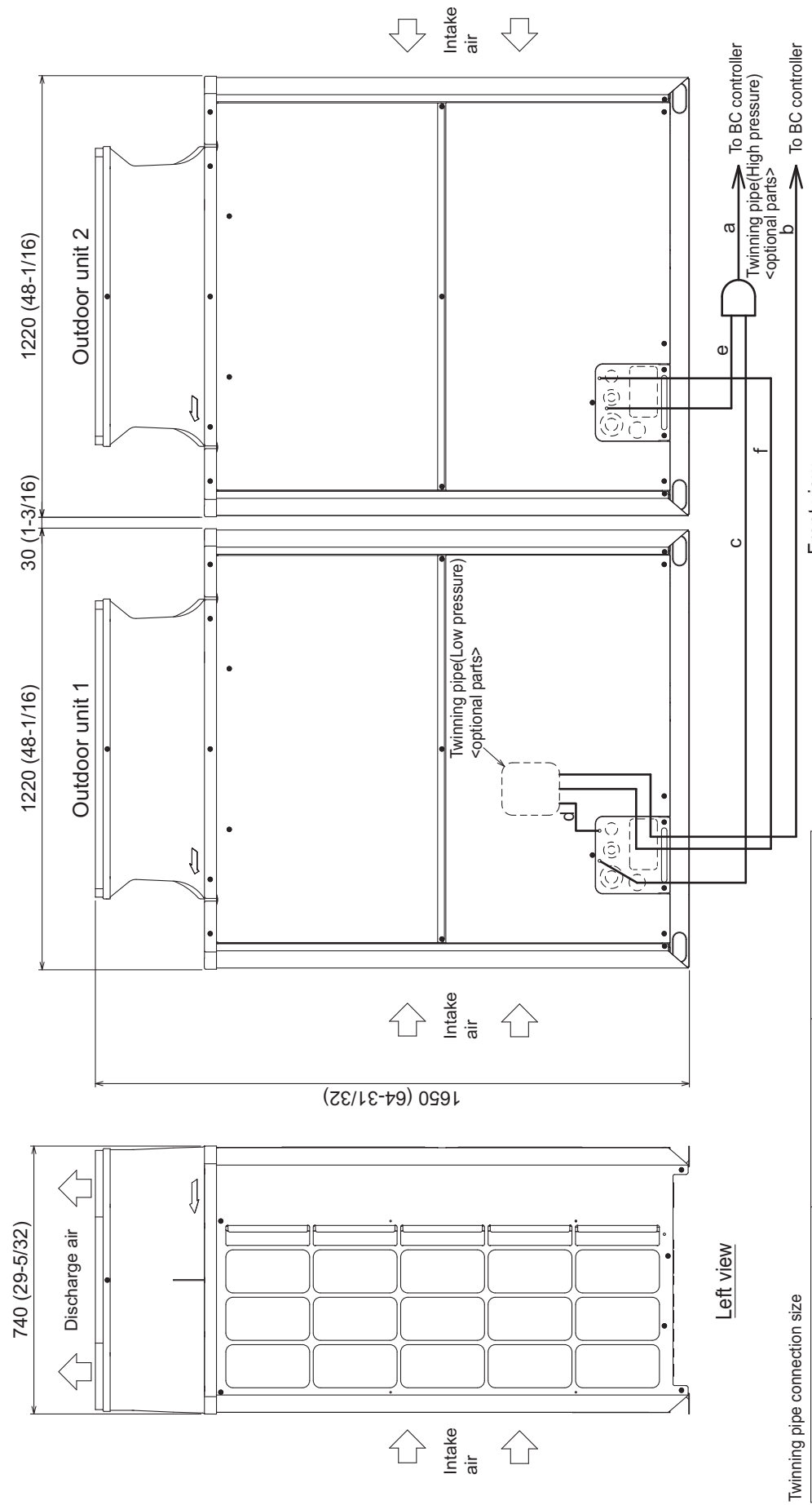
Fig.A

Fig.B

Unit : mm(in)

PURY-HP144, 192TSKMU-A-H(-BS)

Unit : mm(in)



Twinning pipe connection size

Package unit name			PURY-HP144TSKMU-A-H(-BS)	PURY-HP192TSKMU-A-H(-BS)
Component unit name	Outdoor unit 1		PURY-HP72TKMU-A-H(-BS)	PURY-HP96TKMU-A-H(-BS)
	Outdoor unit 2		PURY-HP72TKMU-A-H(-BS)	PURY-HP96TKMU-A-H(-BS)
Outdoor Twinning Kit(optional parts)			CMY-R100CBK2	
BC controller~Twinning pipe	High pressure	a	ø22.2(7/8)	
	Low pressure	b	ø28.58(1-1/8)	

	Unit model		HP144		HP192			
	Component unit model		HP72	HP72	HP96	HP96		
Twinning Kit ~Outdoor unit	High pressure	c	ø15.88(5/8)	ø15.88(5/8)	ø19.05(3/4)	ø19.05(3/4)	e	ø19.05(3/4)
	Low pressure	d	— (Note 5)	ø19.05(3/4)	— (Note 5)	ø22.2(7/8)	f	ø22.2(7/8)

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

H2i R2

PURY-HP72, 96YKMU-A-H(-BS)

Unit : mm(in)

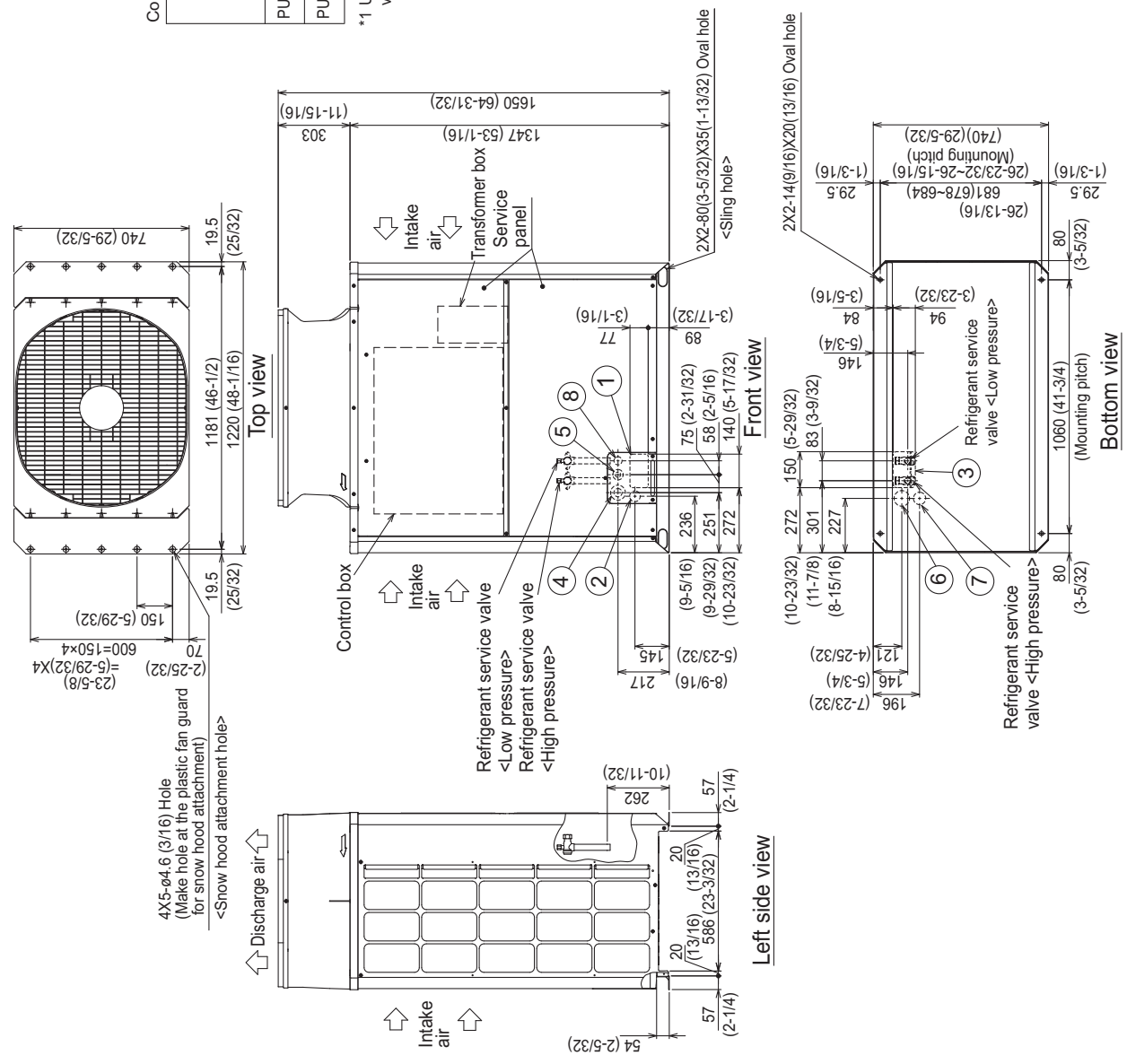
Note1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C(248°F).

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-HP72YKMU-A-H(-BS)	ø15.88 Brazed (5/8) *1	ø19.05 Brazed (3/4) *1	ø25.4 (1)	ø25.4 (1)
PURY-HP96YKMU-A-H(-BS)	ø19.05 Brazed (3/4) *1	ø22.2 Brazed (7/8) *1	ø25.4 (1)	ø25.4 (1)

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

NO.	Usage		Specifications
①	For pipes	Front through hole	140 × 77 Knockout hole (5-17/32) (3-1/16)
②		Front through hole (Uses when twinning kit (optional parts) is mounted.)	ø45 Knockout hole (1-25/32)
③		Bottom through hole	150 × 94 Knockout hole (5-29/32) (3-23/32)
④	For wires	Front through hole	ø62.7 or ø34.5 Knockout hole (2-15/32) (1-3/8)
⑤		Front through hole	ø43.7 or ø22.2 Knockout hole (1-3/4) (7/8)
⑥		Bottom through hole	ø65 Knockout hole (2-9/16)
⑦		Bottom through hole	ø52 Knockout hole (2-1/16)
⑧	For transmission cables	Front through hole	ø34 Knockout hole (1-11/32)

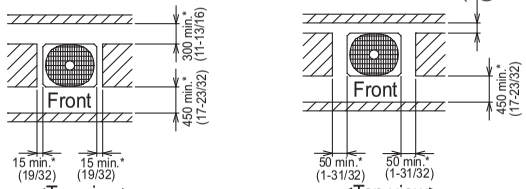


1. Required space around the unit

●In case of single installation

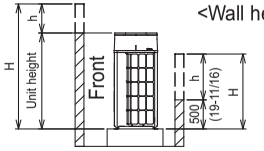
① Secure enough space around the unit as shown in the figure below.

- With a space of at least 300mm(11-13/16) to the wall on the back of the unit
- With a space of at least 100mm(3-15/16) to the wall on the back of the unit



<Unit:mm(in)>

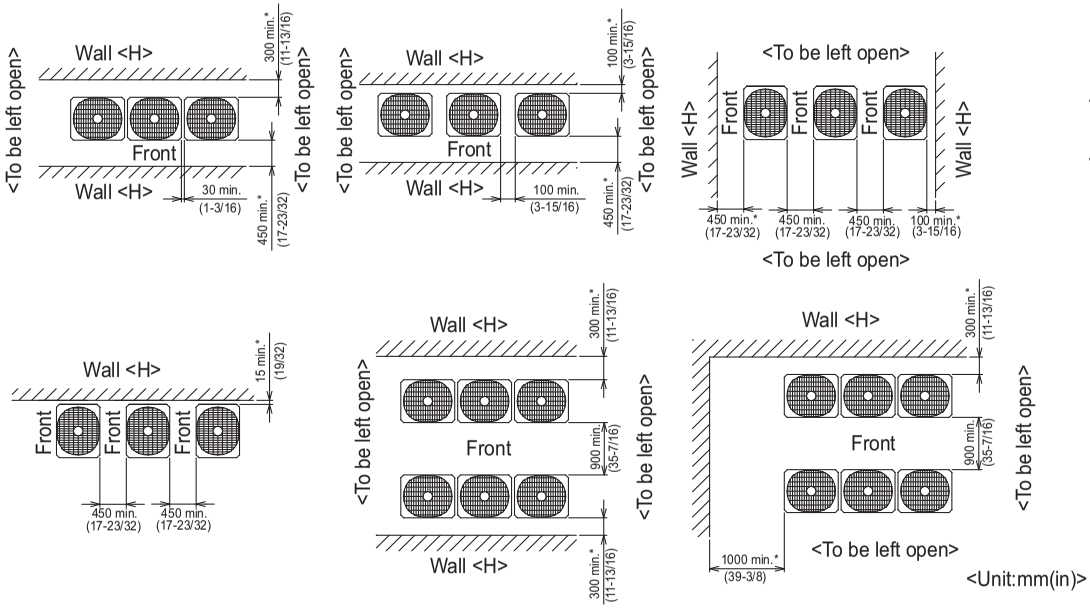
② When the height of the walls on the front,back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.



<Wall height limit> Front: Up to the unit height
Back : Up to 500mm(19-11/16) from the unit bottom
Side : Up to the unit height

●In case of collective installation

① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
② At least two sides must be left open.
③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.



<Unit:mm(in)>

2. Foundation work

① Take into consideration the surface strength,water drainage route, piping route,and wiring route when preparing the installation site. <Note that the drain water comes out of the unit during operation.>
② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A) When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
③ The protrusion length of the anchor bolt must not exceed 30mm(1-3/16).(Fig.A)
④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.B)
⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
⑦ Refer to the Installation Manual when installing units on an installation base.

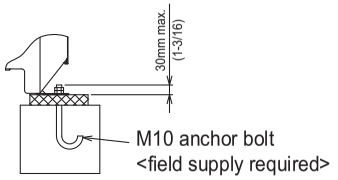


Fig.A

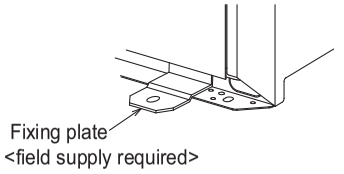
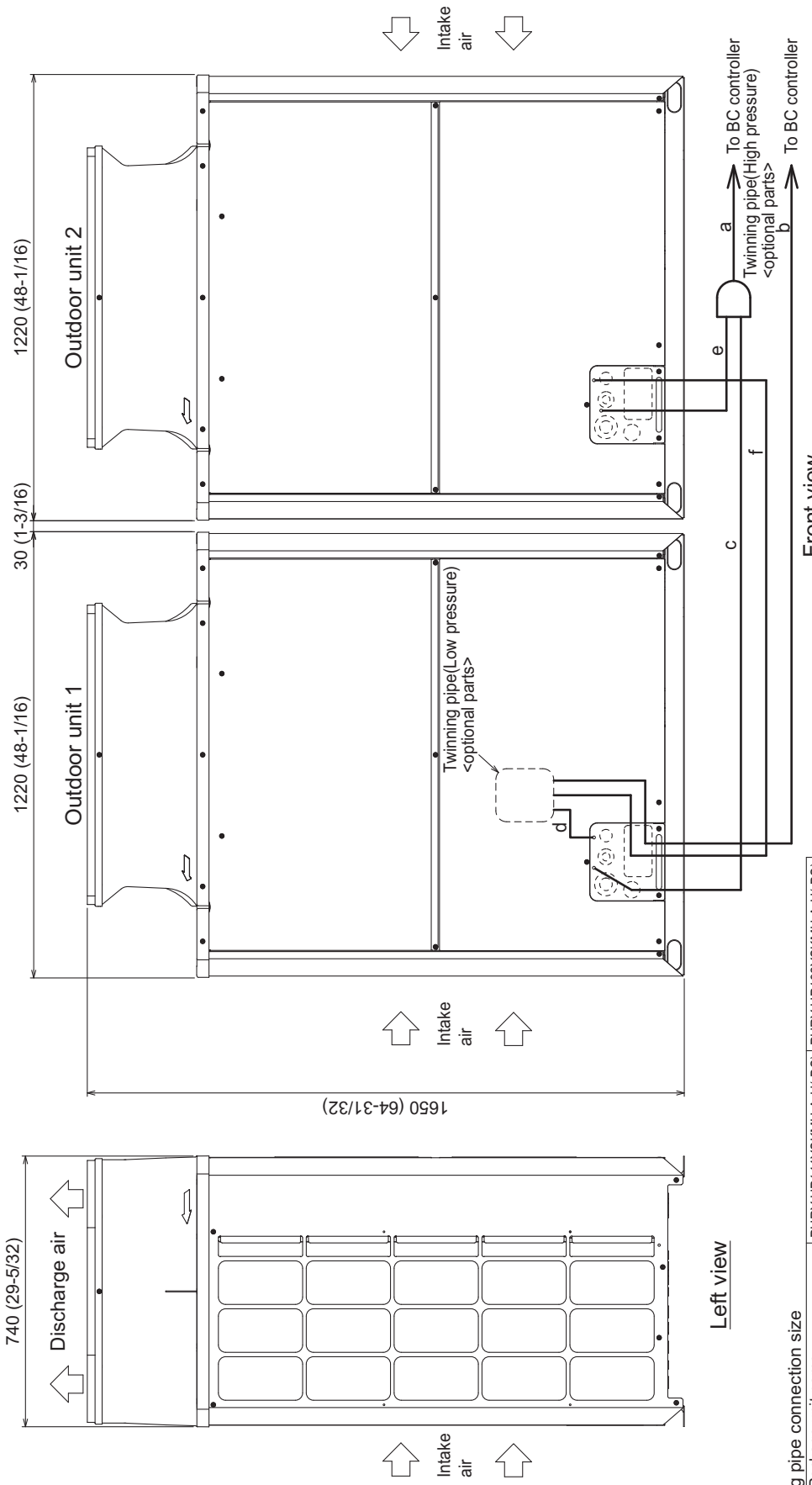


Fig.B

Unit : mm(in)

PURY-HP144, 192YSKMU-A-H(-BS)

Unit : mm(in)



		Unit model	HP144			HP192		
		Component unit model	HP72	HP72		HP96	HP96	
Twinning Kit ~Outdoor unit		High pressure	c	ø15.88(5/8)	e	ø15.88(5/8)	c	ø19.05(3/4)	e	ø19.05(3/4)
		Low pressure	d	– (Note 5)	f	ø19.05(3/4)	d	– (Note 5)	f	ø22.2(7/8)

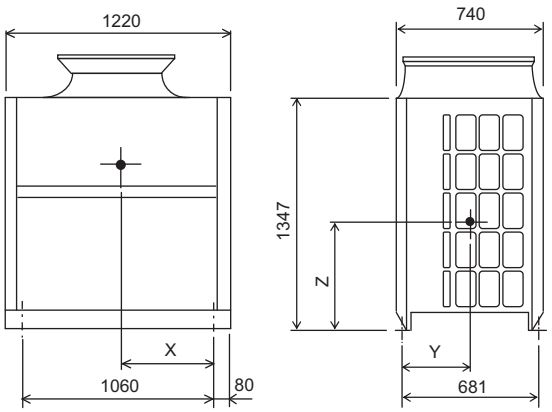
Twinning pipe connection size

Package unit name			PURY-HP144YSKMU-A-H(-BS)	PURY-HP192YSKMU-A-H(-BS)
Component unit name	Outdoor unit 1		PURY-HP72YKMU-A-H(-BS)	PURY-HP96YKMU-A-H(-BS)
	Outdoor unit 2		PURY-HP72YKMU-A-H(-BS)	PURY-HP96YKMU-A-H(-BS)
Outdoor Twinning Kit(optional parts)			CMY-R100CBK2	
BC controller~Twinning pipe	High pressure	a	ø22.2(7/8)	
	Low pressure	b	ø28.58(1-1/8)	

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

H2i R2

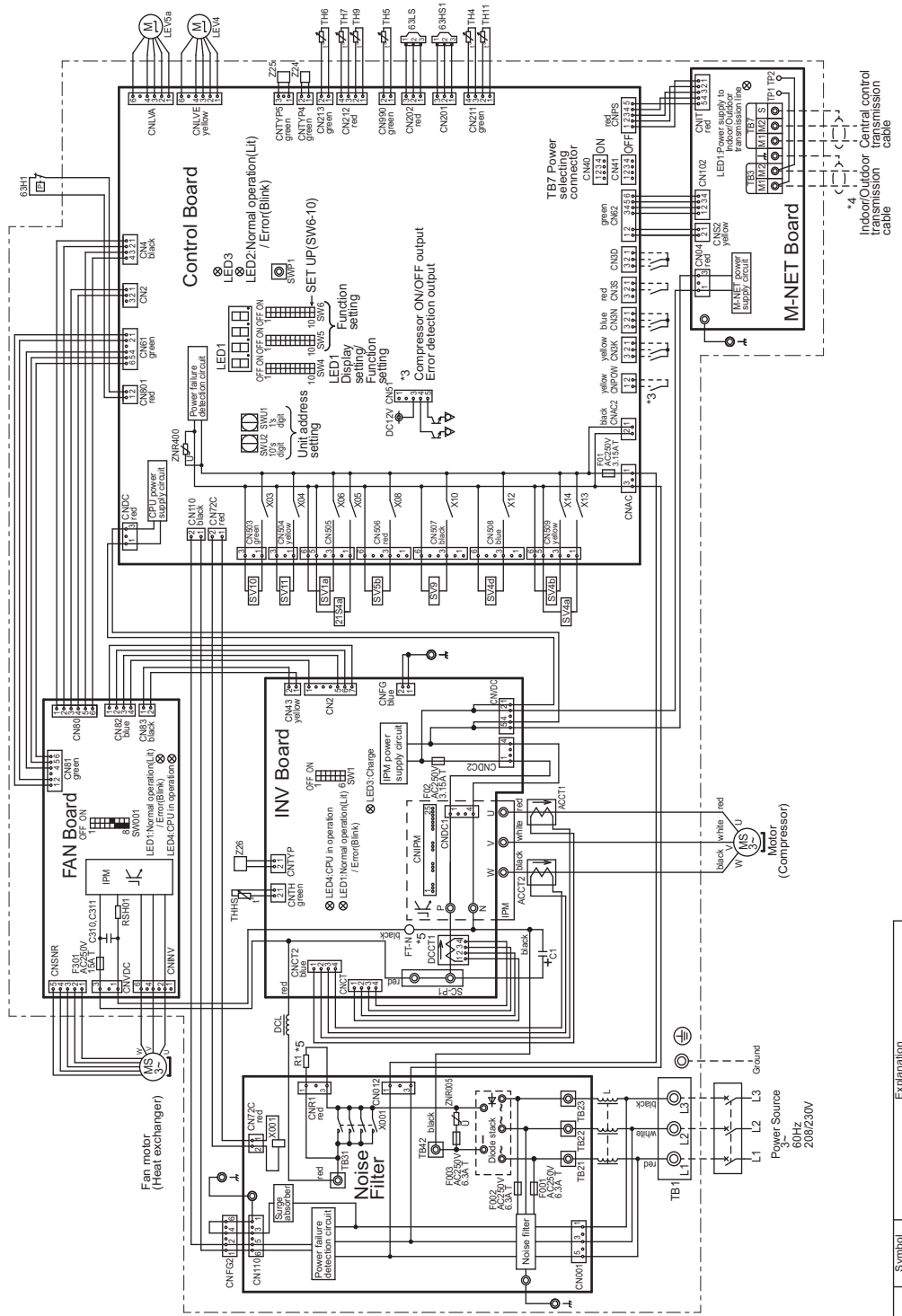
PURY-HP72, 96TKMU-A-H (-BS)
PURY-HP72, 96YKMU-A-H (-BS)



Unit : mm[in.]

Model	X	Y	Z
PURY-HP72TKMU-A-H	460[18-1/8]	320[12-5/8]	609[23]
PURY-HP96TKMU-A-H	447[17-5/8]	311[12-1/4]	595[23-7/16]
PURY-HP72YKMU-A-H	447[17-5/8]	310[12-7/32]	623[24-17/32]
PURY-HP96YKMU-A-H	435[17-5/32]	302[11-29/32]	610[24-1/32]

PURY-HP72, 96TKMU-A-H(-BS)



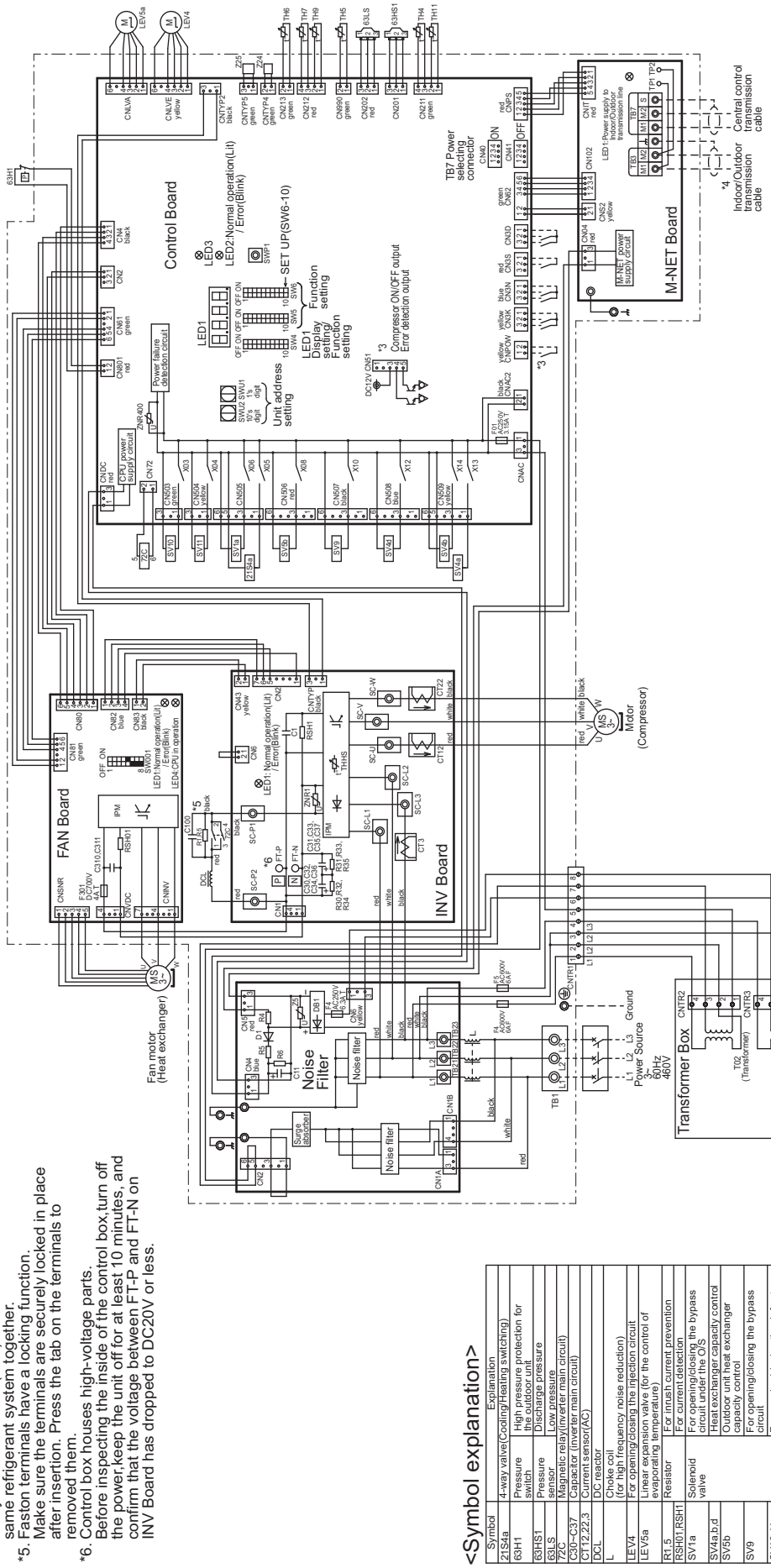
*1. Single-dotted lines indicate wiring not supplied with the unit.
*2. Dot-dash lines indicate the control box boundaries.
*3. Refer to the Data book for connecting input/output signal connectors.
*4. Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5. Faston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

<Symbol explanation>

Symbol	Explanation	Symbol	Explanation
21S4a	4-way valve (Cooling/Heating switching)	SV4a,b,d	Solenoid valve	Heat exchanger capacity control
63H1	Pressure switch	High pressure protection for the outdoor unit	SV5b	Outdoor unit heat exchanger capacity control
63HS1	Pressure sensor	Discharge pressure	SV9	For opening/closing the bypass circuit
63LS	Pressure sensor	Low pressure		
X00,3	Magnetic relay (Inverter main circuit)/72C		SV10,11	For opening/closing the defrost circuit
ACCT1,2	Current sensor(AC)		TB1	Terminal block	Power supply
C1	Capacitor (inverter main circuit)		TB3		Indoor/Outdoor transmission cable
DCCT1	Current sensor(DC)		TB7		Central control transmission cable
DCL	DC reactor		TH4	Thermistor	Discharge pipe temperature
LEV4	Choke coil (for high frequency noise reduction)		TH5		ACC inlet pipe temperature
LEV5a	For opening/closing the injection circuit		TH6		Subcooled liquid refrigerant temperature
R1	Linear expansion valve (for the control of evaporating temperature)		TH7		OA temperature
RSH01	Resistor	For inrush current prevention	TH9,11		Heat exchanger outlet pipe temperature
SV1a	Solenoid valve	For current detection	THHS		IPM temperature
		For opening/closing the bypass circuit under the O/S	Z24,25,26	Function setting connector

H2i R2

PURY-HP72, 96YKMU-A-H(-BS)

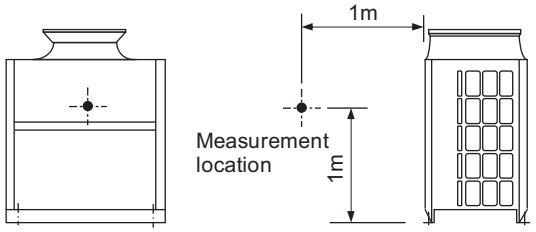


*1. Single-dotted lines indicate wiring not supplied with the unit.
*2. Dot-dash lines indicate the control box boundaries.
*3. Refer to the Data book for connecting input/output signal connectors.
*4. Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5. Faston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

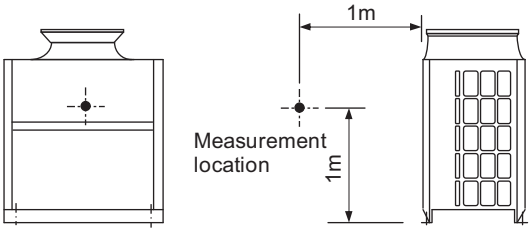
<Symbol explanation>

Symbol		Explanation
21S4a		4-way valve(Cooling/Heating switching)
63H1	Pressure switch	High pressure protection for the outdoor unit
63HS1	Pressure sensor	Discharge pressure
63LS		Low pressure
52C		Magnetic relay(Inverter main circuit)
C30~C37		Capacitor (Inverter main circuit)
CT12,22,3		Current sensor(AC)
DCL		DC reactor
L		Choke coil (for high frequency noise reduction)
LEV4		For opening/closing the injection circuit
LEV5a		Linear expansion valve (for the control of evaporating temperature)
R1,5	Resistor	For inrush current prevention
RSH01,RSH1		For current detection
SV1a	Solenoid valve	For opening/closing the bypass circuit under the OS
SV4a,b,d		Heat exchanger capacity control
SV5b		Outdoor unit heat exchanger capacity control
SV9		For opening/closing the bypass circuit
SV10,11		For opening/closing the defrost circuit
TB1	Terminal block	Power supply
TB3		Indoor/Outdoor transmission cable
TB7		Central control transmission cable
TH4	Thermistor	Discharge pipe temperature
TH5		ACC inlet pipe temperature
TH6		Subcooled liquid refrigerant temperature
TH7		OA temperature
TH9,11		Heat exchanger outlet pipe temperature
THHS		IPM temperature
Z24,25		Function setting connector

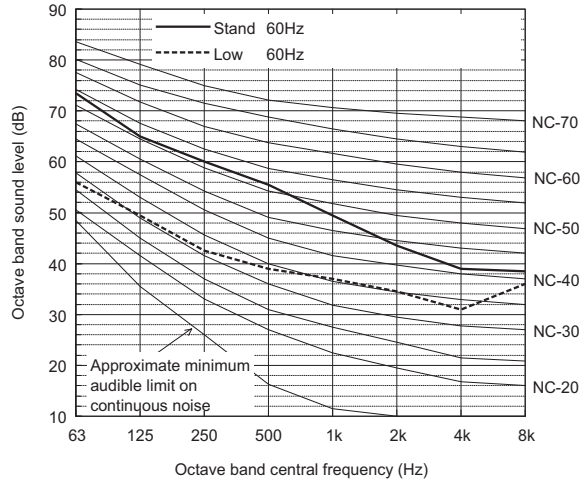
Measurement condition
PURY-HP72TKMU-A-H/YKMU-A-H



Measurement condition
PURY-HP96TKMU-A-H/YKMU-A-H



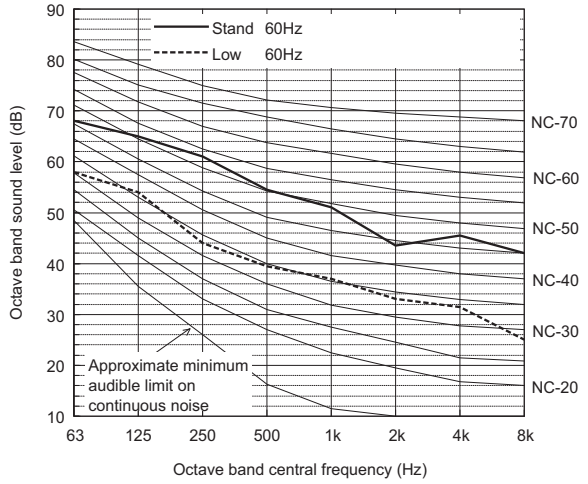
Sound level of PURY-HP72TKMU-A-H(-BS)/YKMU-A-H(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	73.5	65.0	60.0	55.5	49.5	43.5	39.0	38.5	58.0
Low noise mode	60Hz	56.0	49.5	42.5	39.0	37.0	34.5	31.0	36.0	44.0

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

Sound level of PURY-HP96TKMU-A-H(-BS)/YKMU-A-H(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	68.0	65.0	61.0	54.5	51.0	43.5	45.5	42.0	58.0
Low noise mode	60Hz	58.0	54.0	44.0	39.5	37.0	33.0	31.5	25.0	44.0

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

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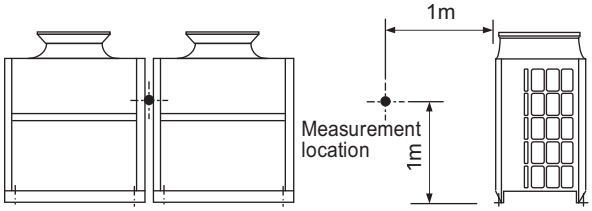
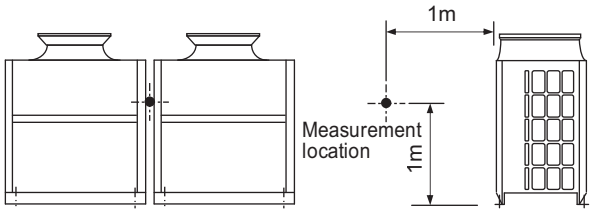
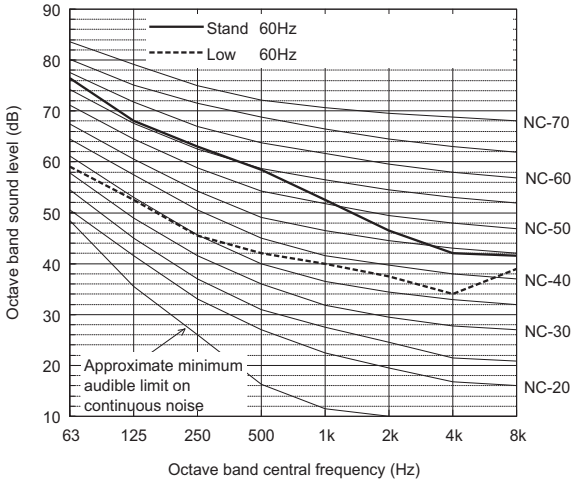
Measurement condition
PURY-HP144TSKMU-A-H/YSKMU-A-H



Measurement condition
PURY-HP192TSKMU-A-H/YSKMU-A-H



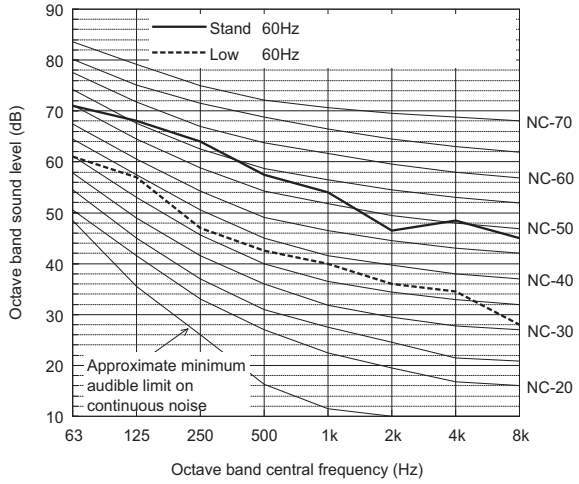
Sound level of PURY-HP144TSKMU-A-H(-BS)/YSKMU-A-H(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	76.5	68.0	63.0	58.5	52.5	46.5	42.0	41.5	61.0
Low noise mode	60Hz	59.0	52.5	45.5	42.0	40.0	37.5	34.0	39.0	47.0

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

Sound level of PURY-HP192TSKMU-A-H(-BS)/YSKMU-A-H(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	60Hz	71.0	68.0	64.0	57.5	54.0	46.5	48.5	45.0	61.0
Low noise mode	60Hz	61.0	57.0	47.0	42.5	40.0	36.0	34.5	28.0	47.0

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

H2i R2

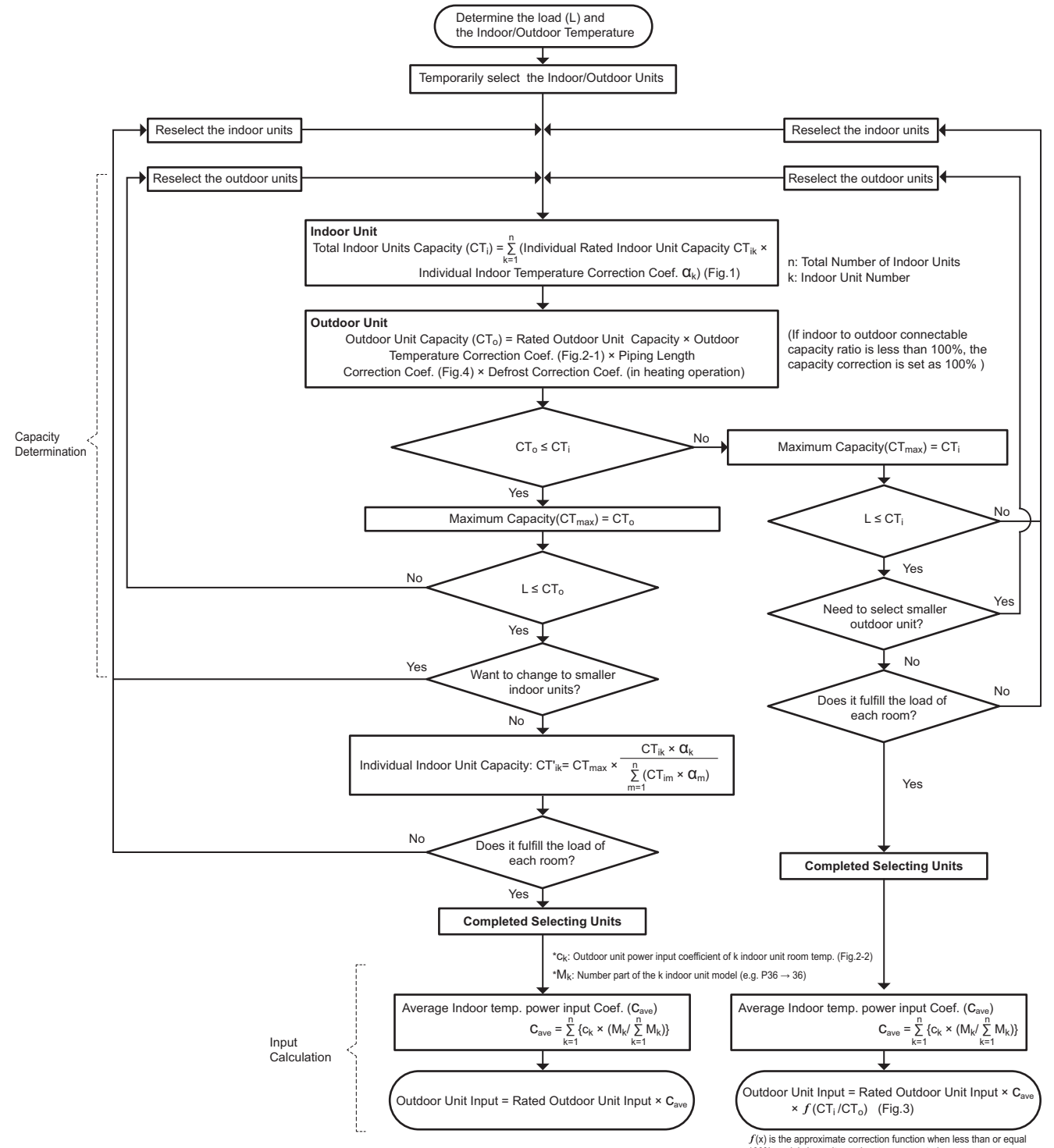
Section 6-1.
Shows an example of how to select the indoor and outdoor units according to the required heating/cooling load.

Section 6-2. through 6-6.
Show the actual correction data of indoor and outdoor units.

6-1. Selection of Cooling/Heating Units

How to determine the capacity when less than or equal 100% indoor model size units are connected in total:

The purpose of this flow chart is to select the indoor and outdoor units. For other purposes, this flow chart is intended only for reference.



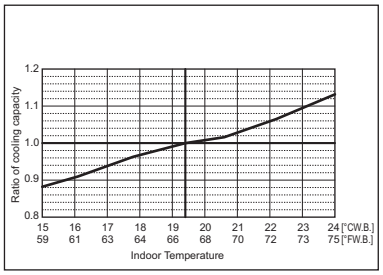


Fig.1 Indoor unit temperature correction

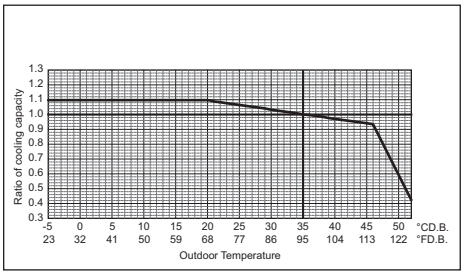


Fig.2-1 Outdoor unit temperature correction (capacity)

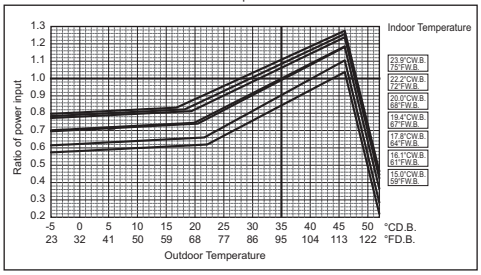


Fig.2-2 Outdoor unit temperature correction (power input)

H2i R2

How to determine the capacity when greater than 100% indoor model size units are connected in total:

The purpose of this flow chart is to select the indoor and outdoor units. For other purposes, this flow chart is intended only for reference.

Determine the load (L) and the Indoor/Outdoor Temperature

Temporarily select the indoor/outdoor units

Reselect the indoor units

Reselect the outdoor units

Indoor Unit
Total Indoor Units Capacity (CT_i) = $\sum_{k=1}^{n}$ (Individual Rated Indoor Unit Capacity CT_{ik} × Individual Indoor Temperature Correction Coef. α_k) (Fig.1)

n: Total Number of Indoor Units
k: Indoor Unit Number

Outdoor Unit
Outdoor Unit Capacity (CT_o) = Rated Outdoor Unit Capacity × G (Model Size Ratio) × Outdoor Temperature Correction Coef. (Fig.2-1) × Piping Length Correction Coef. (Fig.4) × Defrost Correction Coef. (in heating)

G (x) is the approximate correction function when greater than 100% model size units are connected (Fig.3)

$CT_o \leq CT_i$? — No → Maximum Capacity(CT_{max}) = CT_i → $L \leq CT_i$? — No → Reselect the indoor units

Yes → Need to select smaller outdoor unit? — Yes → Reselect the outdoor units

No → Does it fulfill the load of each room? — No → Reselect the indoor units

Yes → **Completed Selecting Units**

Yes → Maximum Capacity(CT_{max}) = CT_o → $L \leq CT_o$? — No → Reselect the outdoor units

Yes → Want to change to smaller indoor units? — Yes → Reselect the indoor units

No → Individual Indoor Unit Capacity: $CT'_{ik} = CT_{max} \times \frac{CT_{ik} \times \alpha_k}{\sum_{m=1}^{n} (CT_{im} \times \alpha_m)}$

Does it fulfill the load of each room? — No → Reselect the indoor units

Yes → **Completed Selecting Units**

Rated Outdoor Unit Capacity < Total Indoor Units Capacity ? — No → Outdoor Unit Input = Rated Outdoor Unit Input × Outdoor Temperature Correction Coef. (Fig.2-2) × f (CT_i / Rated Outdoor Capacity) (Fig.3)

f(x) is the approximate correction function when less than or equal 100% model size units are input as connected.

Yes

*c_k: Outdoor unit power input coefficient of k indoor unit room temp. (Fig.2-2)
*M_k: Number part of the k indoor unit model (e.g. P36 → 36)

Average Indoor temp. power input Coef. (C_{ave})
$C_{ave} = \sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

Outdoor Unit Input = Rated Outdoor Unit Input × C_{ave} × F (Model Size Ratio) (Fig.3)

Average Indoor temp. power input Coef. (C_{ave})
$= \sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

Outdoor Unit Input = Rated Outdoor Unit Input × C_{ave} × F (CT_i /Rated Outdoor Capacity) (Fig.3)

F(x) is the approximate correction function when greater than 100% model size units are input as connected.

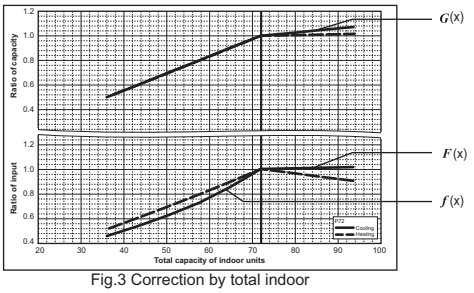


Fig.3 Correction by total indoor

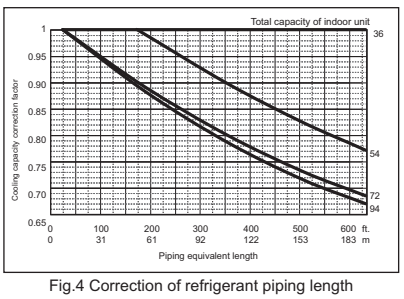


Fig.4 Correction of refrigerant piping length

H2i R2

<Cooling>

Design Condition	
Outdoor Design Dry Bulb Temperature	**37 ºC**
Total Cooling Load	**18.5 kW**
Room1	
Indoor Design Dry Bulb Temperature	**27 ºC**
Indoor Design Wet Bulb Temperature	**20 ºC**
Cooling Load	**9.0 kW**
Room2	
Indoor Design Dry Bulb Temperature	**24 ºC**
Indoor Design Wet Bulb Temperature	**17.8 ºC**
Cooling Load	**9.5 kW**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**30 m**

1. Cooling Calculation

(1) Temporary Selection of Indoor Units

Room1

PEFY-P36 **10.6 kW (Rated)**

Room2

PEFY-P36 **10.6 kW (Rated)**

(2) Total Indoor Units Capacity

P36 + P36 = P72

(3) Selection of Outdoor Unit

The P72 outdoor unit is selected as total indoor units capacity is P72

PUHY-P72 **21.1 kW**

(4) Total Indoor Units Capacity Correction Calculation

Room1

Indoor Design Wet Bulb Temperature Correction (20ºC) 1.02 (Refer to Fig.1)

Room2

Indoor Design Wet Bulb Temperature Correction (18ºC) 0.96 (Refer to Fig.1)

Total Indoor Units Capacity (CTi)

CTi = Σ (Indoor Unit Rating × Indoor Design Temperature Correction)

= 10.6 × 1.02 + 10.6 × 0.96

= 20.9 kW

(5) Outdoor Unit Correction Calculation

Outdoor Design Dry Bulb Temperature Correction (37ºC) 0.99 (Refer to Fig.2)

Piping Length Correction (30 m) 0.95 (Refer to Fig.3)

Total Outdoor Unit Capacity (CTo)

CTo = Outdoor Rating × Outdoor Design Temperature Correction × Piping Length Correction

= 21.1 × 0.99 × 0.95

= 19.8 kW

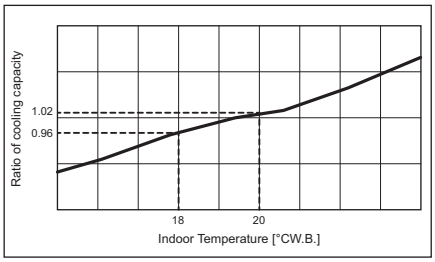


Fig.1 **Indoor unit temperature correction**
To be used to correct indoor unit only

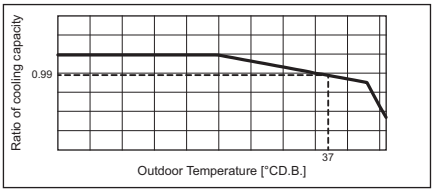


Fig.2 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

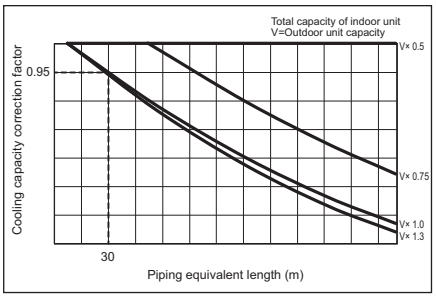


Fig.3 **Correction of refrigerant piping length**

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

CTi = 20.9 > CTo = 19.8, thus, select CTo.

CTx = CTo = 19.8 kW

(7) Comparison with Essential Load

Against the essential load 18.5kW, the maximum system capacity is 19.8kW: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTo, thus, calculate by the calculation below

Room1

Maximum Capacity × Room1 Capacity after the Temperature Correction/(Room1,2 Total Capacity after the Temperature Correction

= 19.8 × (10.6 × 1.02)/(10.6 × 1.02 + 10.6 × 0.96)

= 10.2 kW **OK: fulfills the load 9.0kW**

Room2

Maximum Capacity × Room2 Capacity after the Temperature Correction/(Room1,2Total Capacity after the Temperature Correction)

= 19.8 × (10.6 × 0.96)/(10.6 × 1.02 + 10.6 × 0.96)

= 9.6 kW **OK: fulfills the load 9.5kW**

Go on to the heating trial calculation since the selected units fulfill the cooling loads of Room 1, 2.

H2i R2

<Heating>

Design Condition	
Outdoor Design Wet Bulb Temperature	**2 ºC**
Total Heating Load	**18.2 kW**
Room1	
Indoor Design Dry Bulb Temperature	**25 ºC**
Heating Load	**9.2 kW**
Room2	
Indoor Design Dry Bulb Temperature	**25 ºC**
Heating Load	**9.0 kW**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**30 m**

2. Heating Calculation

(1) Temporary Selection of Indoor Units

Room1
PEFY-P36 **11.7 kW (Rated)**
Room2
PEFY-P36 **11.7 kW (Rated)**

(2) Total Indoor Units Capacity

P36 + P36 = P72

(3) Selection of Outdoor Unit

The P72 outdoor unit is selected as total indoor units capacity is P72
PUHY-P72 **23.4 kW**

(4) Total Indoor Units Capacity Correction Calculation

Room1
Indoor Design Dry Bulb Temperature Correction (25ºC) 0.80 (Refer to Fig.4)
Room2
Indoor Design Dry Bulb Temperature Correction (25ºC) 0.80 (Refer to Fig.4)

Total Indoor Units Capacity (CTi)
CTi = Σ (Indoor Unit Rating × Indoor Design Temperature Correction)
= 11.7 × 0.80 + 11.7 × 0.80
= 18.7 kW

(5) Outdoor Unit Correction Calculation

Outdoor Design Wet Bulb Temperature Correction (2ºC) 0.98 (Refer to Fig.5)
Piping Length Correction (30 m) 0.98 (Refer to Fig.6)
Defrost Correction 0.84 (Refer to Tbl.1)

Total Outdoor Unit Capacity (CTo)
CTo = Outdoor Unit Rating × Outdoor Design Temperature Correction × Piping Length Correction × Defrost Correction
= 23.4 × 0.98 × 0.98 × 0.84
= 18.8 kW

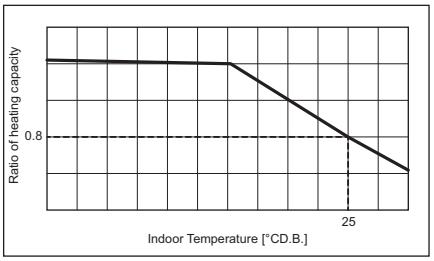


Fig.4 **Indoor unit temperature correction**
To be used to correct indoor unit only

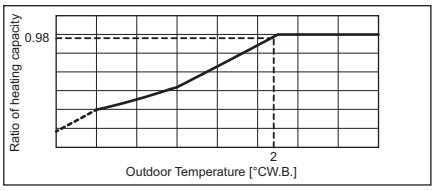


Fig.5 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

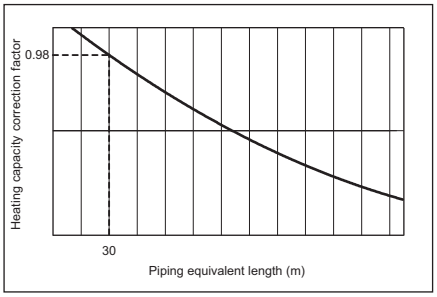


Fig.6 **Correction of refrigerant piping length**

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

CTi = 18.7 < CTo = 18.8, thus, select CTi.

CTx = CTi = 18.7 kW

(7) Comparison with Essential Load

Against the essential load 18.2kW, the maximum system capacity is 18.7kW: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTi, thus, calculate by the calculation below

Room1
Indoor Unit Rating × Indoor Design Temperature Correction
= 11.7 × 0.80
= 9.4 kW **OK: fulfills the load 9.2kW**

Room2
Indoor Unit Rating × Indoor Design Temperature Correction
= 11.7 × 0.80
= 9.4 kW **OK: fulfills the load 9.0kW**

Tbl.1 Table of correction factor at frost and defrost

Outdoor inlet air temp. °C	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Outdoor inlet air temp. °F	43	39	36	34	32	28	25	21	18	14	-4
PUHY-P72	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P96	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P120	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P144	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P168	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95

Completed selecting units since the selected units fulfill the heating loads of Room 1, 2.

3. Power input of outdoor unit

<Cooling>

(1) Rated power input of outdoor unit **4.55 kW (Nominal)**

(2) Calculation of the average indoor temperature power input coefficient

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. 37 °CD.B., Indoor temp. 20 °CW.B.)

1.09

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 37 °CD.B., Indoor temp. 17.8 °CW.B.)

1.03

Average indoor temp. power input coefficient (C_{ave}) = $\sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

n: Total number of the indoor units
k: Number of the indoor unit
c_k: Outdoor unit power input coefficient of k indoor unit room temp.
M_k: Number part of the k indoor unit model (e.g. P36 → 36)

= 1.09 × 36/(36 + 36) + 1.03 × 36/(36 + 36)
= 1.06

(3) No need to consider Coefficient of the partial load *f*(CTi/CTo) **-**

(4) Outdoor power input (Plo)

Maximum System Capacity (CTx) = Total Outdoor unit Capacity (CTo), so use the following formula
Plo = Outdoor unit Cooling Rated Power Input × Correction Coefficient of Indoor temperature
=4.55 × 1.06
= 4.82 kW

<Heating>

(1) Rated power input of outdoor unit **5.48 kW (Nominal)**

(2) Calculation of the average indoor temperature power input coefficient

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. 2 °CW.B., Indoor temp. 25 °CD.B.)
0.80

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 2 °CW.B., Indoor temp. 25 °CD.B.)
0.80

Average indoor temp. power input coefficient (C_{ave}) = $\sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

n: Total number of the indoor units
k: Number of the indoor unit
c_k: Outdoor unit power input coefficient of k indoor unit room temp.
M_k: Number part of the k indoor unit model (e.g. P36 → 36)

= 0.8 × 36/(36 + 36) + 0.8 × 36/(36 + 36)
= 0.80

(3) Coefficient of the partial load f(CTi/CTo) **0.94**

(4) Outdoor power input (Plo)

Maximum System Capacity (CTx) = Total Indoor unit Capacity (CTi), so use the following formula
Plo = Outdoor unit Heating Rated Power Input × Correction Coefficient of Indoor temperature × f(CTi/CTo)
= 5.48 × 0.8 × 0.94
= 4.10 kW

<Cooling>

Design Condition	
Outdoor Design Dry Bulb Temperature	**99 ºF**
Total Cooling Load	**63,000 BTU/h**
Room1	
Indoor Design Dry Bulb Temperature	**81 ºF**
Indoor Design Wet Bulb Temperature	**68 ºF**
Cooling Load	**31,000 BTU/h**
Room2	
Indoor Design Dry Bulb Temperature	**75 ºF**
Indoor Design Wet Bulb Temperature	**64 ºF**
Cooling Load	**32,000 BTU/h**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**100 ft.**

1. Cooling Calculation

(1) Temporary Selection of Indoor Units

Room1

PEFY-P36 **36,000 BTU/h (Rated)**

Room2

PEFY-P36 **36,000 BTU/h (Rated)**

(2) Total Indoor Units Capacity

P36 + P36 = P72

(3) Selection of Outdoor Unit

The P72 outdoor unit is selected as total indoor units capacity is P72

PUHY-P72 **72,000 BTU/h**

(4) Total Indoor Units Capacity Correction Calculation

Room1

Indoor Design Wet Bulb Temperature Correction (68ºF) 1.02 (Refer to Fig.1)

Room2

Indoor Design Wet Bulb Temperature Correction (64ºF) 0.96 (Refer to Fig.1)

Total Indoor Units Capacity (CTi)

CTi = Σ (Indoor Unit Rating × Indoor Design Temperature Correction)

= 36,000 × 1.02 + 36,000 × 0.96

= 71,200 BTU/h

(5) Outdoor Unit Correction Calculation

Outdoor Design Dry Bulb Temperature Correction (99ºF) 0.99 (Refer to Fig.2)

Piping Length Correction (100 ft.) 0.95 (Refer to Fig.3)

Total Outdoor Unit Capacity (CTo)

CTo = Outdoor Rating × Outdoor Design Temperature Correction × Piping Length Correction

= 72,000 × 0.99 × 0.95

= 67,700 BTU/h

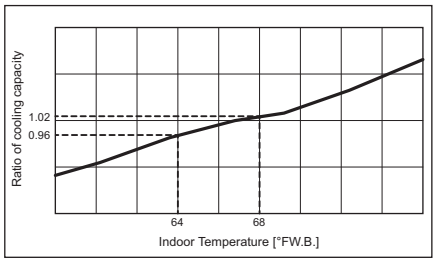


Fig.1 **Indoor unit temperature correction**
To be used to correct indoor unit only

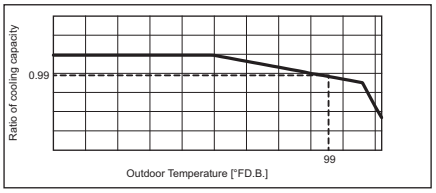


Fig.2 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

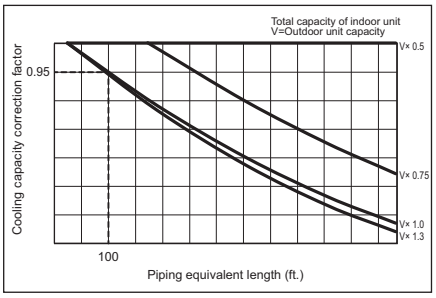


Fig.3 **Correction of refrigerant piping length**

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

CTi = 71,200 > CTo = 67,700, thus, select CTo.

CTx = CTo = 67,700 BTU/h

(7) Comparison with Essential Load

Against the essential load 63,000BTU/h, the maximum system capacity is 67,700BTU/h: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTo, thus, calculate by the calculation below

Room1

Maximum Capacity × Room1 Capacity after the Temperature Correction/(Room1,2 Total Capacity after the Temperature Correction

= 67,700 × (36,000 × 1.02)/(36,000 × 1.02 + 36,000 × 0.96)

= 34,800 BTU/h **OK: fulfills the load 31,000BTU/h**

Room2

Maximum Capacity × Room2 Capacity after the Temperature Correction/(Room1,2Total Capacity after the Temperature Correction)

= 67,700 × (36,000 × 0.96)/(36,000 × 1.02 + 36,000 × 0.96)

= 32,800 BTU/h **OK: fulfills the load 32,000BTU/h**

Go on to the heating trial calculation since the selected units fulfill the cooling loads of Room 1, 2.

H2i R2

<Heating>

Design Condition	
Outdoor Design Wet Bulb Temperature	**37 ºF**
Total Heating Load	**62,000 BTU/h**
Room1	
Indoor Design Dry Bulb Temperature	**77 ºF**
Heating Load	**31,000 BTU/h**
Room2	
Indoor Design Dry Bulb Temperature	**77 ºF**
Heating Load	**31,000 BTU/h**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**100 ft.**

2. Heating Calculation

(1) Temporary Selection of Indoor Units

Room1

PEFY-P36 **40,000 BTU/h (Rated)**

Room2

PEFY-P36 **40,000 BTU/h (Rated)**

(2) Total Indoor Units Capacity

P36 + P36 = P72

(3) Selection of Outdoor Unit

The P72 outdoor unit is selected as total indoor units capacity is P72

PUHY-P72 **80,000 BTU/h**

(4) Total Indoor Units Capacity Correction Calculation

Room1

Indoor Design Dry Bulb Temperature Correction (77ºF) 0.80 (Refer to Fig.4)

Room2

Indoor Design Dry Bulb Temperature Correction (77ºF) 0.80 (Refer to Fig.4)

Total Indoor Units Capacity (CTi)

CTi = Σ (Indoor Unit Rating × Indoor Design Temperature Correction)
= 40,000 × 0.80 + 40,000 × 0.80
= 64,000 BTU/h

(5) Outdoor Unit Correction Calculation

Outdoor Design Wet Bulb Temperature Correction (37ºF) 0.99 (Refer to Fig.5)
Piping Length Correction (100 ft.) 0.98 (Refer to Fig.6)
Defrost Correction 0.87 (Refer to Tbl.1)

Total Outdoor Unit Capacity (CTo)

CTo = Outdoor Unit Rating × Outdoor Design Temperature Correction × Piping Length Correction × Defrost Correction
= 80,000 × 0.99 × 0.98 × 0.87
= 67,000 BTU/h

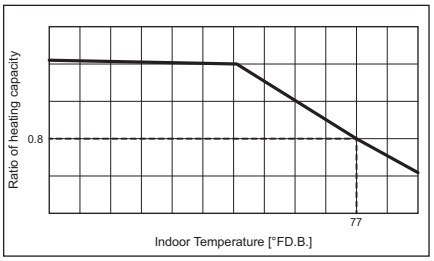


Fig.4 **Indoor unit temperature correction**
To be used to correct indoor unit only

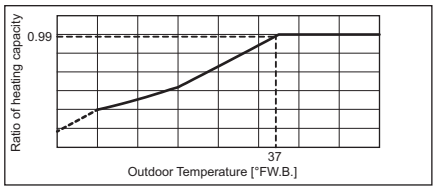


Fig.5 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

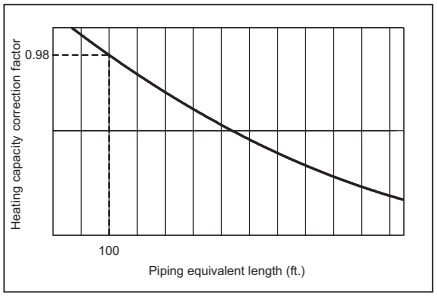


Fig.6 **Correction of refrigerant piping length**

(6) Determination of Maximum System Capacity (CTx)

Comparison of Capacity between Total Indoor Units Capacity (CTi) and Total Outdoor Unit Capacity (CTo)

CTi = 64,000 < CTo = 67,000, thus, select CTi.

CTx = CTi = 64,000 BTU/h

(7) Comparison with Essential Load

Against the essential load 62,000BTU/h, the maximum system capacity is 64,000BTU/h: Proper outdoor units have been selected.

(8) Calculation of Maximum Indoor Unit Capacity of Each Room

CTx = CTi, thus, calculate by the calculation below

Room1

Indoor Unit Rating × Indoor Design Temperature Correction
= 40,000 × 0.80
= 32,000 BTU/h **OK: fulfills the load 31,000BTU/h**

Room2

Indoor Unit Rating × Indoor Design Temperature Correction
= 40,000 × 0.80
= 32,000 BTU/h **OK: fulfills the load 31,000BTU/h**

Completed selecting units since the selected units fulfill the heating loads of Room 1, 2.

Tbl.1 Table of correction factor at frost and defrost

Outdoor inlet air temp. °C	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Outdoor inlet air temp. °F	43	39	36	34	32	28	25	21	18	14	-4
PUHY-P72	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P96	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P120	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P144	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P168	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95

3. Power input of outdoor unit

<Cooling>

(1) Rated power input of outdoor unit **4.55 kW (Nominal)**

(2) Calculation of the average indoor temperature power input coefficient

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. 99 °FD.B., Indoor temp. 68 °FW.B.)

1.09

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 99 °FD.B., Indoor temp. 64 °FW.B.)

1.03

Average indoor temp. power input coefficient (C_{ave}) = $\sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

n: Total number of the indoor units
k: Number of the indoor unit
c_k: Outdoor unit power input coefficient of k indoor unit room temp.
M_k: Number part of the k indoor unit model (e.g. P36 → 36)

= 1.09 × 36/(36 + 36) + 1.03 × 36/(36 + 36)
= 1.06

(3) No need to consider Coefficient of the partial load *f*(CTi/CTo) -

(4) Outdoor power input (PIo)

Maximum System Capacity (CTx) = Total Outdoor unit Capacity (CTo), so use the following formula
PIo = Outdoor unit Cooling Rated Power Input × Correction Coefficient of Indoor temperature
=4.55 × 1.06
= 4.82 kW

H2i R2

<Heating>

(1) Rated power input of outdoor unit **5.48 kW (Nominal)**

(2) Calculation of the average indoor temperature power input coefficient

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. 35.6 °FW.B., Indoor temp. 77 °FD.B.)

0.80

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 35.6 °FW.B., Indoor temp. 77 °FD.B.)

0.80

Average indoor temp. power input coefficient (C_{ave}) = $\sum_{k=1}^{n} \{c_k \times (M_k / \sum_{k=1}^{n} M_k)\}$

n: Total number of the indoor units
k: Number of the indoor unit
c_k: Outdoor unit power input coefficient of k indoor unit room temp.
M_k: Number part of the k indoor unit model (e.g. P36 → 36)

= 0.8 × 36/(36 + 36) + 0.8 × 36/(36 + 36)
= 0.80

(3) Coefficient of the partial load f(CTi/CTo) **0.92**

(4) Outdoor power input (Plo)

Maximum System Capacity (CTx) = Total Indoor unit Capacity (CTi), so use the following formula
Plo = Outdoor unit Heating Rated Power Input × Correction Coefficient of Indoor temperature × f(CTi/CTo)
= 5.48 × 0.8 × 0.92
= 4.04 kW

6-2. Correction by temperature

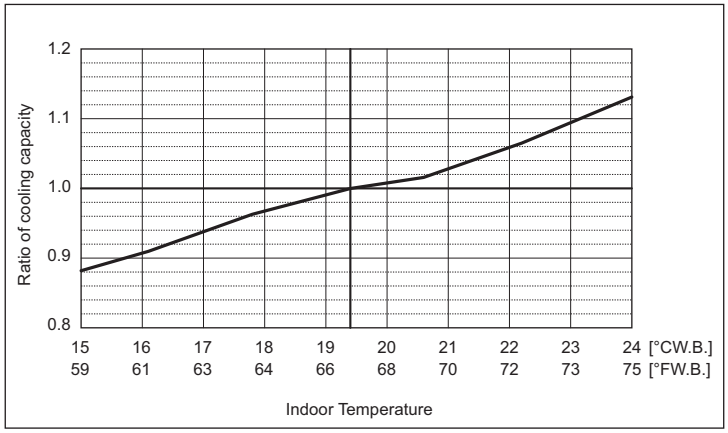
CITY MULTI could have varied capacity at different designing temperature. Using the nominal cooling/heating capacity value and the ratio below, the capacity can be observed at various temperature.

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	72,000		96,000	
		kW	21.1		28.1	
	Input	kW	5.08		7.66	
Rated cooling capacity		BTU/h	69,000		92,000	
		kW	20.2		27.0	
	Input	kW	4.95	4.45	6.84	7.34

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	144,000		192,000	
		kW	42.2		56.3	
	Input	kW	10.85		15.86	
Rated cooling capacity		BTU/h	137,000		183,000	
		kW	40.2		53.6	
	Input	kW	10.23	9.86	14.36	15.01

Indoor unit temperature correction

To be used to correct indoor unit capacity only

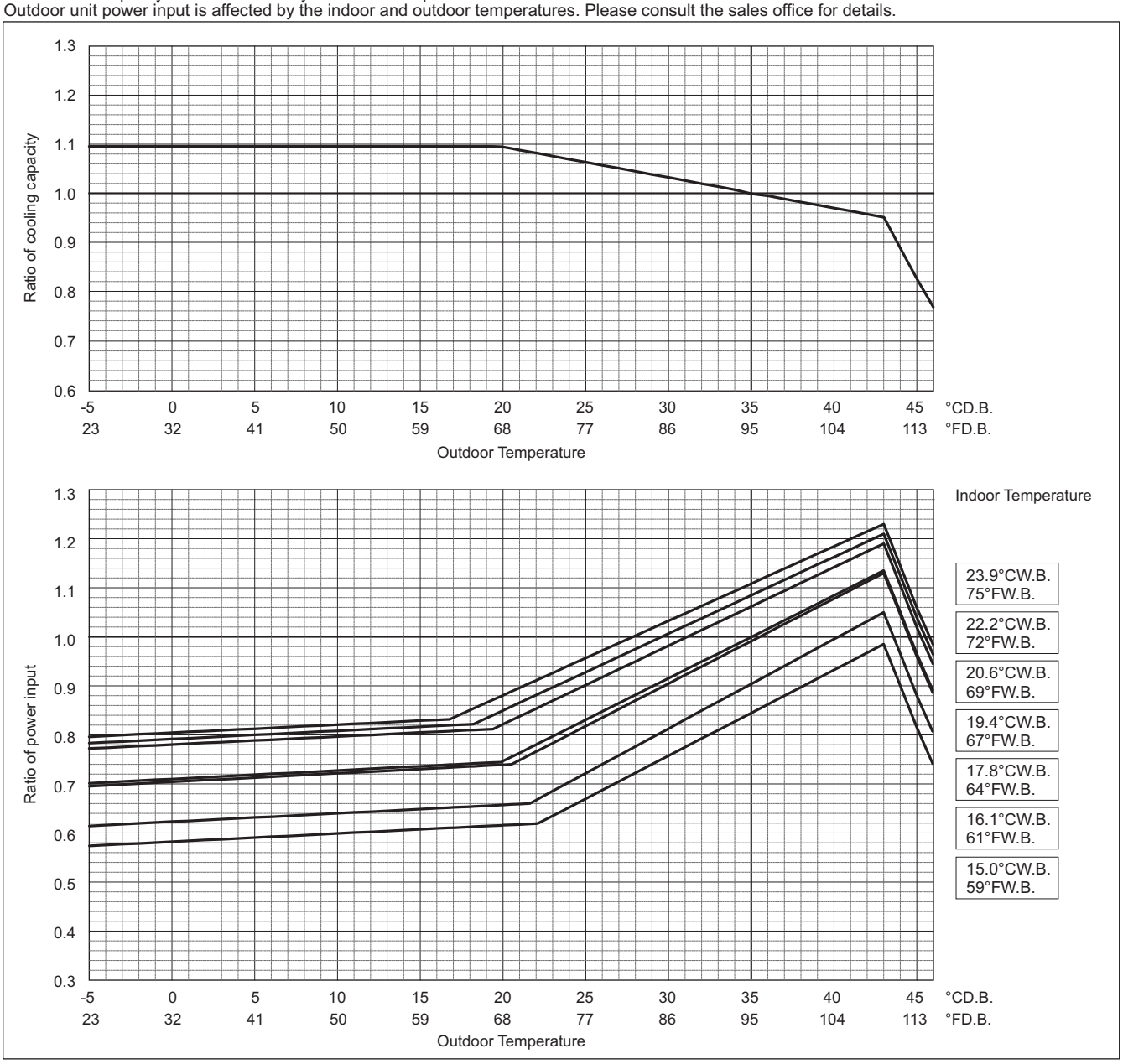


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



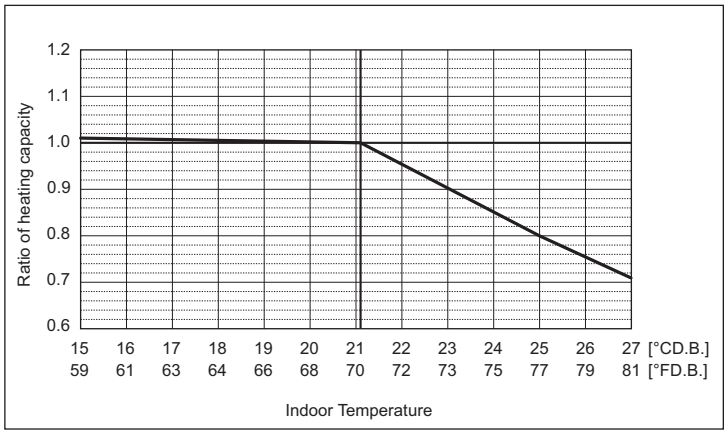
H2i R2

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	80,000		108,000	
		kW	23.4		31.7	
	Input	kW	6.26		8.88	
Rated Heating capacity		BTU/h	76,000		103,000	
		kW	22.3		30.2	
	Input	kW	5.98	5.60	8.33	8.10

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	160,000		215,000	
		kW	46.9		63.0	
	Input	kW	13.16		18.52	
Rated Heating capacity		BTU/h	152,000		205,000	
		kW	44.5		60.1	
	Input	kW	12.50	11.87	17.44	16.84

Indoor unit temperature correction

To be used to correct indoor unit capacity only

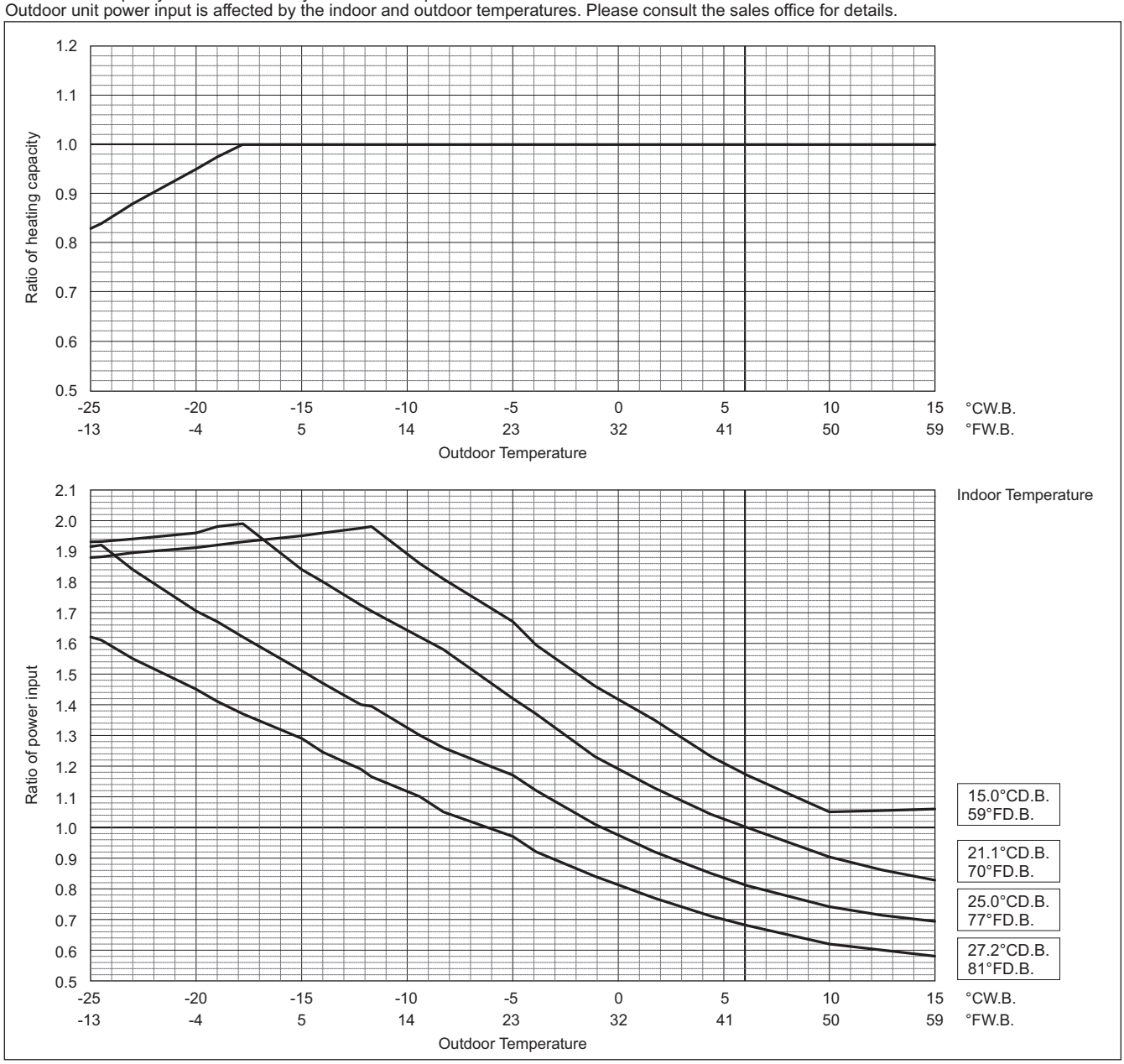


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



H2i R2

Correction by temperature (High heat Performance Mode)

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.

To select high heating performance mode, SW4 (935) must be set to ON and SW4 (929) must be set to OFF.

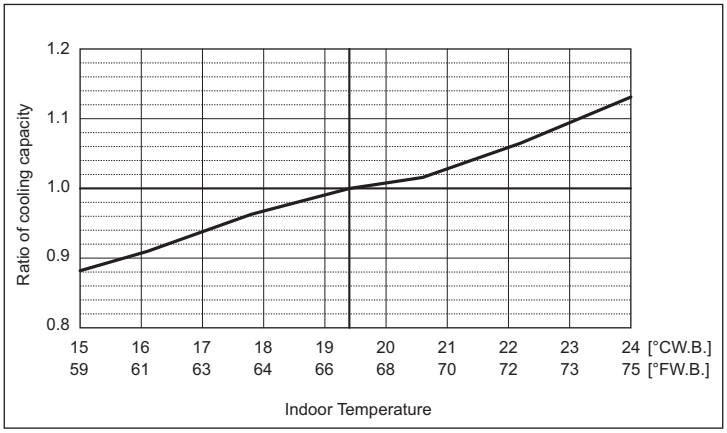
(In the low ambient temperature, heating capacity and power input become higher than those under standard mode.)

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	72,000		96,000	
		kW	21.1		28.1	
	Input	kW	5.08		7.66	
Rated cooling capacity		BTU/h	69,000		92,000	
		kW	20.2		27.0	
	Input	kW	4.95	4.45	6.84	7.34

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	144,000		192,000	
		kW	42.2		56.3	
	Input	kW	10.85		15.86	
Rated cooling capacity		BTU/h	137,000		183,000	
		kW	40.2		53.6	
	Input	kW	10.23	9.86	14.36	15.01

Indoor unit temperature correction

To be used to correct indoor unit capacity only

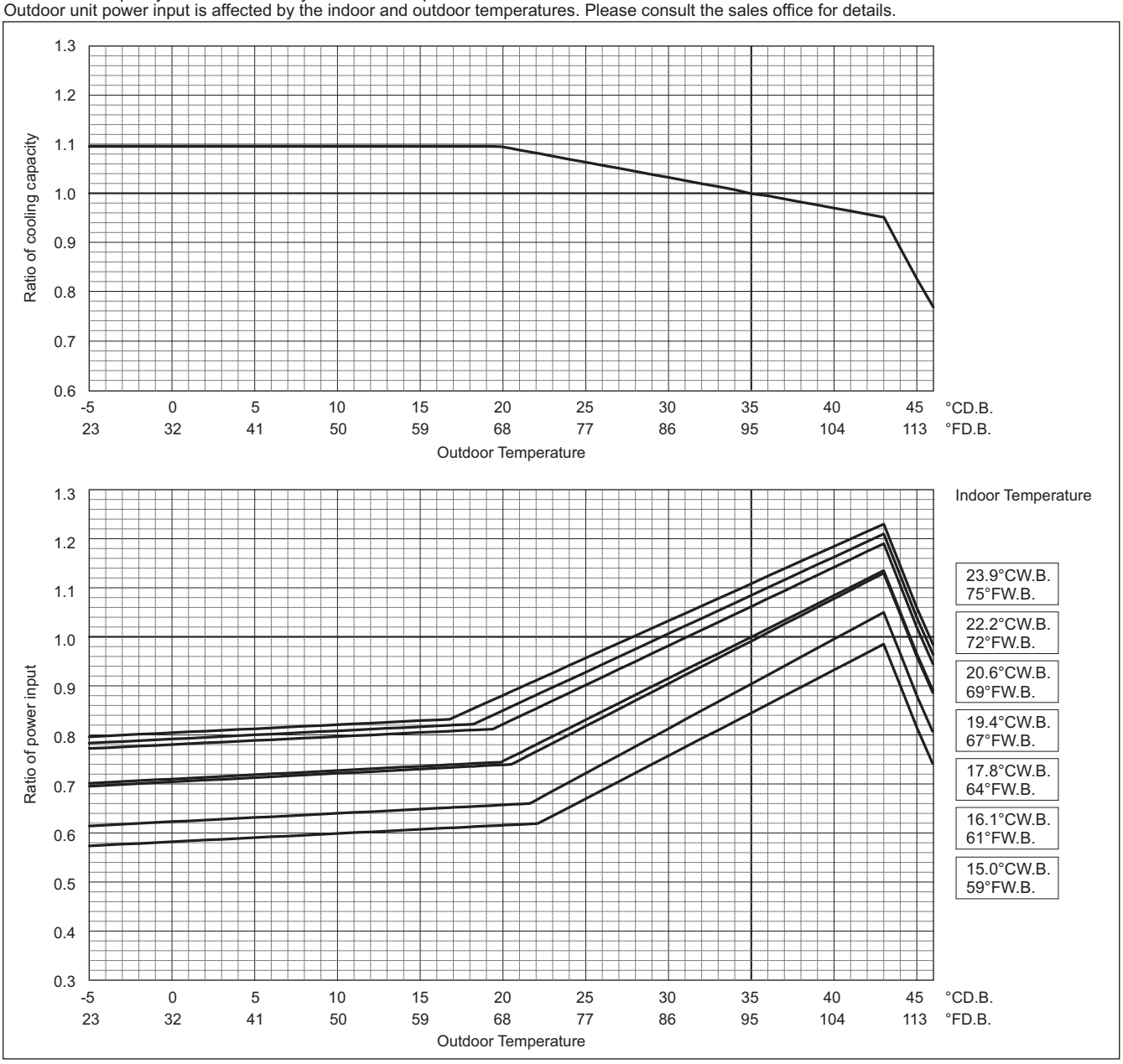


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



H2i R2

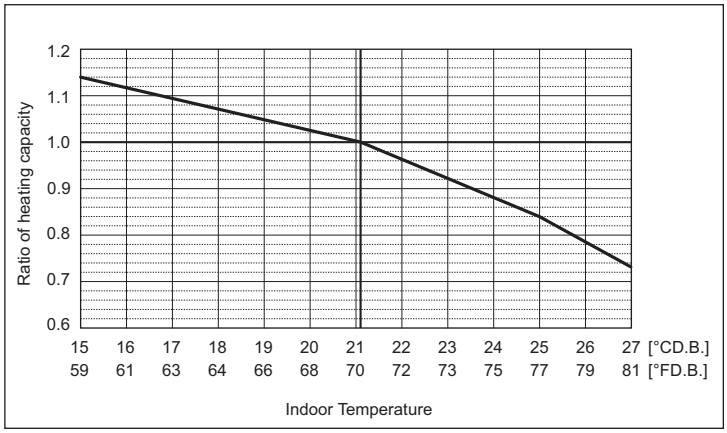
High heat Performance Mode

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	80,000		108,000	
		kW	23.4		31.7	
	Input	kW	6.26		8.88	
Rated Heating capacity		BTU/h	76,000		103,000	
		kW	22.3		30.2	
	Input	kW	5.98	5.60	8.33	8.10

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	160,000		215,000	
		kW	46.9		63.0	
	Input	kW	13.16		18.52	
Rated Heating capacity		BTU/h	152,000		205,000	
		kW	44.5		60.1	
	Input	kW	12.50	11.87	17.44	16.84

Indoor unit temperature correction

To be used to correct indoor unit capacity only

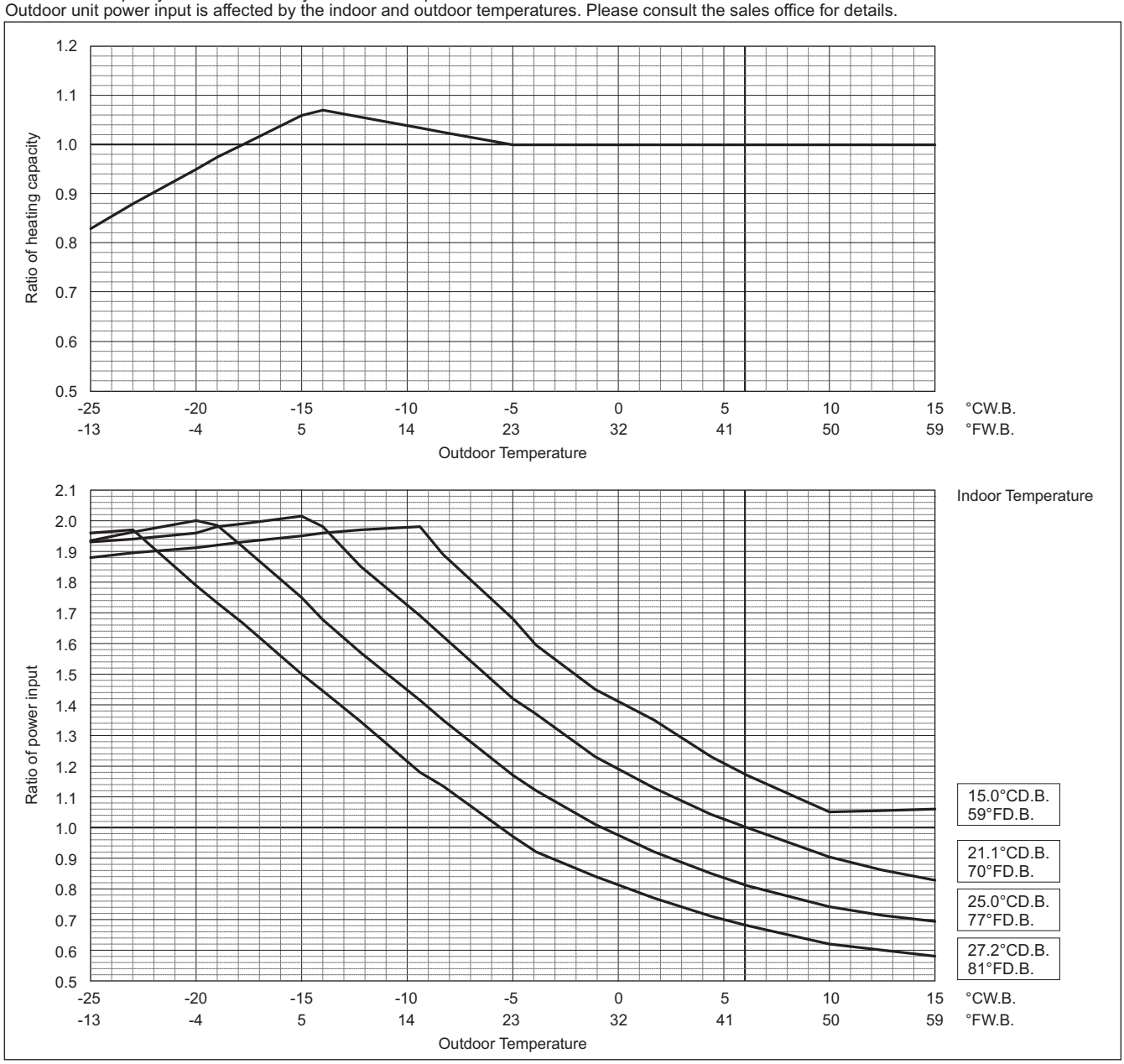


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



H2i R2

Correction by temperature (Intelligent heat Mode)

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.

To select Intelligent heat mode, SW4 (935) must be set to OFF and SW4 (929) must be set to OFF.

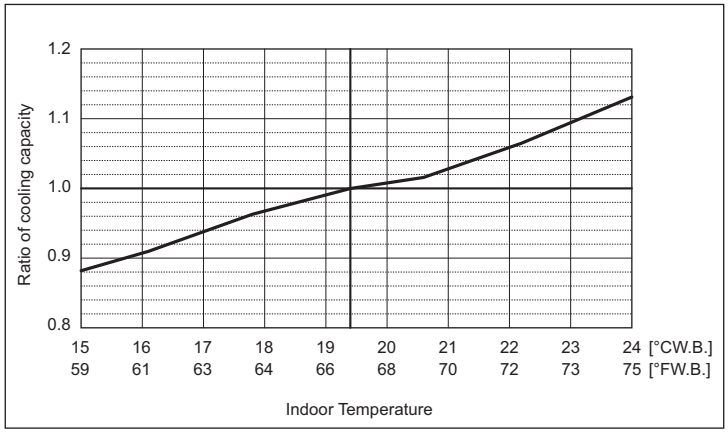
(In the low ambient temperature, heating capacity and power input become higher than those under standard mode.)

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	72,000		96,000	
		kW	21.1		28.1	
	Input	kW	5.08		7.66	
Rated cooling capacity		BTU/h	69,000		92,000	
		kW	20.2		27.0	
	Input	kW	4.95	4.45	6.84	7.34

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	144,000		192,000	
		kW	42.2		56.3	
	Input	kW	10.85		15.86	
Rated cooling capacity		BTU/h	137,000		183,000	
		kW	40.2		53.6	
	Input	kW	10.23	9.86	14.36	15.01

Indoor unit temperature correction

To be used to correct indoor unit capacity only

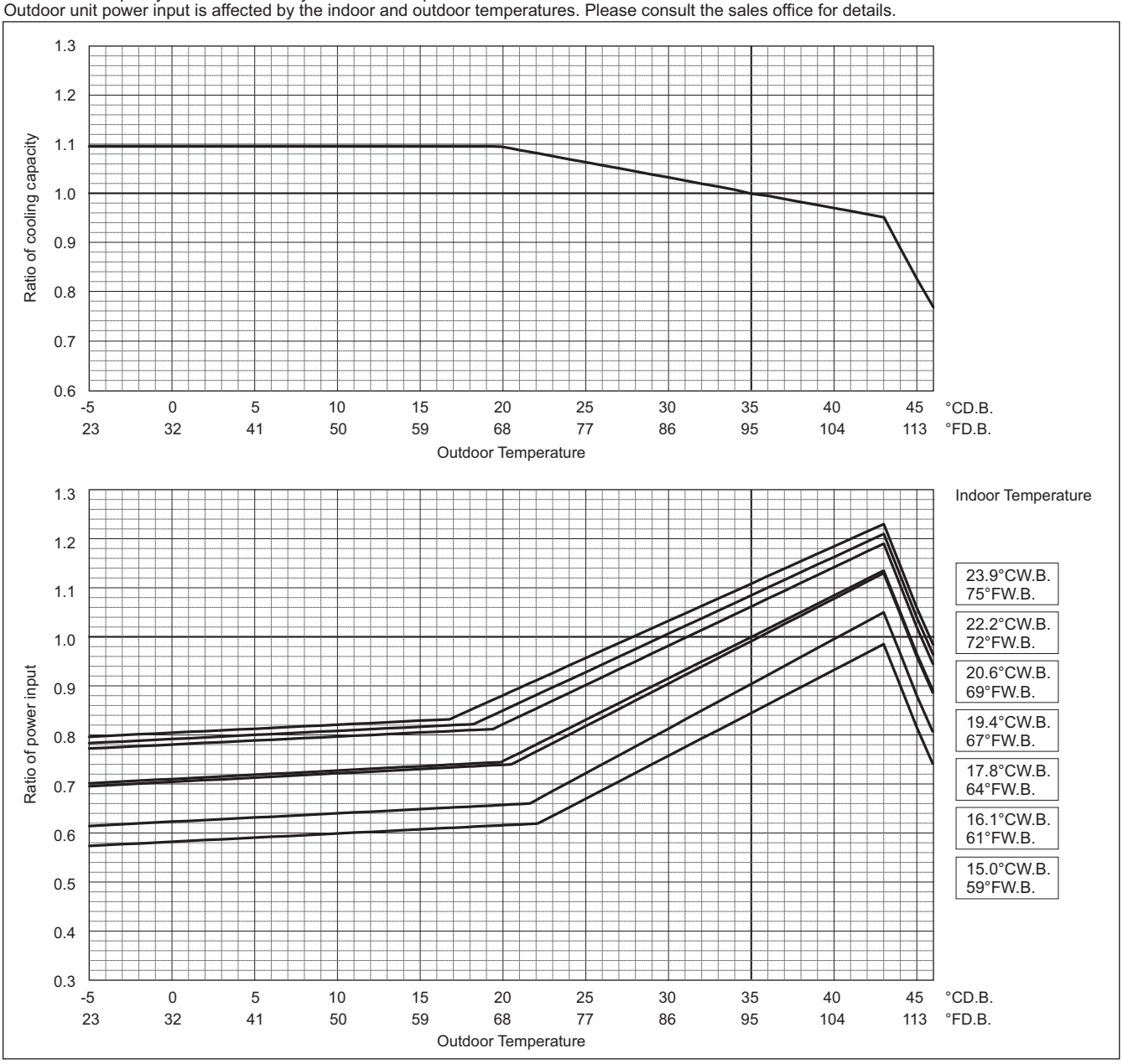


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



H2i R2

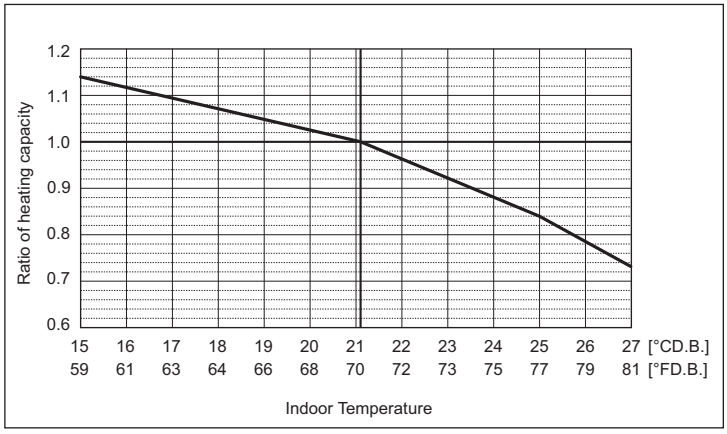
Intelligent heat Mode

PURY-			HP72TKMU/YKMU		HP96TKMU/YKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	80,000		108,000	
		kW	23.4		31.7	
	Input	kW	6.26		8.88	
Rated Heating capacity		BTU/h	76,000		103,000	
		kW	22.3		30.2	
	Input	kW	5.98	5.60	8.33	8.10

PURY-			HP144TSKMU/YSKMU		HP192TSKMU/YSKMU	
			Non-Ducted	Ducted	Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	160,000		215,000	
		kW	46.9		63.0	
	Input	kW	13.16		18.52	
Rated Heating capacity		BTU/h	152,000		205,000	
		kW	44.5		60.1	
	Input	kW	12.50	11.87	17.44	16.84

Indoor unit temperature correction

To be used to correct indoor unit capacity only

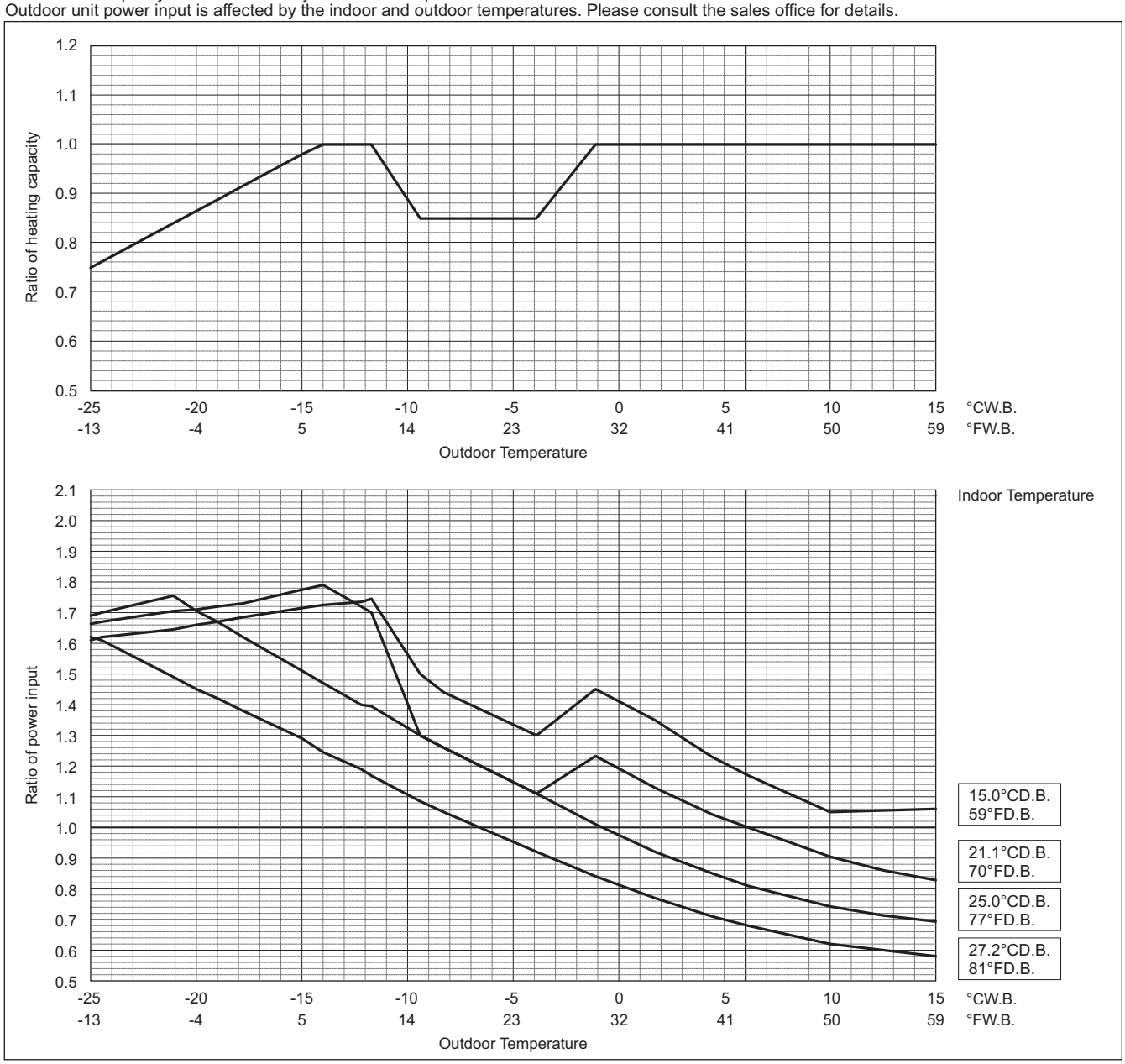


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



H2i R2

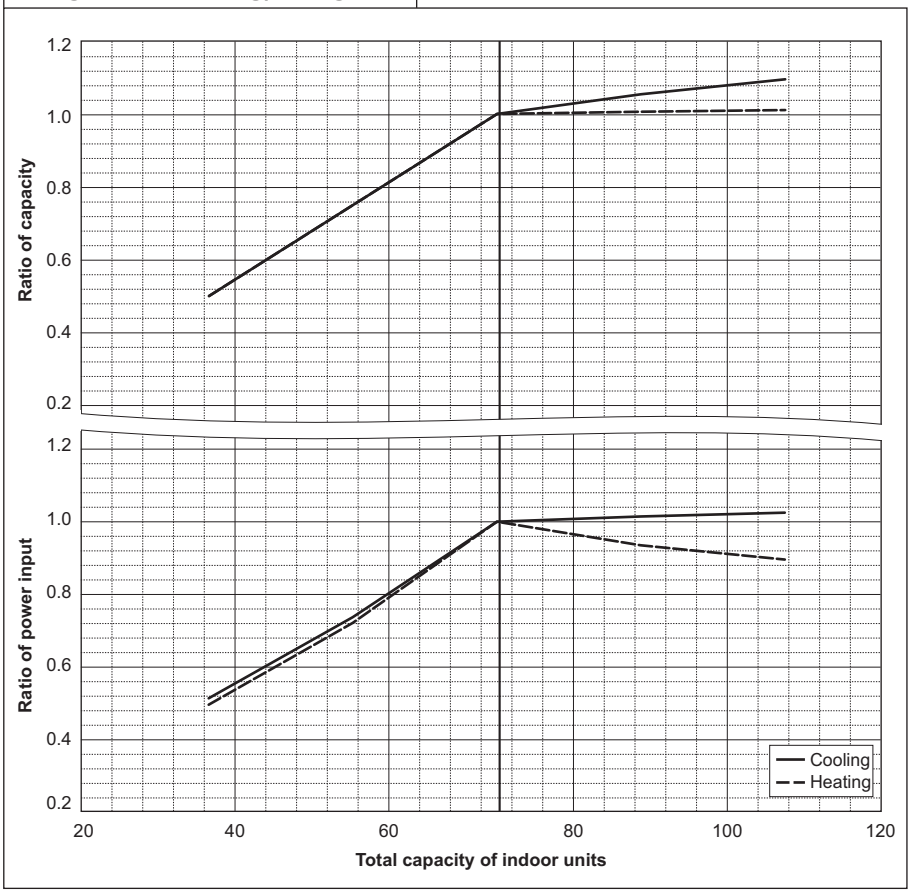
6-3. Correction by total indoor

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.

PURY-			HP72TKMU/YKMU	
			Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	72,000	
		kW	21.1	
	Input	kW	5.08	
Rated cooling capacity		BTU/h	69,000	
		kW	20.2	
	Input	kW	4.95	4.45

PURY-			HP72TKMU/YKMU	
			Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	80,000	
		kW	23.4	
	Input	kW	6.26	
Rated Heating capacity		BTU/h	76,000	
		kW	22.3	
	Input	kW	5.98	5.60

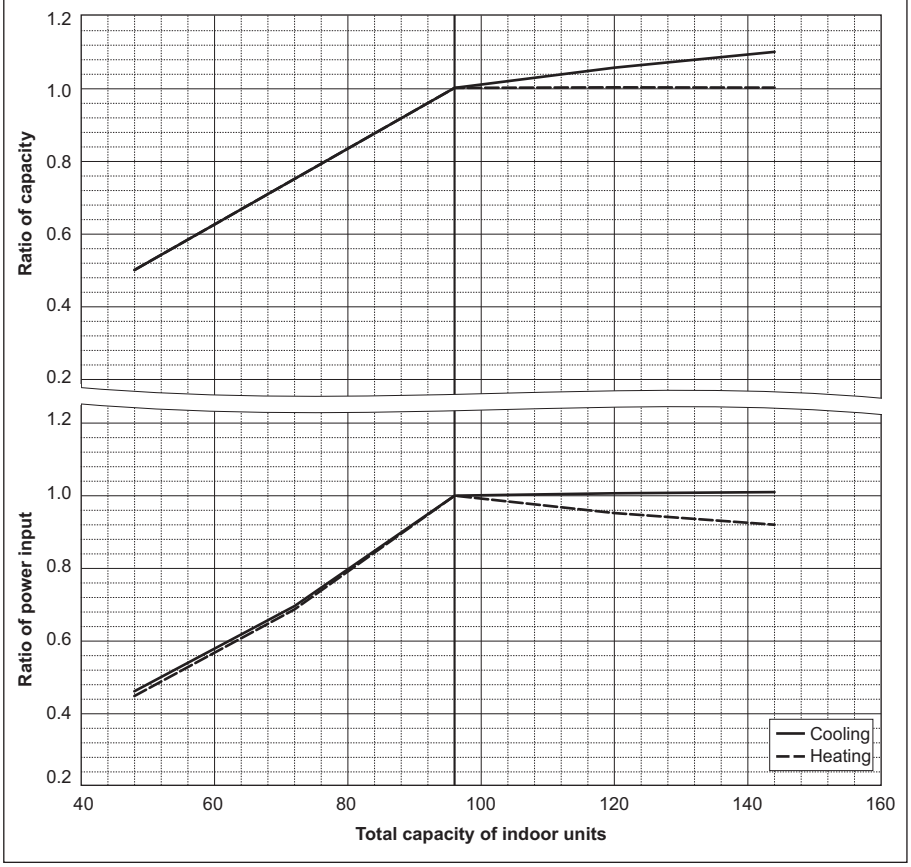
PURY-HP72TKMU/YKMU-A-H



PURY-			HP96TKMU/YKMU	
			Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	96,000	
		kW	28.1	
	Input	kW	7.66	
Rated cooling capacity		BTU/h	92,000	
		kW	27.0	
	Input	kW	6.84	7.34

PURY-			HP96TKMU/YKMU	
			Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	108,000	
		kW	31.7	
	Input	kW	8.88	
Rated Heating capacity		BTU/h	103,000	
		kW	30.2	
	Input	kW	8.33	8.10

PURY-HP96TKMU/YKMU-A-H

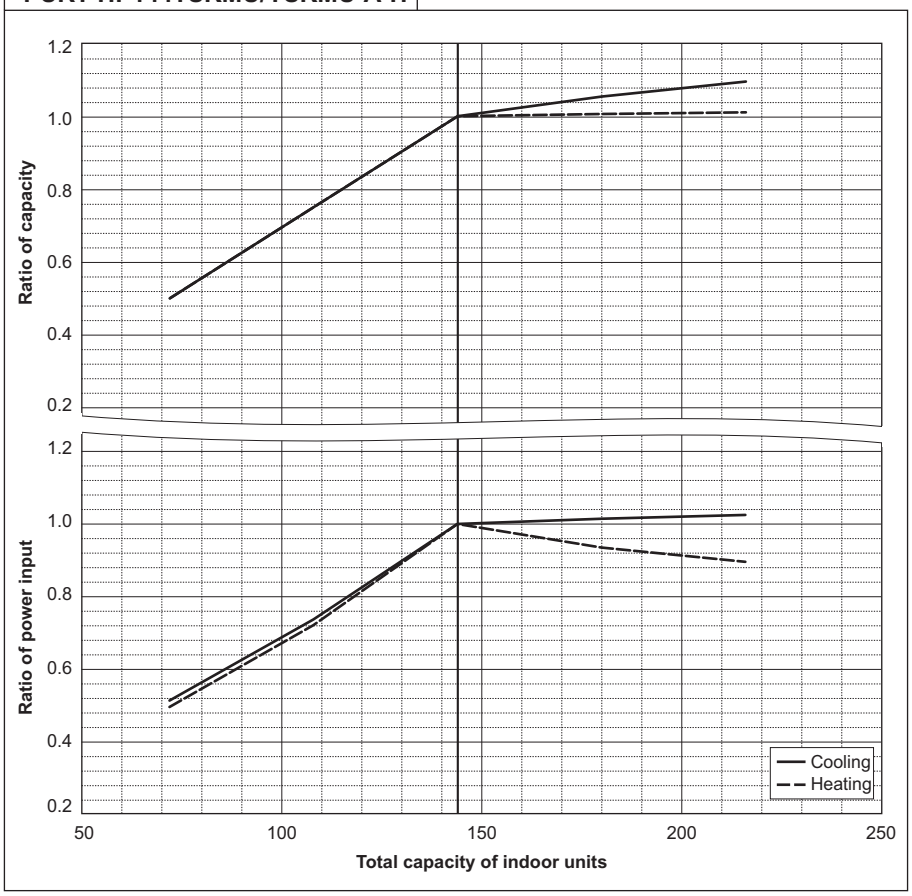


H2i R2

PURY-			HP144TSKMU/YSKMU	
			Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	144,000	
		kW	42.2	
	Input	kW	10.85	
Rated cooling capacity		BTU/h	137,000	
		kW	40.2	
	Input	kW	10.23	9.86

PURY-			HP144TSKMU/YSKMU	
			Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	160,000	
		kW	46.9	
	Input	kW	13.16	
Rated Heating capacity		BTU/h	152,000	
		kW	44.5	
	Input	kW	12.50	11.87

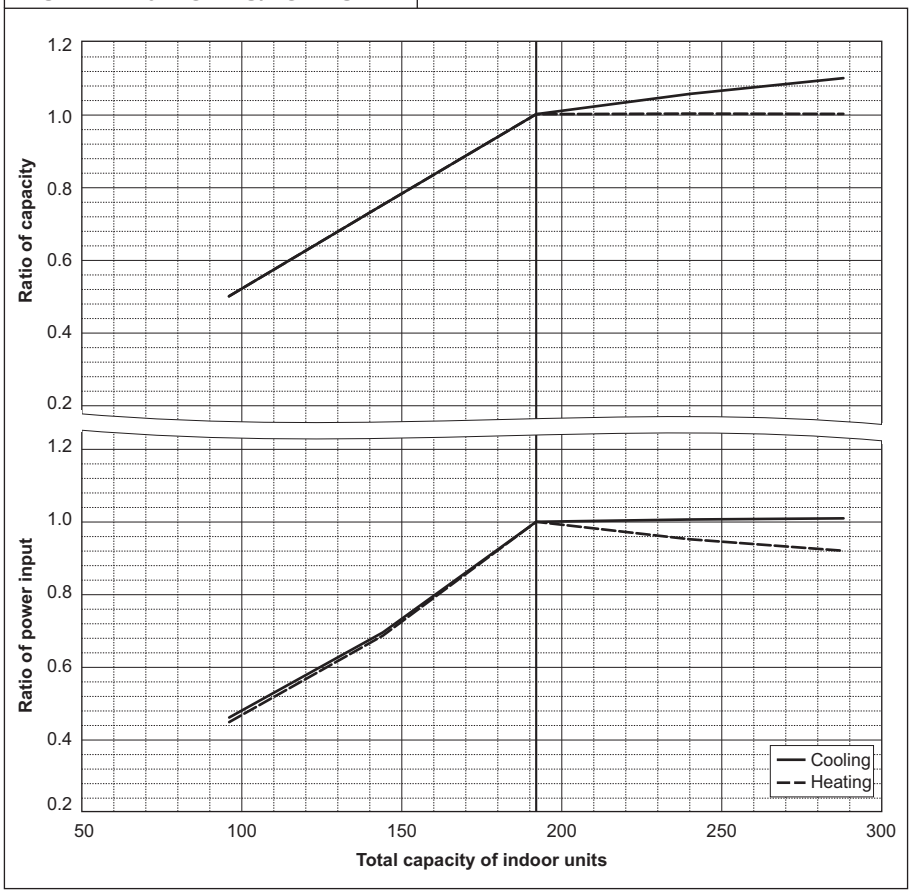
PURY-HP144TSKMU/YSKMU-A-H



PURY-			HP192TSKMU/YSKMU	
			Non-Ducted	Ducted
Nominal cooling capacity		BTU/h	192,000	
		kW	56.3	
	Input	kW	15.86	
Rated cooling capacity		BTU/h	183,000	
		kW	53.6	
	Input	kW	14.36	15.01

PURY-			HP192TSKMU/YSKMU	
			Non-Ducted	Ducted
Nominal Heating capacity		BTU/h	215,000	
		kW	63.0	
	Input	kW	18.52	
Rated Heating capacity		BTU/h	205,000	
		kW	60.1	
	Input	kW	17.44	16.84

PURY-HP192TSKMU/YSKMU-A-H



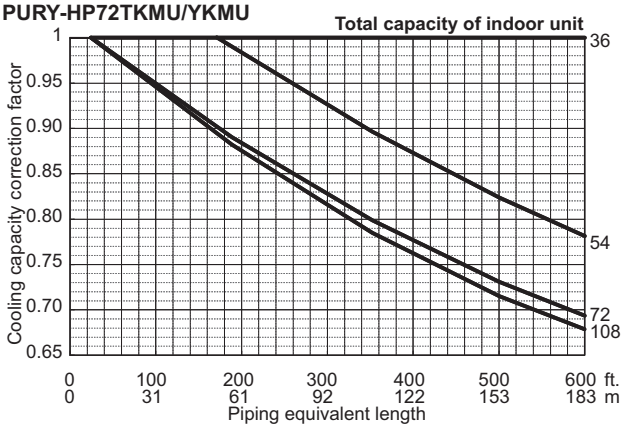
H2i R2

6-4. Correction by refrigerant piping length

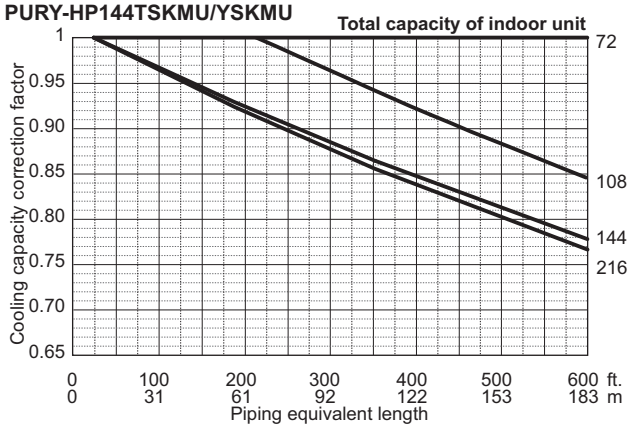
CITY MULTI systems can have extended piping lengths if certain limitations are followed, but cooling/heating capacity could be reduced. Using following correction factor by equivalent piping length shown at 6-4-1 and 6-4-2, capacity can be found. 6-4-3 shows how to obtain the equivalent piping length.

6-4-1. Cooling capacity correction

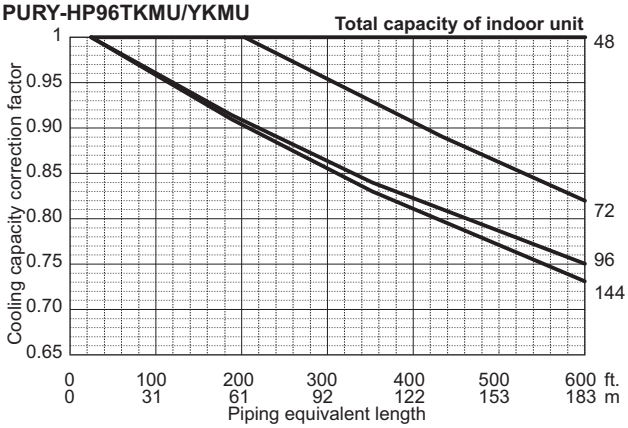
PURY-HP72TKMU/YKMU



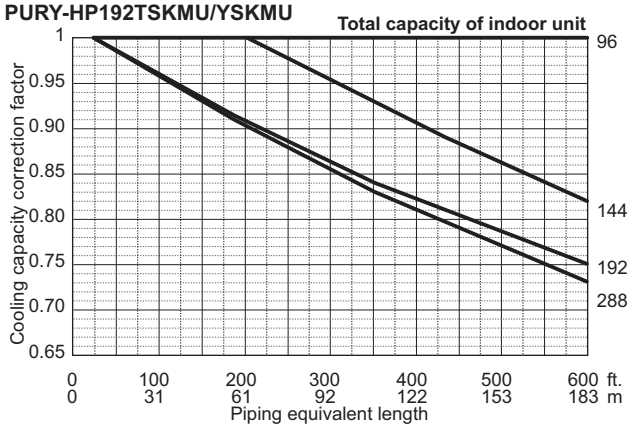
PURY-HP144TSKMU/YSKMU



PURY-HP96TKMU/YKMU

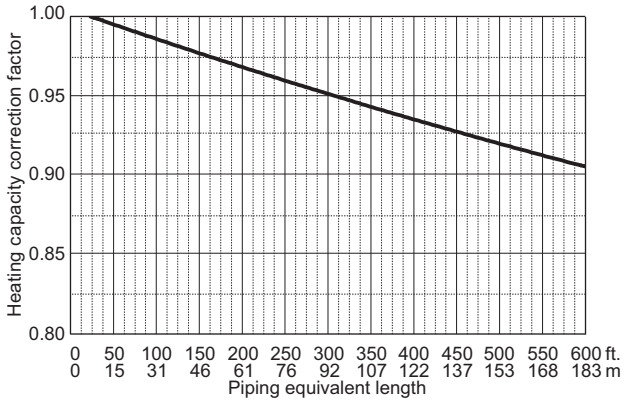


PURY-HP192TSKMU/YSKMU

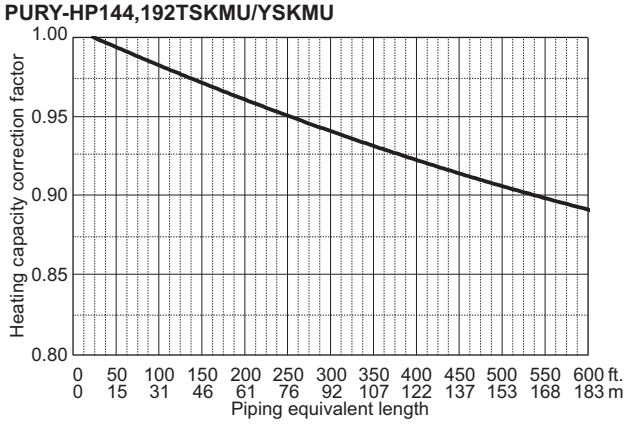


6-4-2. Heating capacity correction

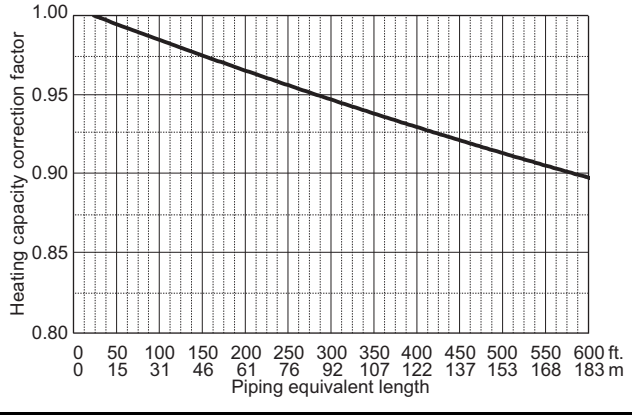
PURY-HP72TKMU/YKMU



PURY-HP144,192TSKMU/YSKMU



PURY-HP96TKMU/YKMU



6-4-3. How to obtain the equivalent piping length

1. PURY-HP72TKMU/YKMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.15 x number of bent on the piping) [ft.]
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.35 x number of bent on the piping) [m]

2. PURY-HP96TKMU/YKMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.38 x number of bent on the piping) [ft.]
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 x number of bent on the piping) [m]

3. PURY-HP144TSKMU/YSKMU

Equivalent length = (Actual piping length to the farthest indoor unit) + (1.64 x number of bent on the piping) [ft.]
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 x number of bent on the piping) [m]

4. PURY-HP192TSKMU/YSKMU

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]

6-5. Correction at frost and defrost

Due to frost at the outdoor heat exchanger and the automatic defrost operation, the heating capacity of the outdoor unit can be calculated by multiplying the correction factor shown in the table below.

Table of correction factor at frost and defrost

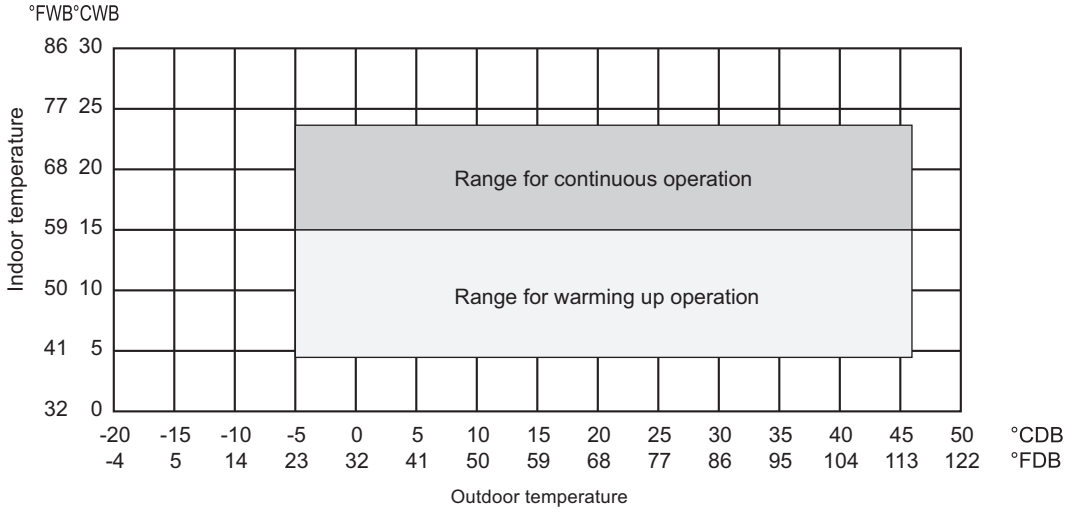
Outdoor inlet air temp. °C	6	4	2	1	0	-2	-4	-6	-8	-10	-20
Outdoor inlet air temp. °F	43	39	36	34	32	28	25	21	18	14	-4
PURY-HP72TKMU-A-H (-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.93	0.93	0.95	0.95
PURY-HP96TKMU-A-H (-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.93	0.93	0.95	0.95
PURY-HP144TSKMU-A-H (-BS)	1.00	0.98	0.89	0.86	0.88	0.90	0.91	0.92	0.92	0.95	0.95
PURY-HP192TSKMU-A-H (-BS)	1.00	0.98	0.89	0.86	0.88	0.90	0.91	0.92	0.92	0.95	0.95
PURY-HP72YKMU-A-H (-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.93	0.93	0.95	0.95
PURY-HP96YKMU-A-H (-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.93	0.93	0.95	0.95
PURY-HP144YSKMU-A-H (-BS)	1.00	0.98	0.89	0.86	0.88	0.90	0.91	0.92	0.92	0.95	0.95
PURY-HP192YSKMU-A-H (-BS)	1.00	0.98	0.89	0.86	0.88	0.90	0.91	0.92	0.92	0.95	0.95

* The correction factors in the table above are used for a full-load and above.
Use the formula below to calculate the correction factor to use for a partial load.
Correction factor for partial load: K
Correction factor for a full load and above: K_0
Partial load factor: A

$$K = 1 - (1 - K_0) \times A$$

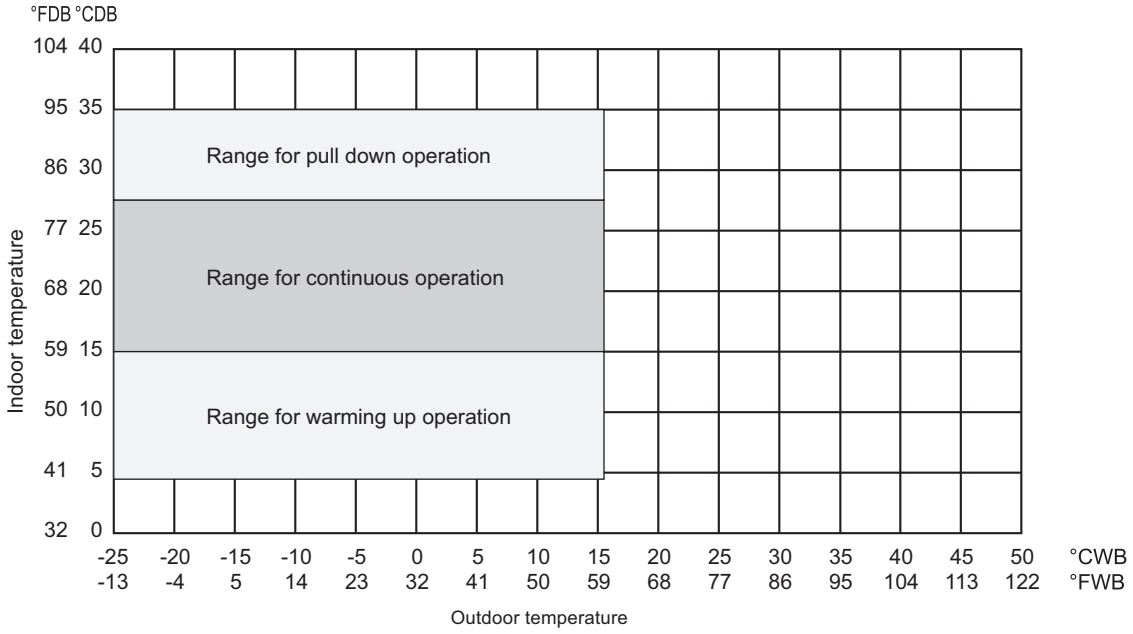
6-6. Operation temperature range

• Cooling



* The operation temperature of outdoor unit is limited into 0~43°CDB(32~109°FDB) when the outdoor unit is installed in a location that is positioned lower than the indoor units.

• Heating



Ref.: tr-ygm-y

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

Outdoor temperature	Indoor temperature	
	Cooling	Heating
-4 to 70˚FDB (-20 to 21˚CDB)	——	59 to 81˚FDB (15 to 27˚CDB)
-5.8 to 60˚FWB (-21 to 15.5˚CWB)	59 to 75˚FWB (15 to 24˚CWB)	——

Installation of the low ambient kit is recommended to operate in cooling and cooling main mode in conditions under 50°F [10°C].

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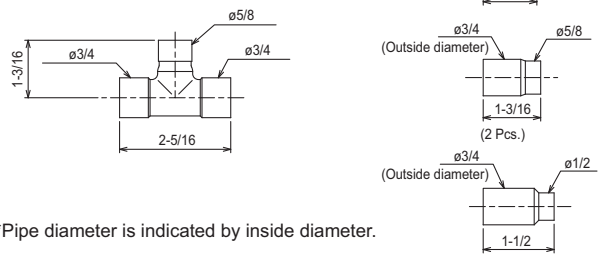
7-1. JOINT

CITY MULTI units can be easily connected by using Joint sets and Header sets provided by Mitsubishi Electric. Three kinds of Joint sets are available for use. Refer to section 3 in "System Design" or the Installation Manual that comes with the Joint set for how to install the Joint set.

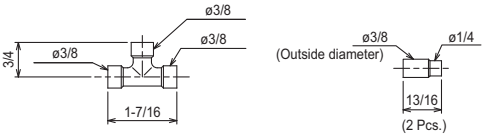
CMY-Y102SS-G2

in.

For Gas pipe:



For Liquid pipe:

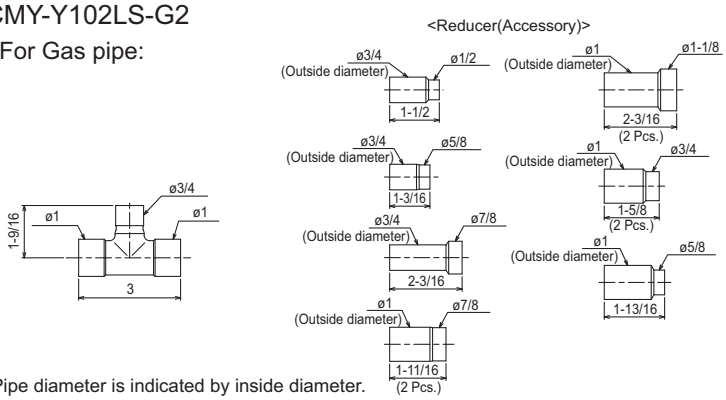


*Pipe diameter is indicated by inside diameter.

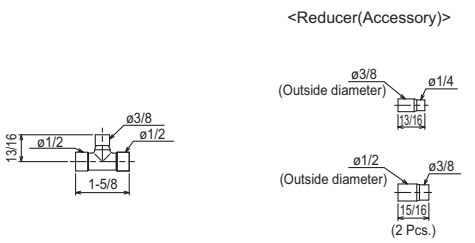
CMY-Y102LS-G2

in.

For Gas pipe:



For Liquid pipe:

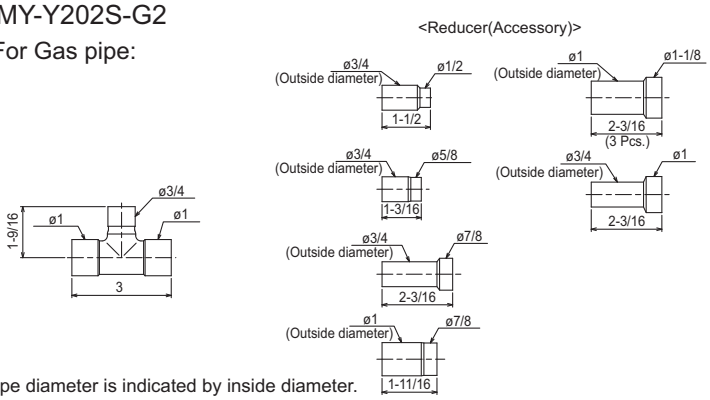


*Pipe diameter is indicated by inside diameter.

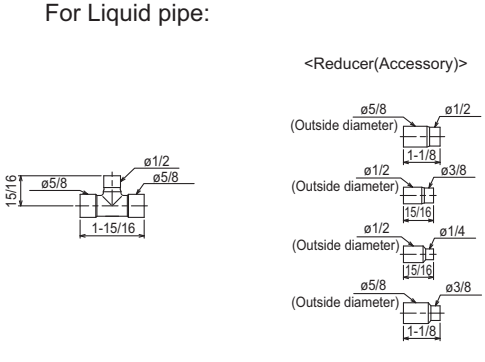
CMY-Y202S-G2

in.

For Gas pipe:



For Liquid pipe:



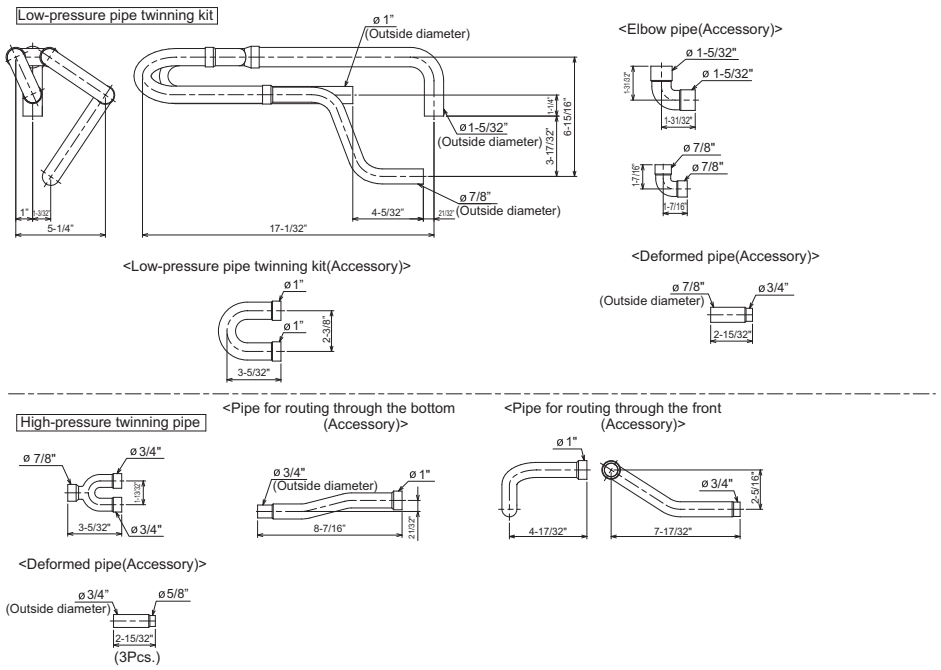
*Pipe diameter is indicated by inside diameter.

H2i R2

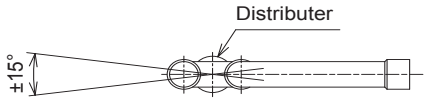
7-2. OUTDOOR TWINNING KIT

The following optional Outdoor Twinning Kit is needed to use to combine multiple refrigerant pipes. Refer to the chapter entitled System Design Section for the details of selecting a proper twinning kit.

CMY-R100CBK2



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



The angle of the branch pipe for hign pressure is within ±15° against the horizontal plane.

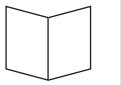
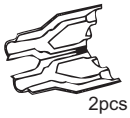
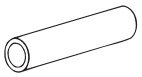
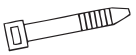
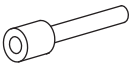
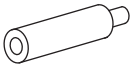
2. Use the attached pipe to braze the port-opening of the distributer.
3. Pipe diameter is indicated by inside diameter.
4. Only use the Twinning pipe by Mitsubishi (optional parts) .

H2i R2

7-3. JOINT KIT "CMY-R160-J1" FOR BC CONTROLLER

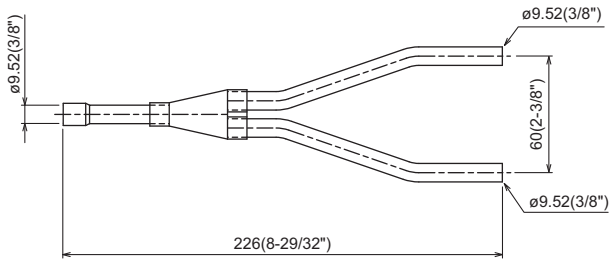
Joint kit "CMY-R160-J1" for BC controller is used to combine 2 ports of the BC controller at a PURY/PQRY system so as to enable down-stream Indoor capacity above P54 as shown in Fig. 1.

The Joint kit include following items:

①Instruction	②Joint pipe(Small)	③Joint pipe(Large)	④Cover 1	⑤Cover 2	⑥Cover 3	⑦Band	⑧Reducer 1	⑨Reducer 2
							OD19.05-ID22.2 	OD19.05-ID15.88 
This sheet 1pc	1pc	1pc	2pcs	1pc for gas side	1pc for liquid side	8pcs	1pc	1pc

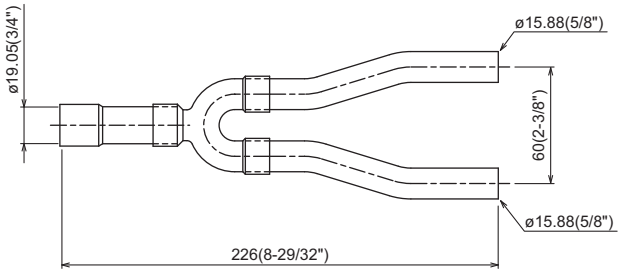
Please prepare the following items in the field. ①Tape for insulation material sealing ②Extension pipe for refrigerant circuit

②Joint pipe (for liquid side)



③Joint pipe (for gas side)

mm (in.)



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.

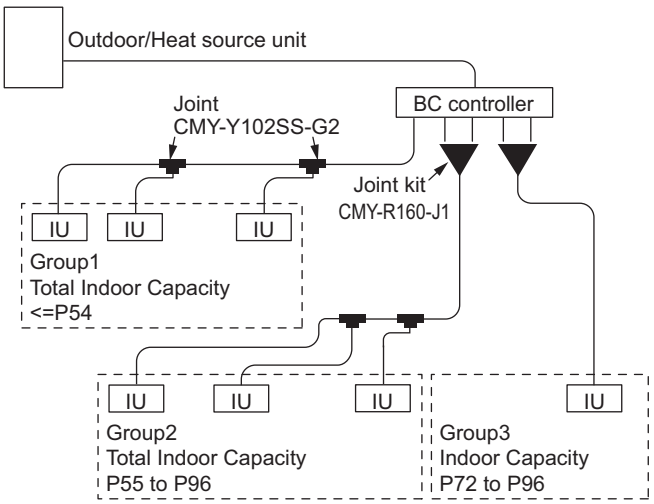
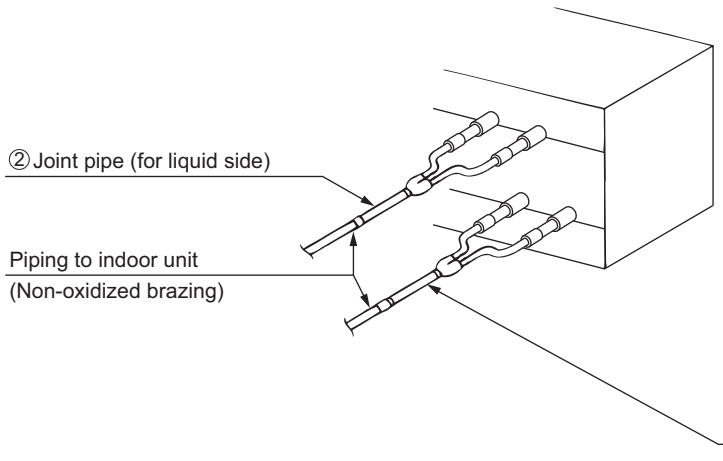


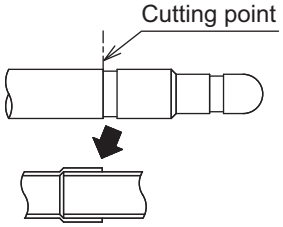
Fig.1. CMY-R160-J1 applying scheme

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.





Have pipe expansion of indoor unit connecting port by cutting the piping at the cutting point.
Remove burr after cutting the piping to prevent entering the piping.
Check that there is no crack at the pipe expansion part.

Fig.2. Connecting CMY-R160-J1

H2i R2