MITSUBISHI ELECTRIC
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AIR CONDITIONING SYSTEMS

CITY MULTI DATA BOOK

MODEL

PUHY-P200-1500T(S)KA (-BS)
PUHY-EP400-1100TSKA (-BS)

CITY MULTI
Databook

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Model			PUHY-P200TKA (-BS)	PUHY-P250TKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	22.4	28.0
(Nominal)		kcal/h	20,000	25,000
		*1 BTU/h	76,400	95,500
	Power input	kW	5.19	6.89
	Current input	A	16.0-15.1-14.4	21.2-20.0-19.2
	EER	kW/kW	4.31	4.06
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	22.4	28.0
(Nominal)		kcal/h	20,000	25,000
		*2 BTU/h	76,400	95,500
	Power input	kW	5.05	6.33
	Current input	A	15.5-14.7-14.0	19.5-18.4-17.6
	COP	kW/kW	4.43	4.42
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/1~17	P15~P250/1~21
Sound pressure level (measured in anechoic room)		dB <A>	57	58
Refrigerant	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 90 m)
piping diameter	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175
		L/s	2,917	2,917
		cfm	6,179	6,179
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	5.5	6.9
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
	Control		LEV and HIC circuit	LEV and HIC circuit
Net weight		kg (lbs)	193 (426)	193 (426)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	Auto-defrost mode (Reversed refrigerant cycle)
Drawing	External		KS94G476	KS94G476
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	Installation Manual
	Accessory		Refrigerant conn. pipe	Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model				PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)
Power source				3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)		*1	kW	33.5	40.0
			kcal/h	30,000	35,000
		*1	BTU/h	114,300	136,500
	Power input		kW	8.86	11.69
	Current input		A	27.3-25.8-24.7	36.0-34.0-32.6
	EER		kW/kW	3.78	3.42
Temp. range of cooling	Indoor		W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Outdoor		D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)		*2	kW	33.5	40.0
			kcal/h	30,000	35,000
		*2	BTU/h	114,300	136,500
	Power input		kW	8.11	9.61
	Current input		A	25.0-23.6-22.6	29.6-28.0-26.8
	COP		kW/kW	4.13	4.16
Temp. range of heating	Indoor		D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor		W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity			50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity			P15~P250/1~26	P15~P250/1~30
Sound pressure level (measured in anechoic room)			dB <A>	61	61
Refrigerant piping diameter	Liquid pipe		mm (in.)	9.52 (3/8) Brazed (12.7 (1/2) Brazed, farthest length >= 40 m)	12.7 (1/2) Brazed
	Gas pipe		mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity			Propeller fan x 1	Propeller fan x 1
	Air flow rate		m^3/min	185	210
			L/s	3,083	3,500
			cfm	6,532	7,415
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1
*3	External static press.			0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type			MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter
	Motor output		kW	8.1	10.4
	Case heater		kW	-	-
	Lubricant			MEL32	MEL32
External finish				Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D			mm	1,650 x 920 x 740	1,650 x 1,220 x 740
			in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor			-	-
	Fan motor			-	-
Refrigerant	Type x original charge			R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control			LEV and HIC circuit	LEV and HIC circuit
Net weight			kg (lbs)	209 (461)	244 (538)
Heat exchanger				Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)				Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle)	Auto-defrost mode (Reversed refrigerant cycle)
Drawing	External			KS94G476	KS94G477
	Wiring			KE94G262	KE94G262
Standard attachment	Document			Installation Manual	Installation Manual
	Accessory			Refrigerant conn. pipe	Refrigerant conn. pipe
Optional parts				Joint: CMY-Y102SS/LS-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G
Remarks				Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	45.0	48.0
		kcal/h	40,000	43,000
	*1	BTU/h	153,500	163,800
	Power input	kW	13.55	15.78
	Current input	A	41.7-39.5-37.7	48.6-46.0-44.0
	EER	kW/kW	3.32	3.04
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	45.0	48.0
		kcal/h	40,000	43,000
	*2	BTU/h	153,500	163,800
	Power input	kW	10.92	13.33
	Current input	A	33.6-31.8-30.4	41.1-38.8-37.1
	COP	kW/kW	4.12	3.60
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/1~34	P15~P250/1~39
Sound pressure level (measured in anechoic room)		dB <A>	63	63
Refrigerant piping diameter	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210
		L/s	3,500	3,500
		cfm	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	10.8	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	LEV and HIC circuit
Net weight		kg (lbs)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	Auto-defrost mode (Reversed refrigerant cycle)
Drawing	External		KS94G477	KS94G477
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	Installation Manual
	Accessory		Refrigerant conn. pipe	Refrigerant conn. pipe
Optional parts			Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P500TKA (-BS)	
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	55.0	
		kcal/h	49,100	
	*1	BTU/h	187,700	
	Power input	kW	18.39	
	Current input	A	56.7-53.6-51.2	
	EER	kW/kW	2.99	
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)	
Heating capacity (Nominal)	*2	kW	55.0	
		kcal/h	49,100	
	*2	BTU/h	187,700	
	Power input	kW	15.71	
	Current input	A	48.4-45.8-43.8	
	COP	kW/kW	3.50	
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity	
	Model/Quantity		P15~P250/1~43	
Sound pressure level (measured in anechoic room)		dB <A>	65	
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	
FAN	Type x Quantity		Propeller fan x 2	
	Air flow rate	m^3/min	360	
		L/s	6,000	
		cfm	12,712	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 2	
*3	External static press.		0 Pa (0 mmH_2O)	
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	
	Starting method		Inverter	
	Motor output	kW	13.3	
	Case heater	kW	-	
	Lubricant		MEL32	
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,650 x 1,750 x 740	
		in.	65 x 68-15/16 x 29-3/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	
	Compressor		-	
	Fan motor		-	
Refrigerant	Type x original charge		R410A x 11.8 kg (27 lbs)	
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	287 (633)	
Heat exchanger			Salt-resistant cross fin & copper tube	
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G478	
	Wiring		KE94G263	
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Joint: CMY-Y102SS/LS-G2,CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Y

Model			PUHY-P550TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	63.0
		kcal/h	55,000
	*1	BTU/h	215,000
	Power input	kW	16.07
	Current input	A	49.5-46.8-44.8
	EER	kW/kW	3.92
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	63.0
		kcal/h	55,000
	*2	BTU/h	215,000
	Power input	kW	15.51
	Current input	A	47.8-45.2-43.2
	COP	kW/kW	4.06
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~47
Sound pressure level (measured in anechoic room)		dB <A>	63
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P300TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	185
		L/s	2,917	3,083
		cfm	6,179	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	6.9	8.1
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	209 (461)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G479	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P600TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	68.0
		kcal/h	60,000
	*1	BTU/h	232,000
	Power input	kW	18.18
	Current input	A	56.0-53.0-50.7
	EER	kW/kW	3.74
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	68.0
		kcal/h	60,000
	*2	BTU/h	232,000
	Power input	kW	16.70
	Current input	A	51.5-48.6-46.5
	COP	kW/kW	4.07
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	63
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	210
		L/s	2,917	3,500
		cfm	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	6.9	10.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P650TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	73.0
		kcal/h	65,000
	*1	BTU/h	249,100
	Power input	kW	19.78
	Current input	A	61.0-57.6-55.1
	EER	kW/kW	3.69
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	73.0
		kcal/h	65,000
	*2	BTU/h	249,100
	Power input	kW	18.02
	Current input	A	55.5-52.5-50.2
	COP	kW/kW	4.05
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P400TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	210
		L/s	2,917	3,500
		cfm	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	6.9	10.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P700TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	76.0
		kcal/h	68,000
	*1	BTU/h	259,300
	Power input	kW	21.40
	Current input	A	66.0-62.4-59.6
	EER	kW/kW	3.55
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	76.0
		kcal/h	68,000
	*2	BTU/h	259,300
	Power input	kW	20.00
	Current input	A	61.6-58.3-55.7
	COP	kW/kW	3.80
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	210
		L/s	2,917	3,500
		cfm	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	6.9	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P750TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	81.5
		kcal/h	73,000
	*1	BTU/h	278,100
	Power input	kW	23.90
	Current input	A	73.7-69.6-66.6
	EER	kW/kW	3.41
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	81.5
		kcal/h	73,000
	*2	BTU/h	278,100
	Power input	kW	22.20
	Current input	A	68.4-64.7-61.9
	COP	kW/kW	3.67
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	65.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	210
		L/s	3,083	3,500
		cfm	6,532	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	8.1	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P800TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	90.0
		kcal/h	80,000
	*1	BTU/h	307,100
	Power input	kW	27.10
	Current input	A	83.5-79.0-75.5
	EER	kW/kW	3.32
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	90.0
		kcal/h	80,000
	*2	BTU/h	307,100
	Power input	kW	23.01
	Current input	A	70.9-67.0-64.1
	COP	kW/kW	3.91
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210
		L/s	3,500	3,500
		cfm	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	10.8	10.8
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G481	
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P850TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	93.0
		kcal/h	83,000
	*1	BTU/h	317,300
	Power input	kW	29.24
	Current input	A	90.1-85.2-81.5
	EER	kW/kW	3.18
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	93.0
		kcal/h	83,000
	*2	BTU/h	317,300
	Power input	kW	25.40
	Current input	A	78.3-74.0-70.8
	COP	kW/kW	3.66
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210
		L/s	3,500	3,500
		cfm	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	10.8	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G481	
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P900TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0
		kcal/h	86,000
	*1	BTU/h	327,600
	Power input	kW	31.57
	Current input	A	97.3-92.0-88.0
	EER	kW/kW	3.04
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	96.0
		kcal/h	86,000
	*2	BTU/h	327,600
	Power input	kW	28.07
	Current input	A	86.5-81.8-78.2
	COP	kW/kW	3.42
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210
		L/s	3,500	3,500
		cfm	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	12.4	12.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G481	
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P950TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	103.0
		kcal/h	92,100
	*1	BTU/h	351,400
	Power input	kW	34.21
	Current input	A	105.5-99.7-95.4
	EER	kW/kW	3.01
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	103.0
		kcal/h	92,100
	*2	BTU/h	351,400
	Power input	kW	30.56
	Current input	A	94.2-89.1-85.2
	COP	kW/kW	3.37
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	67.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2
	Air flow rate	m^3/min	210	360
		L/s	3,500	6,000
		cfm	7,415	12,712
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	12.4	13.3
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,750 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	244 (538)	287 (633)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G482	
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1000TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	110.0
		kcal/h	98,200
	*1	BTU/h	375,300
	Power input	kW	36.78
	Current input	A	113.4-107.2-102.5
	EER	kW/kW	2.99
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	110.0
		kcal/h	98,200
	*2	BTU/h	375,300
	Power input	kW	33.13
	Current input	A	102.1-96.6-92.4
	COP	kW/kW	3.32
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	360	360
		L/s	6,000	6,000
		cfm	12,712	12,712
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 2	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	13.3	13.3
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,750 x 740	1,650 x 1,750 x 740
		in.	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	287 (633)	287 (633)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G483	
	Wiring		KE94G263	KE94G263
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Y

Model			PUHY-P1050TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	115.0
		kcal/h	103,000
	*1	BTU/h	392,400
	Power input	kW	32.57
	Current input	A	100.4-94.9-90.8
	EER	kW/kW	3.53
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	115.0
		kcal/h	103,000
	*2	BTU/h	392,400
	Power input	kW	31.50
	Current input	A	97.1-91.8-87.8
	COP	kW/kW	3.65
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	185	210
		L/s	3,083	3,083	3,500
		cfm	6,532	6,532	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	8.1	8.1	12.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	209 (461)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G484		
	Wiring		KE94G262	KE94G262	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1100TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	121.5
		kcal/h	108,000
	*1	BTU/h	414,600
	Power input	kW	35.63
	Current input	A	109.8-103.8-99.3
	EER	kW/kW	3.41
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	121.5
		kcal/h	108,000
	*2	BTU/h	414,600
	Power input	kW	33.80
	Current input	A	104.2-98.5-94.2
	COP	kW/kW	3.59
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	210	210
		L/s	3,083	3,500	3,500
		cfm	6,532	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	8.1	10.4	12.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	209 (461)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G485		
	Wiring		KE94G262	KE94G262	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1150TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	130.0
		kcal/h	115,000
	*1	BTU/h	443,600
	Power input	kW	38.80
	Current input	A	119.6-113.1-108.2
	EER	kW/kW	3.35
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	130.0
		kcal/h	115,000
	*2	BTU/h	443,600
	Power input	kW	35.51
	Current input	A	109.5-103.5-99.0
	COP	kW/kW	3.66
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	67.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P350TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.4	10.8	10.8
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G486		
	Wiring		KE94G262	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1200TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	135.0
		kcal/h	120,000
	*1	BTU/h	460,600
	Power input	kW	40.66
	Current input	A	125.4-118.5-113.4
	EER	kW/kW	3.32
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	135.0
		kcal/h	120,000
	*2	BTU/h	460,600
	Power input	kW	37.70
	Current input	A	116.2-109.9-105.1
	COP	kW/kW	3.58
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.8	10.8	10.8
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G486		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1250TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	138.0
(Nominal)		kcal/h	123,000
	*1	BTU/h	470,900
	Power input	kW	43.12
	Current input	A	132.9-125.7-120.2
	EER	kW/kW	3.20
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	138.0
(Nominal)		kcal/h	123,000
	*2	BTU/h	470,900
	Power input	kW	40.35
	Current input	A	124.4-117.6-112.5
	COP	kW/kW	3.42
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P400TKA (-BS)	PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.8	10.8	12.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G486		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.) , Water temperature: 20°C (68°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1300TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	141.0
		kcal/h	126,000
	*1	BTU/h	481,100
	Power input	kW	45.77
	Current input	A	141.1-133.4-127.6
	EER	kW/kW	3.08
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	141.0
		kcal/h	126,000
	*2	BTU/h	481,100
	Power input	kW	42.98
	Current input	A	132.5-125.3-119.8
	COP	kW/kW	3.28
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P400TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.8	12.4	12.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G486		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1350TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	144.0
(Nominal)		kcal/h	129,000
		*1 BTU/h	491,300
	Power input	kW	48.64
	Current input	A	150.0-141.8-135.6
	EER	kW/kW	2.96
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	144.0
(Nominal)		kcal/h	129,000
		*2 BTU/h	491,300
	Power input	kW	46.15
	Current input	A	142.3-134.5-128.7
	COP	kW/kW	3.12
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	12.4	12.4	12.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G486		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1400TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	151.0
(Nominal)		kcal/h	135,100
*1		BTU/h	515,200
	Power input	kW	52.24
	Current input	A	161.1-152.3-145.7
	EER	kW/kW	2.89
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	151.0
(Nominal)		kcal/h	135,100
*2		BTU/h	515,200
	Power input	kW	49.50
	Current input	A	152.6-144.3-138.0
	COP	kW/kW	3.05
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	68.5
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450TKA (-BS)	PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 2
	Air flow rate	m^3/min	210	210	360
		L/s	3,500	3,500	6,000
		cfm	7,415	7,415	12,712
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	12.4	12.4	13.3
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,750 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	287 (633)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G487		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1450TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	158.0
		kcal/h	141,200
	*1	BTU/h	539,100
	Power input	kW	55.83
	Current input	A	172.1-162.7-155.7
	EER	kW/kW	2.83
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	158.0
		kcal/h	141,200
	*2	BTU/h	539,100
	Power input	kW	52.49
	Current input	A	161.8-153.0-146.4
	COP	kW/kW	3.01
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	69.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P450TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	210	360	360
		L/s	3,500	6,000	6,000
		cfm	7,415	12,712	12,712
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 2	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	12.4	13.3	13.3
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	287 (633)	287 (633)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G488		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-P1500TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	165.0
		kcal/h	147,300
	*1	BTU/h	563,000
	Power input	kW	59.56
	Current input	A	183.6-173.6-166.1
	EER	kW/kW	2.77
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	165.0
		kcal/h	147,300
	*2	BTU/h	563,000
	Power input	kW	56.12
	Current input	A	173.0-163.6-156.5
	COP	kW/kW	2.94
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	70
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)	PUHY-P500TKA (-BS)
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m^3/min	360	360	360
		L/s	6,000	6,000	6,000
		cfm	12,712	12,712	12,712
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 2	0.92 x 2	0.92 x 2
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	13.3	13.3	13.3
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,750 x 740	1,650 x 1,750 x 740	1,650 x 1,750 x 740
		in.	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16	65 x 68-15/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)	R410A x 11.8 kg (27 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	287 (633)	287 (633)	287 (633)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G489		
	Wiring		KE94G263	KE94G263	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Y

Model			PUHY-EP400TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	44.8
		kcal/h	40,000
	*1	BTU/h	152,900
	Power input	kW	10.39
	Current input	A	32.0-30.2-28.9
	EER	kW/kW	4.31
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	44.8
		kcal/h	40,000
	*2	BTU/h	152,900
	Power input	kW	10.66
	Current input	A	32.8-31.0-29.7
	COP	kW/kW	4.20
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~34
Sound pressure level (measured in anechoic room)		dB <A>	60
Refrigerant piping diameter	Liquid pipe	mm (in.)	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P200TKA (-BS)	PUHY-P200TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175
		L/s	2,917	2,917
		cfm	6,179	6,179
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	5.5	5.5
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	193 (426)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G477	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP450TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	50.4
		kcal/h	45,000
	*1	BTU/h	172,000
	Power input	kW	12.05
	Current input	A	37.1-35.1-33.6
	EER	kW/kW	4.18
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	50.4
		kcal/h	45,000
	*2	BTU/h	172,000
	Power input	kW	12.00
	Current input	A	37.0-34.9-33.4
	COP	kW/kW	4.20
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~39
Sound pressure level (measured in anechoic room)		dB <A>	60.5
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P200TKA (-BS)	PUHY-P250TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175
		L/s	2,917	2,917
		cfm	6,179	6,179
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	5.5	6.9
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	193 (426)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G477	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP500TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	56.0
		kcal/h	50,000
	*1	BTU/h	191,100
	Power input	kW	13.79
	Current input	A	42.5-40.2-38.4
	EER	kW/kW	4.06
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	56.0
		kcal/h	50,000
	*2	BTU/h	191,100
	Power input	kW	13.36
	Current input	A	41.2-38.9-37.2
	COP	kW/kW	4.19
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~43
Sound pressure level (measured in anechoic room)		dB <A>	61
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P250TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175
		L/s	2,917	2,917
		cfm	6,179	6,179
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	6.9	6.9
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	193 (426)	193 (426)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G478	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP650TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	73.5
		kcal/h	65,000
	*1	BTU/h	250,800
	Power input	kW	20.41
	Current input	A	62.9-59.5-56.9
	EER	kW/kW	3.60
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	73.5
		kcal/h	65,000
	*2	BTU/h	250,800
	Power input	kW	18.70
	Current input	A	57.6-54.5-52.1
	COP	kW/kW	3.93
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	15.88 (5/8) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	210
		L/s	3,083	3,500
		cfm	6,532	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	8.1	10.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y100VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP700TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	80.0
		kcal/h	70,000
	*1	BTU/h	273,000
	Power input	kW	23.39
	Current input	A	72.1-68.2-65.2
	EER	kW/kW	3.42
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	80.0
		kcal/h	70,000
	*2	BTU/h	273,000
	Power input	kW	20.25
	Current input	A	62.4-59.0-56.4
	COP	kW/kW	3.95
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P350TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210
		L/s	3,500	3,500
		cfm	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	10.4	10.4
	Case heater	kW	-	-
	Lubricant		MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit	
Net weight		kg (lbs)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)	
Drawing	External		KS94G480	
	Wiring		KE94G262	KE94G262
Standard attachment	Document		Installation Manual	
	Accessory		Refrigerant conn. pipe	
Optional parts			Outdoor Twinning kit: CMY-Y200VBK2 Joint: CMY-Y102SS/LS-G2, CMY-Y202S/302S-G2 Header: CMY-Y104/108/1010-G	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.	

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP750TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	84.8
		kcal/h	75,000
	*1	BTU/h	289,300
	Power input	kW	21.14
	Current input	A	65.1-61.6-58.9
	EER	kW/kW	4.01
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	84.8
		kcal/h	75,000
	*2	BTU/h	289,300
	Power input	kW	20.58
	Current input	A	63.4-60.0-57.4
	COP	kW/kW	4.12
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P200TKA (-BS)	PUHY-P200TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175	210
		L/s	2,917	2,917	3,500
		cfm	6,179	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	5.5	5.5	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	193 (426)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G480		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP800TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	90.4
(Nominal)		kcal/h	80,000
		*1 BTU/h	308,400
	Power input	kW	23.00
	Current input	A	70.9-67.0-64.1
	EER	kW/kW	3.93
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	90.4
(Nominal)		kcal/h	80,000
		*2 BTU/h	308,400
	Power input	kW	21.99
	Current input	A	67.8-64.1-61.3
	COP	kW/kW	4.11
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	34.93 (1-3/8) Brazed

Set Model

Model			PUHY-P200TKA (-BS)	PUHY-P250TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175	210
		L/s	2,917	2,917	3,500
		cfm	6,179	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	5.5	6.9	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	193 (426)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
distributor	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G481		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP850TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	96.0
		kcal/h	85,000
	*1	BTU/h	327,600
	Power input	kW	25.00
	Current input	A	77.1-72.8-69.7
	EER	kW/kW	3.84
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	96.0
		kcal/h	85,000
	*2	BTU/h	327,600
	Power input	kW	23.35
	Current input	A	72.0-68.0-65.1
	COP	kW/kW	4.11
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	64
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P250TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	175	210
		L/s	2,917	2,917	3,500
		cfm	6,179	6,179	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	6.9	6.9	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	193 (426)	193 (426)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G481		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP900TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	101.5
		kcal/h	90,000
	*1	BTU/h	346,300
	Power input	kW	27.06
	Current input	A	83.4-78.9-75.4
	EER	kW/kW	3.75
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	101.5
		kcal/h	90,000
	*2	BTU/h	346,300
	Power input	kW	25.24
	Current input	A	77.8-73.5-70.3
	COP	kW/kW	4.02
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	65
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P250TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	175	185	210
		L/s	2,917	3,083	3,500
		cfm	6,179	6,532	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	6.9	8.1	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	193 (426)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G481		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP950TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	107.0
		kcal/h	95,000
	*1	BTU/h	365,100
	Power input	kW	29.23
	Current input	A	90.1-85.2-81.5
	EER	kW/kW	3.66
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	107.0
		kcal/h	95,000
	*2	BTU/h	365,100
	Power input	kW	27.22
	Current input	A	83.9-79.3-75.9
	COP	kW/kW	3.93
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	185	210
		L/s	3,083	3,083	3,500
		cfm	6,532	6,532	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	8.1	8.1	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 920 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	209 (461)	209 (461)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G482		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP1000TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	113.5
		kcal/h	100,000
	*1	BTU/h	387,300
	Power input	kW	32.06
	Current input	A	98.8-93.4-89.4
	EER	kW/kW	3.54
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	113.5
		kcal/h	100,000
	*2	BTU/h	387,300
	Power input	kW	28.80
	Current input	A	88.8-83.9-80.3
	COP	kW/kW	3.94
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P300TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	185	210	210
		L/s	3,083	3,500	3,500
		cfm	6,532	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	8.1	10.4	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 920 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 36-1/4 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	209 (461)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G483		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Model			PUHY-EP1050TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity (Nominal)	*1	kW	120.0
		kcal/h	105,000
	*1	BTU/h	409,400
	Power input	kW	35.08
	Current input	A	108.1-102.2-97.8
	EER	kW/kW	3.42
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity (Nominal)	*2	kW	120.0
		kcal/h	105,000
	*2	BTU/h	409,400
	Power input	kW	31.25
	Current input	A	96.3-91.1-87.1
	COP	kW/kW	3.84
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~130% of outdoor unit capacity
	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	66
Refrigerant piping diameter	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P350TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P350TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.4	10.4	10.4
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G484		
	Wiring		KE94G262	KE94G262	KE94G262
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1.Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2.Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3.External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

Y

Model			PUHY-EP1100TSKA (-BS)
Power source			3-phase 3-wire 208-220-230 V 50/60 Hz
Cooling capacity *1		kW	125.0
(Nominal)		kcal/h	110,000
		*1 BTU/h	426,500
	Power input	kW	36.76
	Current input	A	113.3-107.1-102.5
	EER	kW/kW	3.40
Temp. range of	Indoor	W.B.	15.0~24.0°C (59~75°F)
cooling	Outdoor	D.B.	-5.0~52.0°C (23~126°F)
Heating capacity *2		kW	125.0
(Nominal)		kcal/h	110,000
		*2 BTU/h	426,500
	Power input	kW	33.24
	Current input	A	102.5-96.9-92.7
	COP	kW/kW	3.76
Temp. range of	Indoor	D.B.	15.0~27.0°C (59~81°F)
heating	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit	Total capacity		50~130% of outdoor unit capacity
connectable	Model/Quantity		P15~P250/2~50
Sound pressure level (measured in anechoic room)		dB <A>	67
Refrigerant	Liquid pipe	mm (in.)	19.05 (3/4) Brazed
piping diameter	Gas pipe	mm (in.)	41.28 (1-5/8) Brazed

Set Model

Model			PUHY-P350TKA (-BS)	PUHY-P350TKA (-BS)	PUHY-P400TKA (-BS)
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1	Propeller fan x 1
	Air flow rate	m^3/min	210	210	210
		L/s	3,500	3,500	3,500
		cfm	7,415	7,415	7,415
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1
*3	External static press.		0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)	0 Pa (0 mmH_2O)
Compressor	Type		MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor	MITSUBISHI ELECTRIC Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	10.4	10.4	10.8
	Case heater	kW	-	-	-
	Lubricant		MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension H x W x D		mm	1,650 x 1,220 x 740	1,650 x 1,220 x 740	1,650 x 1,220 x 740
		in.	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16	65 x 48-1/16 x 29-3/16
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)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-	-
	Fan motor		-	-	-
Refrigerant	Type x original charge		R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)	R410A x 11.5 kg (26 lbs)
	Control		LEV and HIC circuit		
Net weight		kg (lbs)	244 (538)	244 (538)	244 (538)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Changer)			Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure	Copper pipe, tube-in-tube structure
Pipe between unit and	Liquid pipe	mm (in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed
distributor	Gas pipe	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Drawing	External		KS94G485		
	Wiring		KE94G262	KE94G262	KE94G263
Standard attachment	Document		Installation Manual		
	Accessory		Refrigerant conn. pipe		
Optional parts			Outdoor Twinning kit: CMY-Y300VBK3 Joint: CMY-Y102SS/LS-G2, CMY-Y202/302S-G2 Header: CMY-Y104/108/1010-G		
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. External static pressure option is available (30Pa, 60Pa/3.1mmH_2O, 6.1mmH_2O).

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.

PUHY-P200, 250, 300TKA(-BS)

Unit: mm

<Accessories>
● Connecting pipe
<Gas> ·Pipe (ID25.4×OD22.2)····P200,P250,P300 1pc.
<Liquid> ·Pipe (ID9.52×OD9.52)····P200,P250 1pc.
·Pipe reducer (ID9.52×OD12.7)····P250 1pc.
·Pipe (ID12.7×OD12.7)····P300 1pc.
·Pipe reducer (ID12.7×OD9.52)····P300 1pc.

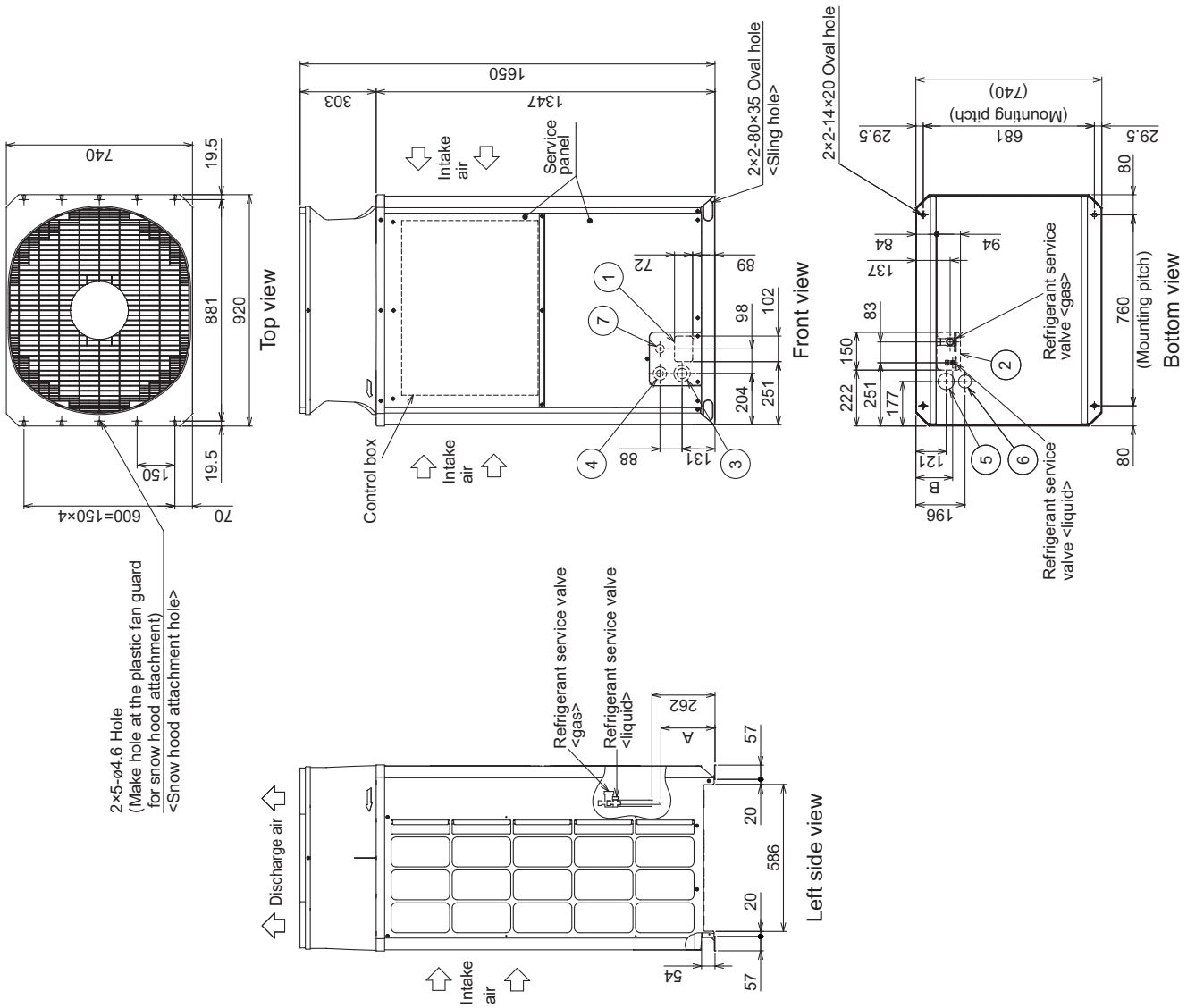
Note 1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

Model	Position dimensions for the refrigerant service valve		Diameter			
			Refrigerant pipe *1		Service valve	
	A	B	Liquid	Gas	Liquid	Gas
PUHY-P200TKA(-BS)	222	147	ø9.52 Brazed	ø22.2 Brazed	ø9.52	ø25.4
PUHY-P250TKA(-BS)			ø9.52 Brazed (ø12.7 Brazed) *2			
PUHY-P300TKA(-BS)	223	143	ø9.52 Brazed (ø12.7 Brazed) *3, *4		ø12.7	

*1 Connect by using the connecting pipes (for bottom piping and front piping) that are supplied.
*2 Furthest piping length (OU from IU)≥90m
*3 Furthest piping length (OU from IU)≥40m
*4 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.

NO.	Usage	Specifications
①	For pipes Front through hole	102 × 72 Knockout hole
②	For pipes Bottom through hole	150 × 94 Knockout hole
③	For wires Front through hole	ø65 or ø40 Knockout hole
④	For wires Front through hole	ø52 or ø27 Knockout hole
⑤	For wires Bottom through hole	ø65 Knockout hole
⑥	For wires Bottom through hole	ø52 Knockout hole
⑦	For transmission cables Front through hole	ø34 Knockout hole

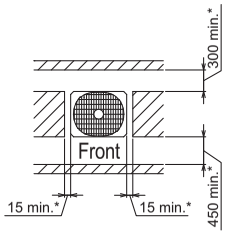


1.Required space around the unit

●In case of single installation

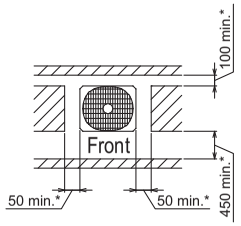
① Secure enough space around the unit as shown in the figure below.

・With a space of at least 300mm to the wall on the back of the unit



<Top view>

・With a space of at least 100mm to the wall on the back of the unit

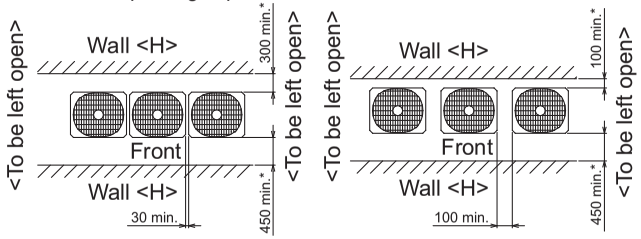


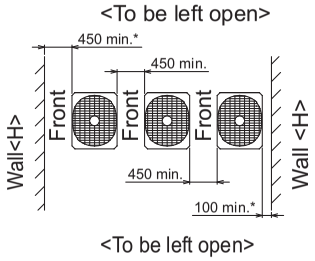
<Top view>

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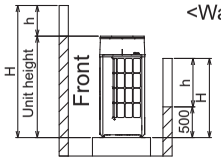
●In case of collective installation

①When 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.
②At least two sides must be left open.
③As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
④If 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.



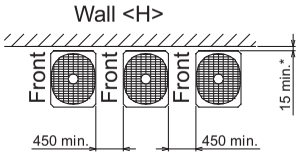


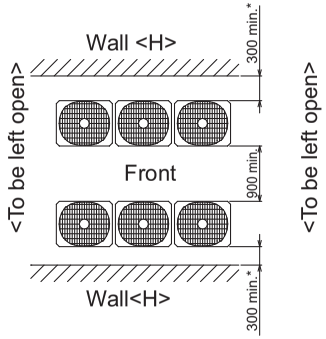
②When the height of the walls on the front,back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.

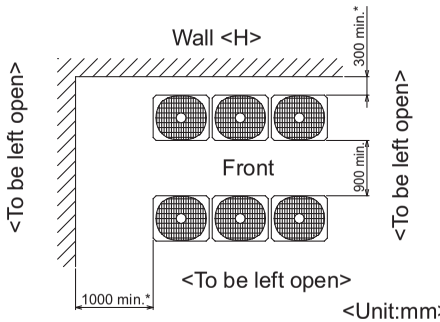


<Side view>

<Wall height limit> Front: Up to the unit height
Back: Up to 500mm from the unit bottom
Side: Up to the unit height







<Unit:mm>

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.(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.

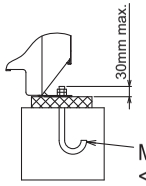


Fig.A

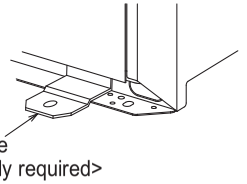


Fig.B

Unit: mm

Y

PUHY-P350, 400, 450TKA(-BS)

Unit: mm

<Accessories>
●Connecting pipe
<Gas> ·Elbow (ID28.58×OD28.58)·····P350,P400,P450 1pc.
<Liquid> ·Pipe (ID15.88×OD15.88)·····P350,P400,P450 1pc.
·Pipe reducer (ID15.88×OD12.7)·····P350,P400 1pc.

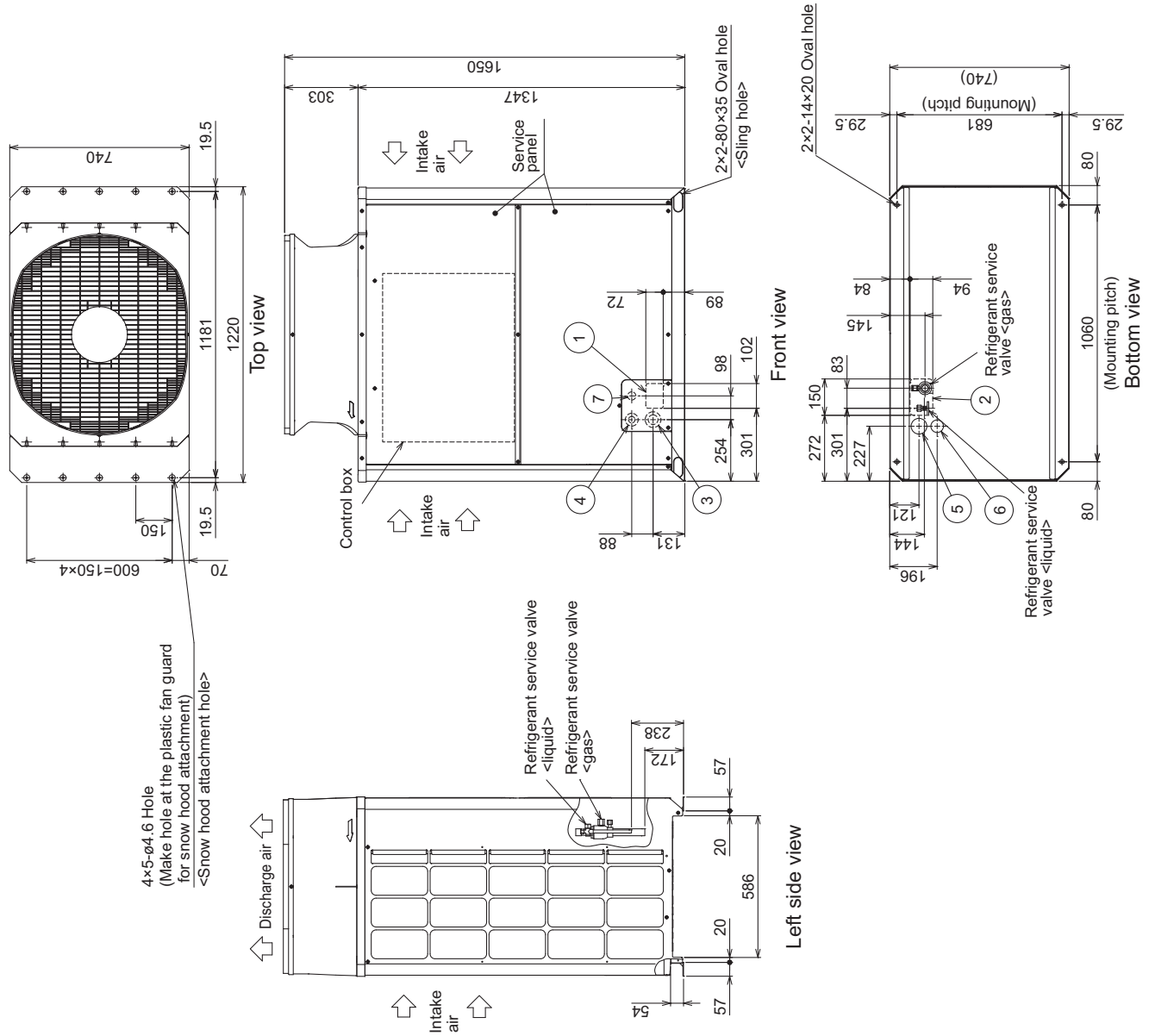
Note1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.At brazing of pipes,wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe *1		Service valve	
	Liquid	Gas	Liquid	Gas
PUHY-P350TKA(-BS)	ø12.7 Brazed	ø28.58 Brazed	ø15.88	ø28.58
PUHY-P400TKA(-BS)	ø12.7 Brazed (ø15.88 Brazed) *2			
PUHY-P450TKA(-BS)	ø15.88 Brazed			

*1 Connect by using the connecting pipes (for bottom piping and front piping) that are supplied.
*2 Indicates dimensions and connection specifications in the case the unit is used in combination with other outdoor units.

NO.	Usage		Specifications
①	For pipes	Front through hole	102 × 72 Knockout hole
②		Bottom through hole	150 × 94 Knockout hole
③	For wires	Front through hole	ø65 or ø40 Knockout hole
④		Front through hole	ø52 or ø27 Knockout hole
⑤		Bottom through hole	ø65 Knockout hole
⑥		Bottom through hole	ø52 Knockout hole
⑦	For transmission cables	Front through hole	ø34 Knockout hole

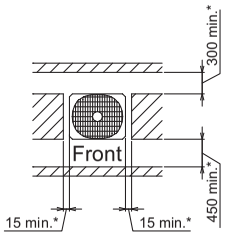


1. Required space around the unit

● In case of single installation

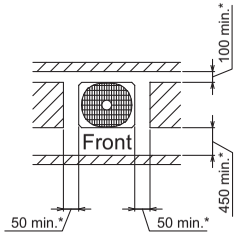
①Secure enough space around the unit as shown in the figure below.

· With a space of at least 300mm to the wall on the back of the unit



<Top view>

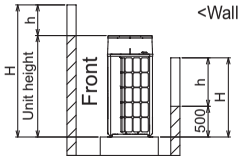
· With a space of at least 100mm to the wall on the back of the unit



<Top view>

<Unit:mm>

②When 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.

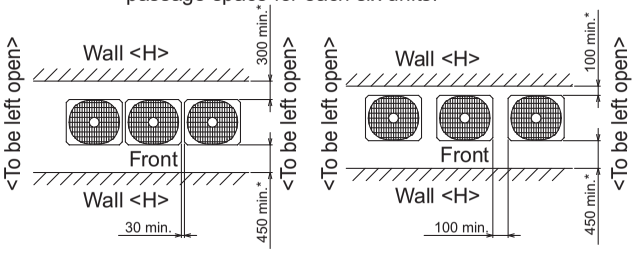


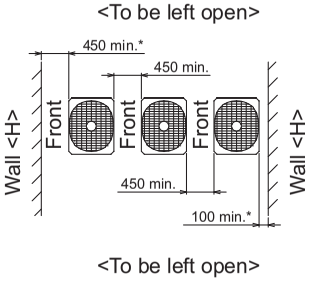
<Side view>

<Wall height limit> Front : Up to the unit height
Back : Up to 500mm from the unit bottom
Side : Up to the unit height

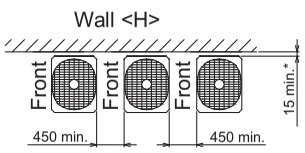
● In case of collective installation

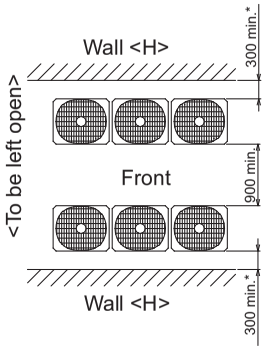
①When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
②At least two sides must be left open.
③As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
④If 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.

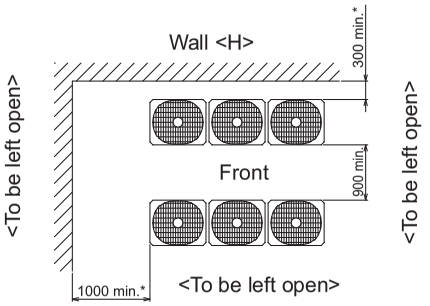




<To be left open>







<Unit:mm>

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.(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.

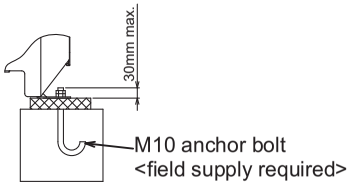


Fig.A

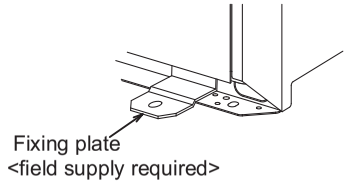


Fig.B

Unit: mm

PUHY-P500TKA(-BS)

Unit: mm

<Accessories>
●Connecting pipe
<Gas> ·Elbow (ID28.58×OD28.58)···P500 1pc.
<Liquid> ·Pipe (ID15.88×OD15.88)···P500 1pc.

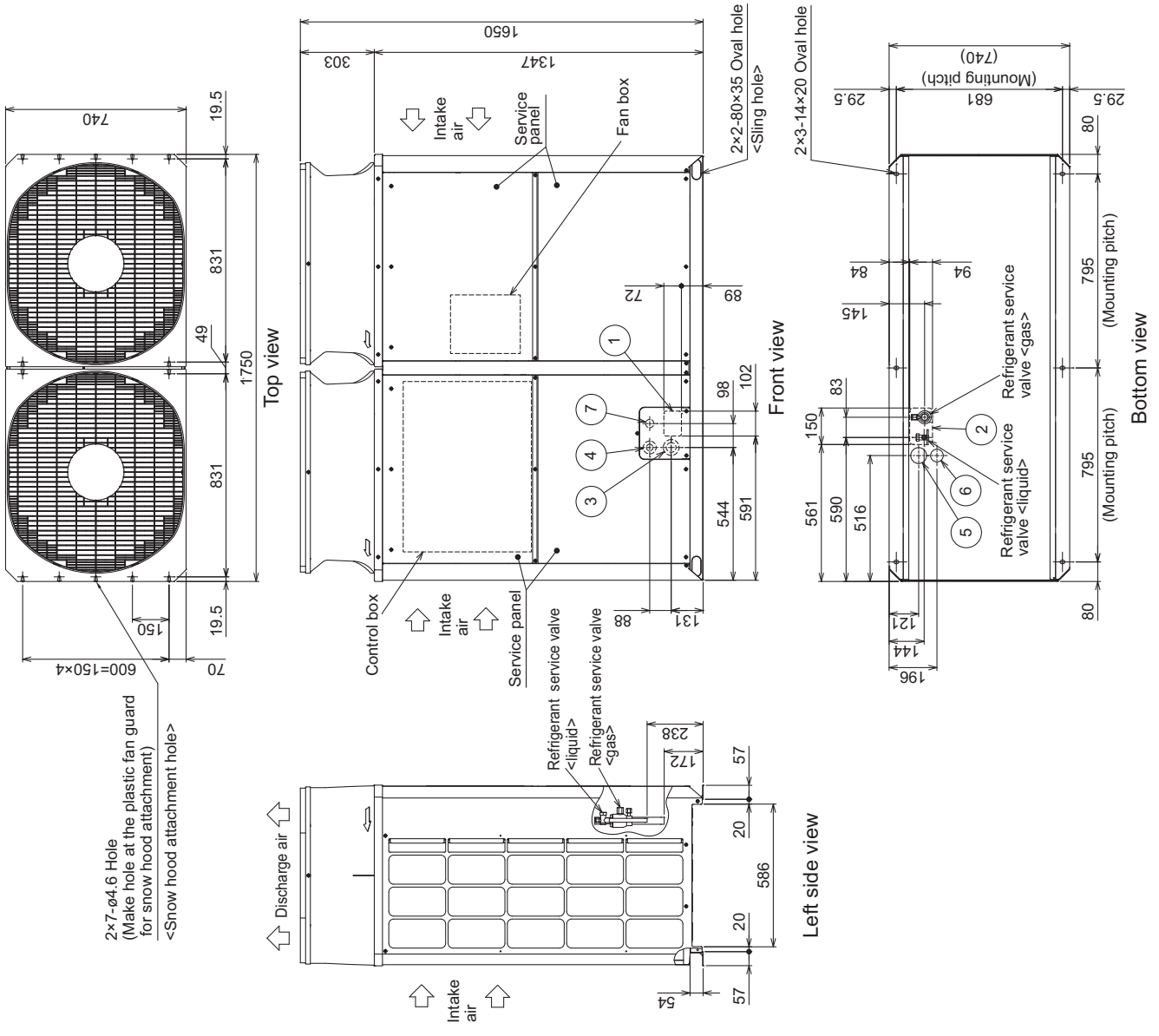
Note1.Please refer to the next page for information regarding necessary spacing around the unit and foundation work.
2.At brazing of pipes,wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.

Connecting pipe specifications

Model	Diameter			
	Refrigerant pipe *1		Service valve	
	Liquid	Gas	Liquid	Gas
PUHY-P500TKA(-BS)	ø15.88 Brazed	ø28.58 Brazed	ø15.88	ø28.58

*1 Connect by using the connecting pipes (for bottom piping and front piping) that are supplied.

NO.	Usage		Specifications
①	For pipes	Front through hole	102 × 72 Knockout hole
②		Bottom through hole	150 × 94 Knockout hole
③	For wires	Front through hole	ø65 or ø40 Knockout hole
④		Front through hole	ø52 or ø27 Knockout hole
⑤		Bottom through hole	ø65 Knockout hole
⑥		Bottom through hole	ø52 Knockout hole
⑦	For transmission cables	Front through hole	ø34 Knockout hole



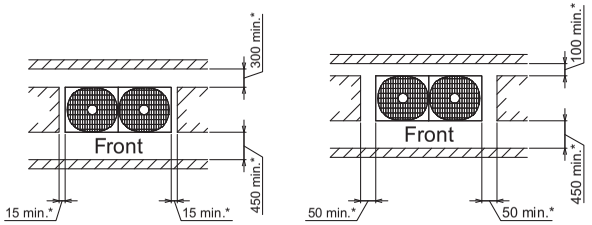
1. Required space around the unit

● In case of single installation

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

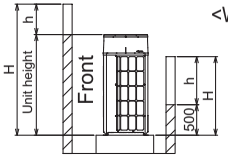
·With a space of at least 300mm to the wall on the back of the unit

·With a space of at least 100mm to the wall on the back of the unit



<Unit:mm>

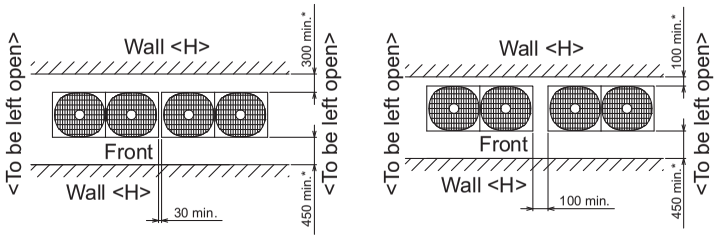
② When the height of the walls on the front,back or on the sides<H> exceeds the wall height limit as defined below add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.

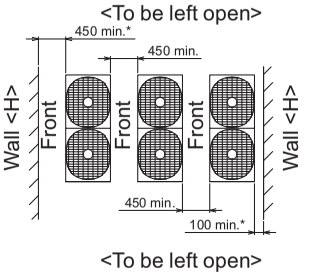


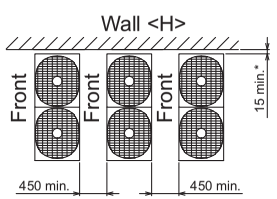
<Wall height limit> Front: Up to the unit height
Back: Up to 500mm from the unit bottom
Side: Up to the unit height

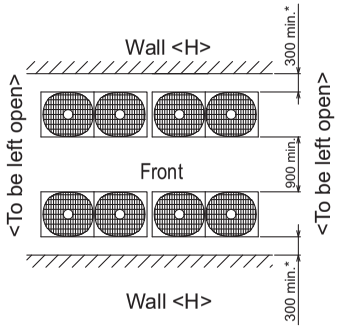
●In case of collective installation

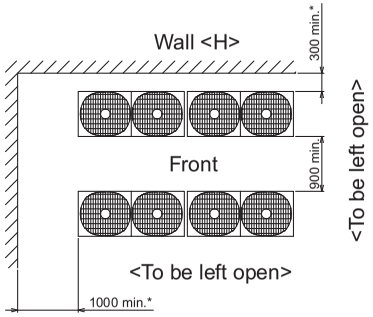
① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
② At least two sides must be left open.
③ As with the single installation, add the height that exceeds the height limit<h> to 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 three units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each three units.











<Unit:mm>

2. Foundation work

①Take 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.>
②Build 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.
③The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A)
④Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.B)
⑤To 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>.
⑥When 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.
⑦Refer to the Installation Manual when installing units on an installation base.

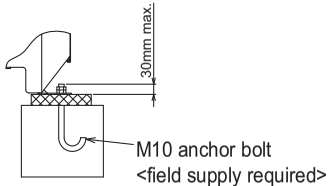


Fig.A

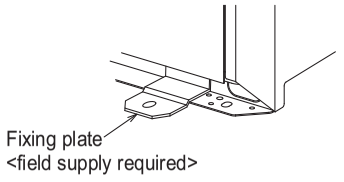
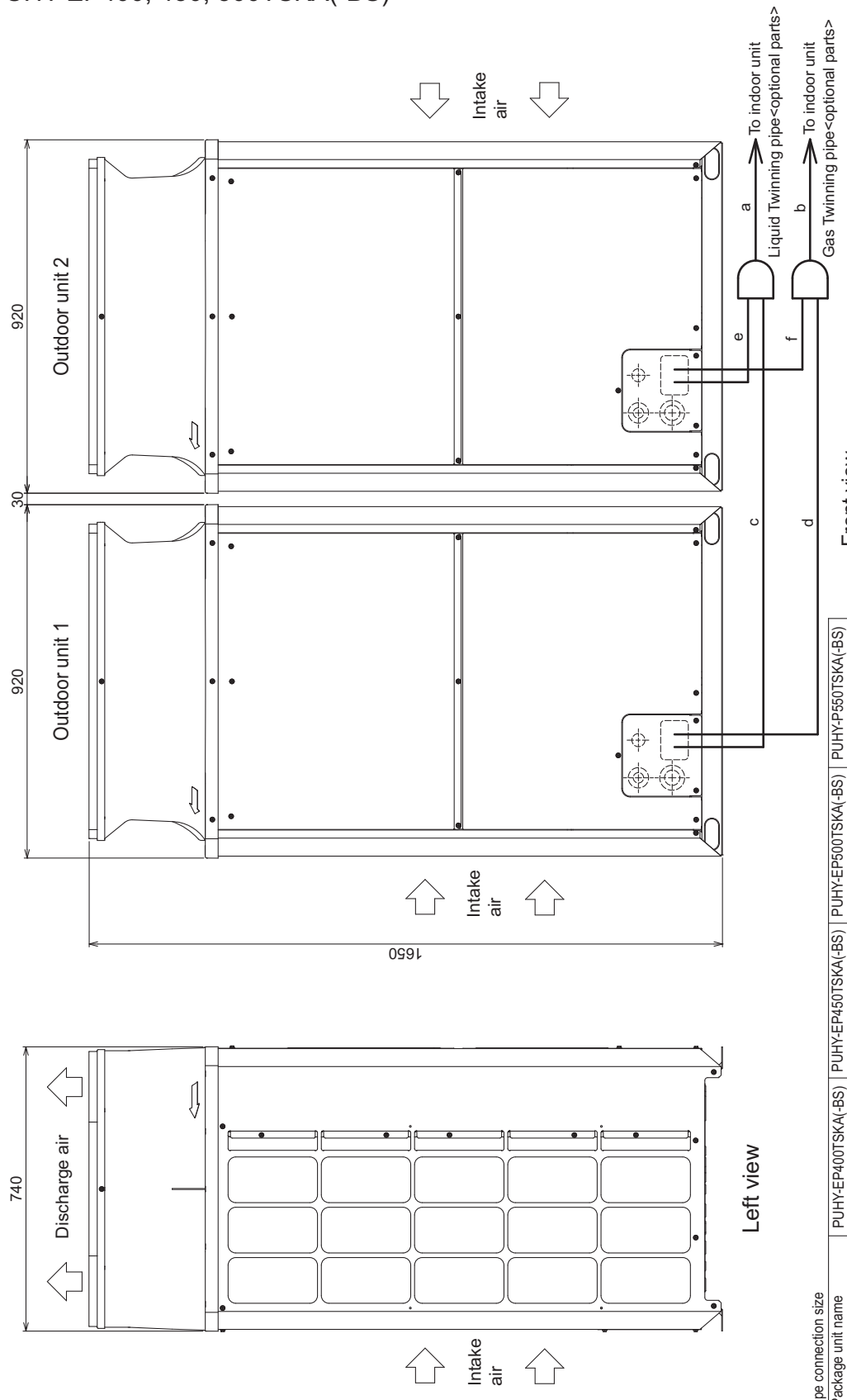


Fig.B

Unit: mm

PUHY-P550TSKA(-BS)
PUHY-EP400, 450, 500TSKA(-BS)

Unit: mm



		Unit model	Liquid	Gas
Twinning pipe–Outdoor unit			c or e	d or f
		P200	ø9.52	ø22.2
		P250	ø9.52	ø22.2
		P300	ø12.7	ø22.2

Twinning pipe connection size

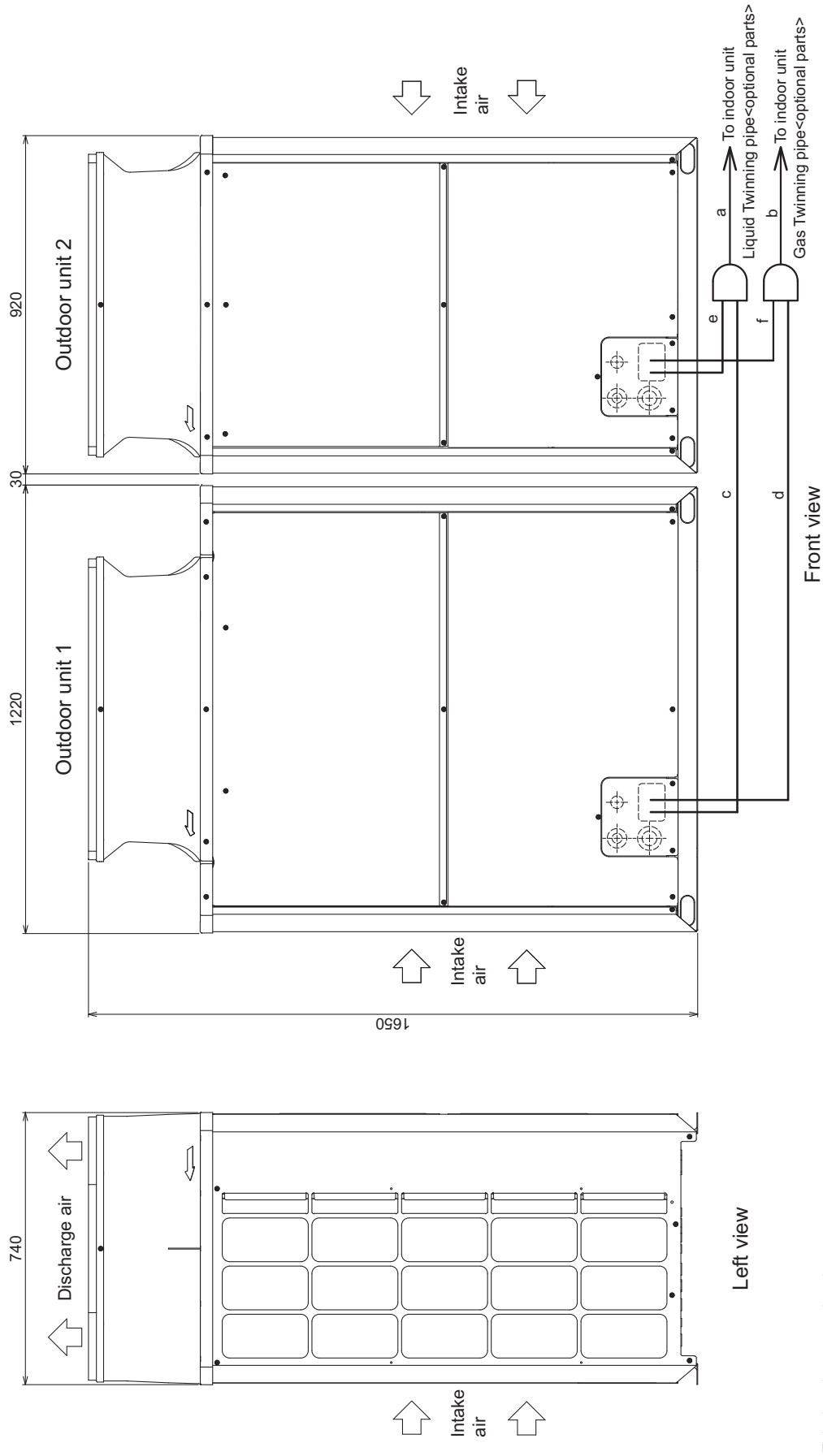
Package unit name			PUHY-EP400TSKA(-BS)	PUHY-EP450TSKA(-BS)	PUHY-EP500TSKA(-BS)	PUHY-P550TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)
	Outdoor unit 2		PUHY-P200TKA(-BS)	PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y100VBK3			
Indoor unit–Twinning pipe	Liquid	a	ø12.7	ø15.88		
	Gas	b	ø28.58			

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

Y

PUHY-P600, 650, 700, 750TSKA(-BS)
PUHY-EP650TSKA(-BS)

Unit: mm



Twinning pipe~Outdoor unit	Unit model	Liquid	Gas
		c or e	d or f
	P250	ø9.52	ø22.2
	P300	ø12.7	ø22.2
	P350	ø12.7	ø28.58
	P400	ø15.88	ø28.58
	P450	ø15.88	ø28.58

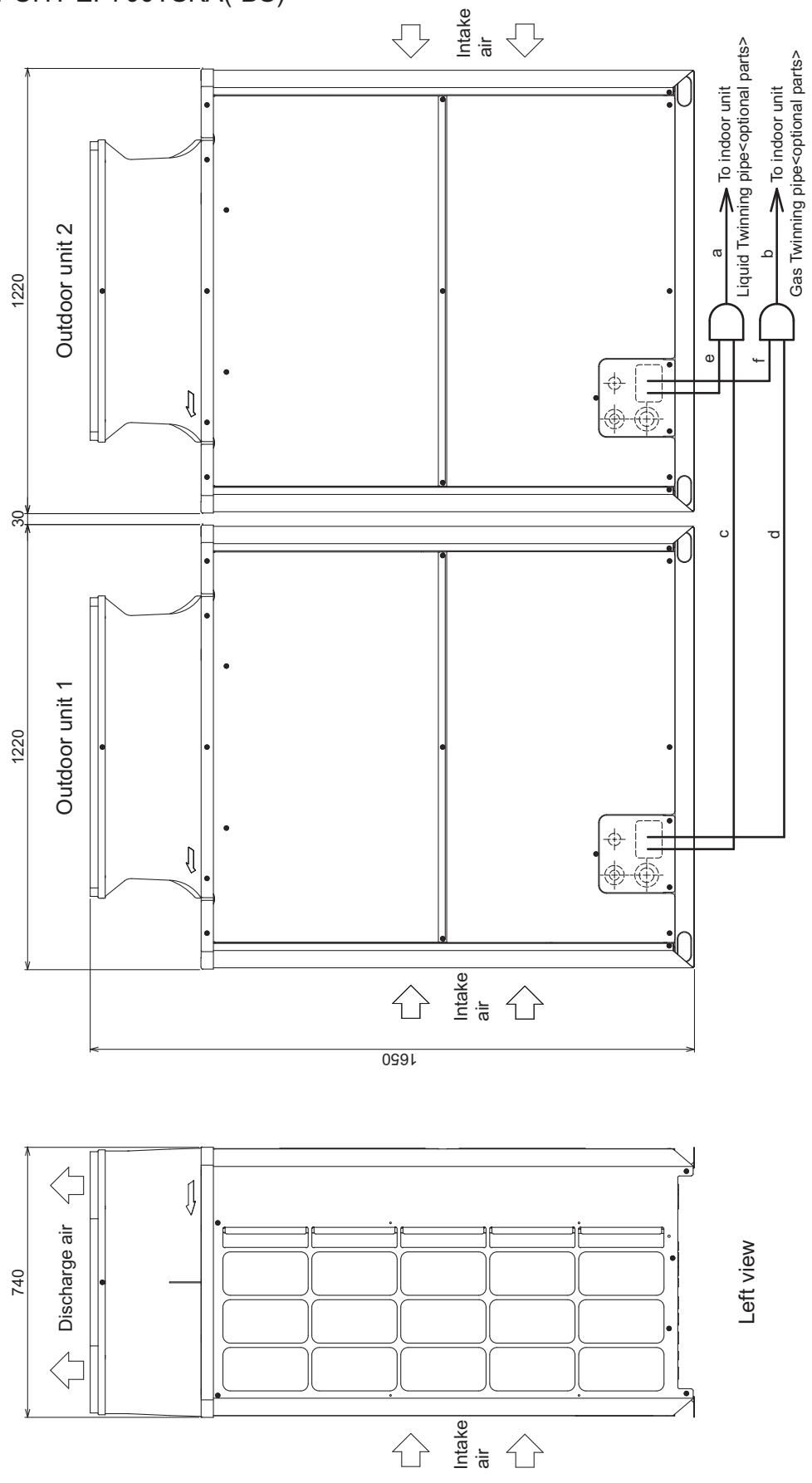
Twinning pipe connection size

Package unit name			PUHY-EP650TSKA(-BS)	PUHY-P600TSKA(-BS)	PUHY-P650TSKA(-BS)	PUHY-P700TSKA(-BS)	PUHY-P750TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 2		PUHY-P300TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y100VBK3			CMY-Y200VBK2	
Indoor unit~Twinning pipe	Liquid	a	ø15.88			ø19.05	
	Gas	b	ø28.58			ø34.93	

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

PUHY-P800, 850, 900TSKA(-BS)
PUHY-EP700TSKA(-BS)

Unit: mm



		Unit model	Liquid	Gas
Twinning pipe~Outdoor unit			c or e	d or f
		P350	ø12.7	ø28.58
		P400	ø15.88	ø28.58
		P450	ø15.88	ø28.58

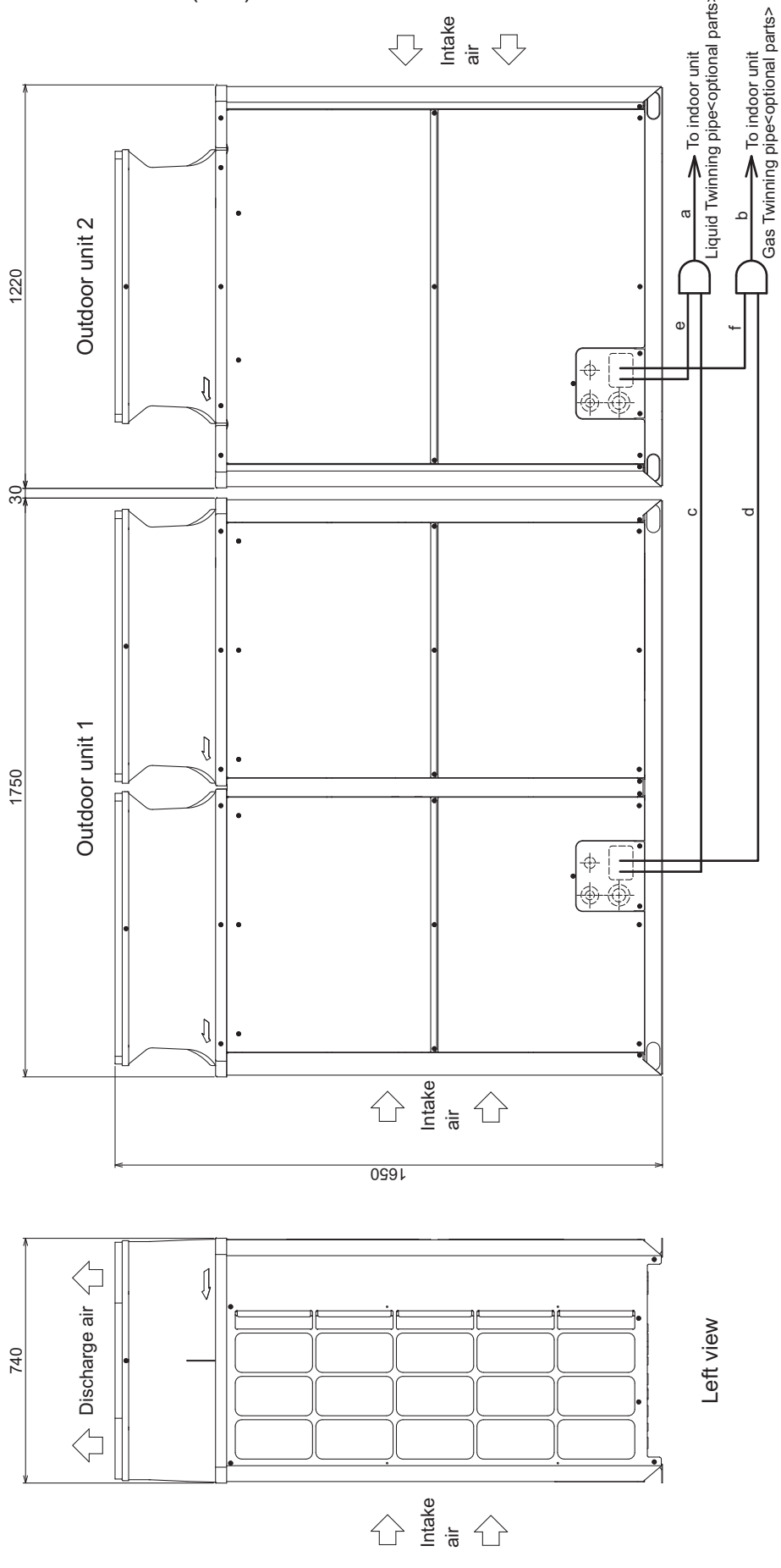
Twinning pipe connection size

Package unit name			PUHY-EP700TSKA(-BS)	PUHY-P800TSKA(-BS)	PUHY-P850TSKA(-BS)	PUHY-P900TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 2		PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y200VBK2			
Indoor unit~Twinning pipe	Liquid	a	ø19.05			
	Gas	b	ø34.93		ø41.28	

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

PUHY-P950TSKA(-BS)

Unit: mm



		Unit model	Liquid	Gas
			c or e	d or f
Twinning pipe~Outdoor unit		P450	ø15.88	ø28.58
		P500	ø15.88	ø28.58

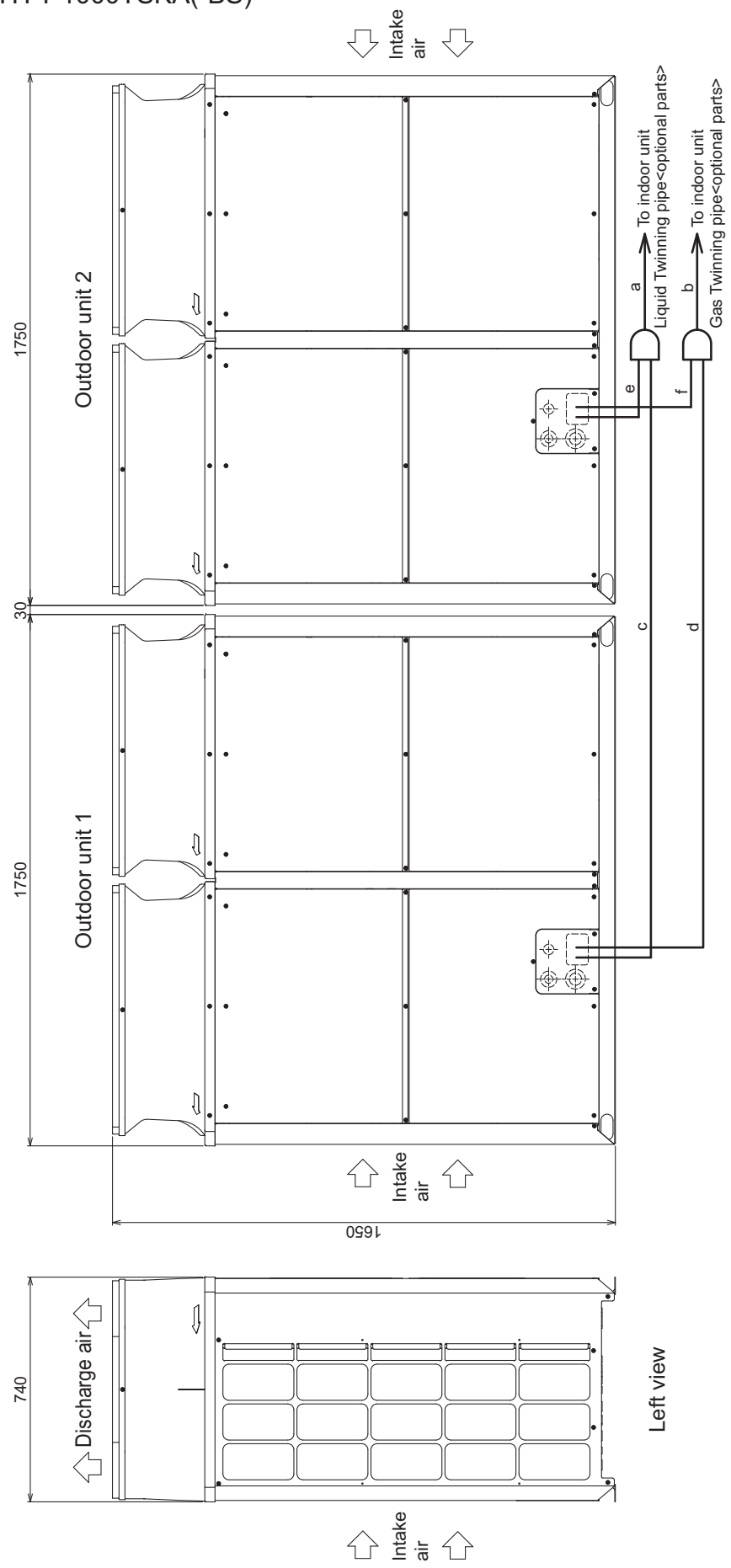
Twinning pipe connection size

Package unit name			PUHY-P950TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P500TKA(-BS)
	Outdoor unit 2		PUHY-P450TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y200VBK2
Indoor unit~Twinning pipe	Liquid	a	ø19.05
	Gas	b	ø41.28

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

PUHY-P1000TSKA(-BS)

Unit: mm



		Unit model	Liquid	Gas
			c or e	d or f
Twinning pipe--Outdoor unit		P500	ø15.88	ø28.58

Twinning pipe connection size

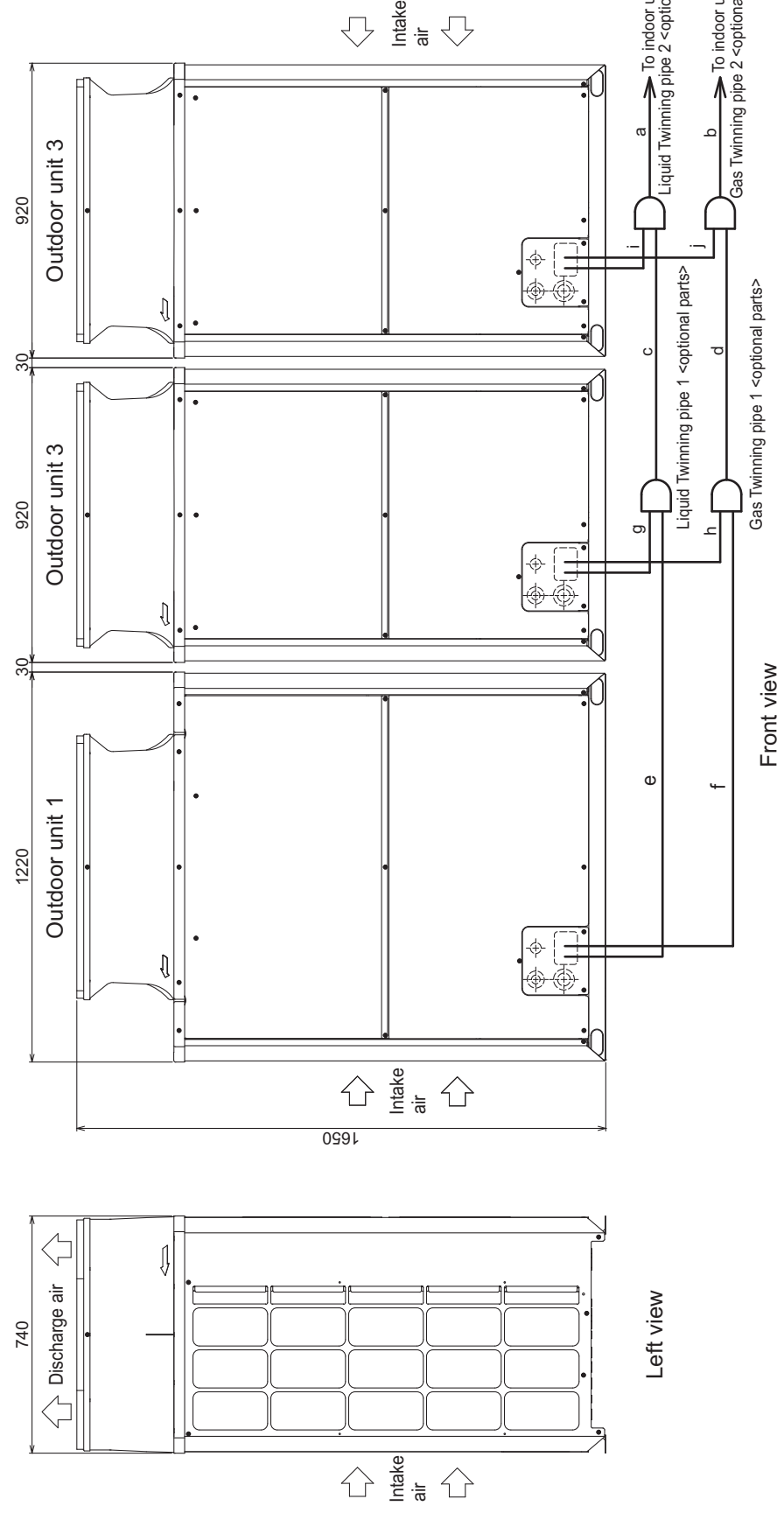
Package unit name			PUHY-P1000TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P500TKA(-BS)
	Outdoor unit 2		PUHY-P500TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y200VBK2
Indoor unit~Twinning pipe	Liquid	a	ø19.05
	Gas	b	ø41.28

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

PUHY-P1050TSKA(-BS)

PUHY-EP750, 800, 850, 900, 950TSKA(-BS)

Unit: mm



Twinning pipe~Outdoor unit	Unit model	Liquid e or g or i	Gas f or h or j
	P200	ø9.52	ø22.2
	P250	ø9.52	ø22.2
	P300	ø12.7	ø22.2
	P350	ø12.7	ø28.58
	P450	ø15.88	ø28.58

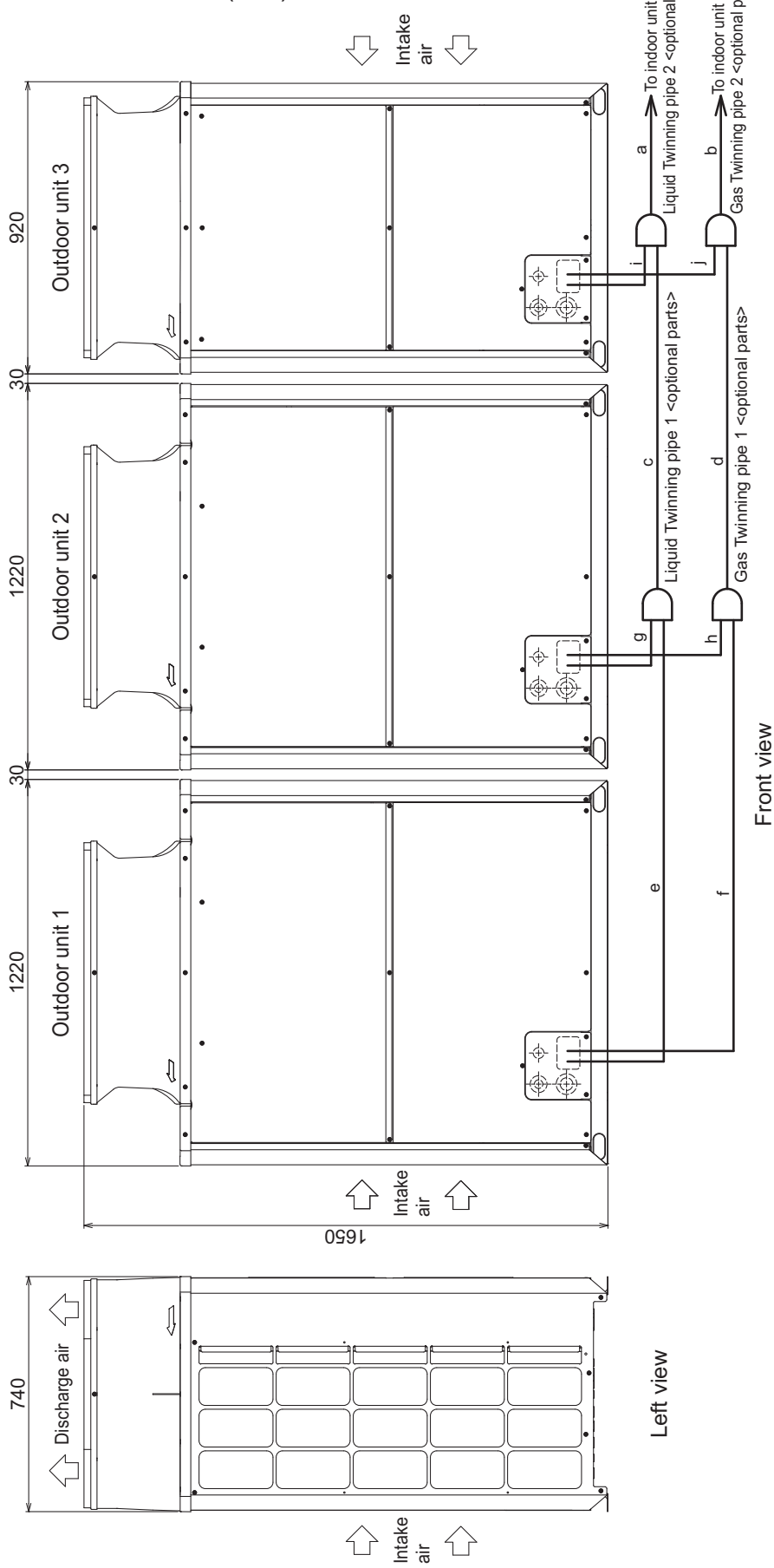
Twinning pipe connection size

Package unit name			PUHY-EP750TSKA(-BS)	PUHY-EP800TSKA(-BS)	PUHY-EP850TSKA(-BS)	PUHY-EP900TSKA(-BS)	PUHY-EP950TSKA(-BS)	PUHY-P1050TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 2		PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)
	Outdoor unit 3		PUHY-P200TKA(-BS)	PUHY-P200TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P250TKA(-BS)	PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3					
Indoor unit~Twinning pipe 2	Liquid	a	ø19.05					
	Gas	b	ø34.93			ø41.28		
Twinning pipe 1~Twinning pipe 2	Liquid	c	ø19.05					
	Gas	d	ø34.93					

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

PUHY-P1100TSKA(-BS)
PUHY-EP1000TSKA(-BS)

Unit: mm



Twinning pipe connection size

Package unit name			PUHY-EP1000TSKA(-BS)	PUHY-P1100TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P350TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 2		PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)
	Outdoor unit 3		PUHY-P300TKA(-BS)	PUHY-P300TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3	
Indoor unit~Twinning pipe 2	Liquid	a	ø19.05	
	Gas	b	ø41.28	
Twinning pipe 1~Twinning pipe 2	Liquid	c	ø19.05	
	Gas	d	ø34.93	

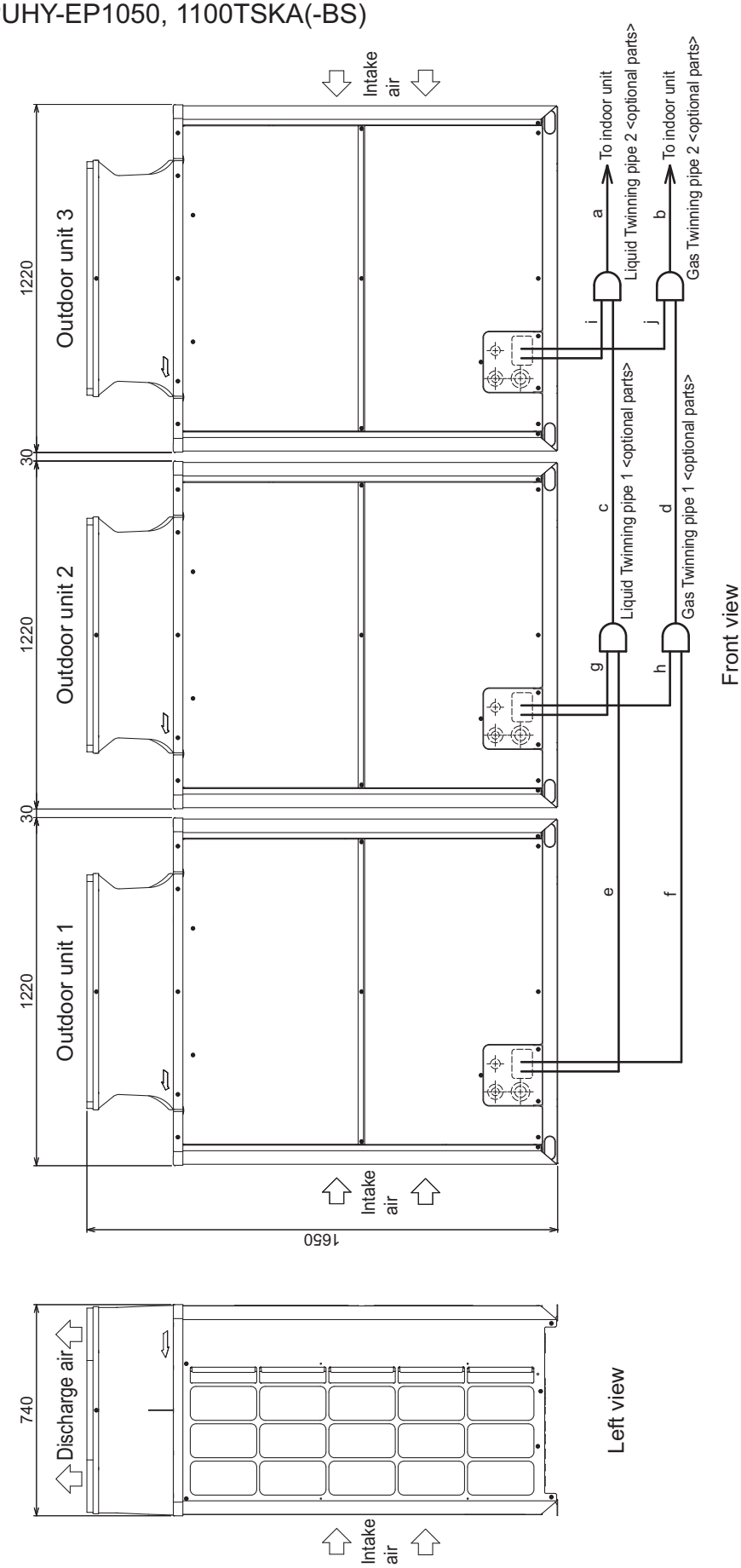
	Unit model	Liquid	Gas
		e or g or i	f or h or j
Twinning pipe~Outdoor unit	P300	ø12.7	ø22.2
	P350	ø12.7	ø28.58
	P450	ø15.88	ø28.58

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

Y

PUHY-P1150, 1200, 1250, 1300, 1350TSKA(-BS)
PUHY-EP1050, 1100TSKA(-BS)

Unit: mm



Twinning pipe connection size

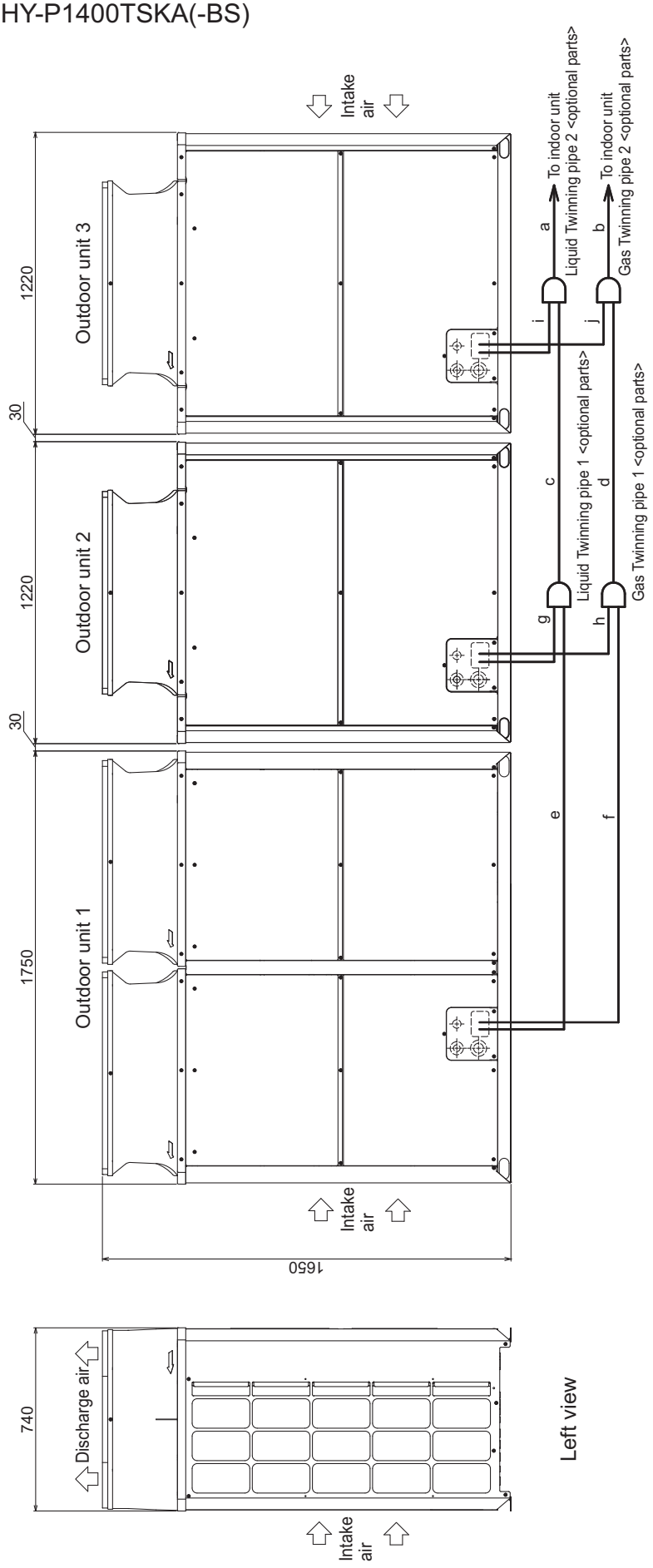
Package unit name			PUHY-EP1050TSKA(-BS)	PUHY-EP1100TSKA(-BS)	PUHY-P1150TSKA(-BS)	PUHY-P1200TSKA(-BS)	PUHY-P1250TSKA(-BS)	PUHY-P1300TSKA(-BS)	PUHY-P1350TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)	PUHY-P450TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 2		PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)	PUHY-P450TKA(-BS)
	Outdoor unit 3		PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P350TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P400TKA(-BS)	PUHY-P450TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3						
Indoor unit~Twinning pipe 2		Liquid	a	ø19.05					
		Gas	b	ø41.28					
Twinning pipe 1~Twinning pipe 2		Liquid	c	ø19.05					
		Gas	d	ø34.93					

Twinning pipe~Outdoor unit	Unit model	Liquid e or g or i	Gas f or h or j
	P350	ø12. 7	ø28.58
	P400	ø15.88	ø28.58
	P450	ø15.88	ø28.58

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

PUHY-P1400TSKA(-BS)

Unit: mm



Twinning pipe connection size

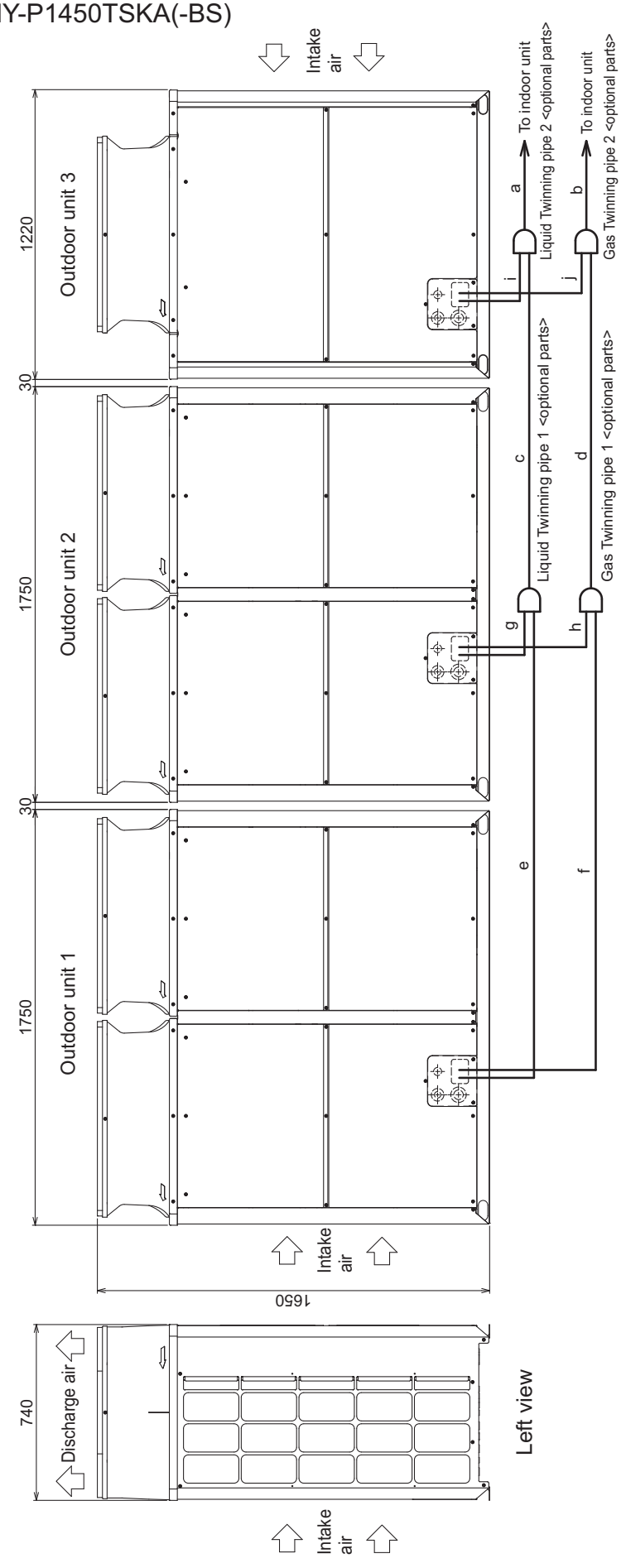
Package unit name			PUHY-P1400TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P500TKA(-BS)
	Outdoor unit 2		PUHY-P450TKA(-BS)
	Outdoor unit 3		PUHY-P450TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3
Indoor unit~Twinning pipe 2	Liquid	a	ø19.05
	Gas	b	ø41.28
Twinning pipe 1~Twinning pipe 2	Liquid	c	ø19.05
	Gas	d	ø34.93

Twinning pipe~Outdoor unit	Unit model	Liquid	Gas
		e or g or i	f or h or j
	P450	ø15.88	ø28.58
	P500		

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

PUHY-P1450TSKA(-BS)

Unit: mm



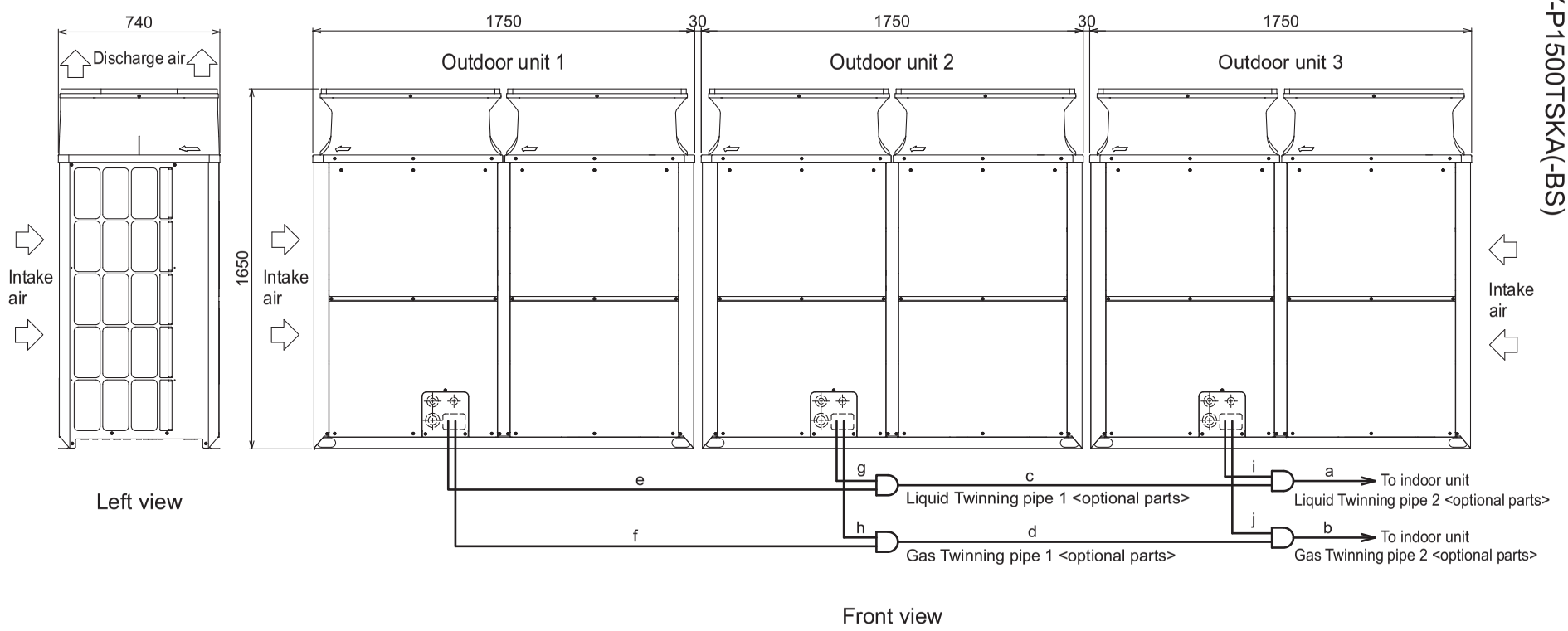
Twinning pipe connection size

Package unit name			PUHY-P1450TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P500TKA(-BS)
	Outdoor unit 2		PUHY-P500TKA(-BS)
	Outdoor unit 3		PUHY-P450TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3
Indoor unit~Twinning pipe 2	Liquid	a	ø19.05
	Gas	b	ø41.28
Twinning pipe 1~Twinning pipe 2	Liquid	c	ø19.05
	Gas	d	ø34.93

	Unit model	Liquid	Gas
		e or g or i	f or h or j
Twinning pipe~Outdoor unit	P450	ø15.88	ø28.58
	P500	ø15.88	ø28.58

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

PUHY-P1500TSKA(-BS)



Twinning pipe connection size

Package unit name			PUHY-P1500TSKA(-BS)
Component unit name	Outdoor unit 1		PUHY-P500TKA(-BS)
	Outdoor unit 2		PUHY-P500TKA(-BS)
	Outdoor unit 3		PUHY-P500TKA(-BS)
Outdoor Twinning Kit(optional parts)			CMY-Y300VBK3
Indoor unit~Twinning pipe 2	Liquid	a	ø19.05
	Gas	b	ø41.28
Twinning pipe 1~Twinning pipe 2	Liquid	c	ø19.05
	Gas	d	ø34.93

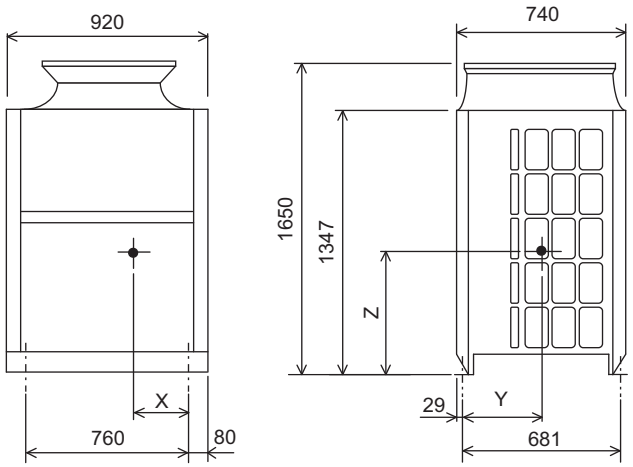
	Unit model	Liquid	Gas
		e or g or i	f or h or j
Twinning pipe~Outdoor unit	P500	ø15.88	ø28.58

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

Unit: mm

Y

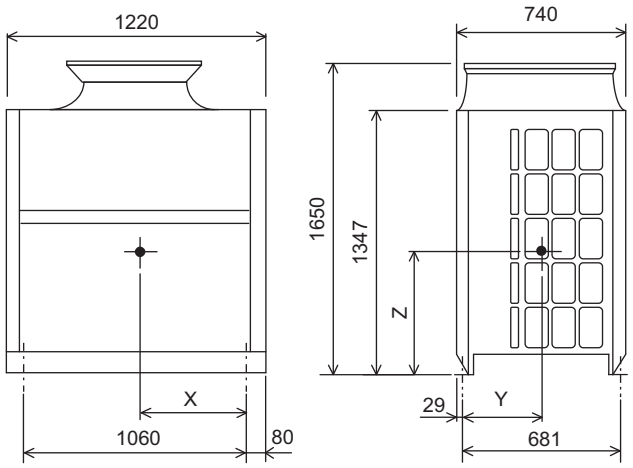
PUHY-P200, 250, 300TKA (-BS)



Unit: mm

Model	X	Y	Z
PUHY-P200TKA(-BS)	309	282	632
PUHY-P250TKA(-BS)	309	282	632
PUHY-P300TKA(-BS)	314	282	620

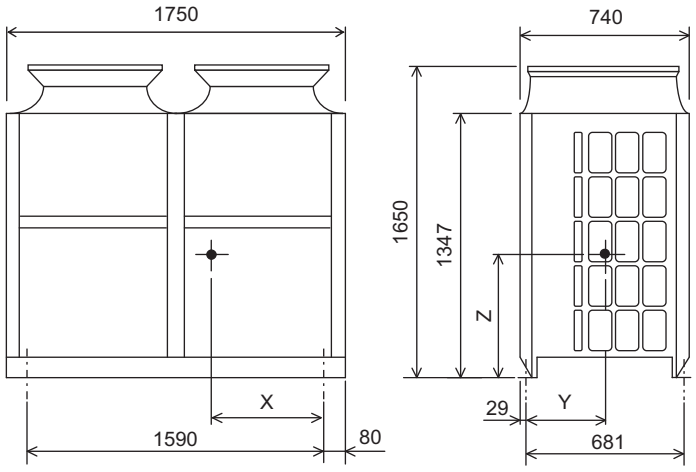
PUHY-P350, 400, 450TKA (-BS)



Unit: mm

Model	X	Y	Z
PUHY-P350TKA(-BS)	431	310	589
PUHY-P400TKA(-BS)	431	310	589
PUHY-P450TKA(-BS)	431	310	589

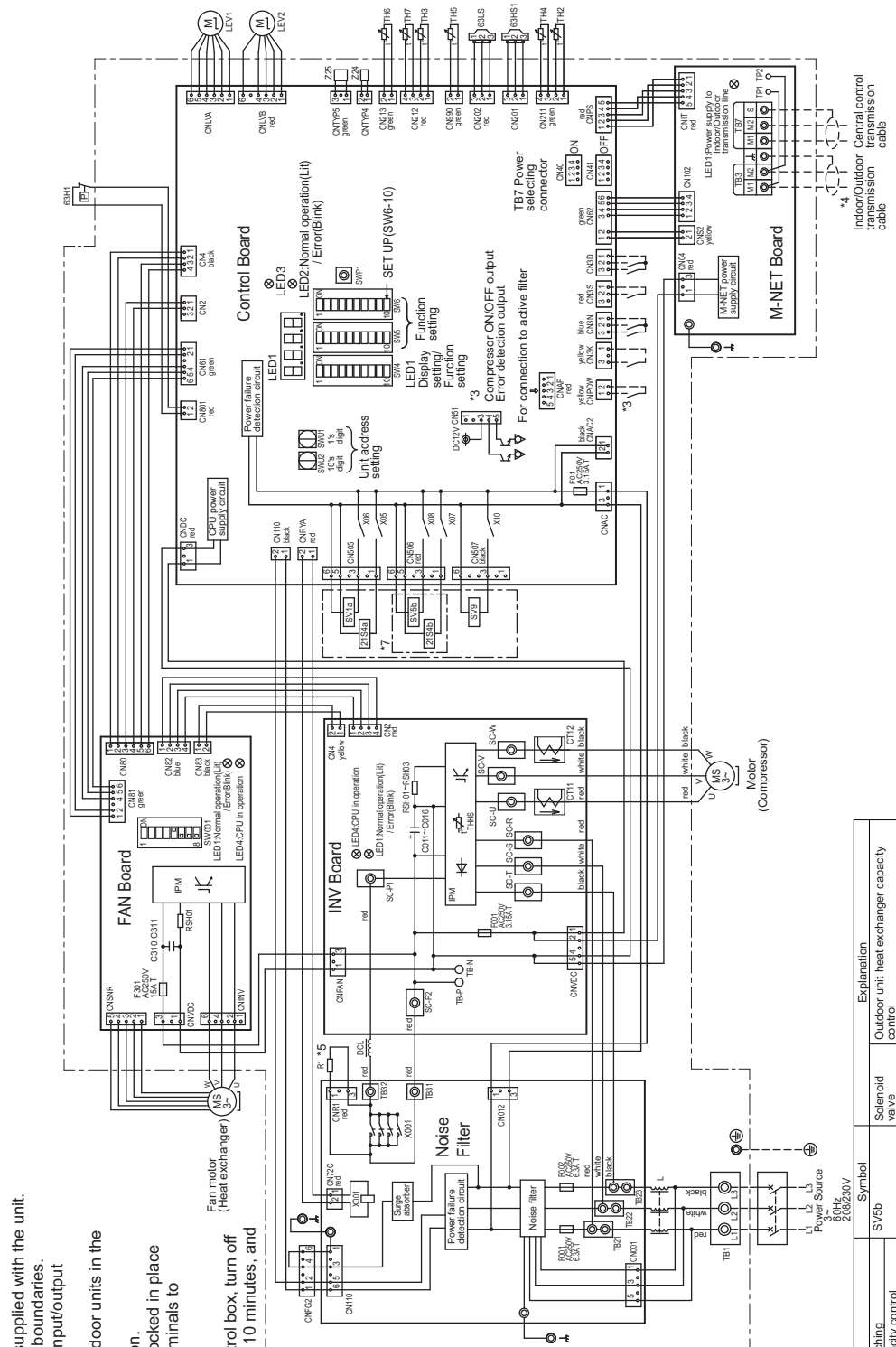
PUHY-P500TKA (-BS)



Unit: mm

Model	X	Y	Z
PUHY-P500TKA(-BS)	669	311	643

PUHY-P200, 250, 300, 350TKA(-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 TB-P and TB-N on INV Board has dropped to DC20V or less.
*7. Difference of appliance

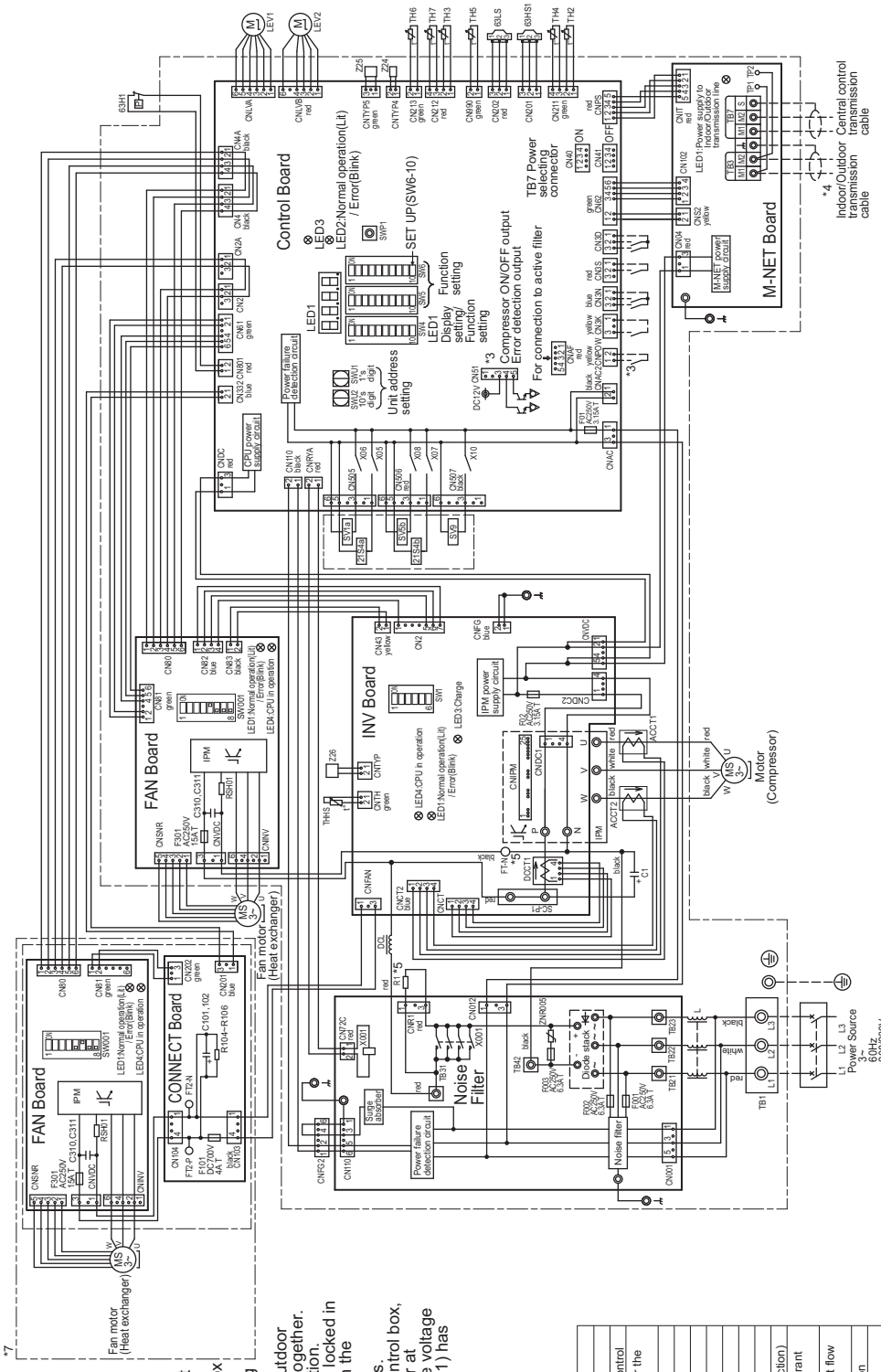
Model name	Appliance
P200/P250/P300	*7 do not exist
P350	*7 exist

<Symbol explanation>

Symbol		Explanation	Symbol		Explanation
21S4a	4-way valve	Cooling/Heating switching	SV5b	Solenoid valve	Outdoor unit heat exchanger capacity control
21S4b		Heat exchanger capacity control			
63H1	Pressure switch	High pressure protection for the outdoor unit	SV9		For opening/closing the bypass circuit
63HS1	Pressure sensor	Discharge pressure	TB1	Terminal block	Power supply
63LS		Low pressure	TB3		Indoor/Outdoor transmission cable
X001	Magnetic relay (Inverter main circuit)				
C011~C016	Capacitor (inverter main circuit)		TB7		Central control transmission cable
CT11,12	Current sensor(AC)				
DCL	DC reactor		TH2	Thermistor	Subcool bypass outlet temperature
L	Choke coil (for high frequency noise reduction)				
LEV1	Linear expansion valve	HIC bypass,Controls refrigerant flow in HIC circuit	TH3		Pipe temperature
			TH4		Discharge pipe temperature
LEV2		Pressure control,Refrigerant flow rate control	TH5		ACC inlet pipe temperature
			TH6		Subcooled liquid refrigerant temperature
R1	Resistor	For inrush current prevention	TH7		OA temperature
RSH01(FAN Board)		For current detection	THHS		IPM temperature
RSH01~RSH03 (INV Board)		For current detection	Z24,25	Function setting connector	
SV1a	Solenoid valve	For opening/closing the bypass circuit under the O/S			

Y

PUHY-P400, 450, 500TKA(-BS)



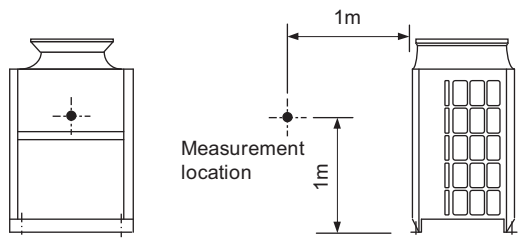
*1. Single-dotted lines indicate wiring not supplied with the unit.
*2. Dot-dash lines indicate the control box boundaries.
*3. Refer to the Data book for connecting input/output signal connectors.
*4. Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
*5. Faston 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.
*7. Difference of appliance

Model name	Appliance
P400/P450	*7 do not exist
P500	*7 exist

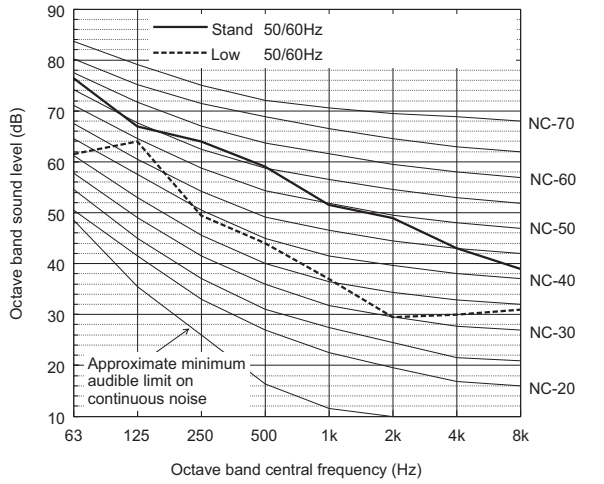
<Symbol explanation>

Symbol		Explanation
21S4a	4-way valve	Cooling/Heating switching
21S4b		Heat exchanger capacity control
63H1	Pressure switch	High pressure protection for the outdoor unit
63HS1	Pressure sensor	Discharge pressure
63LS		Low pressure
X001	Magnetic relay (Inverter main circuit)	
ACCT1,2	Current sensor(AC)	
C1	Capacitor (inverter main circuit)	
DCCT1	Current sensor(DC)	
DCL	DC reactor	
L	Choke coil (for high frequency noise reduction)	
LEV1	Linear expansion valve	HIC bypass,Controls refrigerant flow in HIC circuit
LEV2		Pressure control,Refrigerant flow rate control
R1	Resistor	For inrush current prevention
RSH01		For current detection
SV1a	Solenoid valve	For opening/closing the bypass circuit under the O/S
SV5b		Outdoor unit heat exchanger capacity control
SV9		For opening/closing the bypass circuit
TB1	Terminal block	Power supply
TB3		Indoor/Outdoor transmission cable
TB7		Central control transmission cable
TH2	Thermistor	Subcool bypass outlet temperature
TH3		Pipe temperature
TH4		Discharge pipe temperature
TH5		ACC inlet pipe temperature
TH6		Subcooled liquid refrigerant temperature
TH7		OA temperature
THHS		IPM temperature
Z24,25,26	Function setting connector	

Measurement condition
PUHY-P200, 250, 300TKA(-BS)



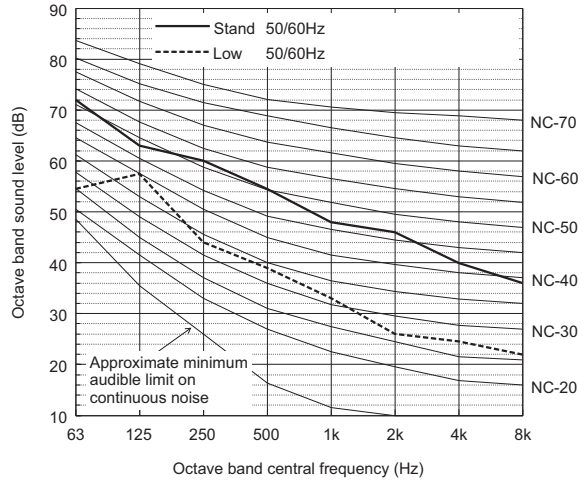
Sound level of PUHY-P300TKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.5	67.0	64.0	59.0	51.5	49.0	43.0	39.0	61.0
Low noise mode	50/60Hz	61.5	64.0	49.5	44.0	37.0	29.5	30.0	31.0	50.0

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

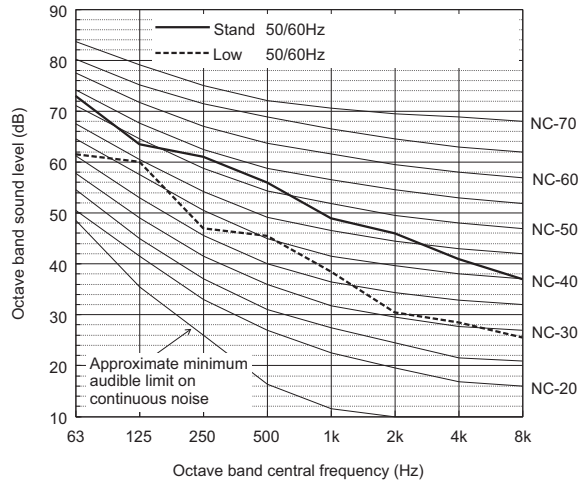
Sound level of PUHY-P200TKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	72.0	63.0	60.0	54.5	48.0	46.0	40.0	36.0	57.0
Low noise mode	50/60Hz	54.5	57.5	44.0	39.0	33.0	26.0	24.5	22.0	44.0

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

Sound level of PUHY-P250TKA(-BS)

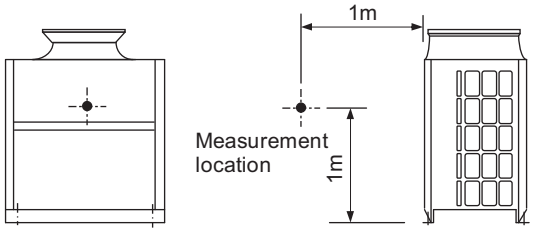


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.0	63.5	61.0	56.0	49.0	46.0	41.0	37.0	58.0
Low noise mode	50/60Hz	61.5	60.0	47.0	45.5	38.5	30.5	28.5	25.5	48.0

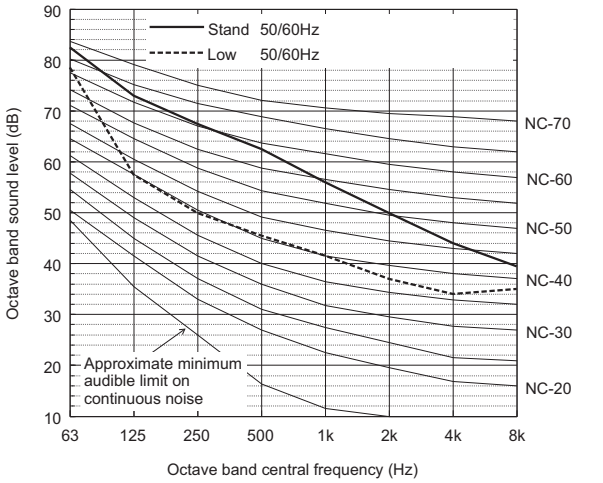
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-P350, 400, 450TKA(-BS)



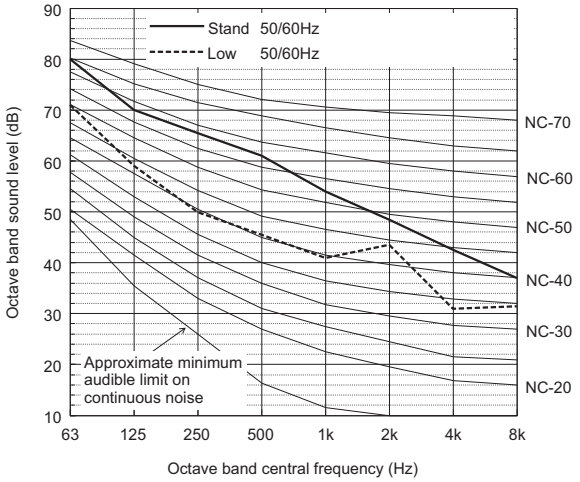
Sound level of PUHY-P450TKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.5	73.0	67.5	62.5	56.0	50.0	44.0	39.5	65.0
Low noise mode	50/60Hz	78.5	57.5	50.0	45.5	41.5	37.0	34.0	35.0	54.0

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

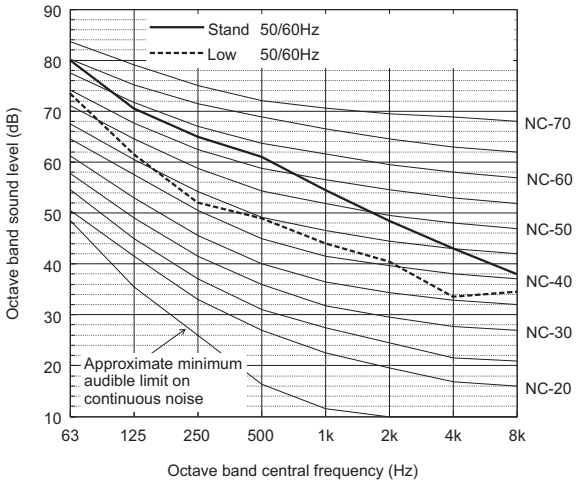
Sound level of PUHY-P350TKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.0	70.0	65.5	61.0	54.0	48.5	42.5	37.0	63.0
Low noise mode	50/60Hz	71.0	59.0	50.0	45.5	41.0	43.5	31.0	31.5	51.0

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 PUHY-P400TKA(-BS)

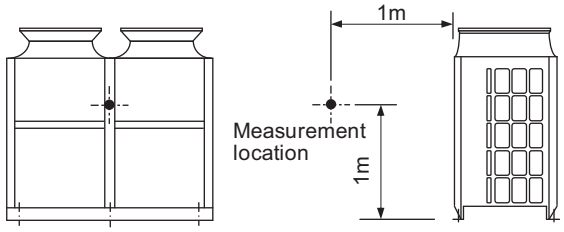


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.0	70.5	65.0	61.0	54.5	48.5	43.0	38.0	63.0
Low noise mode	50/60Hz	73.5	61.5	52.0	49.0	44.0	40.5	33.5	34.5	53.0

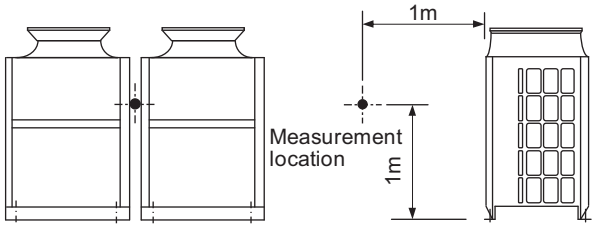
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

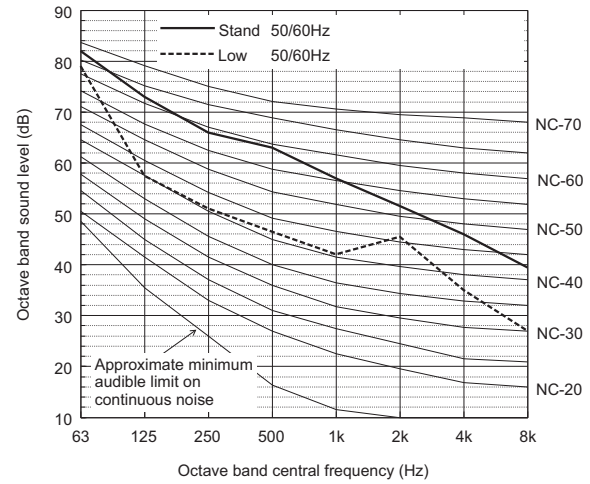
Measurement condition
PUHY-P500TKA(-BS)



Measurement condition
PUHY-P550TSKA(-BS)



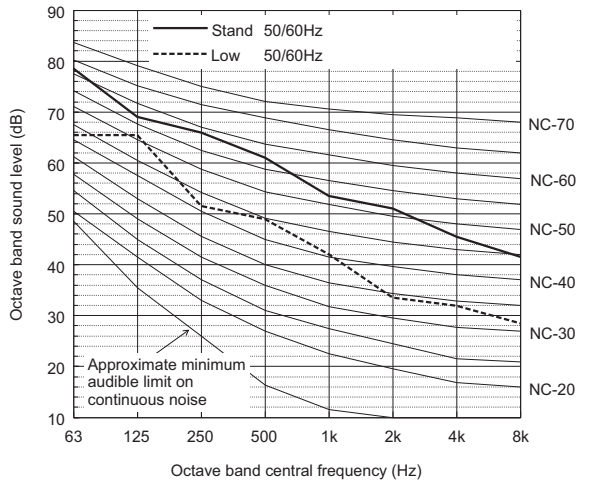
Sound level of PUHY-P500TKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.0	73.0	66.0	63.0	57.0	51.5	46.0	39.5	65.0
Low noise mode	50/60Hz	79.0	57.5	51.0	46.5	42.0	45.5	35.0	27.0	55.0

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 PUHY-P550TSKA(-BS)

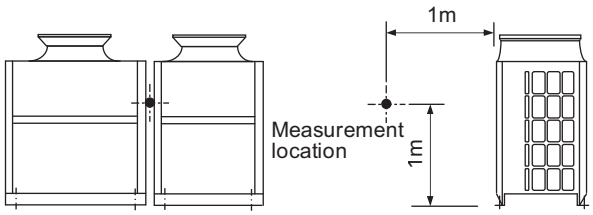


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	78.5	69.0	66.0	61.0	53.5	51.0	45.5	41.5	63.0
Low noise mode	50/60Hz	65.5	65.5	51.5	49.0	42.0	33.5	32.0	28.5	52.5

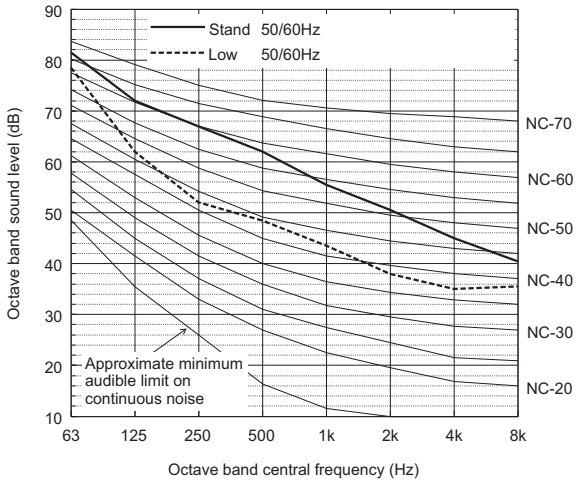
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-P600, 650, 700, 750TSKA(-BS)



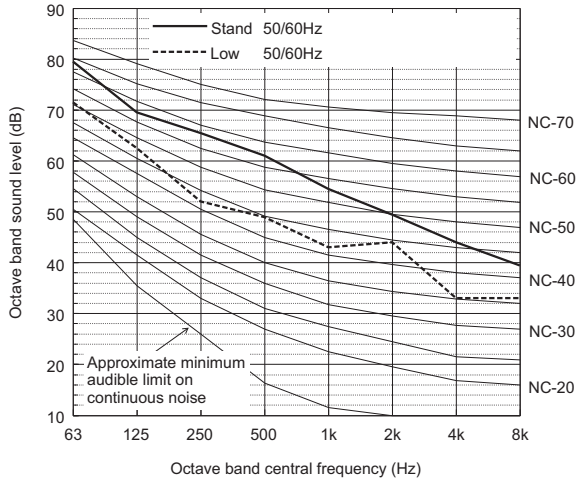
Sound level of PUHY-P700TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	81.5	72.0	67.0	62.0	55.5	50.5	45.0	40.5	64.5
Low noise mode	50/60Hz	78.5	62.0	52.0	48.5	43.5	38.0	35.0	35.5	55.0

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.

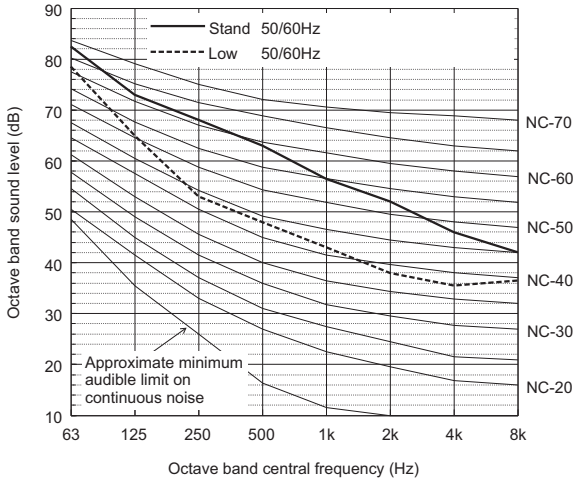
Sound level of PUHY-P600TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	79.5	69.5	65.5	61.0	54.5	49.5	44.0	39.5	63.0
Low noise mode	50/60Hz	71.5	62.5	52.0	49.0	43.0	44.0	33.0	33.0	53.0

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.

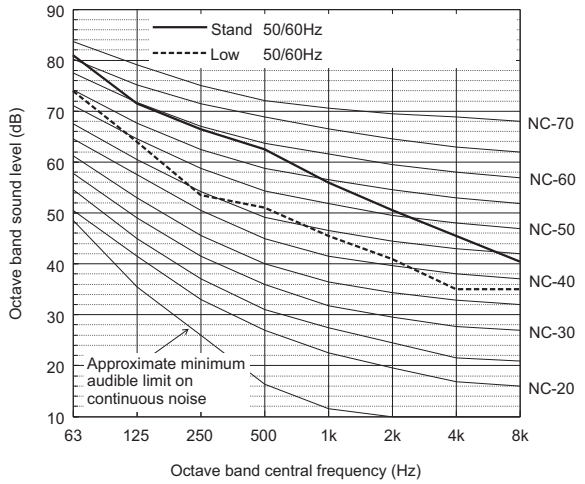
Sound level of PUHY-P750TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.5	73.0	68.0	63.0	56.5	52.0	46.0	42.0	65.5
Low noise mode	50/60Hz	78.5	65.0	53.0	48.0	43.0	38.0	35.5	36.5	55.5

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

Sound level of PUHY-P650TSKA(-BS)

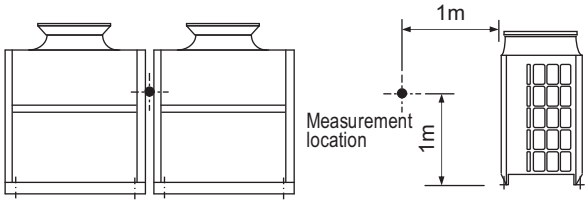


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	81.0	71.5	66.5	62.5	56.0	50.5	45.5	40.5	64.5
Low noise mode	50/60Hz	74.0	64.0	53.5	51.0	45.5	41.0	35.0	35.0	54.5

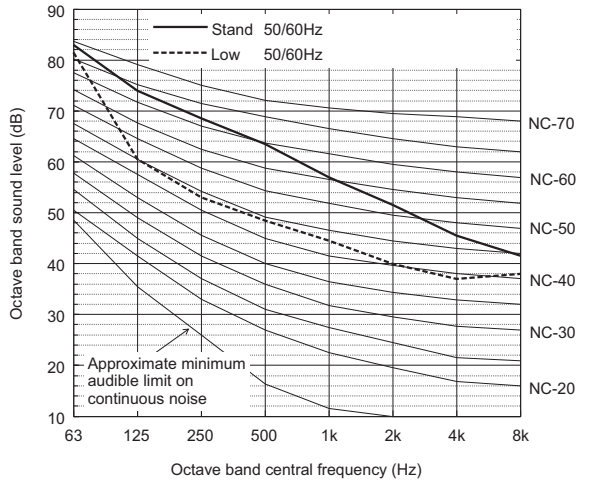
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-P800, 850, 900TSKA(-BS)



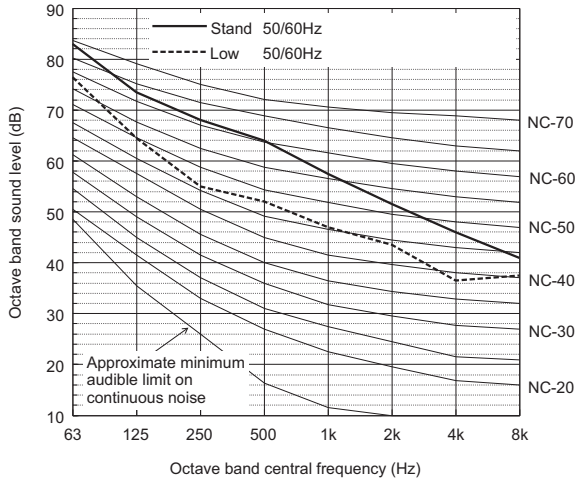
Sound level of PUHY-P900TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	83.0	74.0	68.5	63.5	57.0	51.5	45.5	41.5	66.0
Low noise mode	50/60Hz	81.5	60.5	53.0	48.5	44.5	40.0	37.0	38.0	57.0

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.

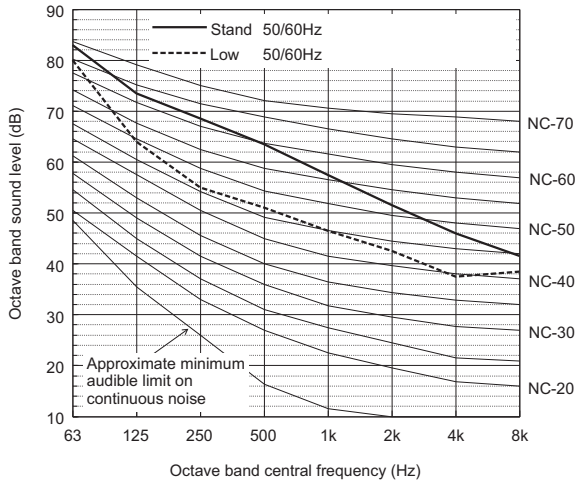
Sound level of PUHY-P800TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	83.0	73.5	68.0	64.0	57.5	51.5	46.0	41.0	66.0
Low noise mode	50/60Hz	76.5	64.5	55.0	52.0	47.0	43.5	36.5	37.5	56.0

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

Sound level of PUHY-P850TSKA(-BS)

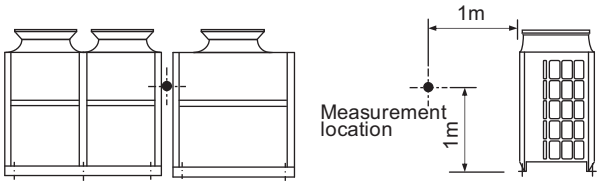


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	83.0	73.5	68.5	63.5	57.5	51.5	46.0	41.5	66.0
Low noise mode	50/60Hz	80.0	64.0	55.0	51.0	46.5	42.5	37.5	38.5	57.0

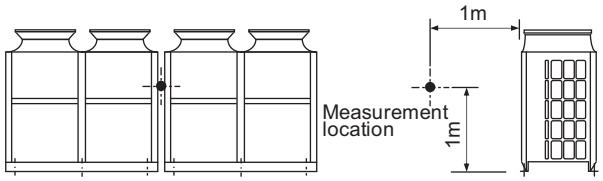
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

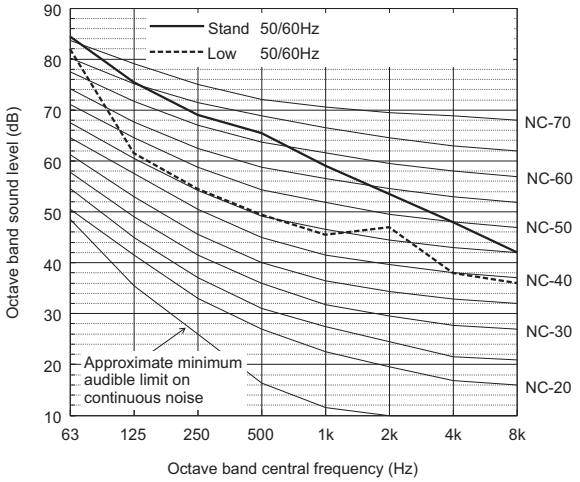
Measurement condition
PUHY-P950TSKA(-BS)



Measurement condition
PUHY-P1000TSKA(-BS)



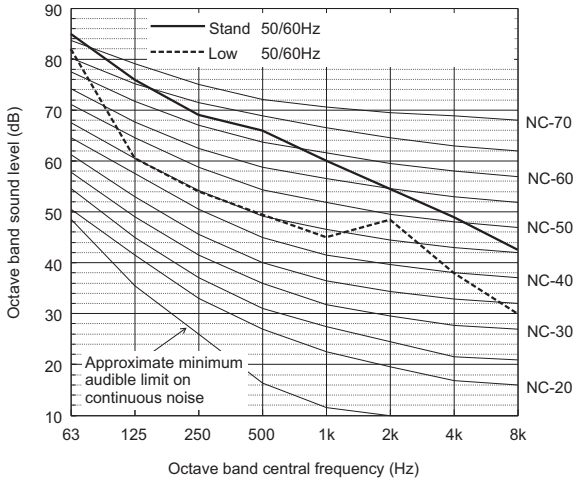
Sound level of PUHY-P950TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	84.5	75.5	69.0	65.5	59.0	53.5	48.0	42.0	67.5
Low noise mode	50/60Hz	82.0	61.5	54.5	49.5	45.5	47.0	38.0	36.0	58.0

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 PUHY-P1000TSKA(-BS)

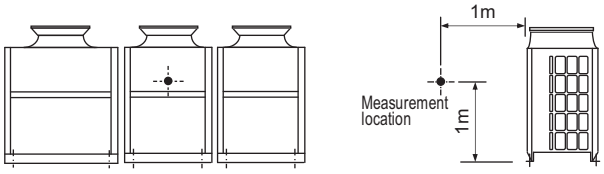


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.0	76.0	69.0	66.0	60.0	54.5	49.0	42.5	68.0
Low noise mode	50/60Hz	82.0	60.5	54.0	49.5	45.0	48.5	38.0	30.0	58.0

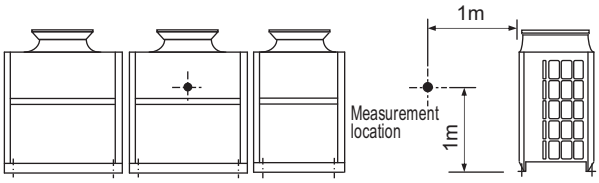
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

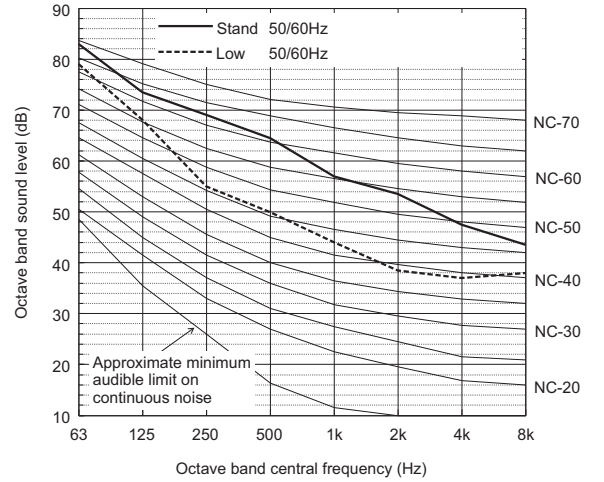
Measurement condition
PUHY-P1050TSKA(-BS)



Measurement condition
PUHY-P1100TSKA(-BS)



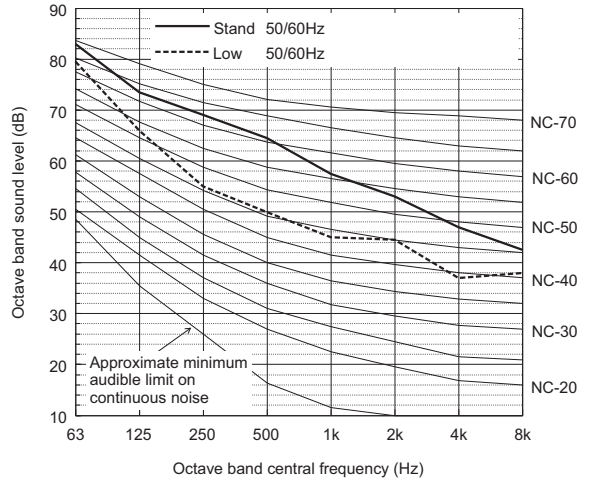
Sound level of PUHY-P1050TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	83.0	73.5	69.0	64.5	57.0	53.5	47.5	43.5	66.5
Low noise mode	50/60Hz	79.0	68.0	55.0	50.0	44.0	38.5	37.0	38.0	57.0

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 PUHY-P1100TSKA(-BS)

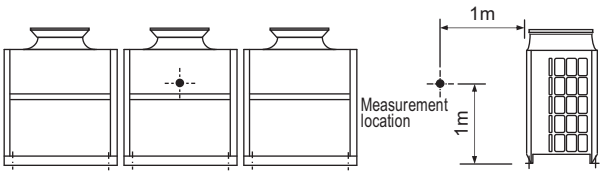


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	83.0	73.5	69.0	64.5	57.5	53.0	47.0	42.5	66.5
Low noise mode	50/60Hz	79.5	66.0	55.0	50.0	45.0	44.5	37.0	38.0	57.0

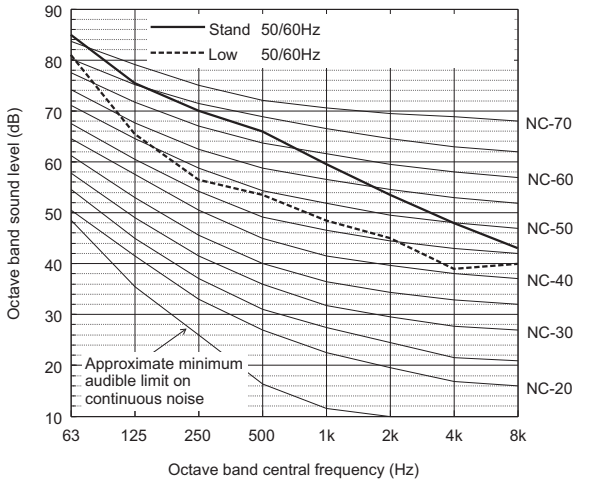
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-P1150, 1200, 1250, 1300, 1350TSKA(-BS)



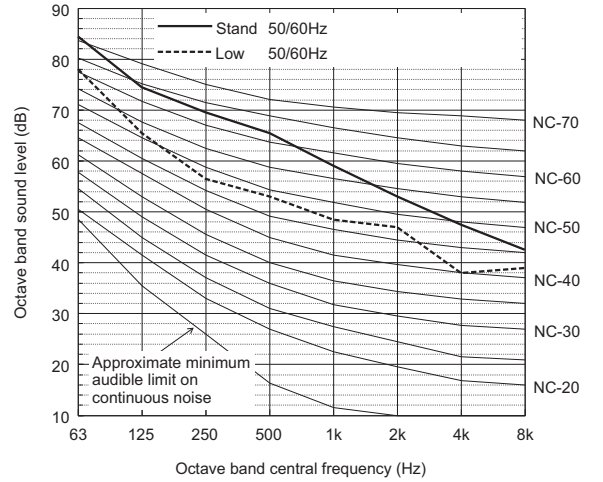
Sound level of PUHY-P1250TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.0	75.5	70.0	66.0	59.5	53.5	48.0	43.0	68.0
Low noise mode	50/60Hz	81.0	65.5	56.5	53.5	48.5	45.0	39.0	40.0	58.5

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

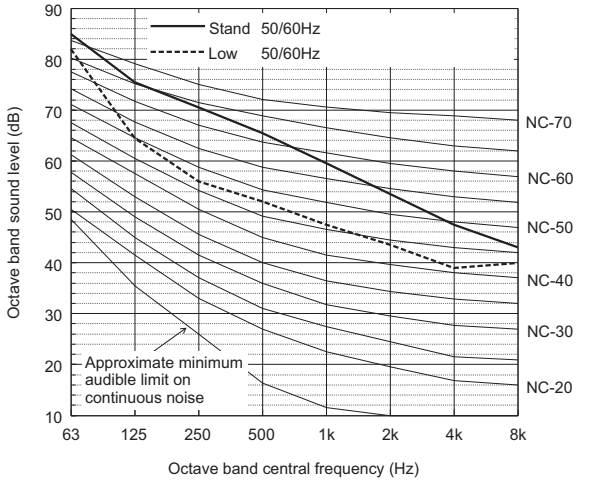
Sound level of PUHY-P1150TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	84.5	74.5	69.5	65.5	59.0	53.0	47.5	42.5	67.5
Low noise mode	50/60Hz	78.0	65.5	56.5	53.0	48.5	47.0	38.0	39.0	57.5

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

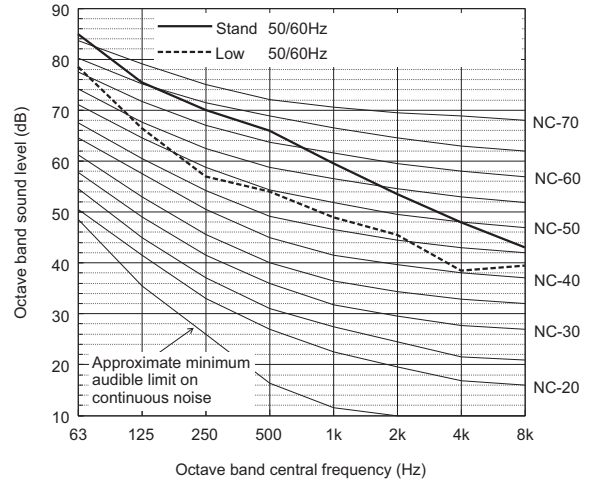
Sound level of PUHY-P1300TSKA-(BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.0	75.5	70.5	65.5	59.5	53.5	47.5	43.0	68.0
Low noise mode	50/60Hz	82.0	64.5	56.0	52.0	47.5	43.5	39.0	40.0	58.5

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

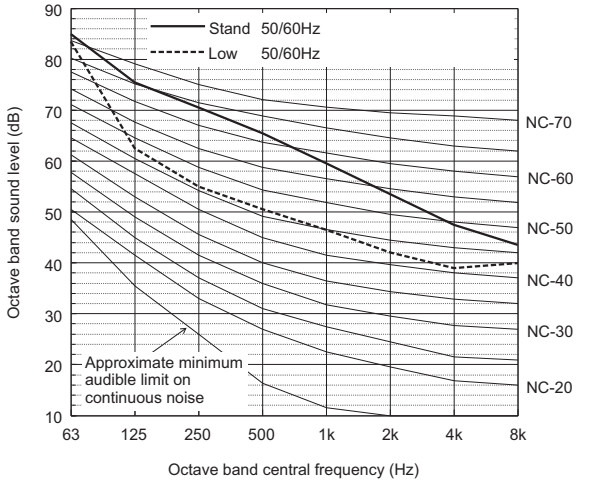
Sound level of PUHY-P1200TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.0	75.5	70.0	66.0	59.5	53.5	48.0	43.0	68.0
Low noise mode	50/60Hz	78.5	66.5	57.0	54.0	49.0	45.5	38.5	39.5	58.0

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 PUHY-P1350TSKA(-BS)

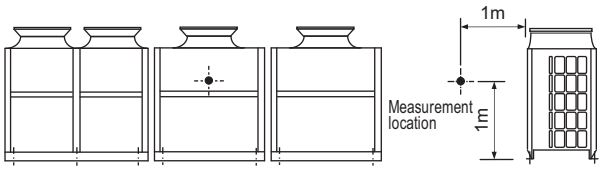


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.0	75.5	70.5	65.5	59.5	53.5	47.5	43.5	68.0
Low noise mode	50/60Hz	83.5	62.5	55.0	50.5	46.5	42.0	39.0	40.0	59.0

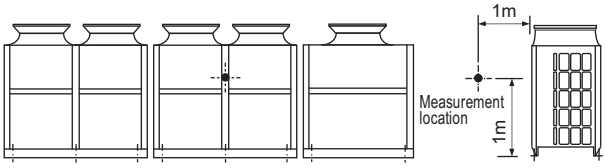
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

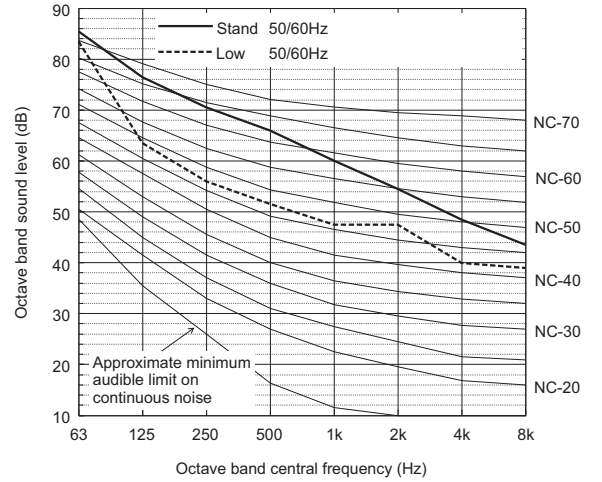
Measurement condition
PUHY-P1400TSKA(-BS)



Measurement condition
PUHY-P1450TSKA(-BS)



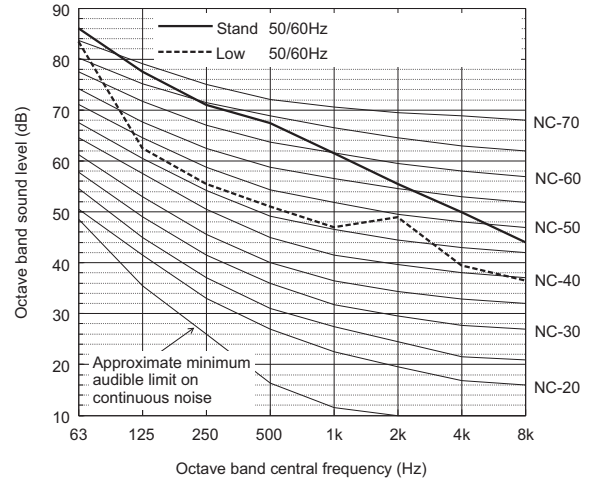
Sound level of PUHY-P1400TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	85.5	76.5	70.5	66.0	60.0	54.5	48.5	43.5	68.5
Low noise mode	50/60Hz	83.5	63.5	56.0	51.5	47.5	47.5	40.0	39.0	59.5

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

Sound level of PUHY-P1450TSKA(-BS)



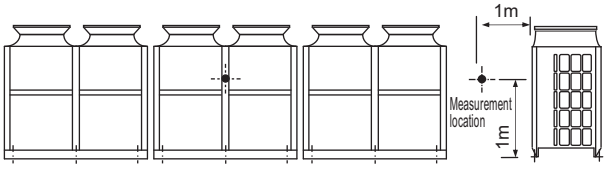
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	86.0	77.5	71.0	67.5	61.5	55.5	50.0	44.0	69.5
Low noise mode	50/60Hz	83.5	62.5	55.5	51.0	47.0	49.0	39.5	36.5	59.5

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

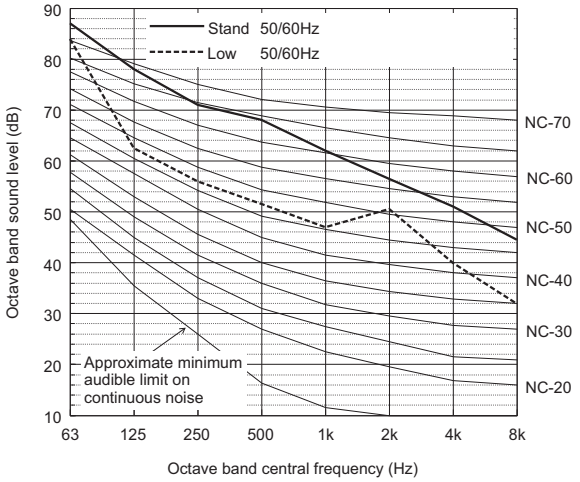
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

Y

Measurement condition
PUHY-P1500TSKA(-BS)



Sound level of PUHY-P1500TSKA(-BS)

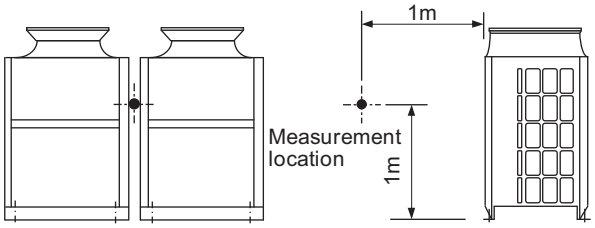


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	87.0	78.0	71.0	68.0	62.0	56.5	51.0	44.5	70.0
Low noise mode	50/60Hz	84.0	62.5	56.0	51.5	47.0	50.5	40.0	32.0	60.0

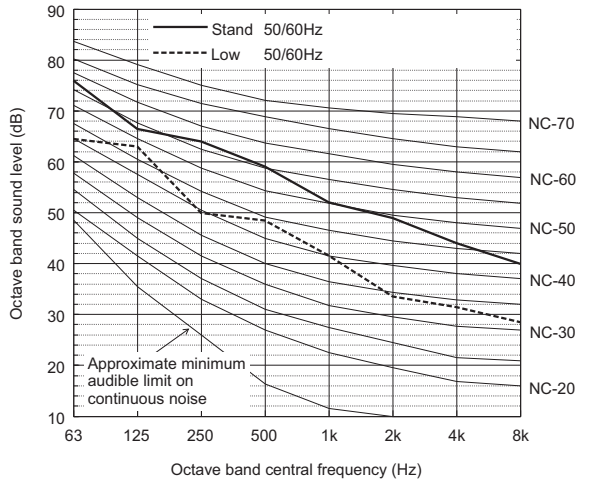
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-EP400, 450, 500TSKA(-BS)



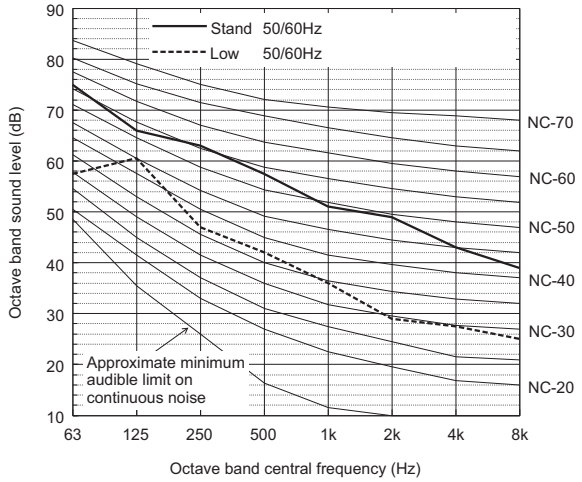
Sound level of PUHY-EP500TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.0	66.5	64.0	59.0	52.0	49.0	44.0	40.0	61.0
Low noise mode	50/60Hz	64.5	63.0	50.0	48.5	41.5	33.5	31.5	28.5	51.0

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.

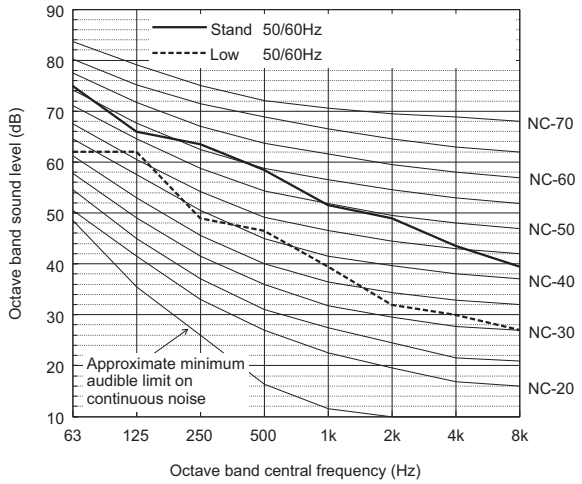
Sound level of PUHY-EP400TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	75.0	66.0	63.0	57.5	51.0	49.0	43.0	39.0	60.0
Low noise mode	50/60Hz	57.5	60.5	47.0	42.0	36.0	29.0	27.5	25.0	47.0

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

Sound level of PUHY-EP450TSKA(-BS)



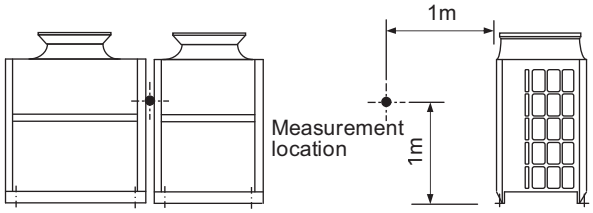
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	75.0	66.0	63.5	58.5	51.5	49.0	43.5	39.5	60.5
Low noise mode	50/60Hz	62.0	62.0	49.0	46.5	39.5	32.0	30.0	27.0	49.5

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

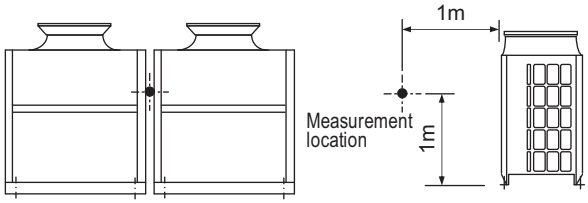
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

Y

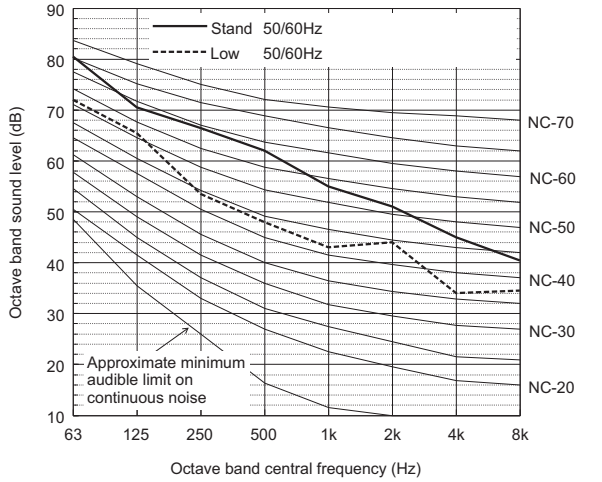
Measurement condition
PUHY-EP650TSKA(-BS)



Measurement condition
PUHY-EP700TSKA(-BS)



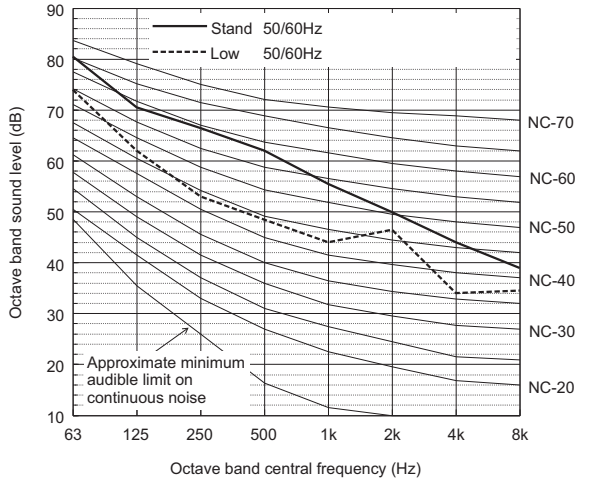
Sound level of PUHY-EP650TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.5	70.5	66.5	62.0	55.0	51.0	45.0	40.5	64.0
Low noise mode	50/60Hz	72.0	65.5	53.5	48.0	43.0	44.0	34.0	34.5	54.0

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

Sound level of PUHY-EP700TSKA(-BS)

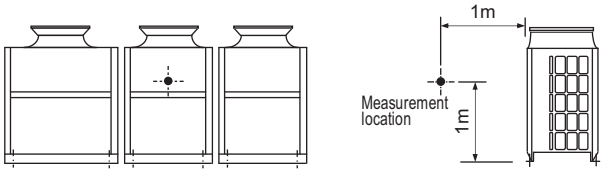


		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.5	70.5	66.5	62.0	55.5	50.0	44.0	39.0	64.0
Low noise mode	50/60Hz	74.0	62.0	53.0	48.5	44.0	46.5	34.0	34.5	54.0

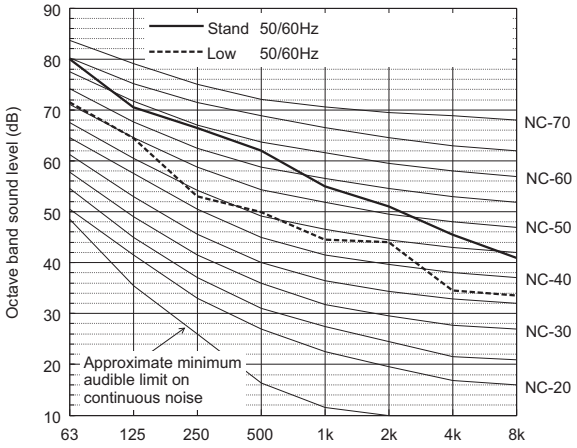
When Low noise mode is set,the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

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

Measurement condition
PUHY-EP750, 800, 850, 900, 950TSKA(-BS)



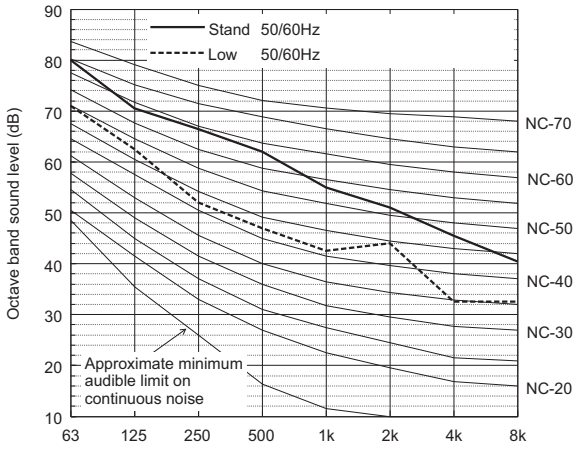
Sound level of PUHY-EP850TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.0	70.5	66.5	62.0	55.0	51.0	45.5	41.0	64.0
Low noise mode	50/60Hz	71.5	64.5	53.0	50.0	44.5	44.0	34.5	33.5	54.0

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

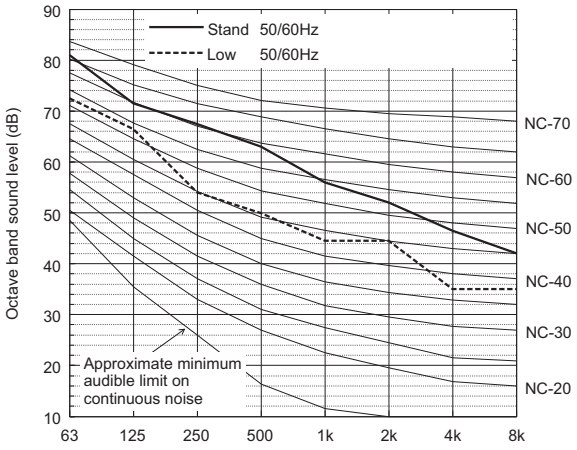
Sound level of PUHY-EP750TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.0	70.5	66.5	62.0	55.0	51.0	45.5	40.5	64.0
Low noise mode	50/60Hz	71.0	62.5	52.0	47.0	42.5	44.0	32.5	32.5	52.5

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

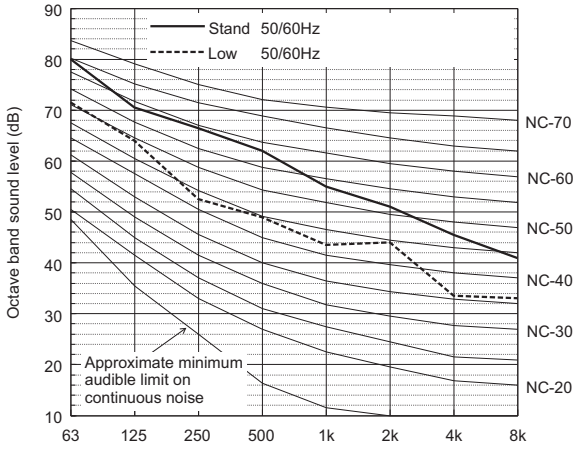
Sound level of PUHY-EP900TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	81.0	71.5	67.5	63.0	56.0	52.0	46.5	42.0	65.0
Low noise mode	50/60Hz	72.5	66.5	54.0	50.0	44.5	44.5	35.0	35.0	55.0

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.

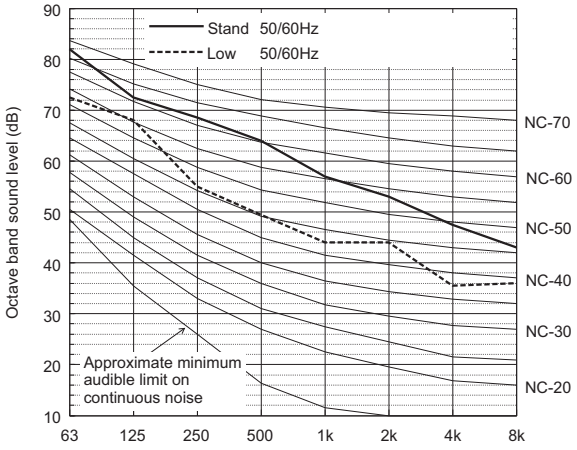
Sound level of PUHY-EP800TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	80.0	70.5	66.5	62.0	55.0	51.0	45.5	41.0	64.0
Low noise mode	50/60Hz	71.5	64.0	52.5	49.0	43.5	44.0	33.5	33.0	53.5

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

Sound level of PUHY-EP950TSKA(-BS)



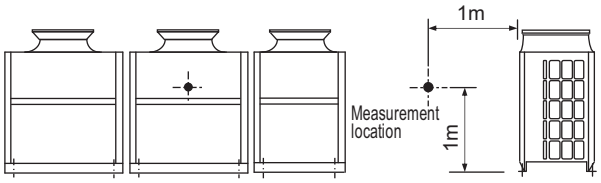
		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.0	72.5	68.5	64.0	57.0	53.0	47.5	43.0	66.0
Low noise mode	50/60Hz	72.5	68.0	55.0	49.5	44.0	44.0	35.5	36.0	55.5

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

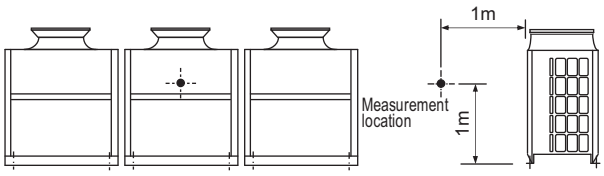
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

Y

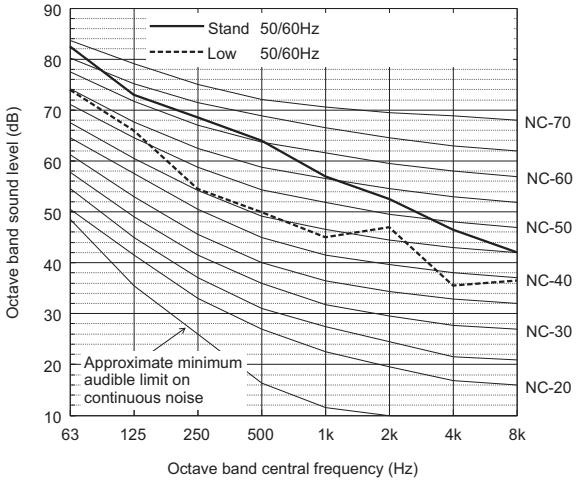
Measurement condition
PUHY-EP1000TSKA(-BS)



Measurement condition
PUHY-EP1050, 1100TSKA(-BS)



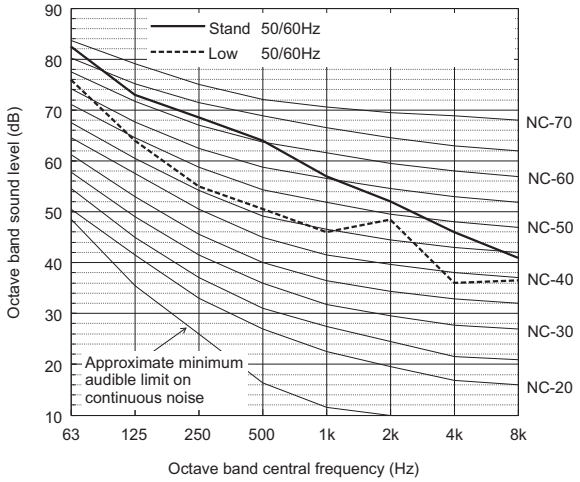
Sound level of PUHY-EP1000TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.5	73.0	68.5	64.0	57.0	52.5	46.5	42.0	66.0
Low noise mode	50/60Hz	74.0	66.0	54.5	50.0	45.0	47.0	35.5	36.5	55.5

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

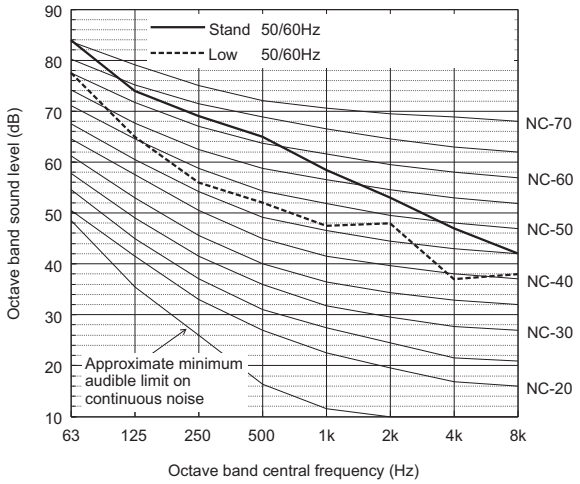
Sound level of PUHY-EP1050TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	82.5	73.0	68.5	64.0	57.0	52.0	46.0	41.0	66.0
Low noise mode	50/60Hz	76.0	64.0	55.0	50.5	46.0	48.5	36.0	36.5	56.0

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

Sound level of PUHY-EP1100TSKA(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	84.0	74.0	69.0	65.0	58.5	53.0	47.0	42.0	67.0
Low noise mode	50/60Hz	77.5	65.0	56.0	52.0	47.5	48.0	37.0	38.0	57.0

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

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

[PUHY-(E)P200-500TKA, PUHY-(E)P400-1500TSKA]

Measurement condition

Measurement frequency: 1 Hz-80 Hz

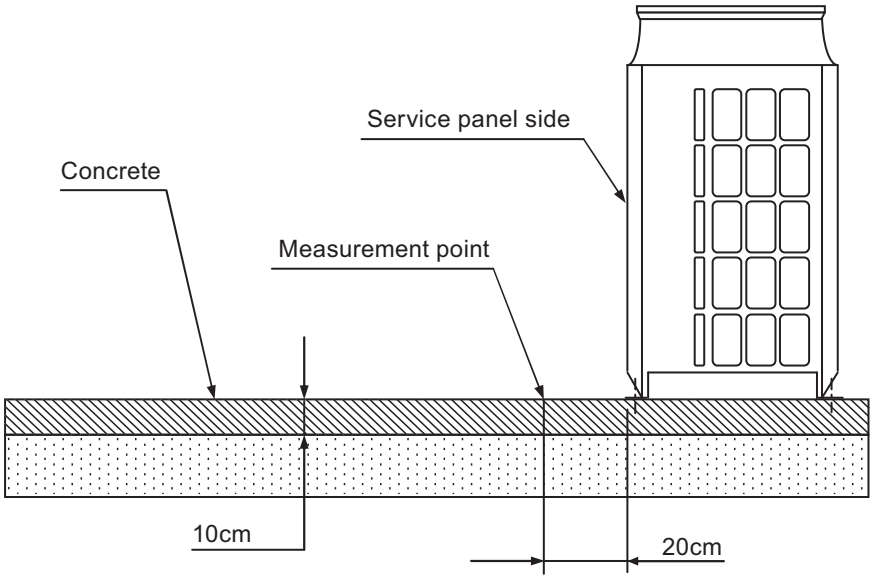
Measurement point: Ground surface 20 cm away from the unit leg

Installation condition: Direct installation on the concrete floor

Power source: 3-phase 3-wire 208-220-230 V 50/60 Hz

Operation condition: JIS condition (cooling, heating)

Measurement device: Vibration level meter for vibration pollution VM-1220C (JIS-compliant product)

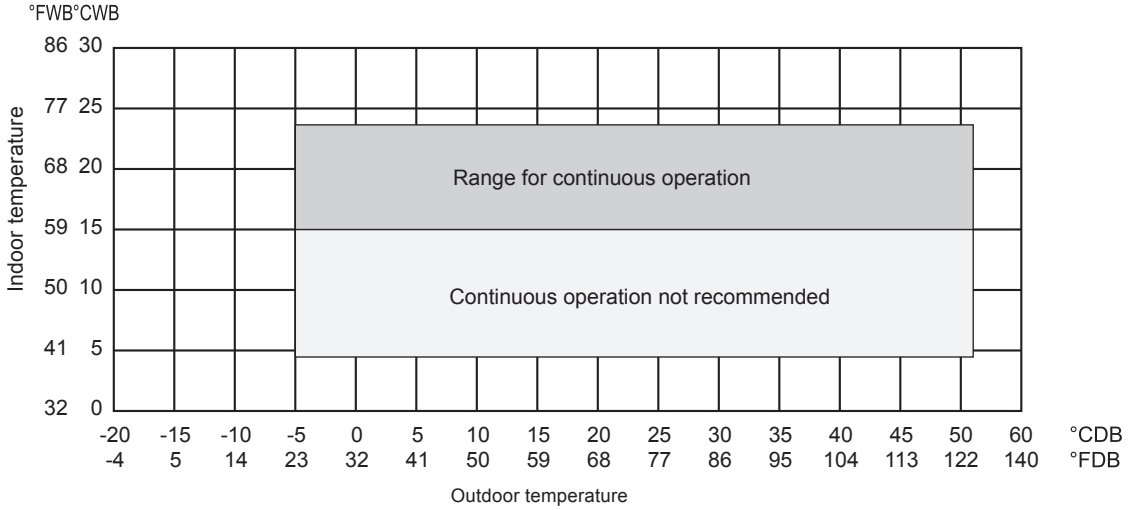


Vibration level

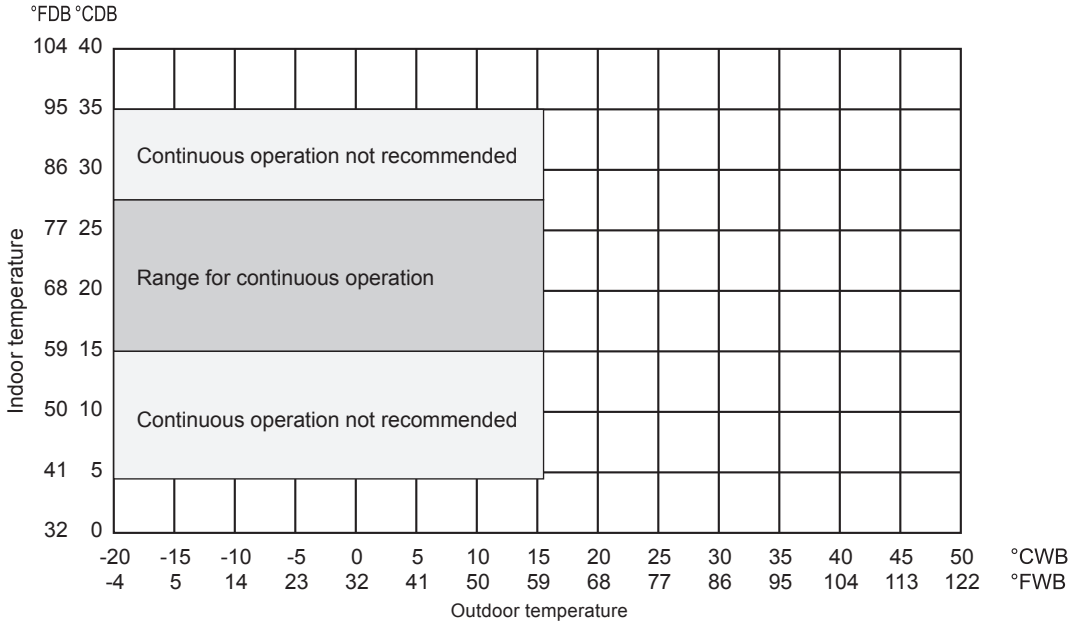
Model	Vibration level (dB)
PUHY-P200TKA (-BS)	45
PUHY-P250, 300TKA (-BS)	46
PUHY-P350, 400TKA (-BS)	47
PUHY-P450, 500TKA (-BS)	48
PUHY-P550TSKA (-BS)	49
PUHY-P600, 650TSKA (-BS)	49.5
PUHY-P700, 750TSKA (-BS)	50.5
PUHY-P800TSKA (-BS)	50
PUHY-P850TSKA (-BS)	50.5
PUHY-P900, 950, 1000TSKA (-BS)	51
PUHY-P1050TSKA (-BS)	51.5
PUHY-P1100, 1150, 1200TSKA (-BS)	52
PUHY-P1250, 1300TSKA (-BS)	52.5
PUHY-P1350, 1400, 1450, 1500TSKA (-BS)	53
PUHY-EP400TSKA (-BS)	48
PUHY-EP450TSKA (-BS)	48.5
PUHY-EP500TSKA (-BS)	49
PUHY-EP650TSKA (-BS)	49.5
PUHY-EP700TSKA (-BS)	50.0
PUHY-EP750TSKA (-BS)	50.5
PUHY-EP800TSKA (-BS)	51
PUHY-EP850, 900, 950, 1000TSKA (-BS)	51.5
PUHY-EP1050TSKA (-BS)	52
PUHY-EP1100TSKA (-BS)	52

* Vibration level varies depending on the conditions of actual installation site.

• **Cooling**



• **Heating**



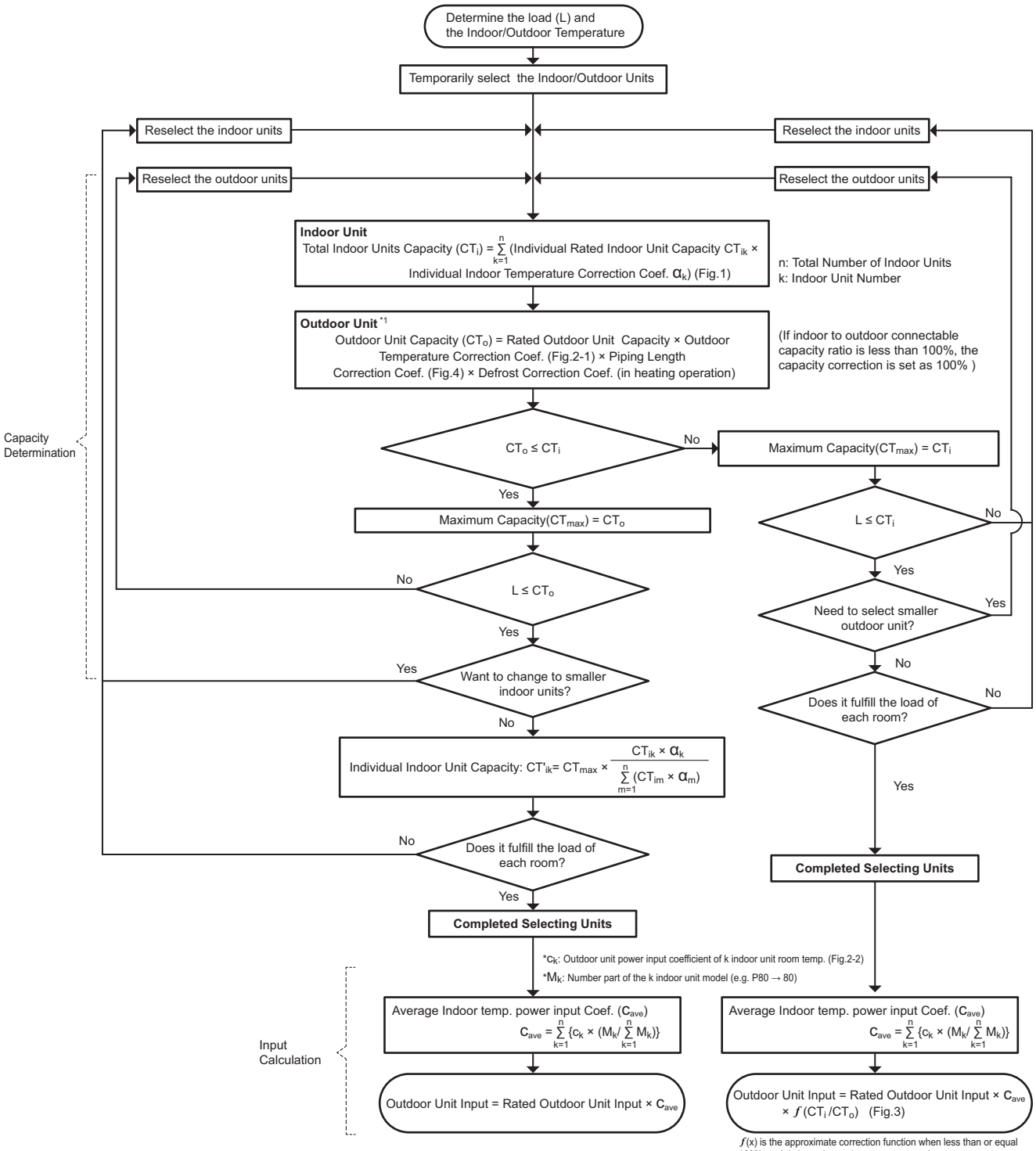
Section 8-1.
Shows an example of how to select the indoor and outdoor units according to the required heating/cooling load.

Section 8-2. through 8-5.
Show the actual correction data of indoor and outdoor units.

8-1. 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.



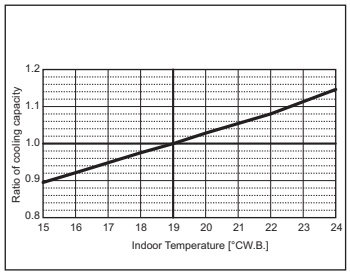


Fig.1 Indoor unit temperature correction

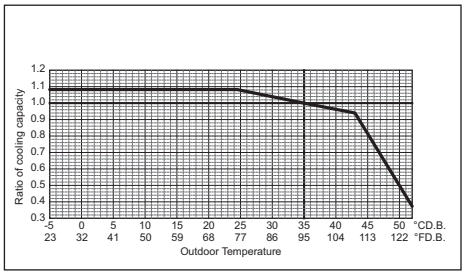


Fig.2-1 Outdoor unit temperature correction (capacity)

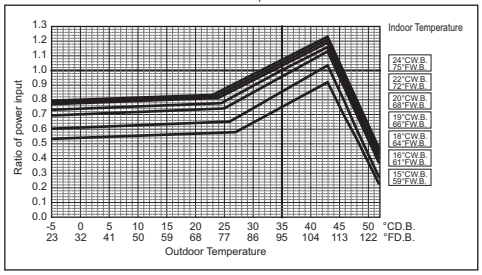


Fig.2-2 Outdoor unit temperature correction (power input)

*1 When the indoor unit sizes from P100 to P140 or total capacity indoor units from P81 to P140 are connected to only 1 port on the BC controller in the R2 system, the cooling capacity of the indoor unit should be multiplied by a correction factor of 0.97.

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 *1
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)

$CT_o \le CT_i$?

No → Maximum Capacity(CT_{max}) = CT_i

Yes → Maximum Capacity(CT_{max}) = CT_o

$L \le CT_o$?

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**

$L \le CT_i$?

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**

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. P80 → 80)

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.

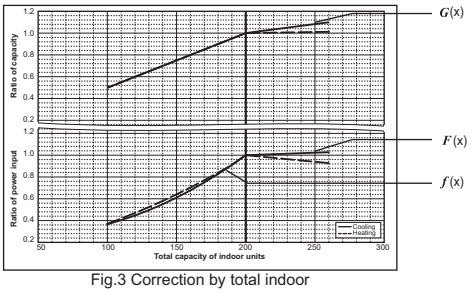


Fig.3 Correction by total indoor

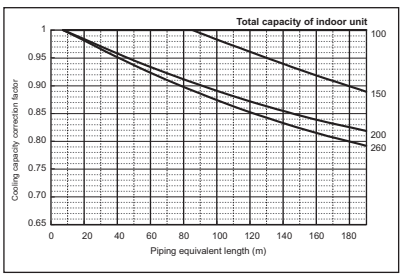


Fig.4 Correction of refrigerant piping length

*1 When the indoor unit sizes from P100 to P140 or total capacity indoor units from P81 to P140 are connected to only 1 port on the BC controller in the R2 system, the cooling capacity of the indoor unit should be multiplied by a correction factor of 0.97.

Y

<Cooling>

Design Condition	
Outdoor Design Dry Bulb Temperature	**37 ºC**
Total Cooling Load	**19.0 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	**18 ºC**
Cooling Load	**10.0 kW**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**50 m**

1. Cooling Calculation

(1) Temporary Selection of Indoor Units

Room1

PLFY-P100 **11.2 kW (Rated)**

Room2

PEFY-P100 **11.2 kW (Rated)**

(2) Total Indoor Units Capacity

P100 + P100 = P200

(3) Selection of Outdoor Unit

The P200 outdoor unit is selected as total indoor units capacity is P200

PUHY-P200 **22.4 kW**

(4) Total Indoor Units Capacity Correction Calculation

Room1

Indoor Design Wet Bulb Temperature Correction (20ºC) 1.03 (Refer to Fig.1)

Room2

Indoor Design Wet Bulb Temperature Correction (18ºC) 0.98 (Refer to Fig.1)

Total Indoor Units Capacity (CTi)

CTi = Σ (Indoor Unit Rating × Indoor Design Temperature Correction)
= 11.2 × 1.03 + 11.2 × 0.98
= 22.5 kW

(5) Outdoor Unit Correction Calculation

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

Piping Length Correction (50 m) 0.95 (Refer to Fig.3)

Total Outdoor Unit Capacity (CTo)

CTo = Outdoor Rating × Outdoor Design Temperature Correction × Piping Length Correction
= 22.4 × 0.99 × 0.95
= 21.0 kW

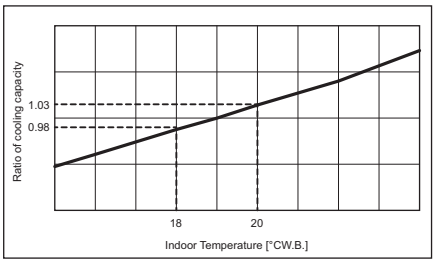


Fig.1 **Indoor unit temperature correction**
To be used to correct indoor unit only

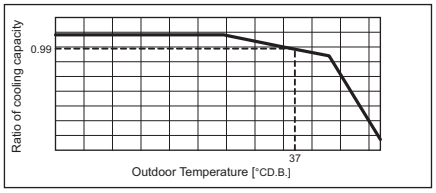


Fig.2 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

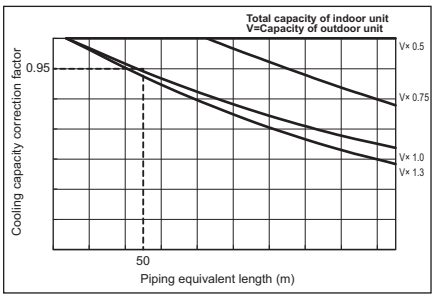


Fig.3 **Correction of refrigerant piping length**

(6) Determination of Maximum System Capacity (CTx)

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

CTi = 22.5 > CTo = 21.0, thus, select CTo.

CTx = CTo = 21.0 kW

(7) Comparison with Essential Load

Against the essential load 19.0kW, the maximum system capacity is 21.0kW: 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)
= 21.0 × (11.2 × 1.03)/(11.2 × 1.03 + 11.2 × 0.98)
= 10.8 kW **OK: fulfills the load 9.0kW**

Room2

Maximum Capacity × Room2 Capacity after the Temperature Correction/(Room1,2Total Capacity after the Temperature Correction)
= 21.0 × (11.2 × 0.98)/(11.2 × 1.03 + 11.2 × 0.98)
= 10.2 kW **OK: fulfills the load 10.0kW**

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

<Heating>

Design Condition	
Outdoor Design Wet Bulb Temperature	**-3 ºC**
Total Heating Load	**17.5 kW**
Room1	
Indoor Design Dry Bulb Temperature	**27 ºC**
Heating Load	**8.5 kW**
Room2	
Indoor Design Dry Bulb Temperature	**25 ºC**
Heating Load	**9.0 kW**
<Other>	
Indoor/Outdoor Equivalent Piping Length	**50 m**

2. Heating Calculation

(1) Temporary Selection of Indoor Units

Room1

PLFY-P100 **12.5 kW (Rated)**

Room2

PEFY-P100 **12.5 kW (Rated)**

(2) Total Indoor Units Capacity

P100 + P100 = P200

(3) Selection of Outdoor Unit

The P200 outdoor unit is selected as total indoor units capacity is P200

PUHY-P200 **22.4 kW**

(4) Total Indoor Units Capacity Correction Calculation

Room1

Indoor Design Dry Bulb Temperature Correction (27ºC) 0.70 (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)

= 12.5 × 0.70 + 12.5 × 0.80

= 18.7 kW

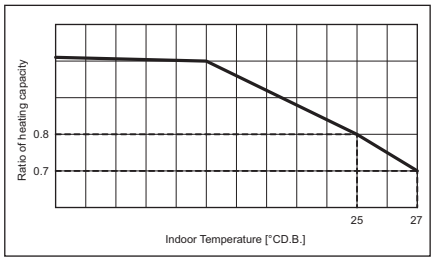


Fig.4 **Indoor unit temperature correction**
To be used to correct indoor unit only

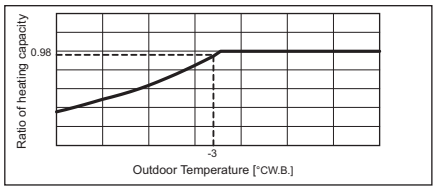


Fig.5 **Outdoor unit temperature correction**
To be used to correct outdoor unit only

(5) Outdoor Unit Correction Calculation

Outdoor Design Wet Bulb Temperature Correction (-3ºC) 0.98 (Refer to Fig.5)

Piping Length Correction (50 m) 0.97 (Refer to Fig.6)

Defrost Correction 0.89 (Refer to Tbl.1)

Total Outdoor Unit Capacity (CTo)

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

= 22.4 × 0.98 × 0.97 × 0.89

= 18.9 kW

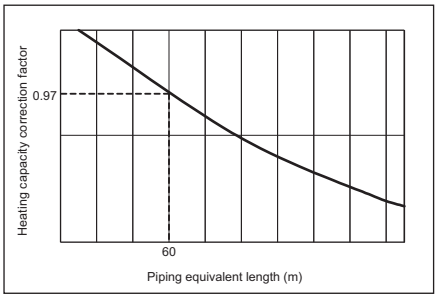


Fig.6 **Correction of refrigerant piping length**

(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 = 18.9, thus, select CTi.

CTx = CTi = 18.7 kW

(7) Comparison with Essential Load

Against the essential load 17.5kW, 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

= 12.5 × 0.70

= 8.8 kW **OK: fulfills the load 8.5kW**

Room2

Indoor Unit Rating × Indoor Design Temperature Correction

= 12.5 × 0.80

= 10.0 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-P200	1.00	0.95	0.84	0.825	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P250	1.00	0.95	0.84	0.825	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P300	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P350	1.00	0.93	0.85	0.83	0.84	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P400	1.00	0.93	0.85	0.83	0.84	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 **5.19 kW**

(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.)

1.07

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. 37 °CD.B., Indoor temp. 18 °CW.B.)

1.00

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. P80 → 80)

= 1.07 × 100/(100 + 100) + 1 × 100/(100 + 100)
= 1.04

(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
= 5.19 × 1.04
= 5.4 kW

<Heating>

(1) Rated power input of outdoor unit **5.05 kW**

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

Coefficient of the outdoor unit for indoor unit 1 (Outdoor temp. -3 °CW.B., Indoor temp. 27 °CD.B.)
0.95

Coefficient of the outdoor unit for indoor unit 2 (Outdoor temp. -3 °CW.B., Indoor temp. 25 °CD.B.)
1.08

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. P80 → 80)

= 0.95 × 100/(100 + 100) + 1.08 × 100/(100 + 100)
= 1.01

(3) Coefficient of the partial load f(CTi/CTo) **0.98**

(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)
= 5.05 × 1.01 × 0.98
= 5.01 kW

Y

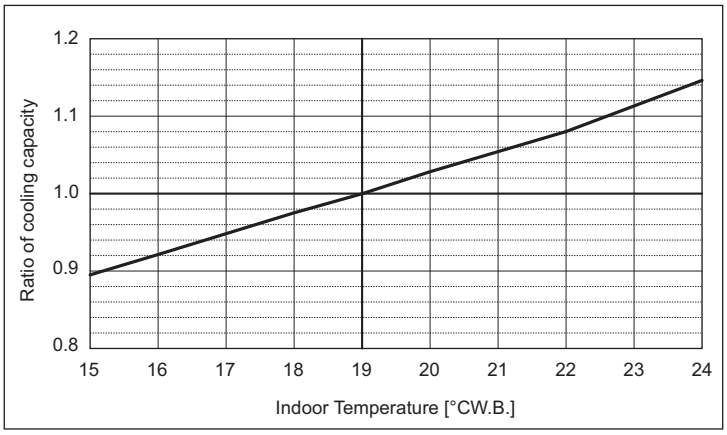
8-2. Correction by temperature

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.

PUHY-		P200TKA	P250TKA	P300TKA
Nominal Cooling Capacity	kW	22.4	28.0	33.5
	BTU/h	76,400	95,500	114,300
Input	kW	5.19	6.89	8.86

Indoor unit temperature correction

To be used to correct indoor unit capacity only

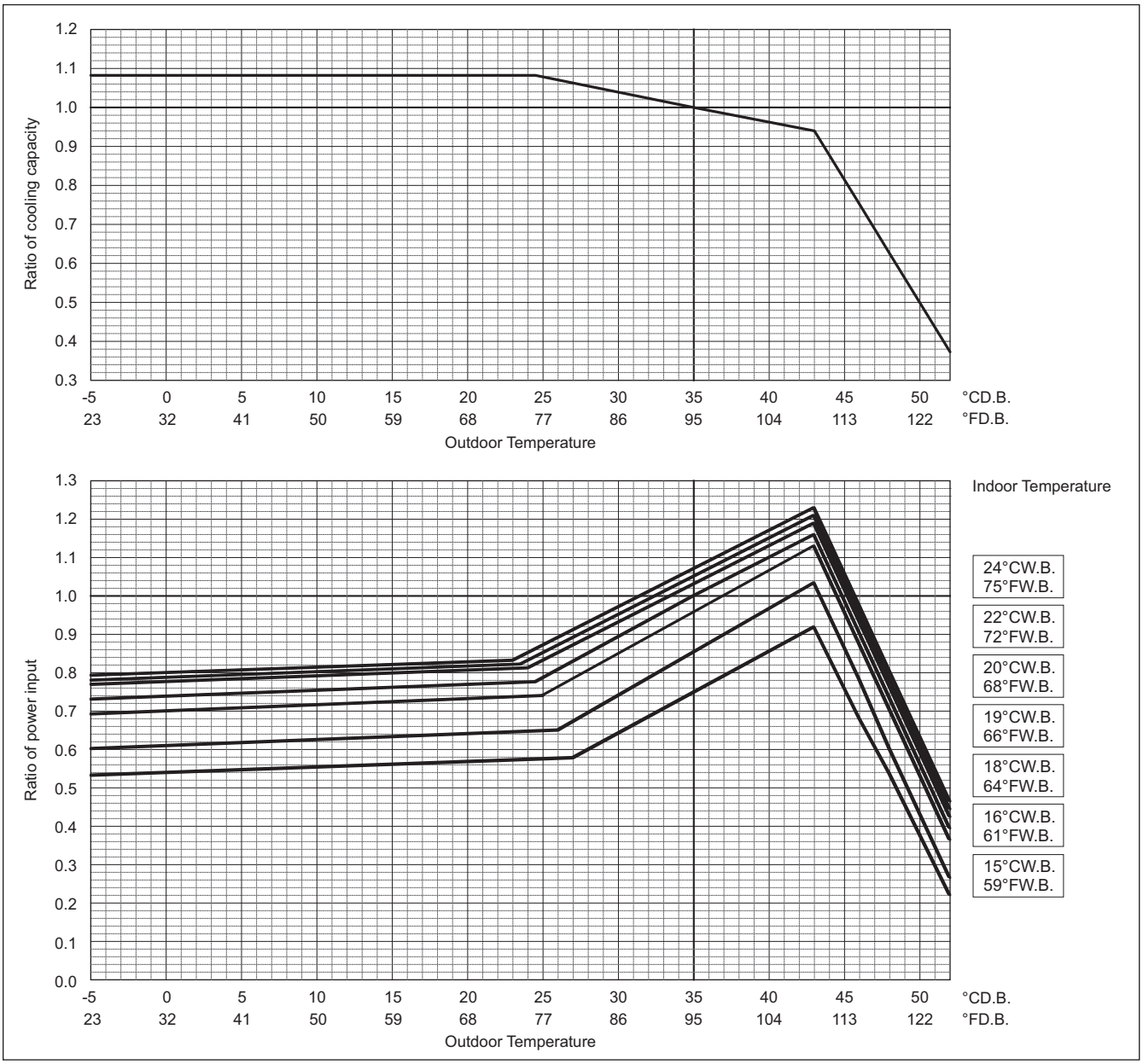


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

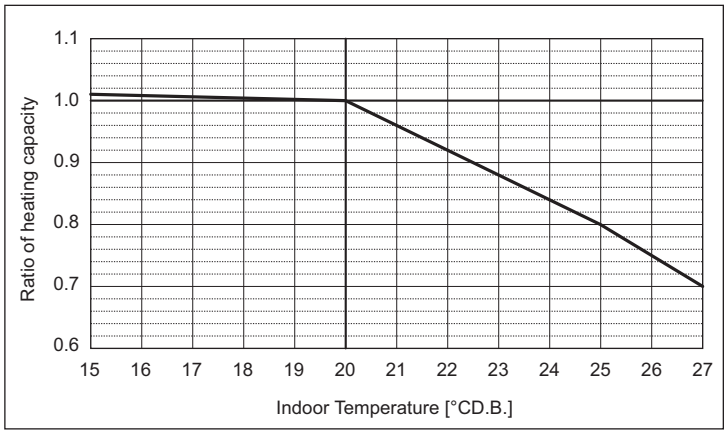
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		P200TKA	P250TKA	P300TKA
Nominal Heating Capacity	kW	22.4	28.0	33.5
	BTU/h	76,400	95,500	114,300
Input	kW	5.05	6.33	8.11

Indoor unit temperature correction

To be used to correct indoor unit capacity only

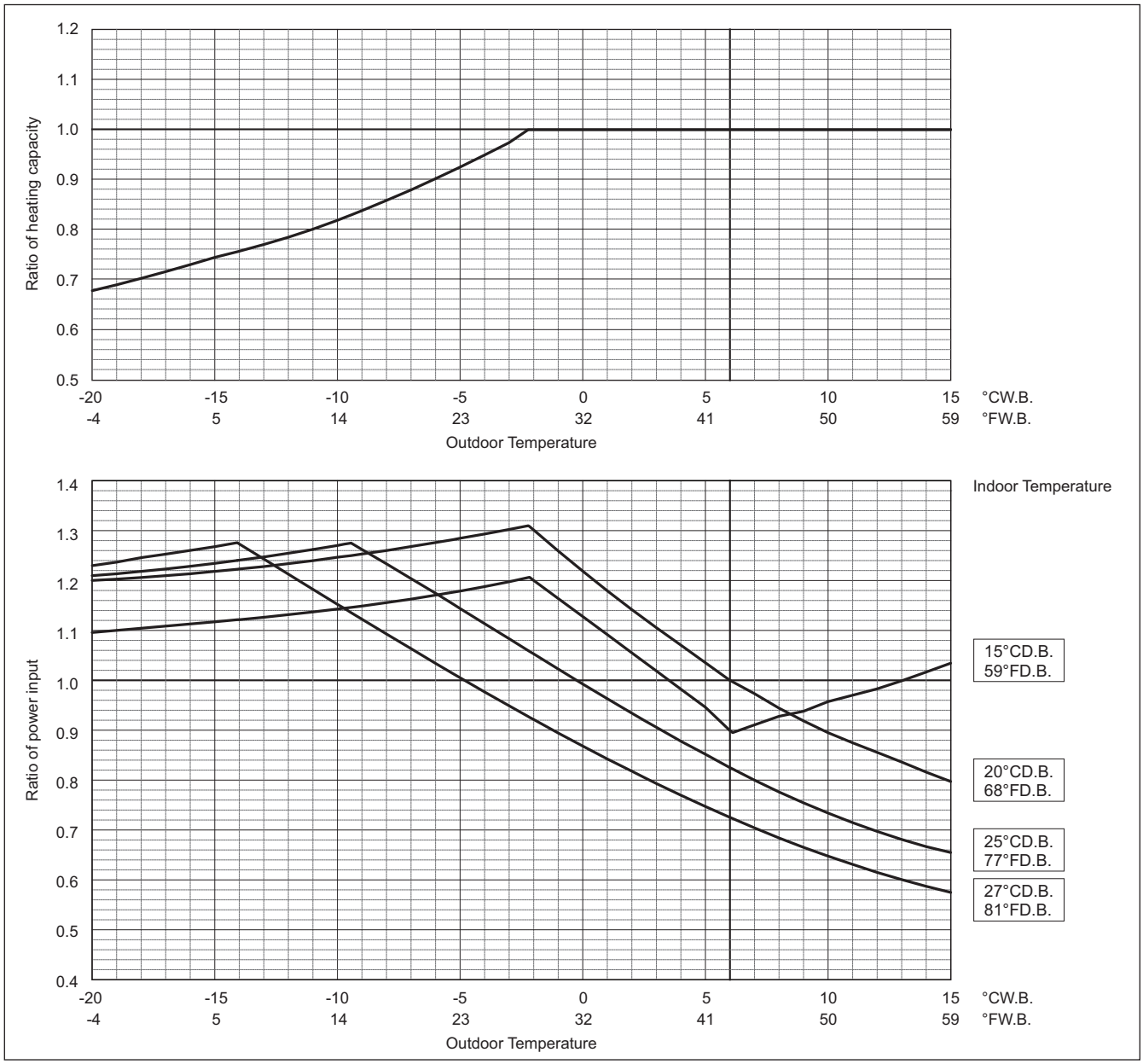


Outdoor unit temperature correction

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.

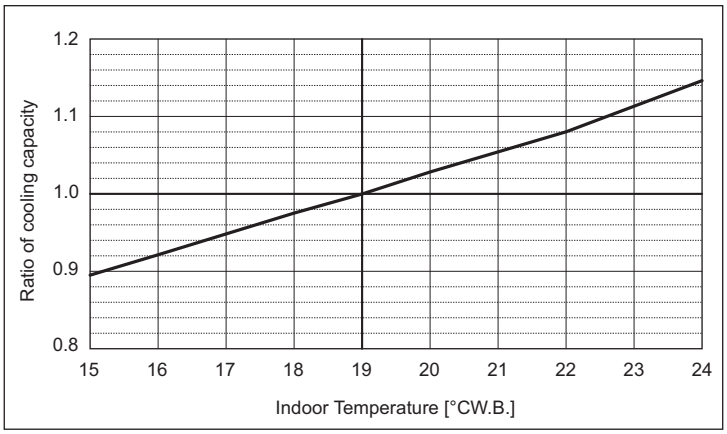


Y

PUHY-		P350TKA	P400TKA	P450TKA
Nominal Cooling Capacity	kW	40.0	45.0	48.0
	BTU/h	136,500	153,500	163,800
Input	kW	11.69	13.55	15.78

Indoor unit temperature correction

To be used to correct indoor unit capacity only

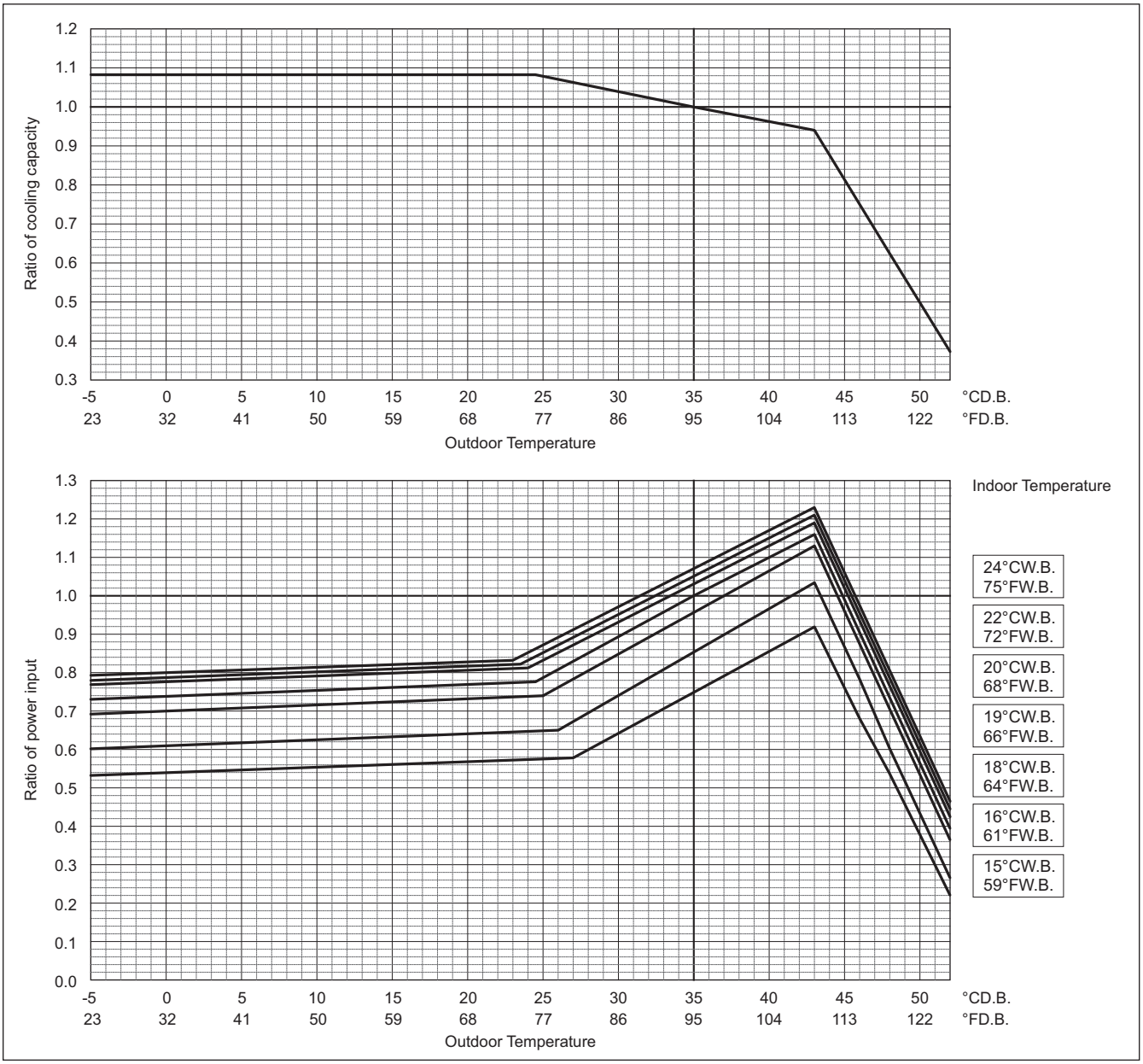


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

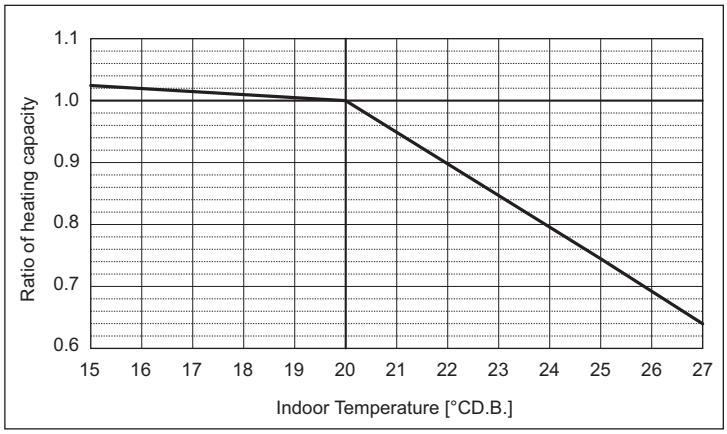
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		P350TKA	P400TKA	P450TKA
Nominal Heating Capacity	kW	40.0	45.0	48.0
	BTU/h	136,500	153,500	163,800
Input	kW	9.61	10.92	13.33

Indoor unit temperature correction

To be used to correct indoor unit capacity only

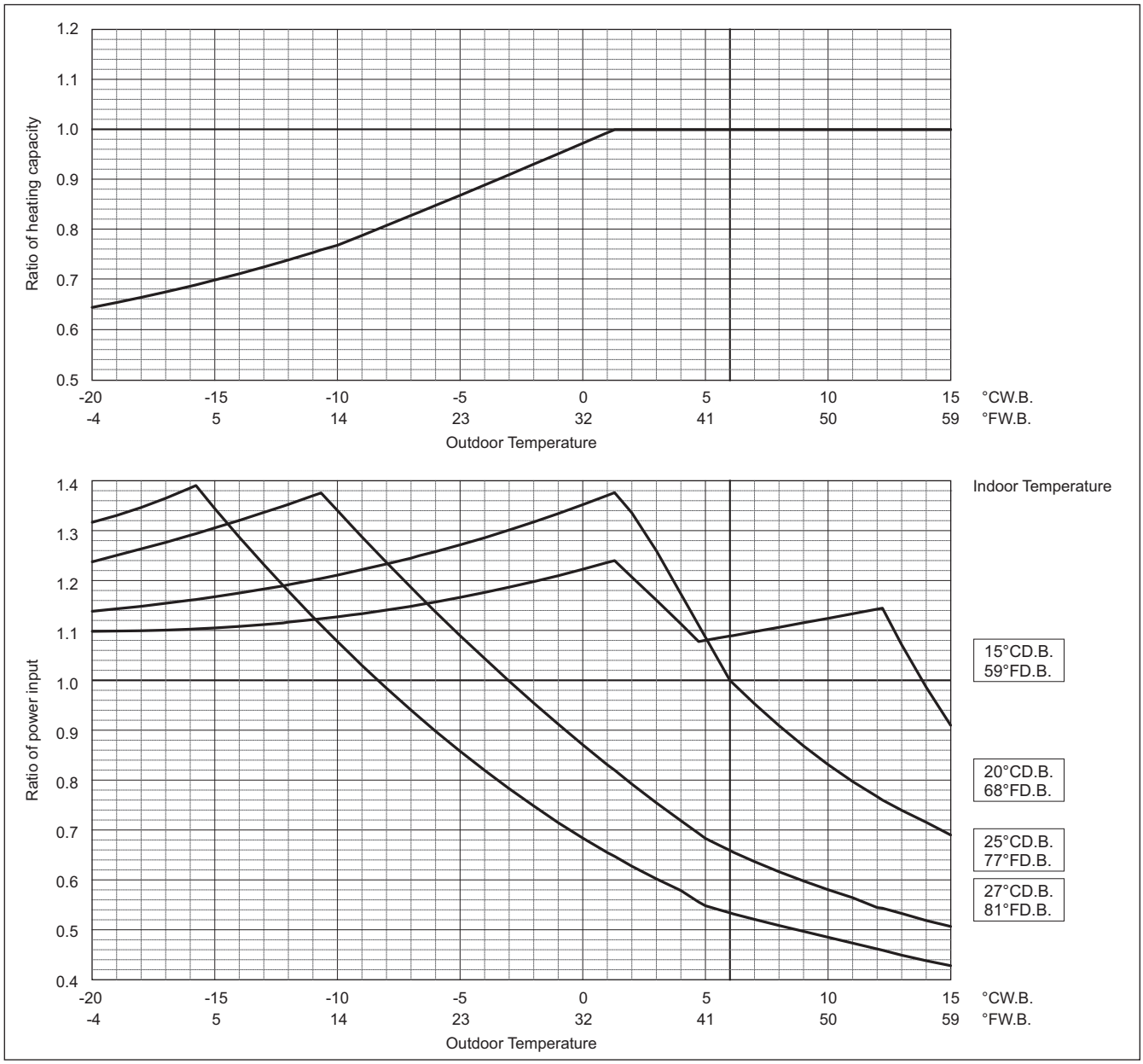


Outdoor unit temperature correction

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.

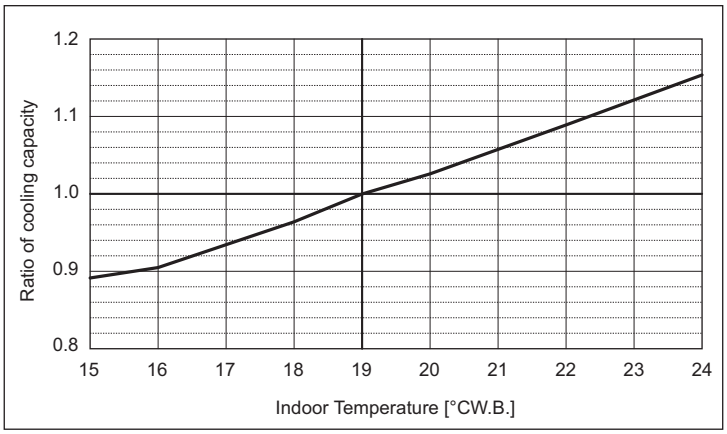


Y

PUHY-		P500TKA
Nominal Cooling Capacity	kW	55.0
	BTU/h	187,700
Input	kW	18.39

Indoor unit temperature correction

To be used to correct indoor unit capacity only

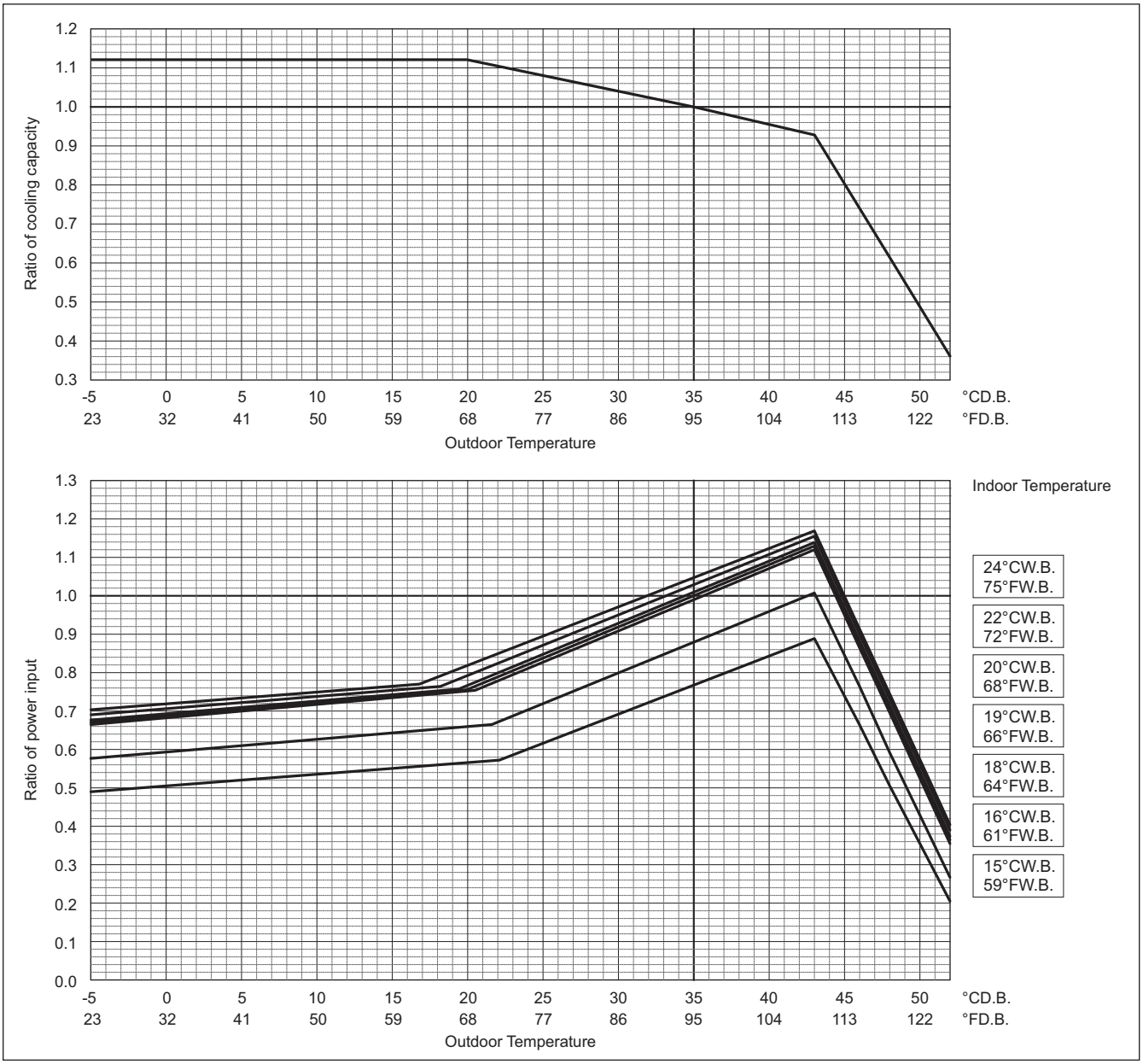


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

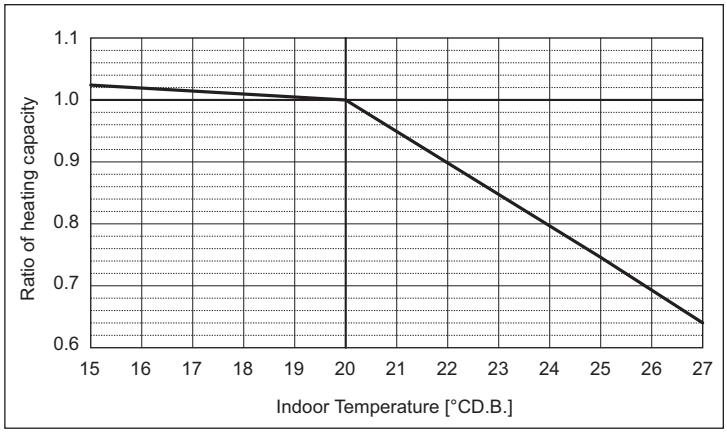
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		P500TKA
Nominal Heating Capacity	kW	55.0
	BTU/h	187,700
Input	kW	15.71

Indoor unit temperature correction

To be used to correct indoor unit capacity only

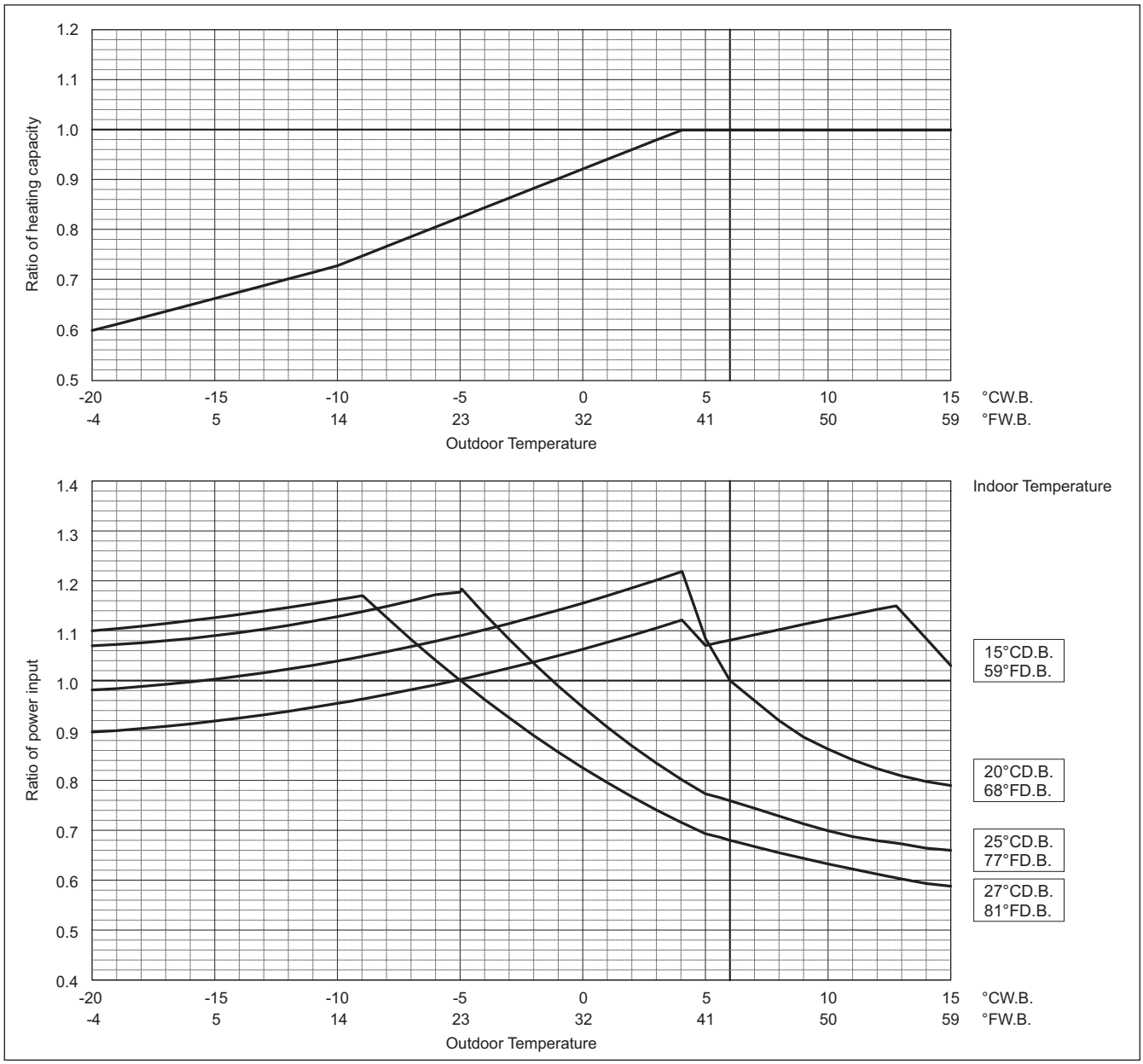


Outdoor unit temperature correction

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.

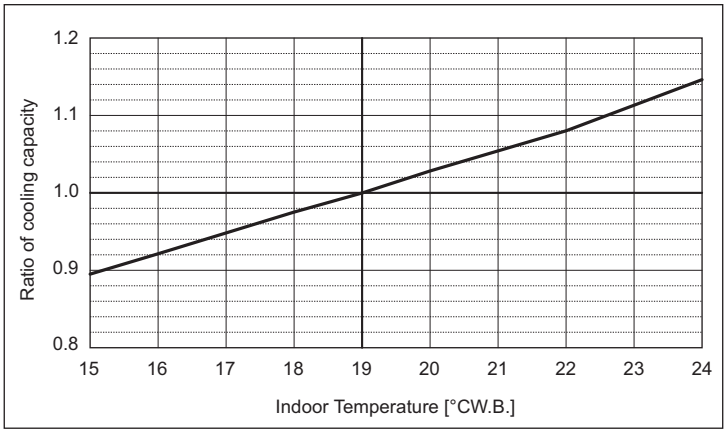


Y

PUHY-		P550TSKA
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	16.07

Indoor unit temperature correction

To be used to correct indoor unit capacity only

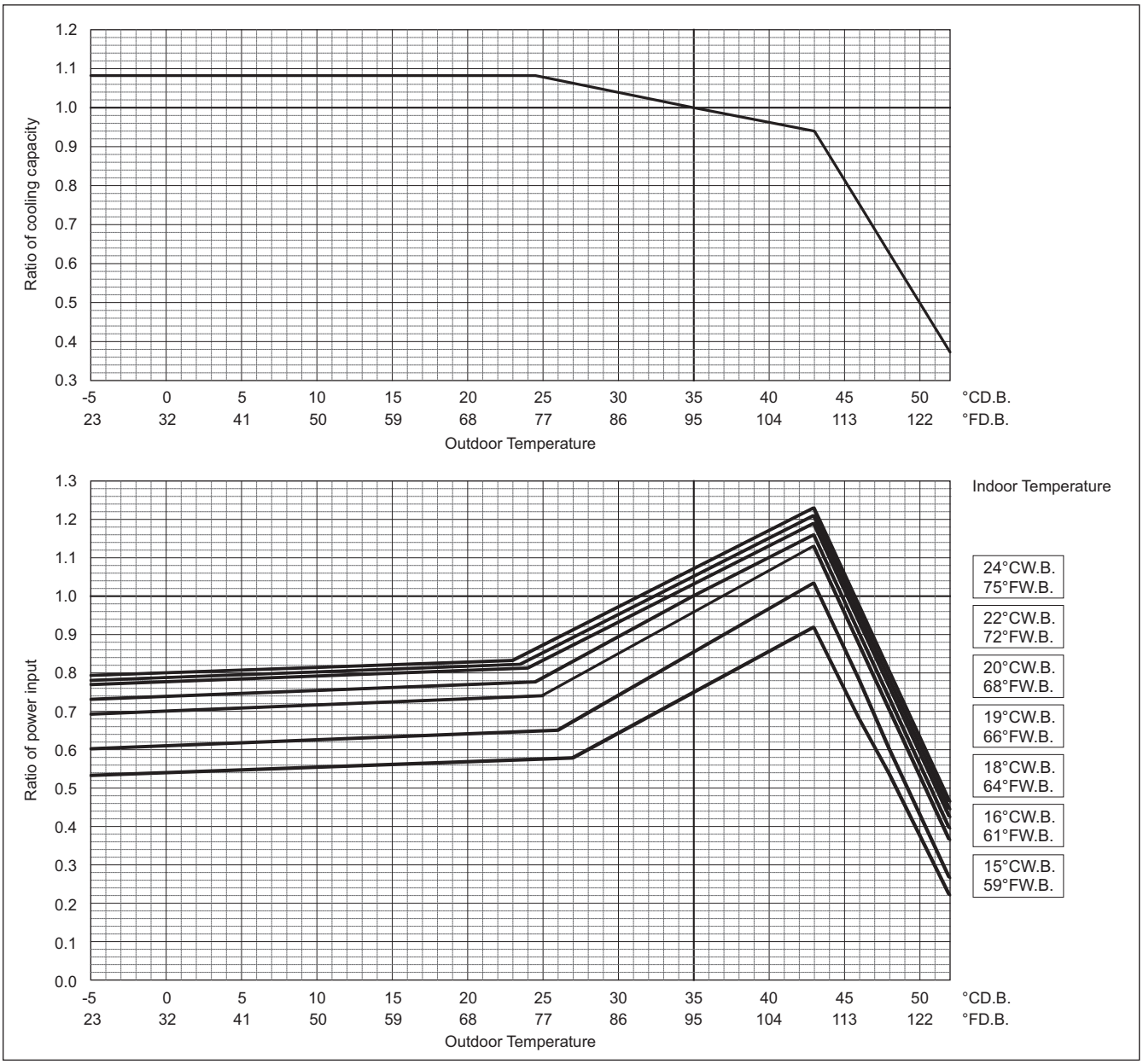


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

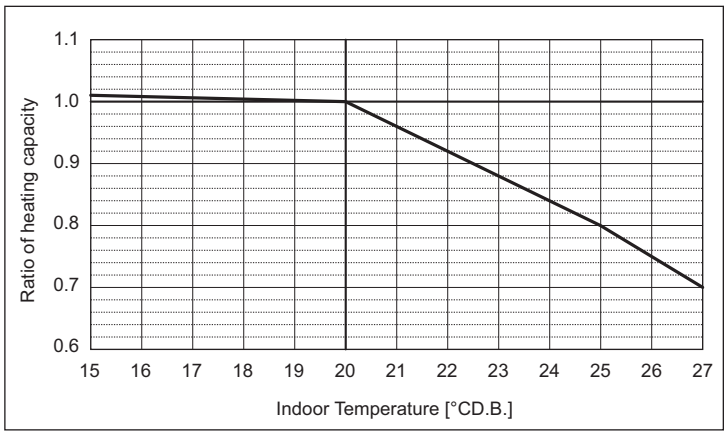
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		P550TSKA
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	15.51

Indoor unit temperature correction

To be used to correct indoor unit capacity only

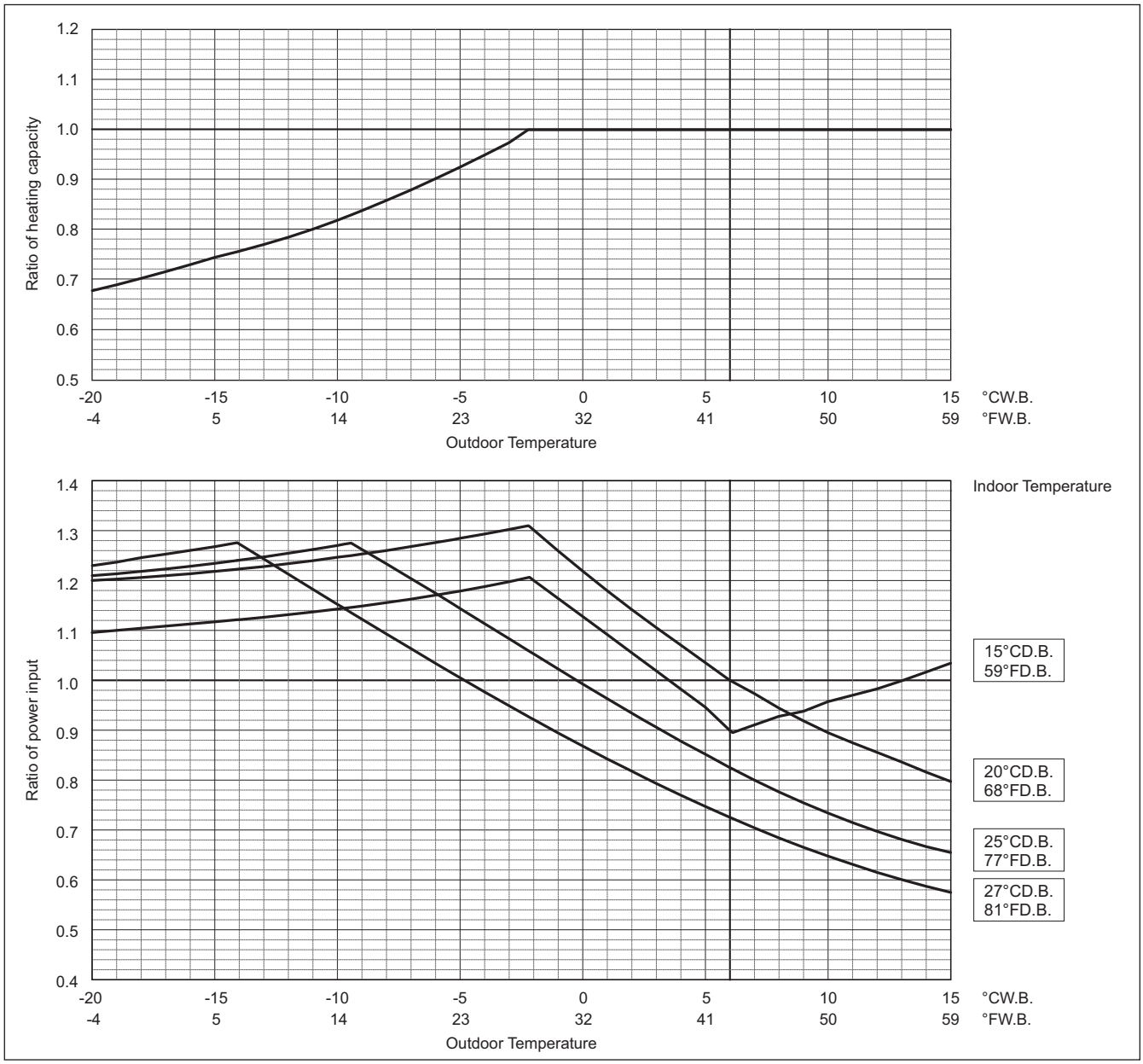


Outdoor unit temperature correction

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.



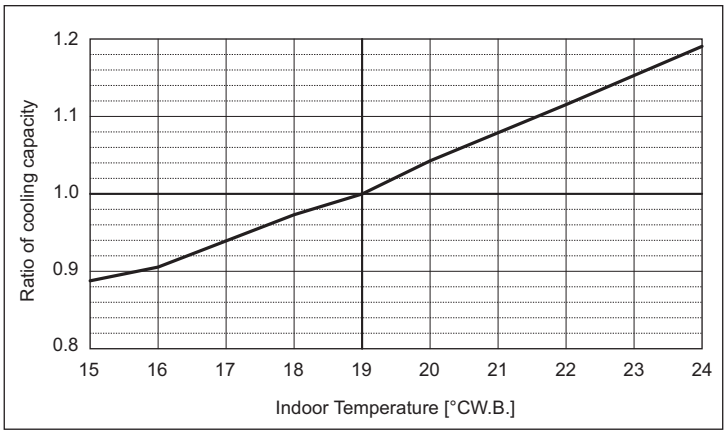
Y

PUHY-		P600TSKA	P650TSKA	P700TSKA
Nominal Cooling Capacity	kW	68.0	73.0	76.0
	BTU/h	232,000	249,100	259,300
Input	kW	18.18	19.78	21.40

PUHY-		P750TSKA
Nominal Cooling Capacity	kW	81.5
	BTU/h	278,100
Input	kW	23.90

Indoor unit temperature correction

To be used to correct indoor unit capacity only

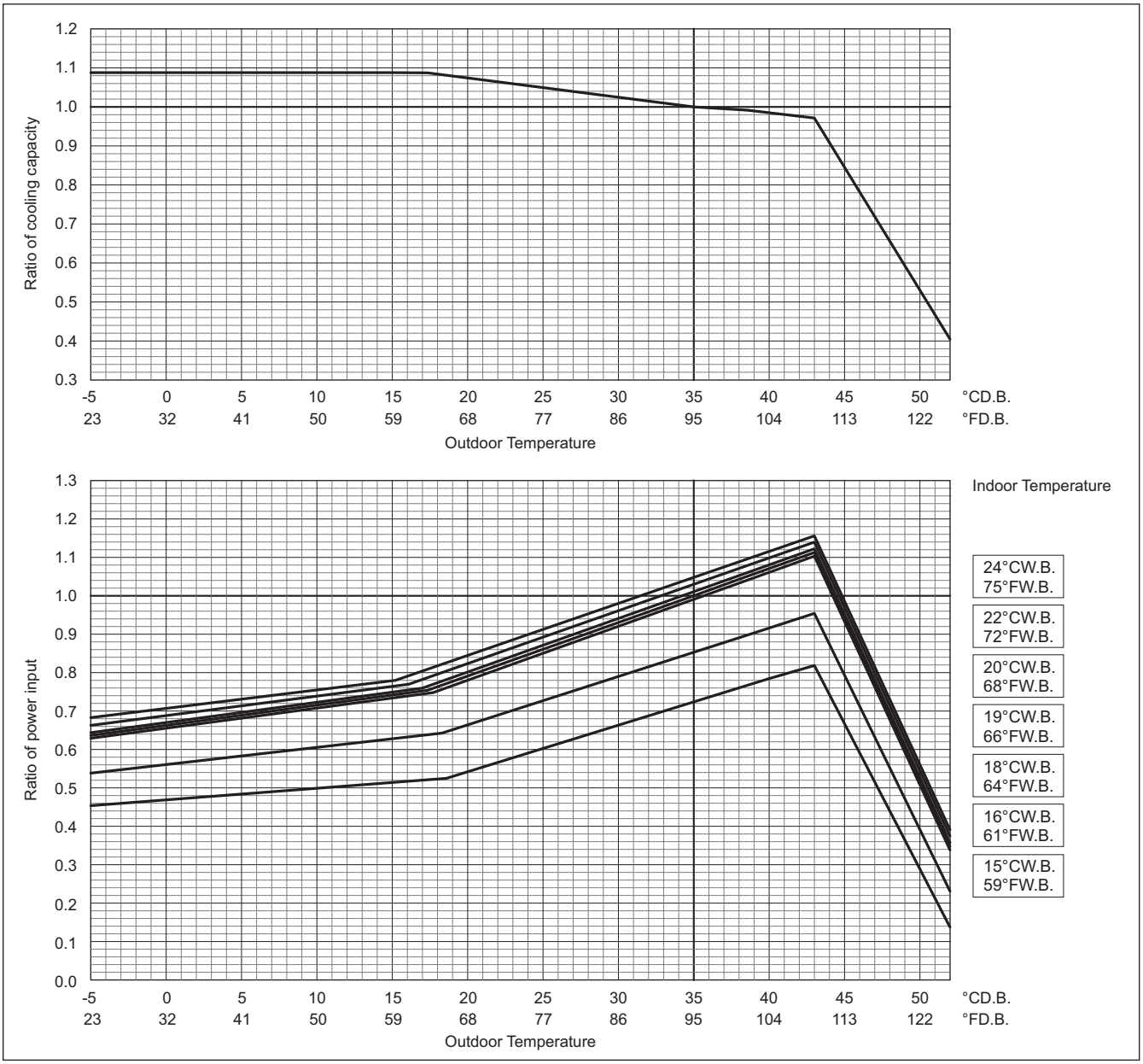


Outdoor unit temperature correction

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.

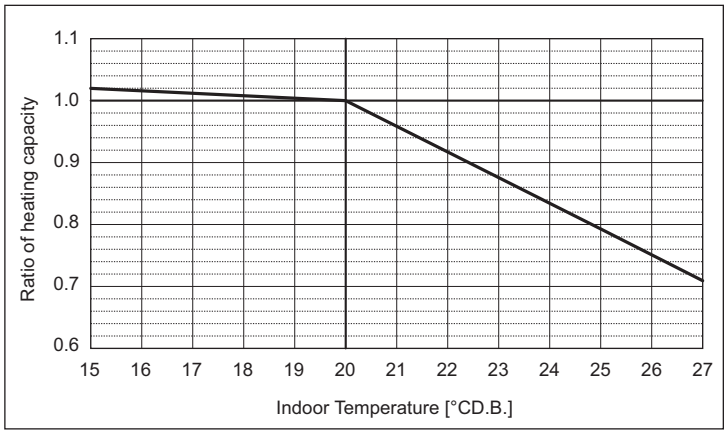


PUHY-		P600TSKA	P650TSKA	P700TSKA
Nominal Heating Capacity	kW	68.0	73.0	76.0
	BTU/h	232,000	249,100	259,300
Input	kW	16.70	18.02	20.00

PUHY-		P750TSKA
Nominal Heating Capacity	kW	81.5
	BTU/h	278,100
Input	kW	22.20

Indoor unit temperature correction

To be used to correct indoor unit capacity only

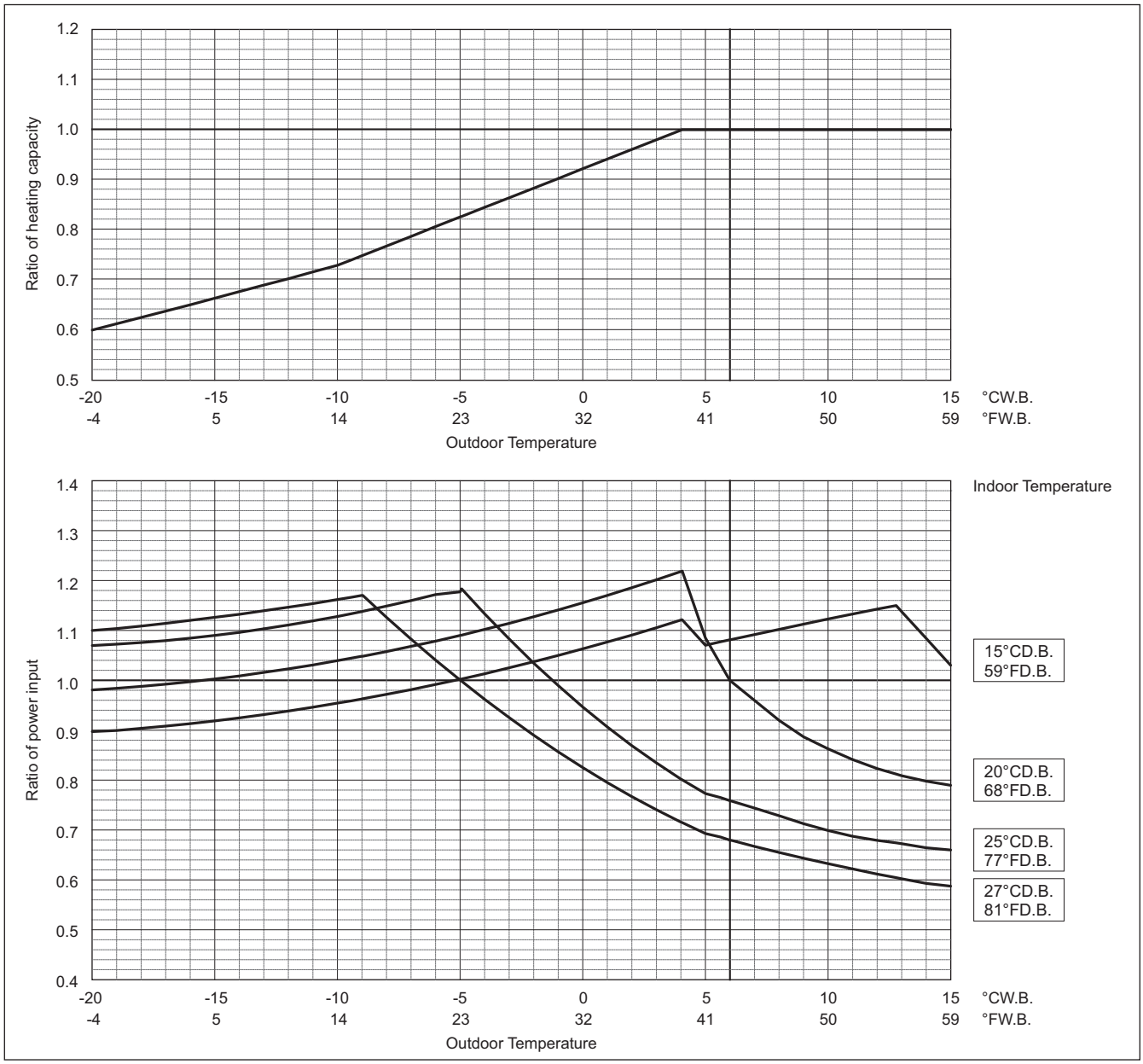


Outdoor unit temperature correction

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.

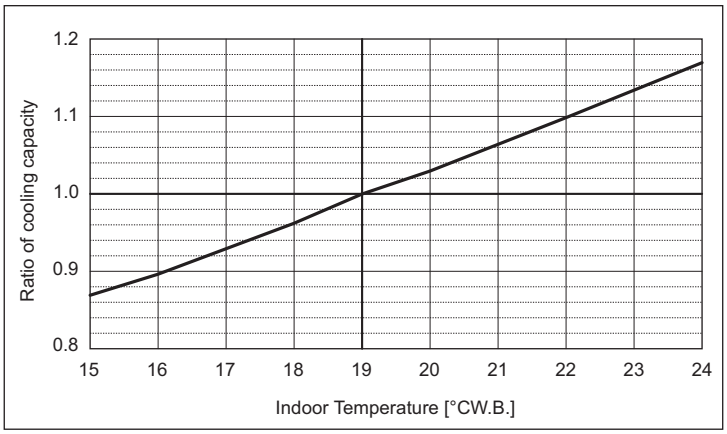


Y

PUHY-		P800TSKA	P850TSKA	P900TSKA
Nominal Cooling Capacity	kW	90.0	93.0	96.0
	BTU/h	307,100	317,300	327,600
Input	kW	27.10	29.24	31.57

Indoor unit temperature correction

To be used to correct indoor unit capacity only

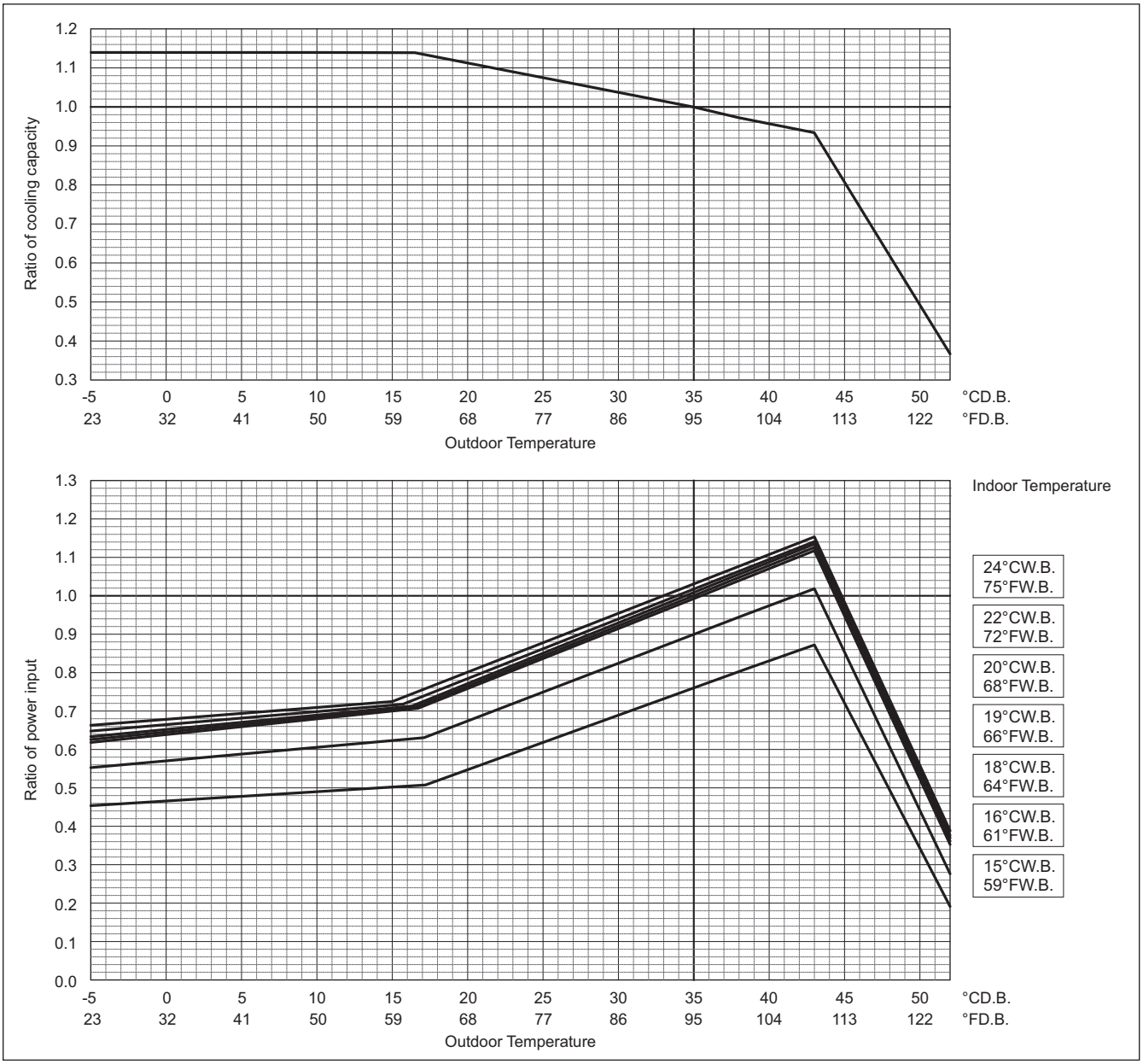


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

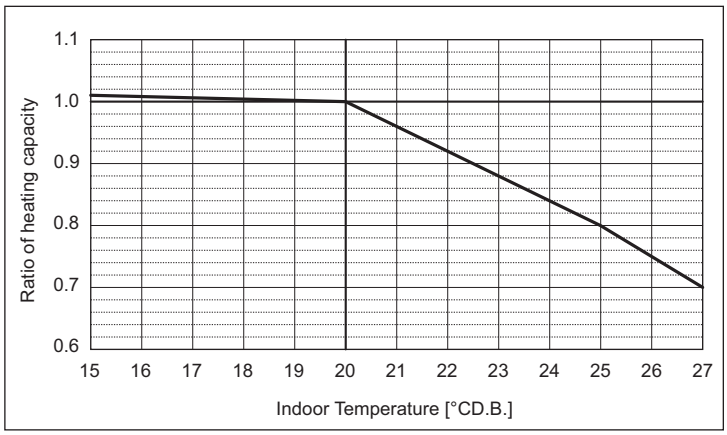
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		P800TSKA	P850TSKA	P900TSKA
Nominal Heating Capacity	kW	90.0	93.0	96.0
	BTU/h	307,100	317,300	327,600
Input	kW	23.01	25.40	28.07

Indoor unit temperature correction

To be used to correct indoor unit capacity only

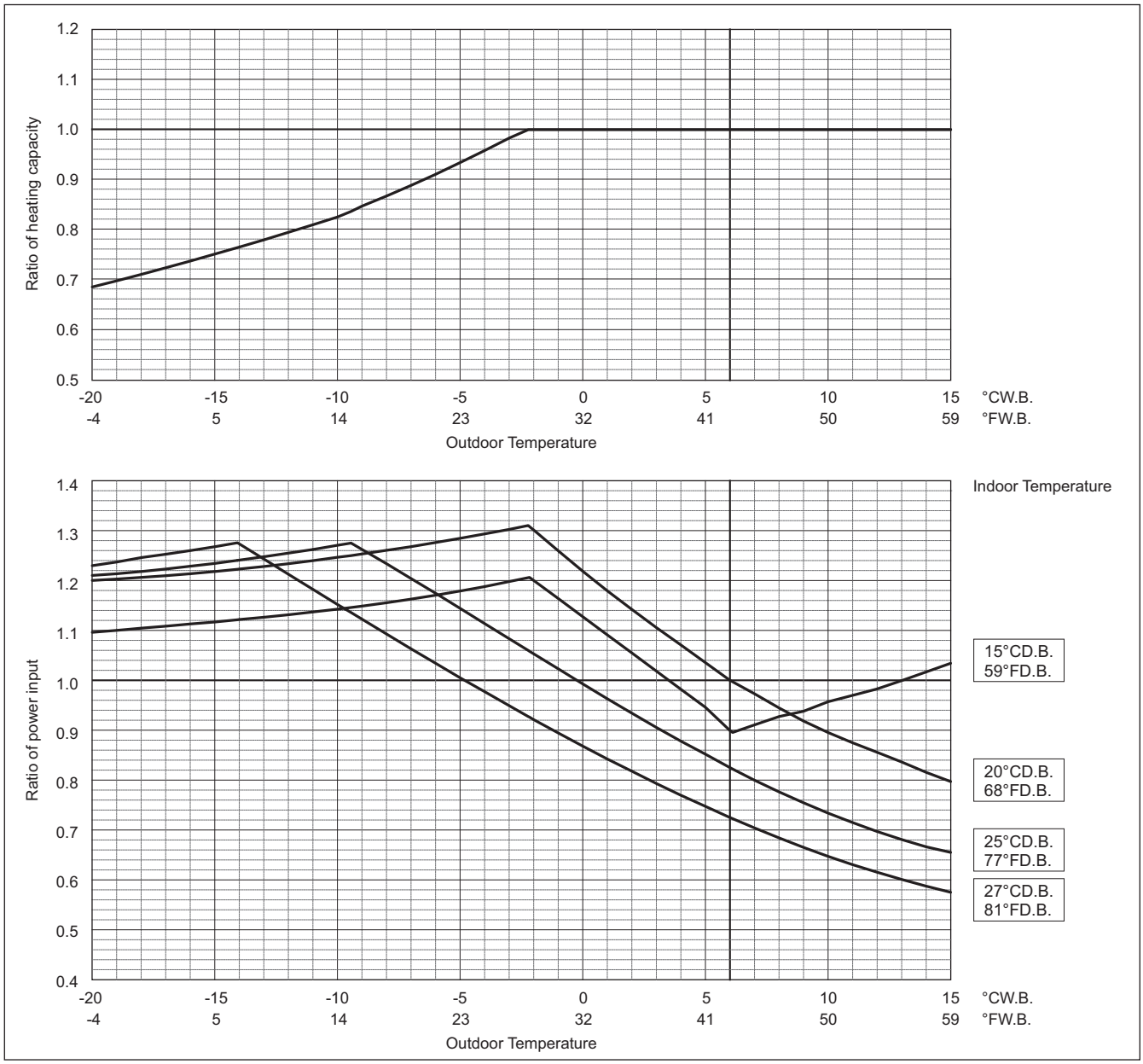


Outdoor unit temperature correction

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.



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PUHY-		P950TSKA	P1000TSKA	P1050TSKA
Nominal Cooling Capacity	kW	103.0	110.0	115.0
	BTU/h	351,400	375,300	392,400
Input	kW	34.21	36.78	32.57

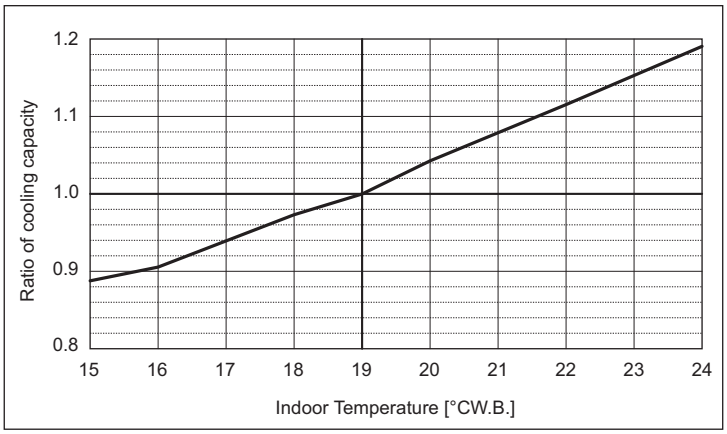
PUHY-		P1100TSKA	P1150TSKA	P1200TSKA
Nominal Cooling Capacity	kW	121.5	130.0	135.0
	BTU/h	414,600	443,600	460,600
Input	kW	35.63	38.80	40.66

PUHY-		P1250TSKA	P1300TSKA	P1350TSKA
Nominal Cooling Capacity	kW	138.0	141.0	144.0
	BTU/h	470,900	481,100	491,300
Input	kW	43.12	45.77	48.64

PUHY-		P1400TSKA	P1450TSKA	P1500TSKA
Nominal Cooling Capacity	kW	151.0	158.0	165.0
	BTU/h	515,200	539,100	563,000
Input	kW	52.24	55.83	59.56

Indoor unit temperature correction

To be used to correct indoor unit capacity only

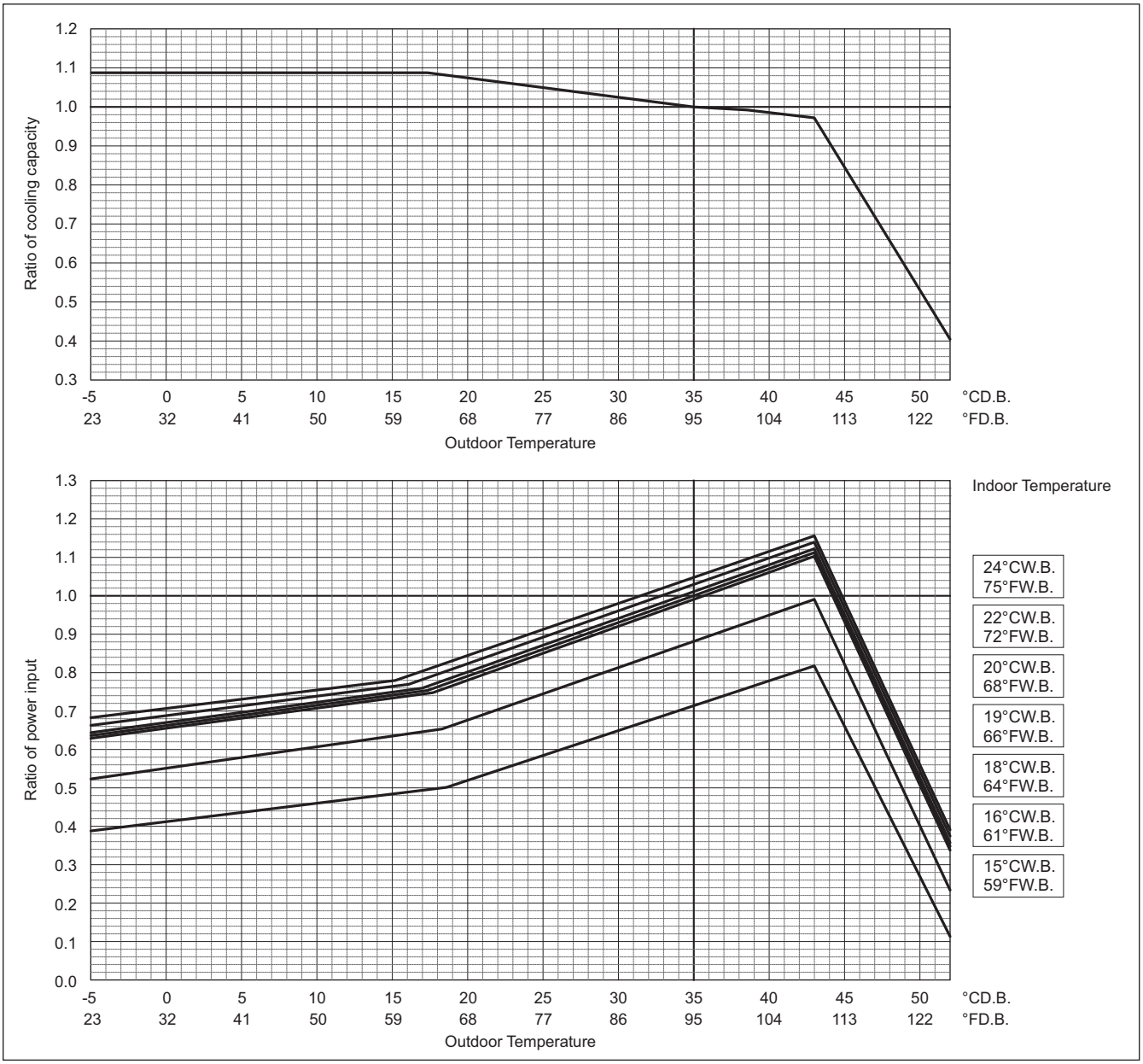


Outdoor unit temperature correction

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.



PUHY-		P950TSKA	P1000TSKA	P1050TSKA
Nominal Heating Capacity	kW	103.0	110.0	115.0
	BTU/h	351,400	375,300	392,400
Input	kW	30.56	33.13	31.50

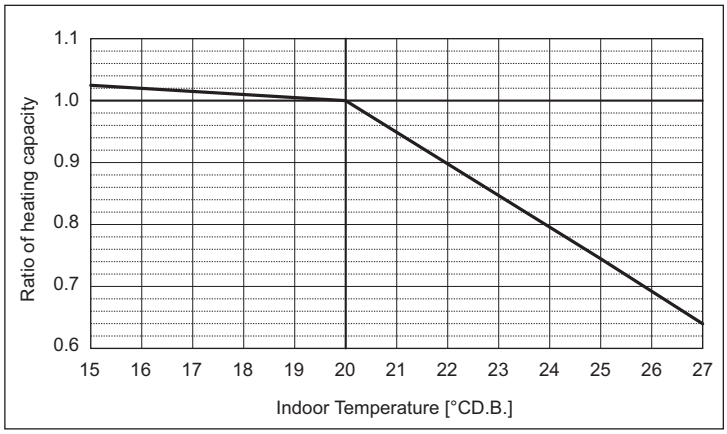
PUHY-		P1100TSKA	P1150TSKA	P1200TSKA
Nominal Heating Capacity	kW	121.5	130.0	135.0
	BTU/h	414,600	443,600	460,600
Input	kW	33.80	35.51	37.70

PUHY-		P1250TSKA	P1300TSKA	P1350TSKA
Nominal Heating Capacity	kW	138.0	141.0	144.0
	BTU/h	470,900	481,100	491,300
Input	kW	40.35	42.98	46.15

PUHY-		P1400TSKA	P1450TSKA	P1500TSKA
Nominal Heating Capacity	kW	151.0	158.0	165.0
	BTU/h	515,200	539,100	563,000
Input	kW	49.50	52.49	56.12

Indoor unit temperature correction

To be used to correct indoor unit capacity only

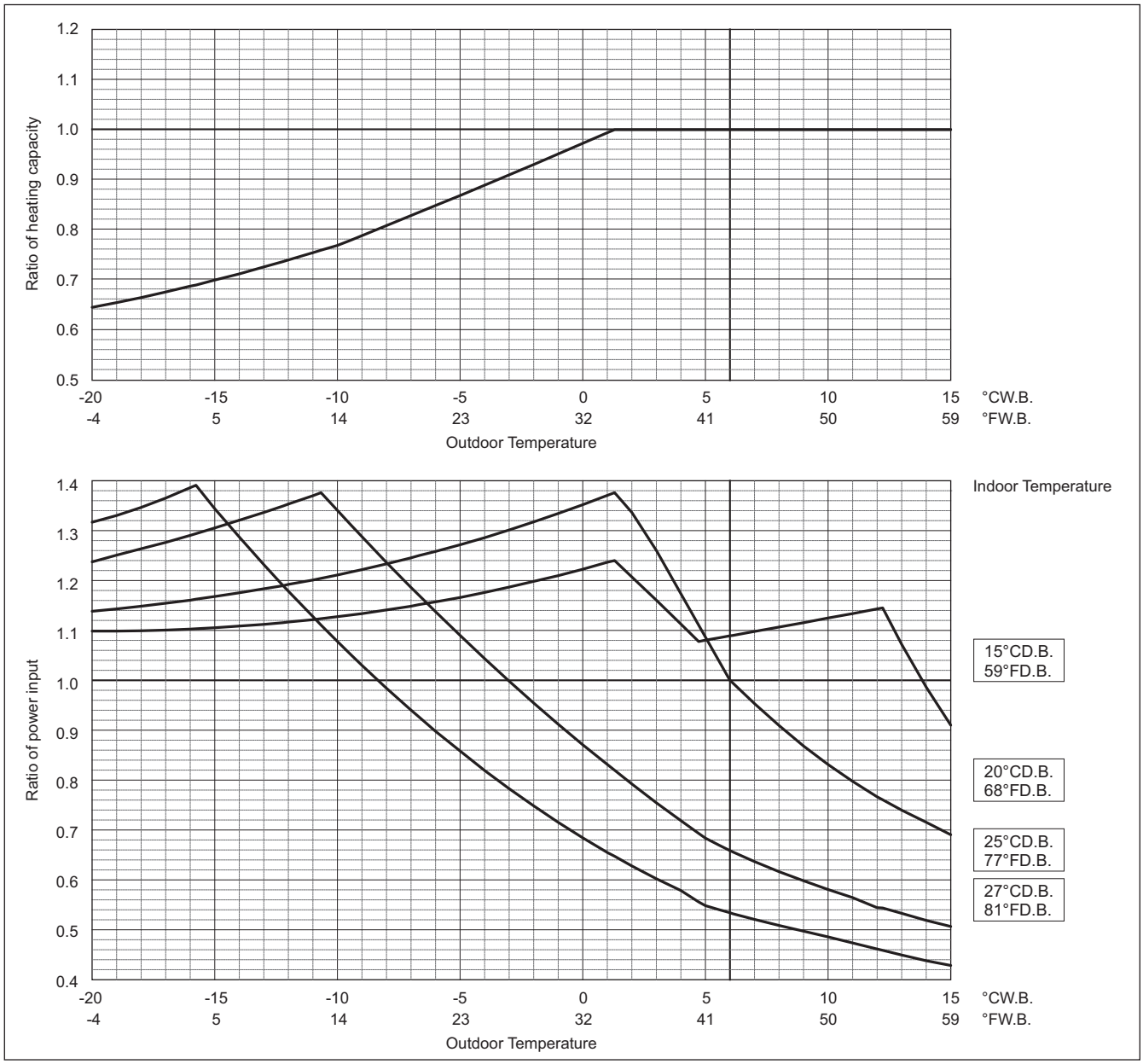


Outdoor unit temperature correction

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.

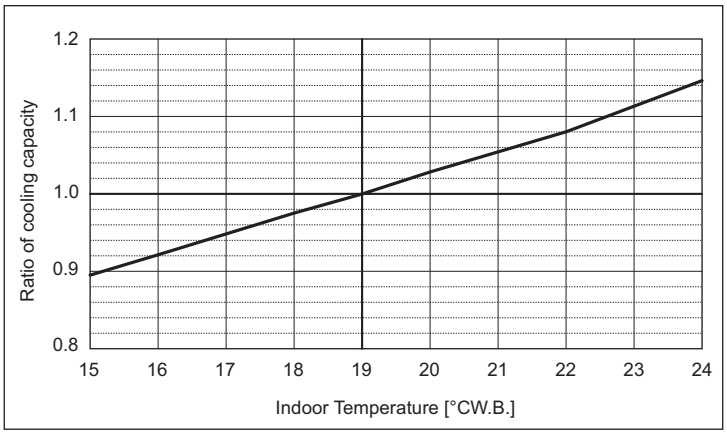


Y

PUHY-		EP400TSKA	EP450TSKA	EP500TSKA
Nominal Cooling Capacity	kW	44.8	50.4	56.0
	BTU/h	152,900	172,000	191,100
Input	kW	10.39	12.05	13.79

Indoor unit temperature correction

To be used to correct indoor unit capacity only

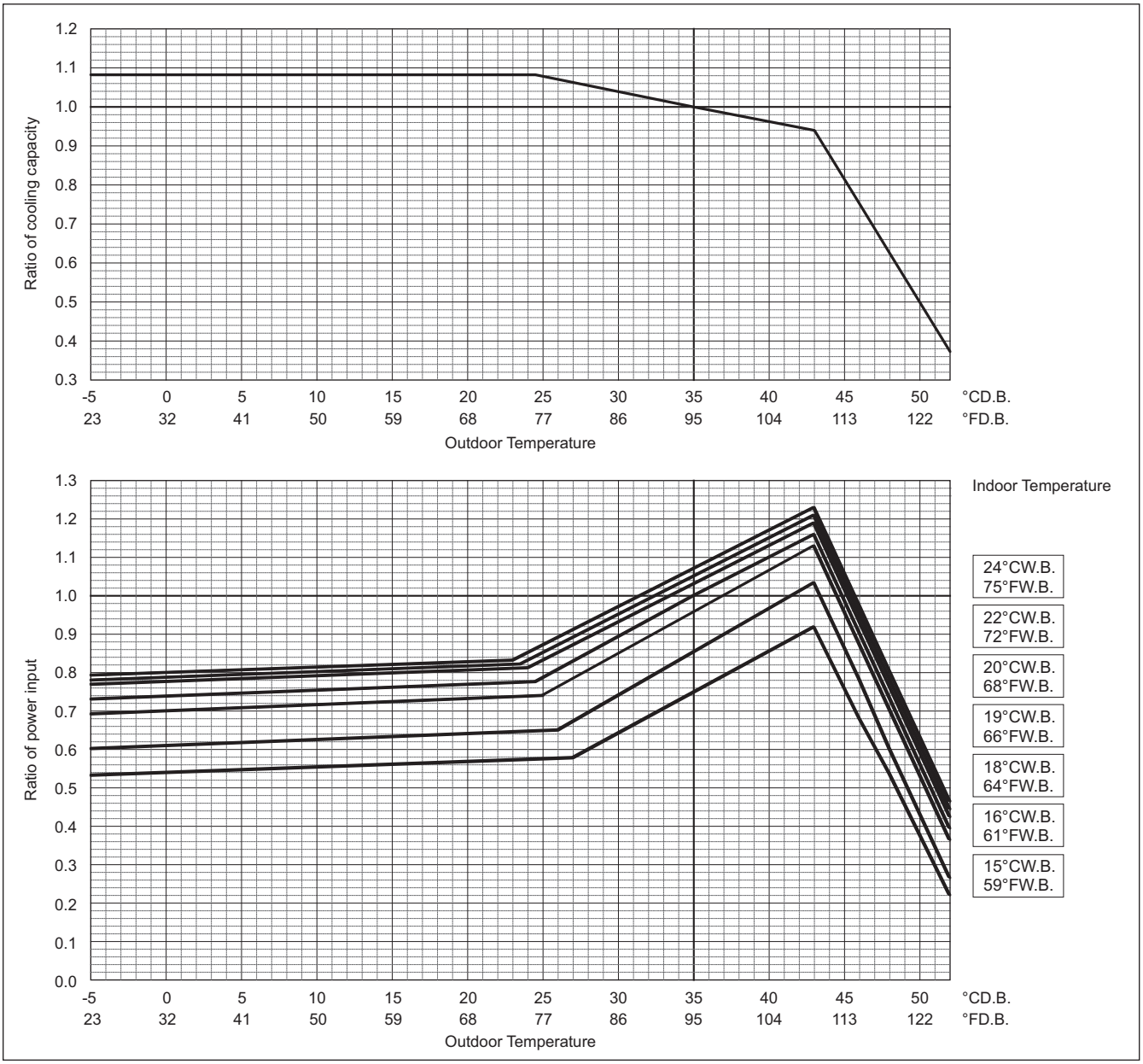


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

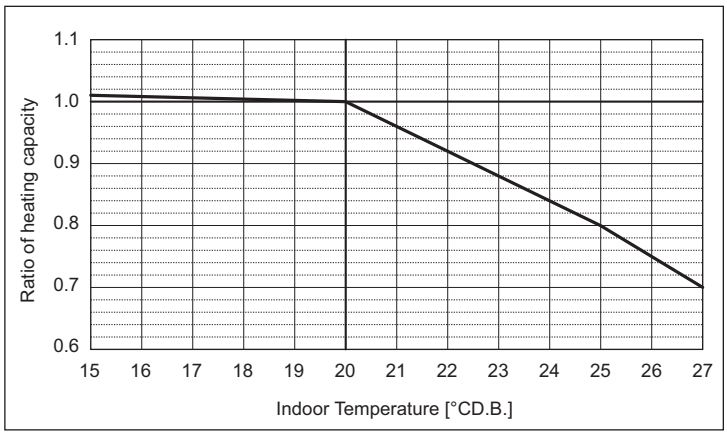
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		EP400TSKA	EP450TSKA	EP500TSKA
Nominal Heating Capacity	kW	44.8	50.4	56.0
	BTU/h	152,900	172,000	191,100
Input	kW	10.66	12.00	13.36

Indoor unit temperature correction

To be used to correct indoor unit capacity only

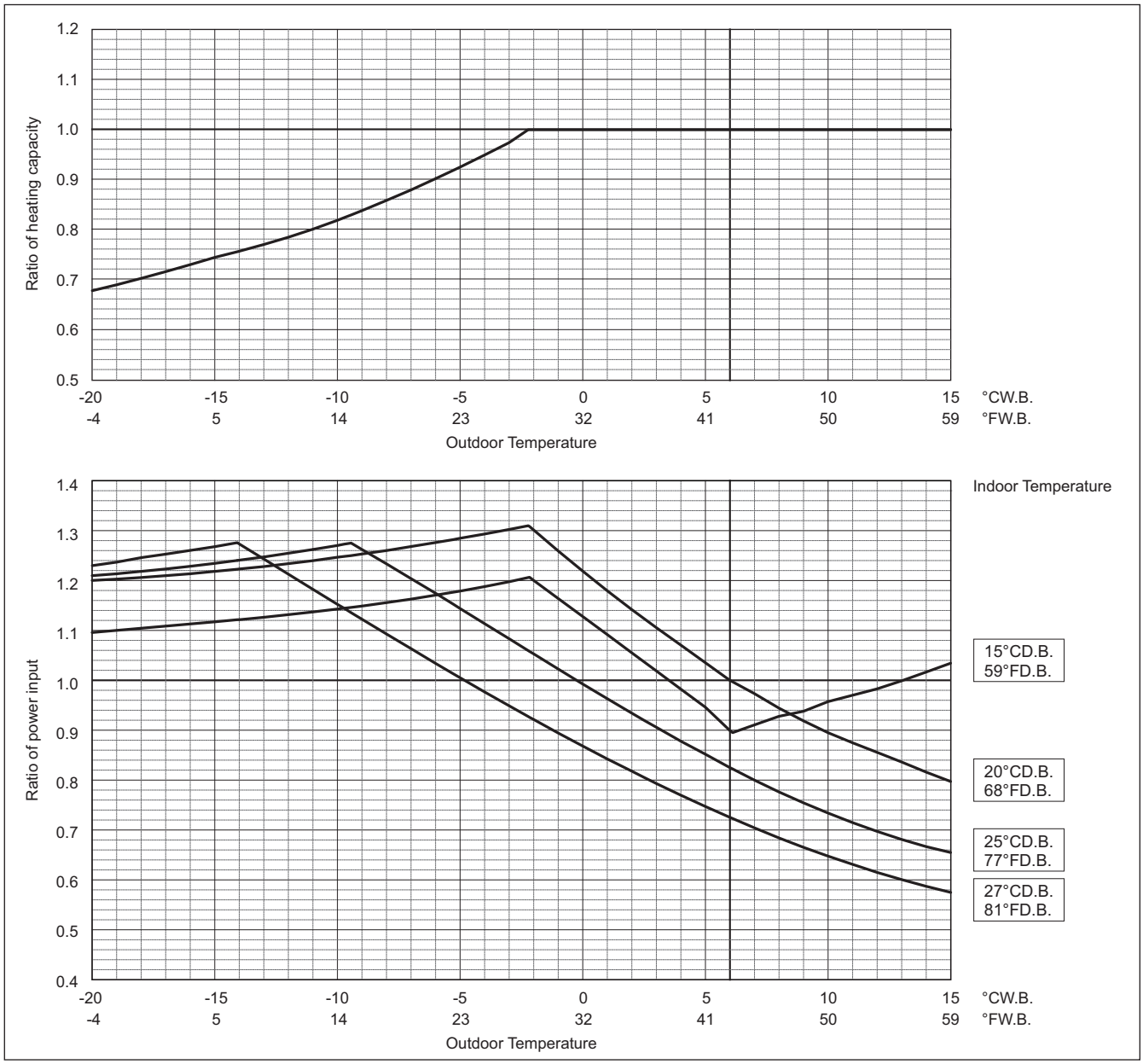


Outdoor unit temperature correction

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.

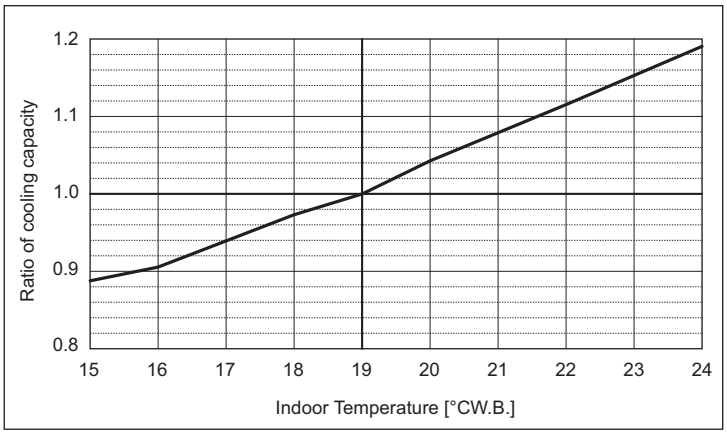


Y

PUHY-		EP650TSKA
Nominal Cooling Capacity	kW	73.5
	BTU/h	250,800
Input	kW	20.41

Indoor unit temperature correction

To be used to correct indoor unit capacity only

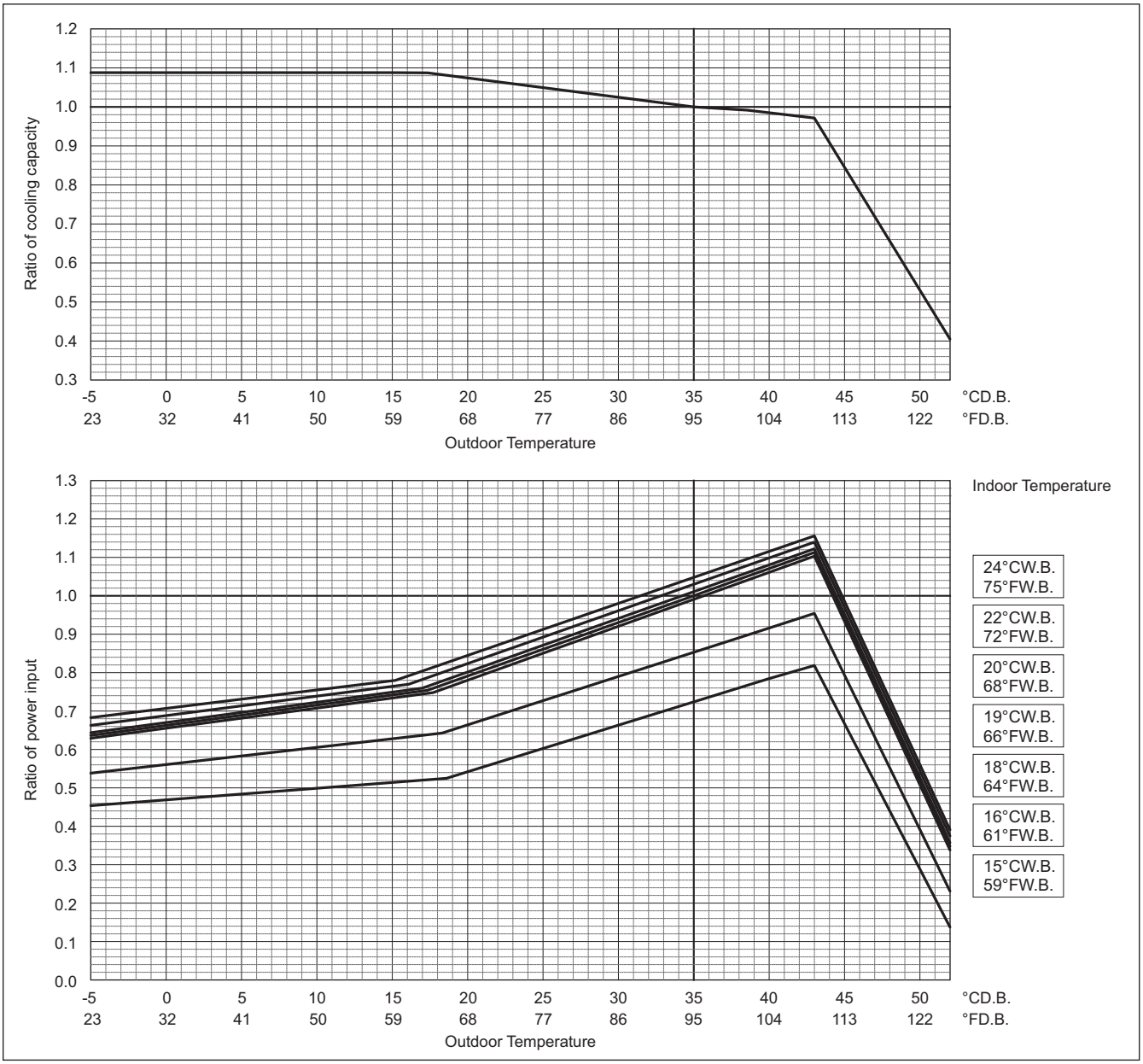


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

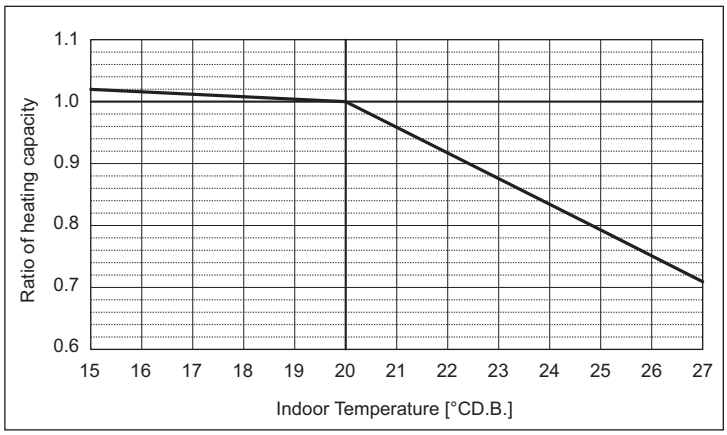
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		EP650TSKA
Nominal Heating Capacity	kW	73.5
	BTU/h	250,800
Input	kW	18.70

Indoor unit temperature correction

To be used to correct indoor unit capacity only

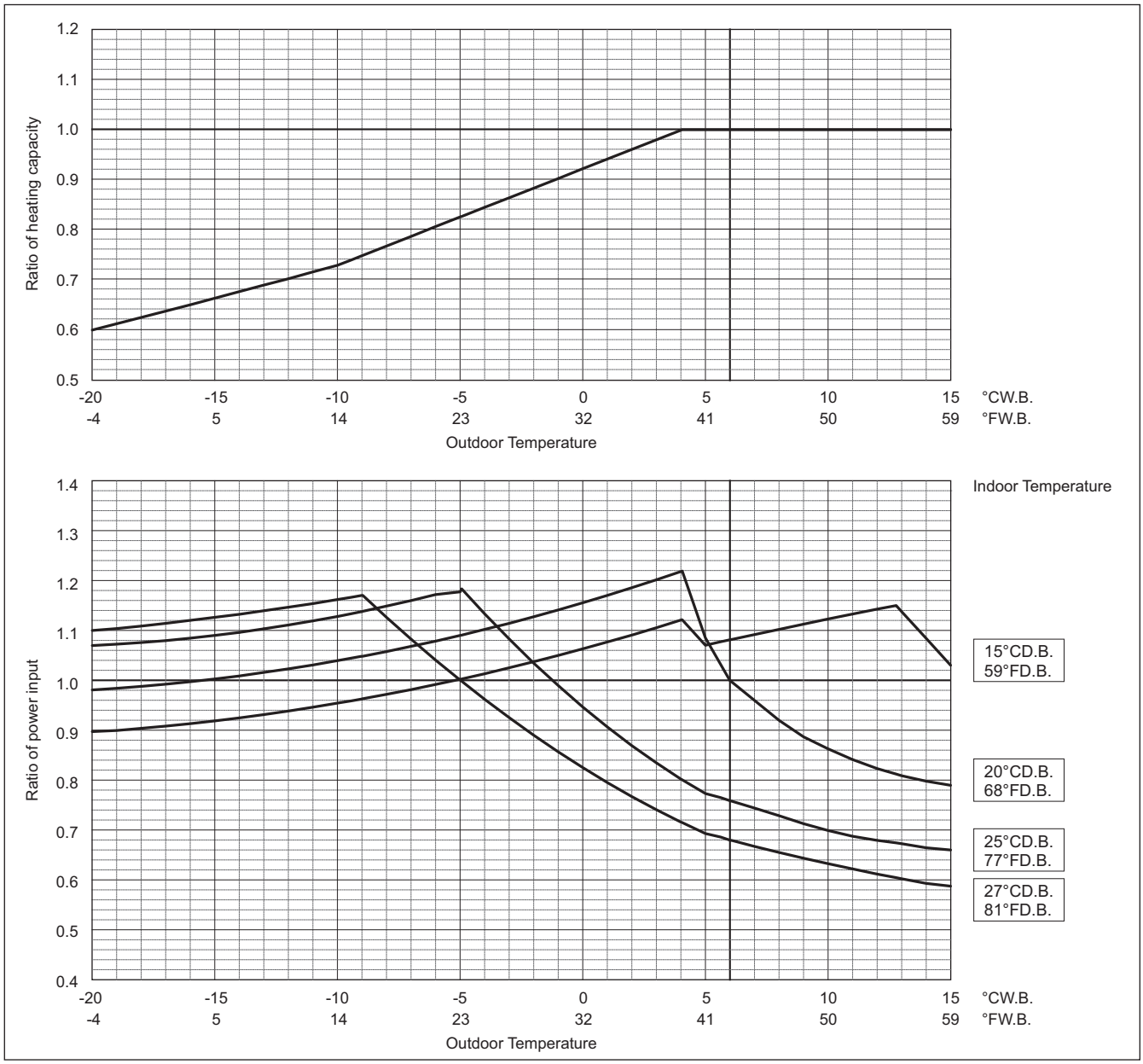


Outdoor unit temperature correction

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.

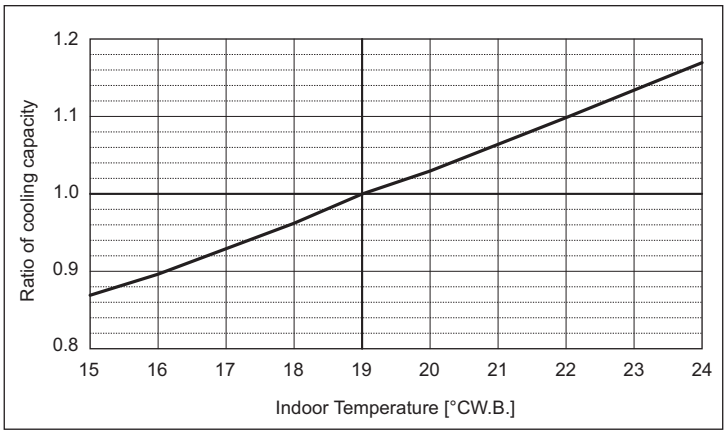


Y

PUHY-		EP700TSKA
Nominal Cooling Capacity	kW	80.0
	BTU/h	273,000
Input	kW	23.39

Indoor unit temperature correction

To be used to correct indoor unit capacity only

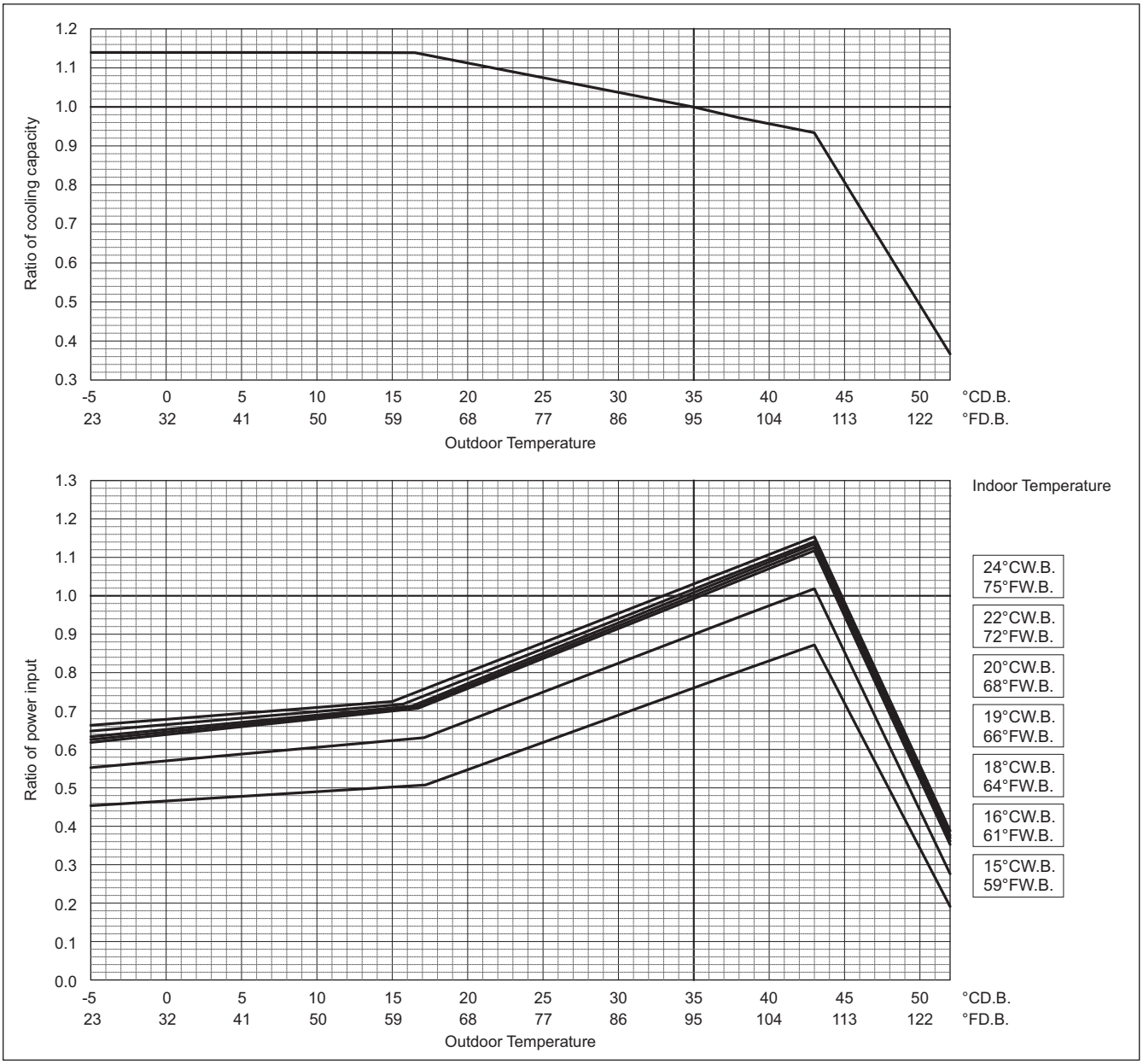


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

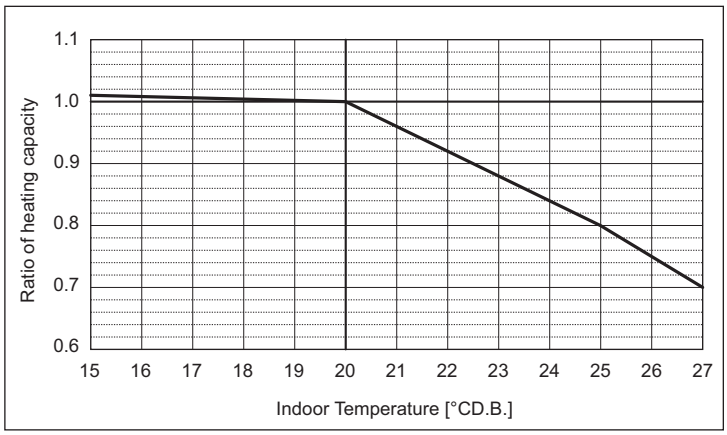
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		EP700TSKA
Nominal Heating Capacity	kW	80.0
	BTU/h	273,000
Input	kW	20.25

Indoor unit temperature correction

To be used to correct indoor unit capacity only

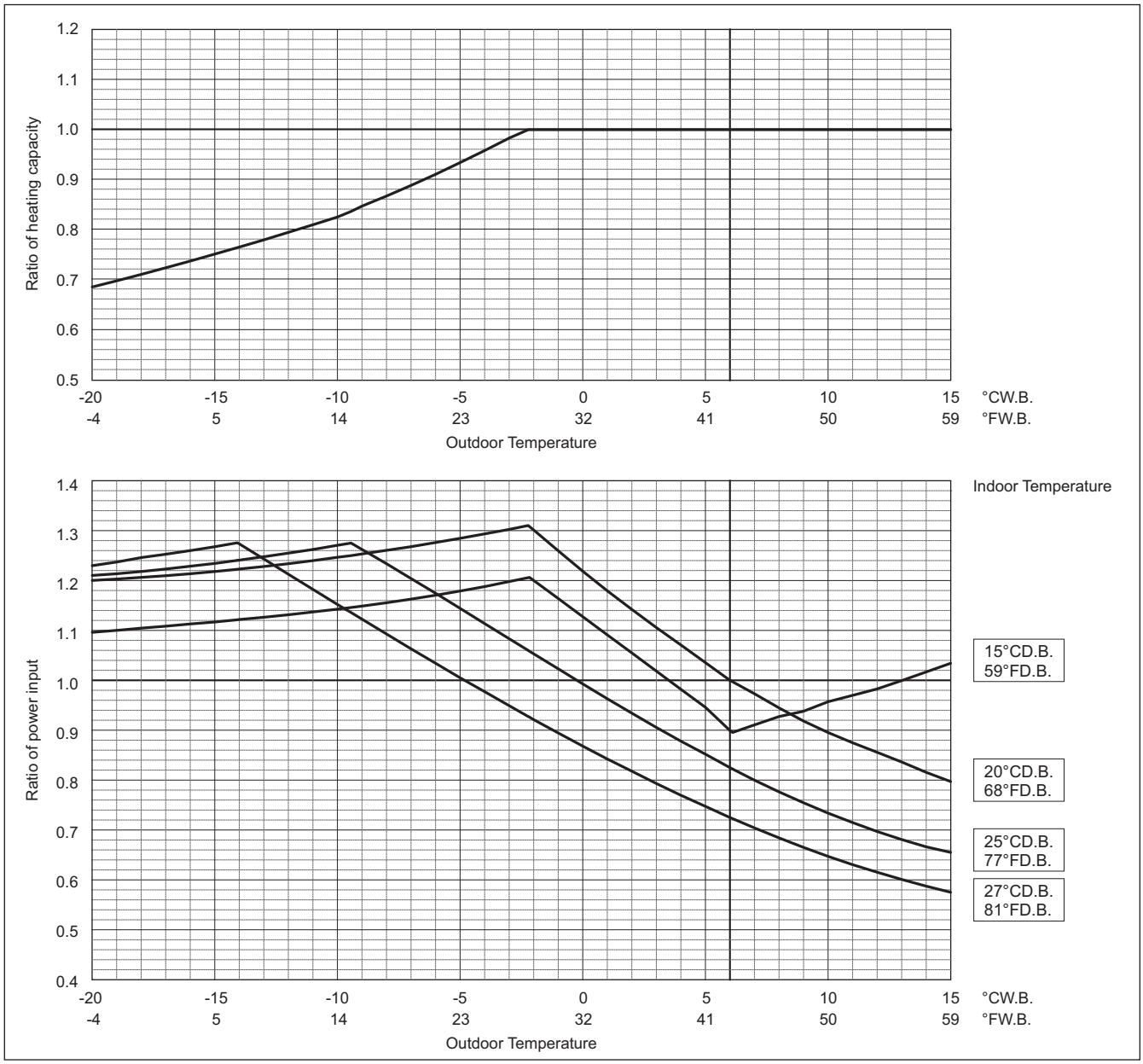


Outdoor unit temperature correction

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.



Y

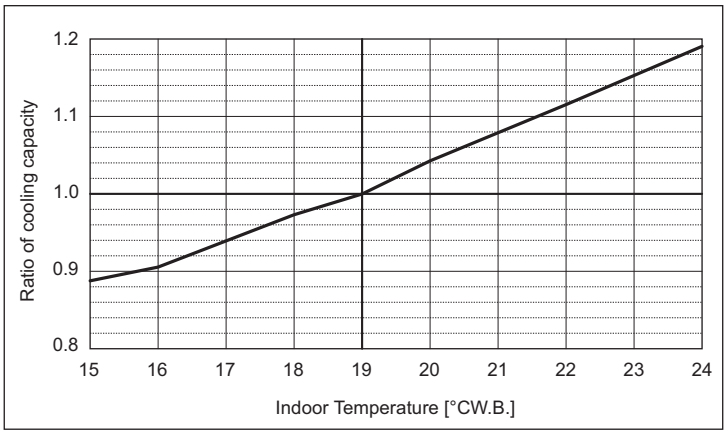
PUHY-		EP750TSKA	EP800TSKA	EP850TSKA
Nominal Cooling Capacity	kW	84.8	90.4	96.0
	BTU/h	289,300	308,400	327,600
Input	kW	21.14	23.00	25.00

PUHY-		EP900TSKA	EP950TSKA	EP1000TSKA
Nominal Cooling Capacity	kW	101.5	107.0	113.5
	BTU/h	346,300	365,100	387,300
Input	kW	27.06	29.23	32.06

PUHY-		EP1050TSKA	EP1100TSKA
Nominal Cooling Capacity	kW	120.0	125.0
	BTU/h	409,400	426,500
Input	kW	35.08	36.76

Indoor unit temperature correction

To be used to correct indoor unit capacity only

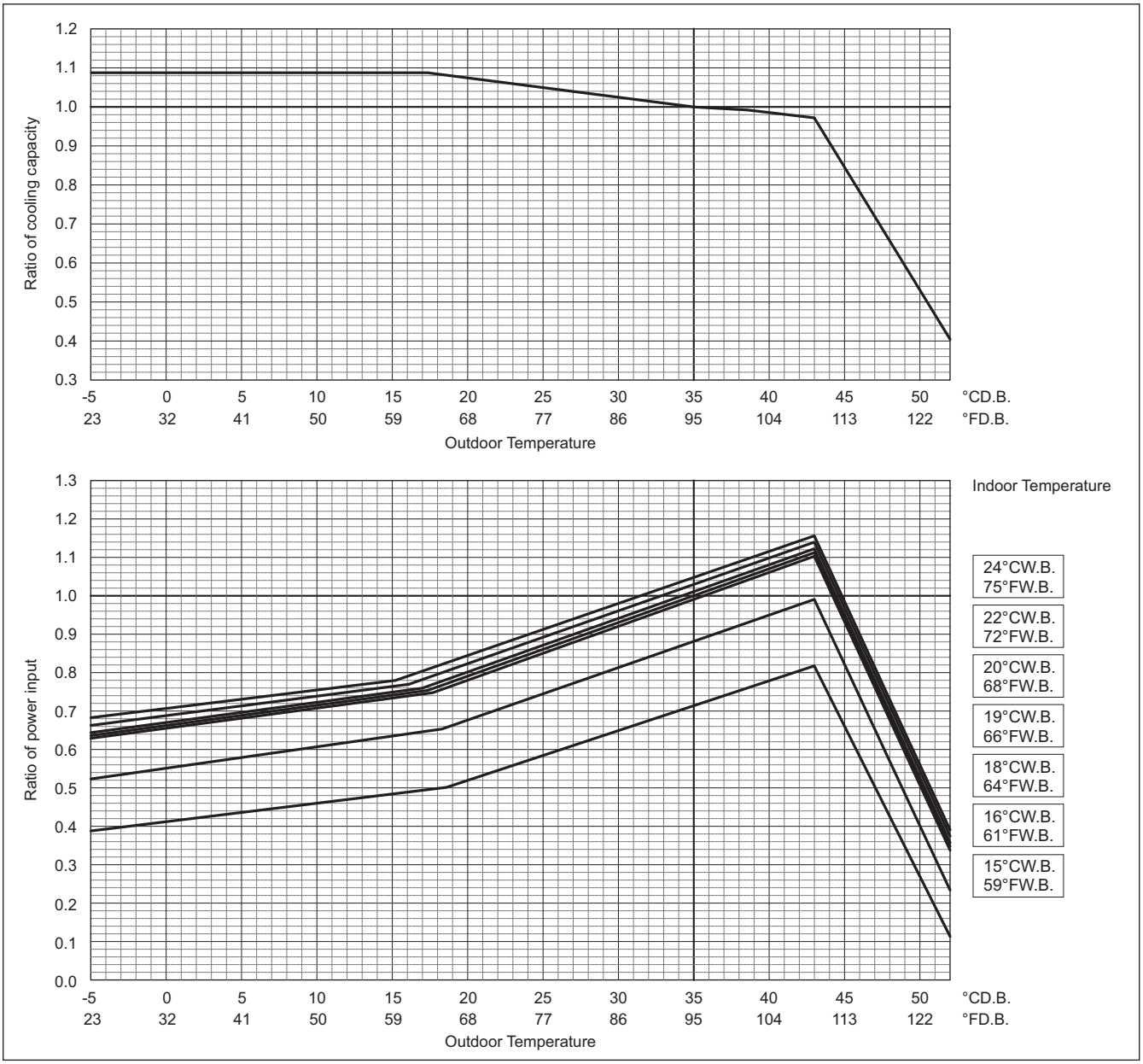


Outdoor unit temperature correction

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.



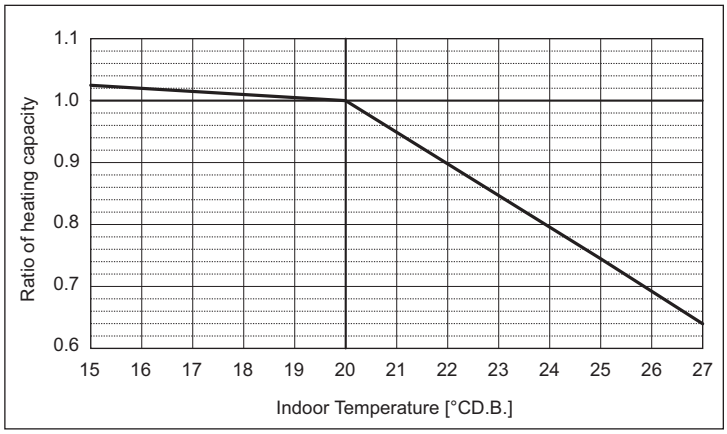
PUHY-		EP750TSKA	EP800TSKA	EP850TSKA
Nominal Heating Capacity	kW	84.8	90.4	96.0
	BTU/h	289,300	308,400	327,600
Input	kW	20.58	21.99	23.35

PUHY-		EP900TSKA	EP950TSKA	EP1000TSKA
Nominal Heating Capacity	kW	101.5	107.0	113.5
	BTU/h	346,300	365,100	387,300
Input	kW	25.24	27.22	28.80

PUHY-		EP1050TSKA	EP1100TSKA
Nominal Heating Capacity	kW	120.0	125.0
	BTU/h	409,400	426,500
Input	kW	31.25	33.24

Indoor unit temperature correction

To be used to correct indoor unit capacity only

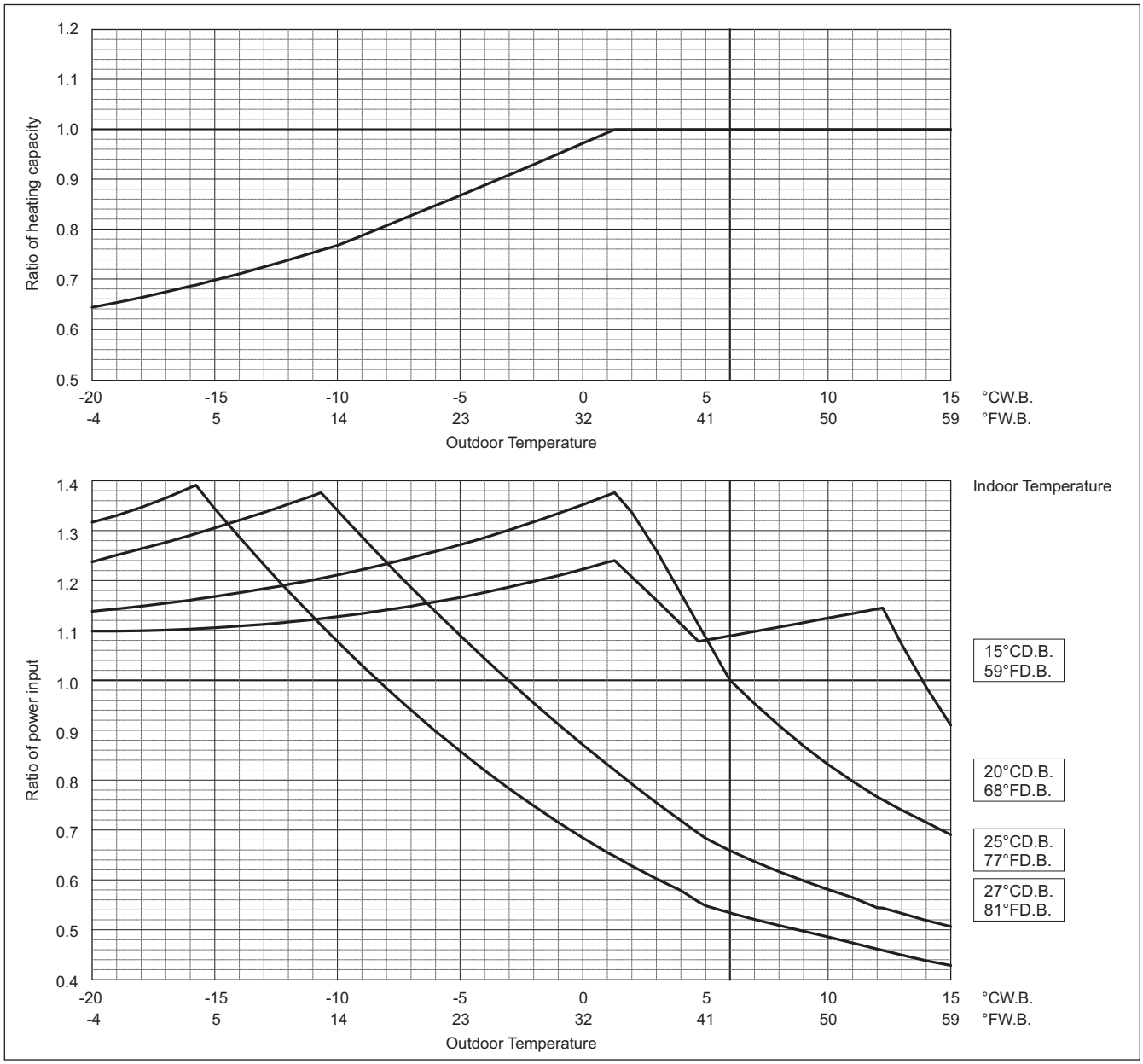


Outdoor unit temperature correction

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.



Y

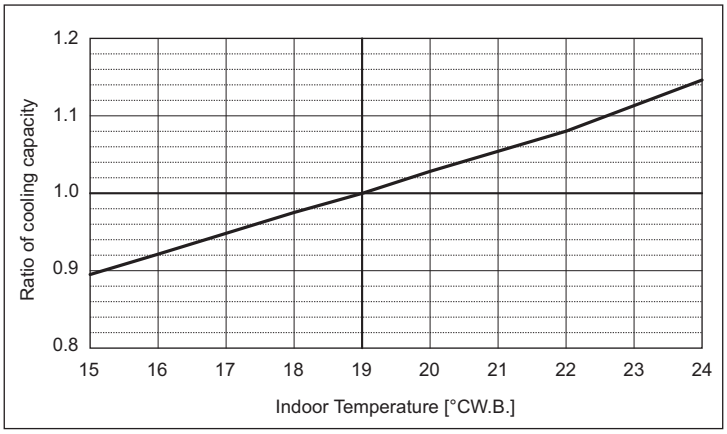
Correction by temperature (COP Priority Mode only for heating)

CITY MULTI could have various capacities at different designing temperatures. Using the nominal cooling/heating capacity values and the ratios below, the capacity can be found for various temperatures.To select COP priority mode, DipSW 6-2 must be set to ON.

PUHY-		P200TKA	P250TKA	P300TKA
Nominal Cooling Capacity	kW	22.4	28.0	33.5
	BTU/h	76,400	95,500	114,300
Input	kW	5.19	6.89	8.86

Indoor unit temperature correction

To be used to correct indoor unit capacity only

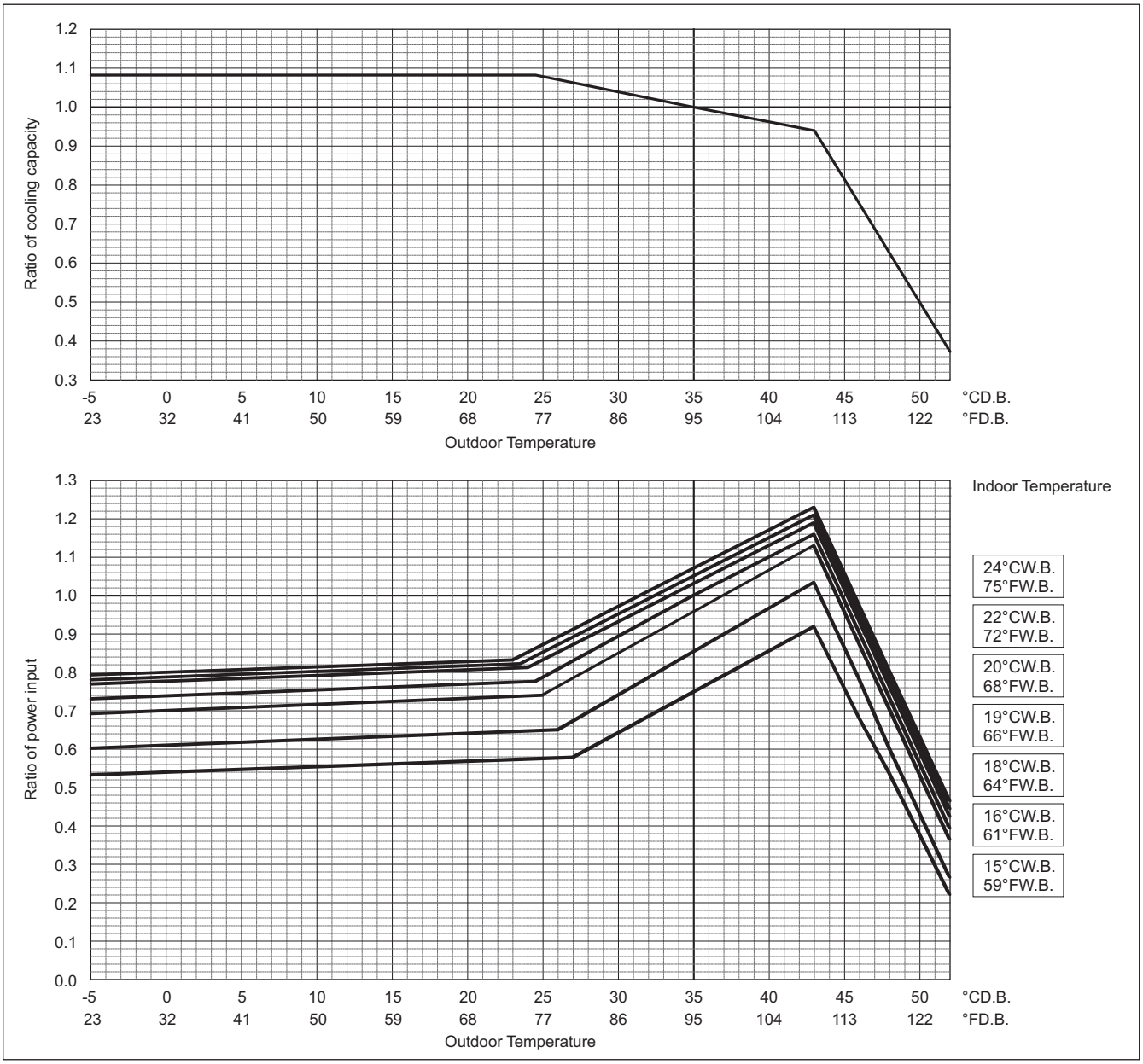


Outdoor unit temperature correction

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.

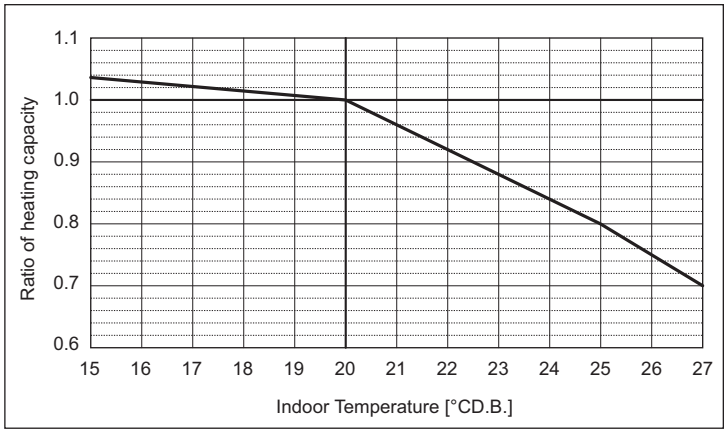


COP Priority Mode

PUHY-		P200TKA	P250TKA	P300TKA
Nominal Heating Capacity	kW	22.4	28.0	33.5
	BTU/h	76,400	95,500	114,300
Input	kW	5.05	6.33	8.11

Indoor unit temperature correction

To be used to correct indoor unit capacity only

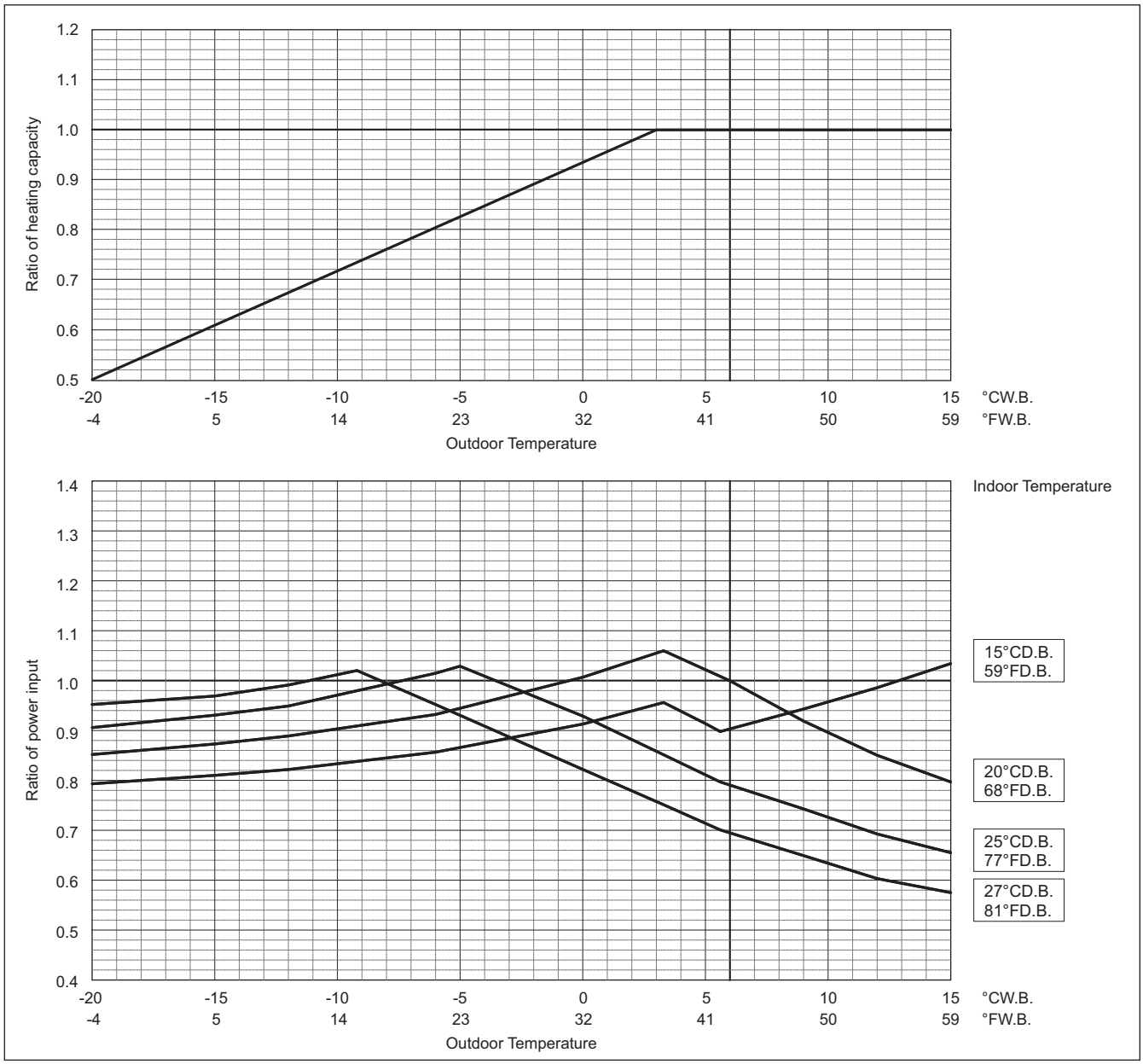


Outdoor unit temperature correction

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.

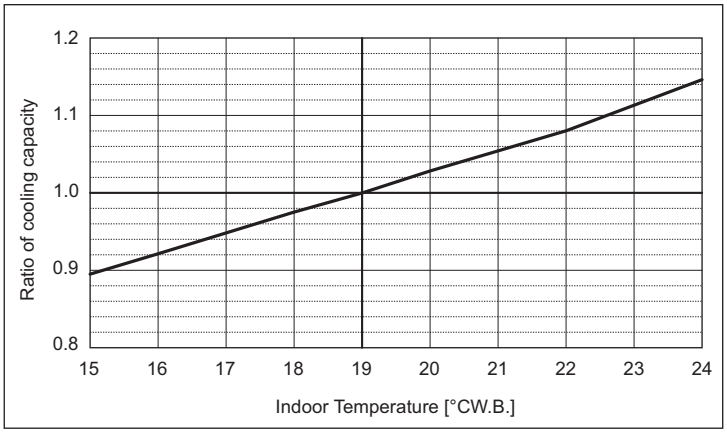


Y

PUHY-		P350TKA	P400TKA	P450TKA
Nominal Cooling Capacity	kW	40.0	45.0	48.0
	BTU/h	136,500	153,500	163,800
Input	kW	11.69	13.55	15.78

Indoor unit temperature correction

To be used to correct indoor unit capacity only

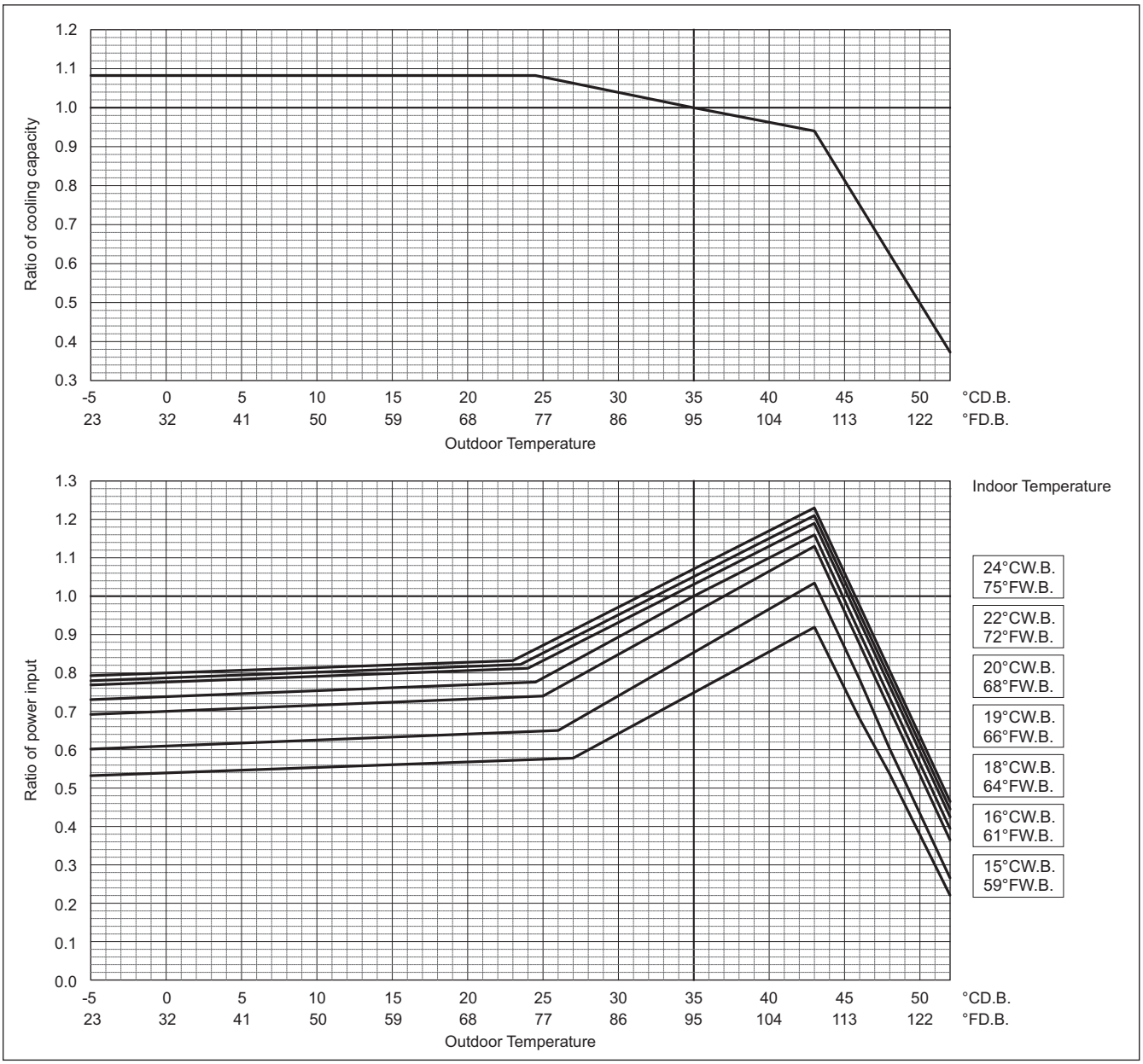


Outdoor unit temperature correction

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.

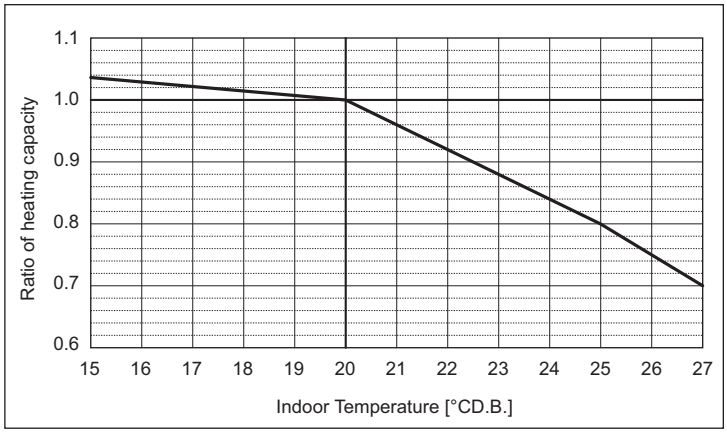


COP Priority Mode

PUHY-		P350TKA	P400TKA	P450TKA
Nominal Heating Capacity	kW	40.0	45.0	48.0
	BTU/h	136,500	153,500	163,800
Input	kW	9.61	10.92	13.33

Indoor unit temperature correction

To be used to correct indoor unit capacity only

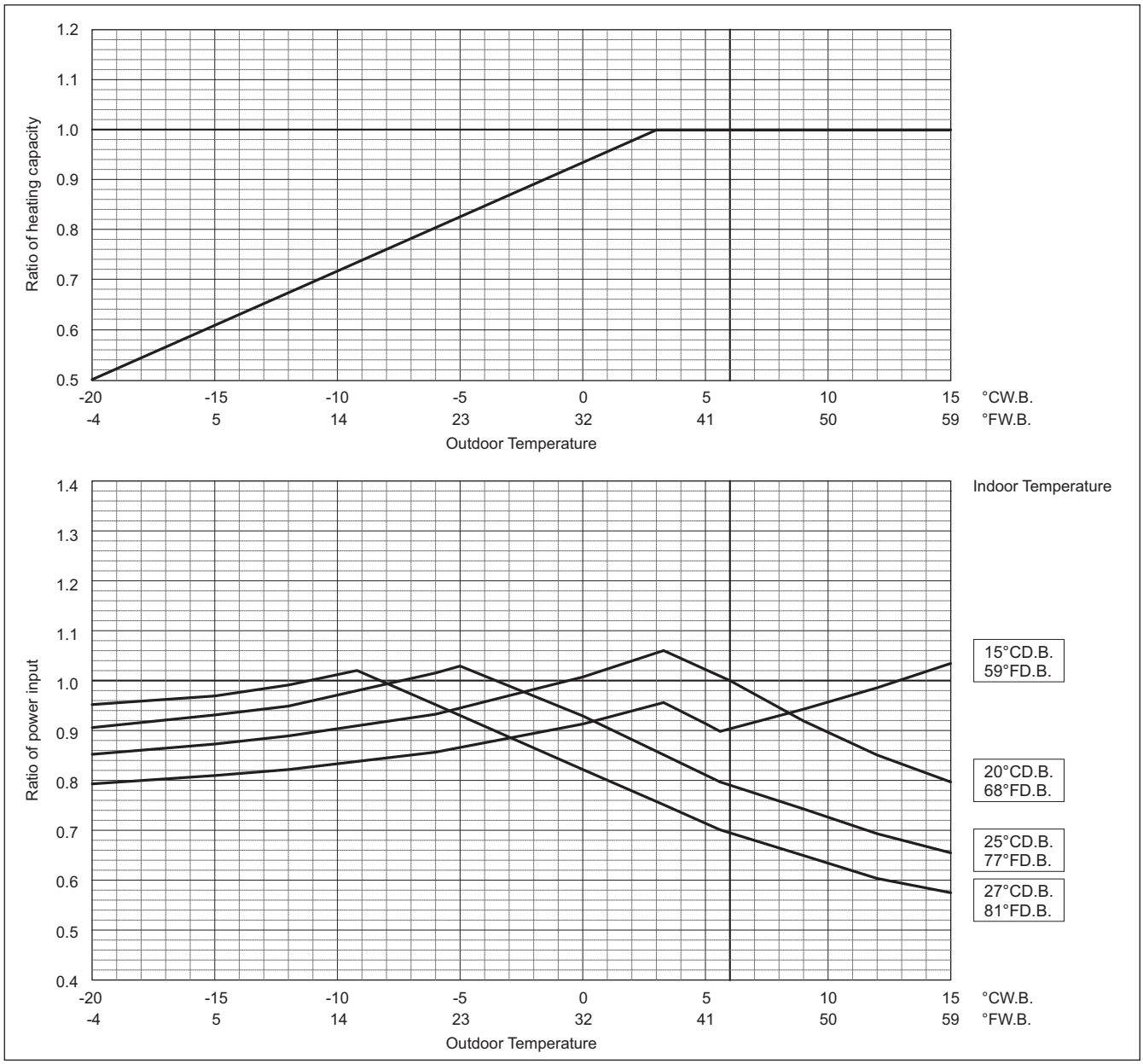


Outdoor unit temperature correction

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.

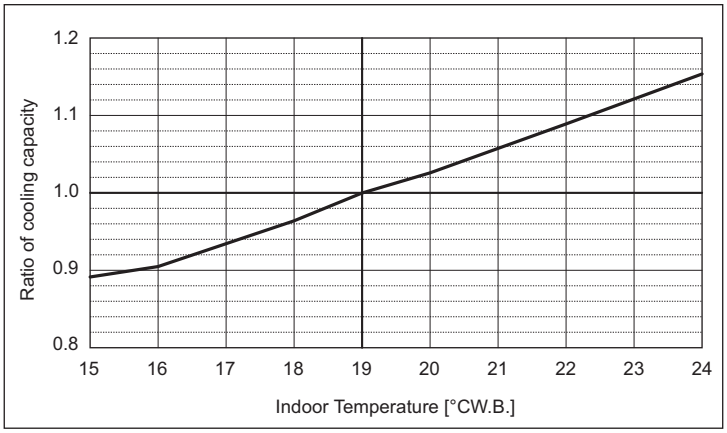


Y

PUHY-		P500TKA
Nominal Cooling Capacity	kW	55.0
	BTU/h	187,700
Input	kW	18.39

Indoor unit temperature correction

To be used to correct indoor unit capacity only

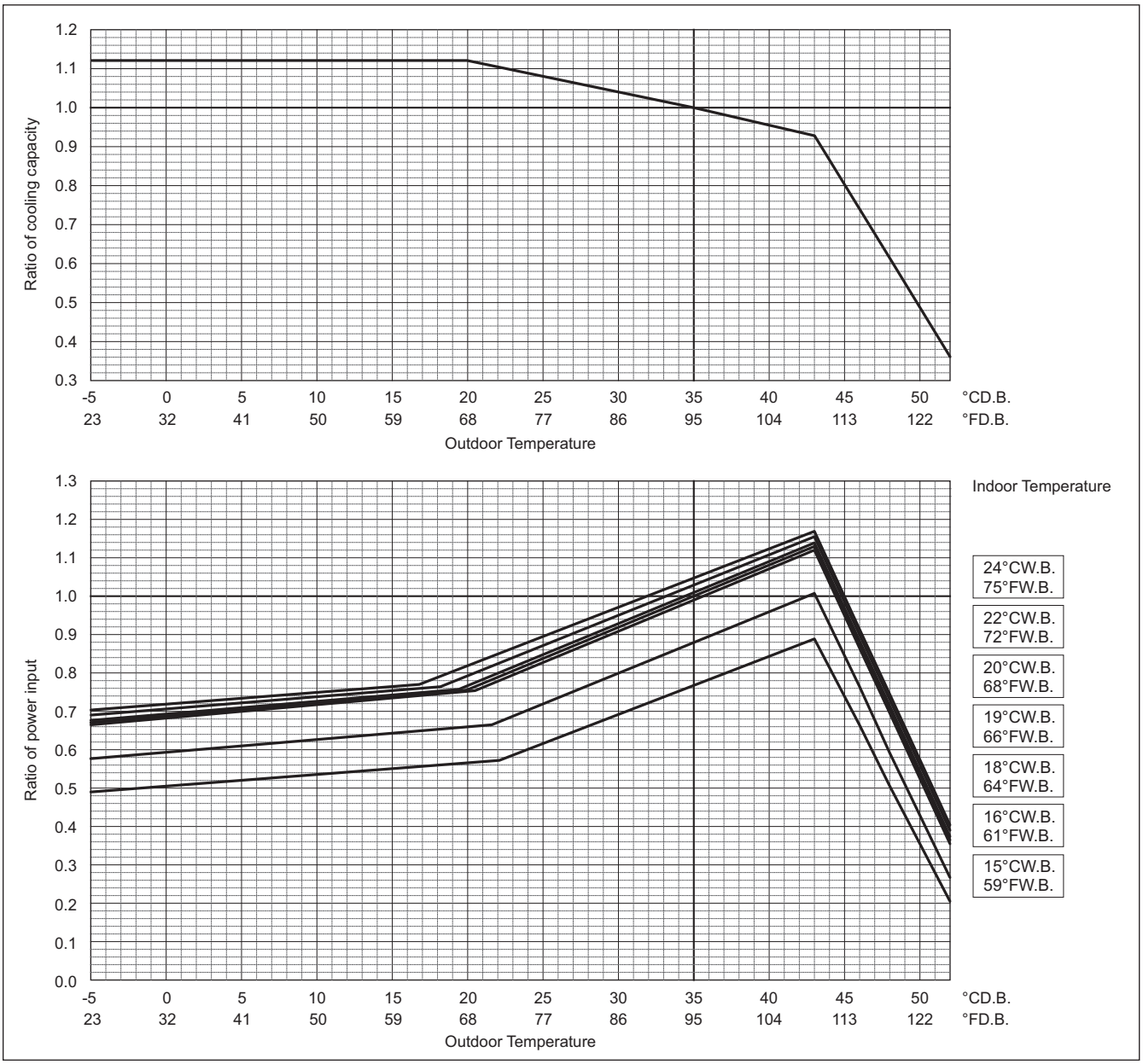


Outdoor unit temperature correction

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.

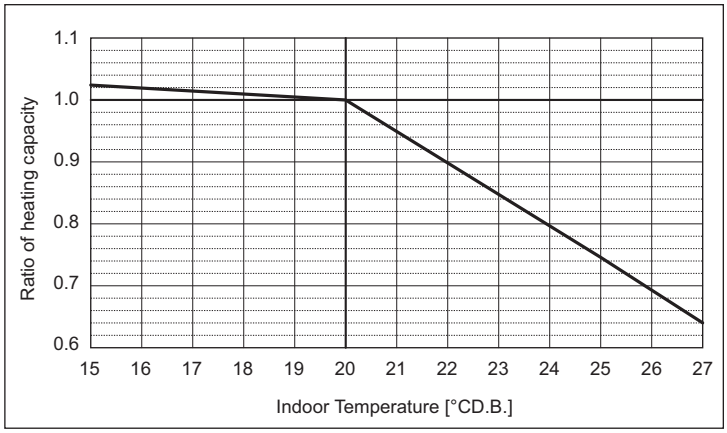


COP Priority Mode

PUHY-		P500TKA
Nominal Heating Capacity	kW	55.0
	BTU/h	187,700
Input	kW	15.71

Indoor unit temperature correction

To be used to correct indoor unit capacity only

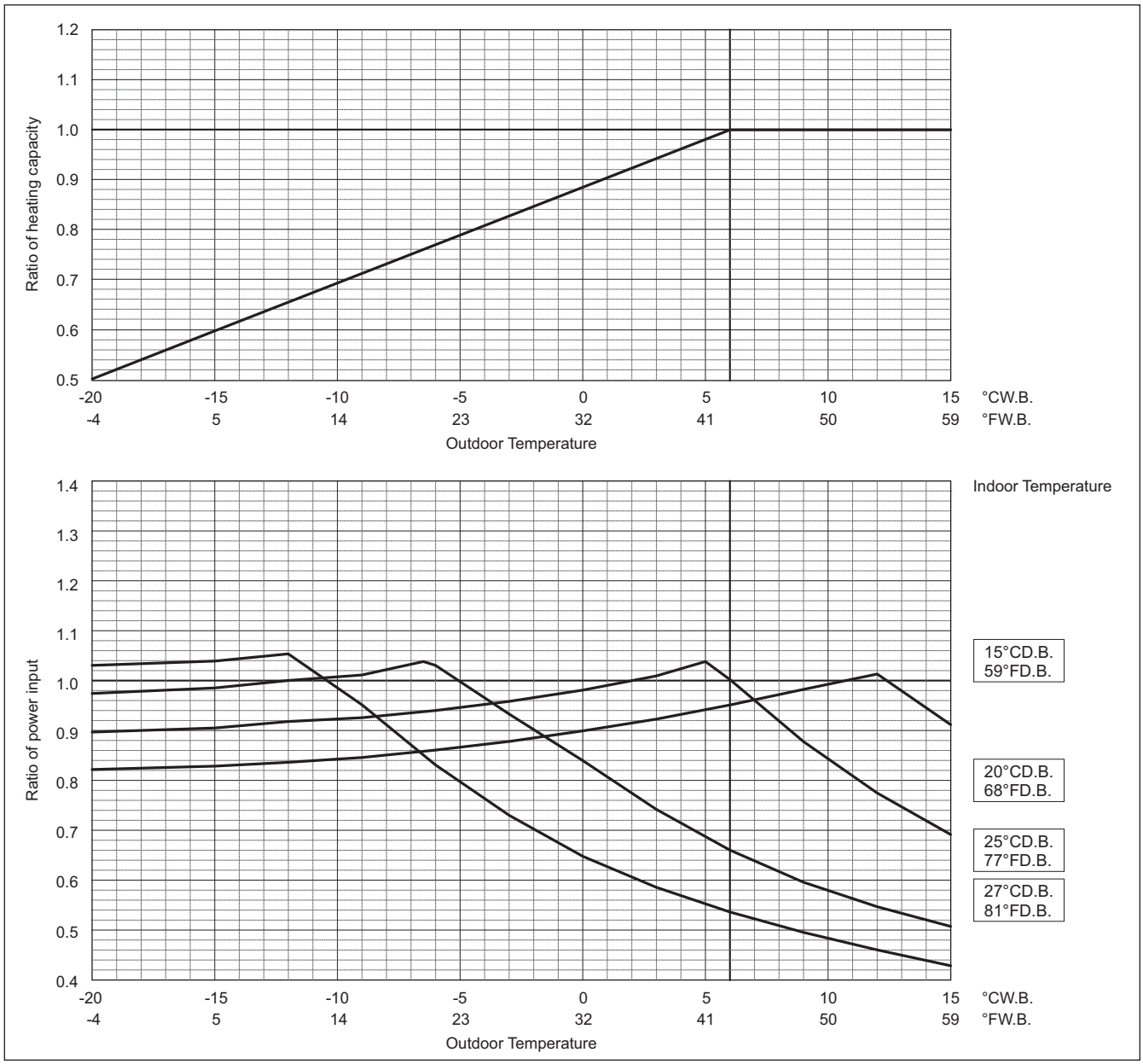


Outdoor unit temperature correction

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.

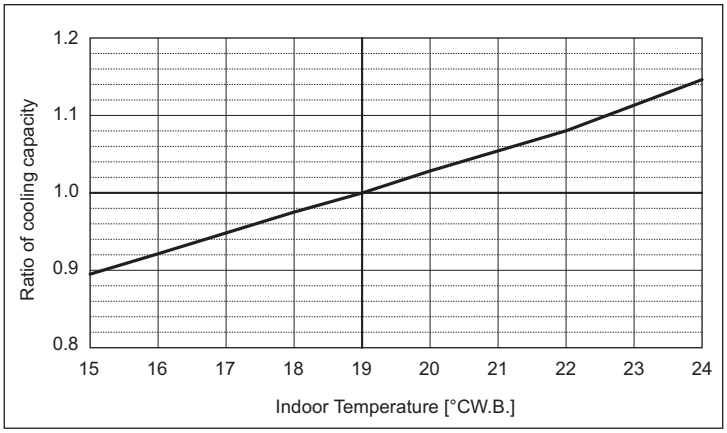


Y

PUHY-		P550TSKA
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	16.07

Indoor unit temperature correction

To be used to correct indoor unit capacity only

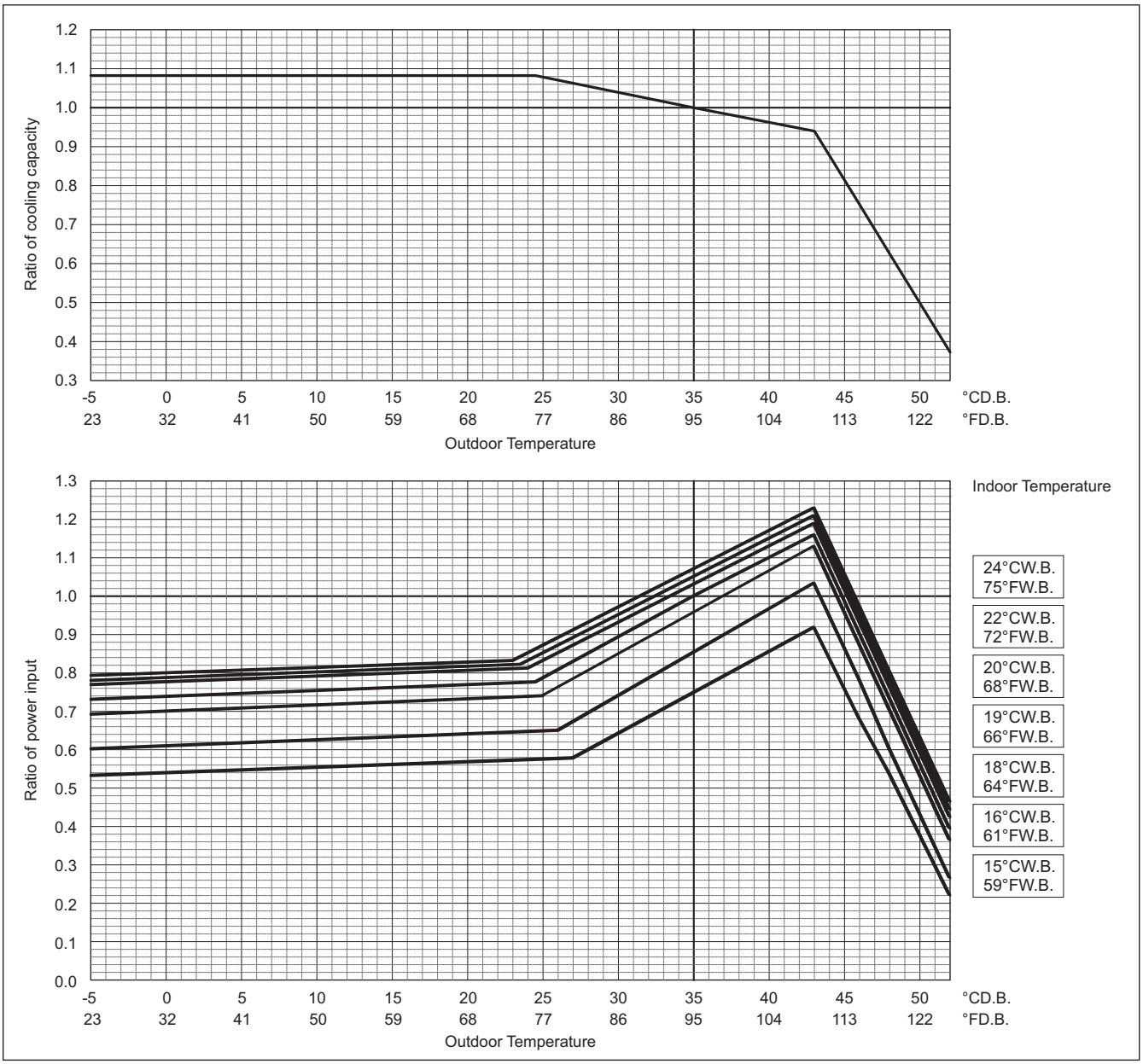


Outdoor unit temperature correction

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.

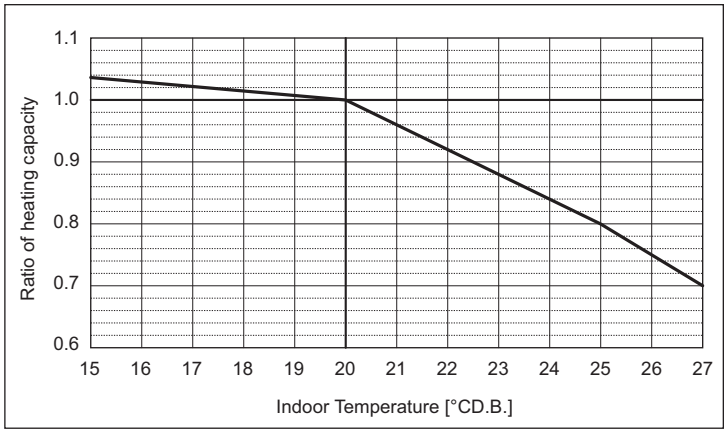


COP Priority Mode

PUHY-		P550TSKA
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	15.51

Indoor unit temperature correction

To be used to correct indoor unit capacity only

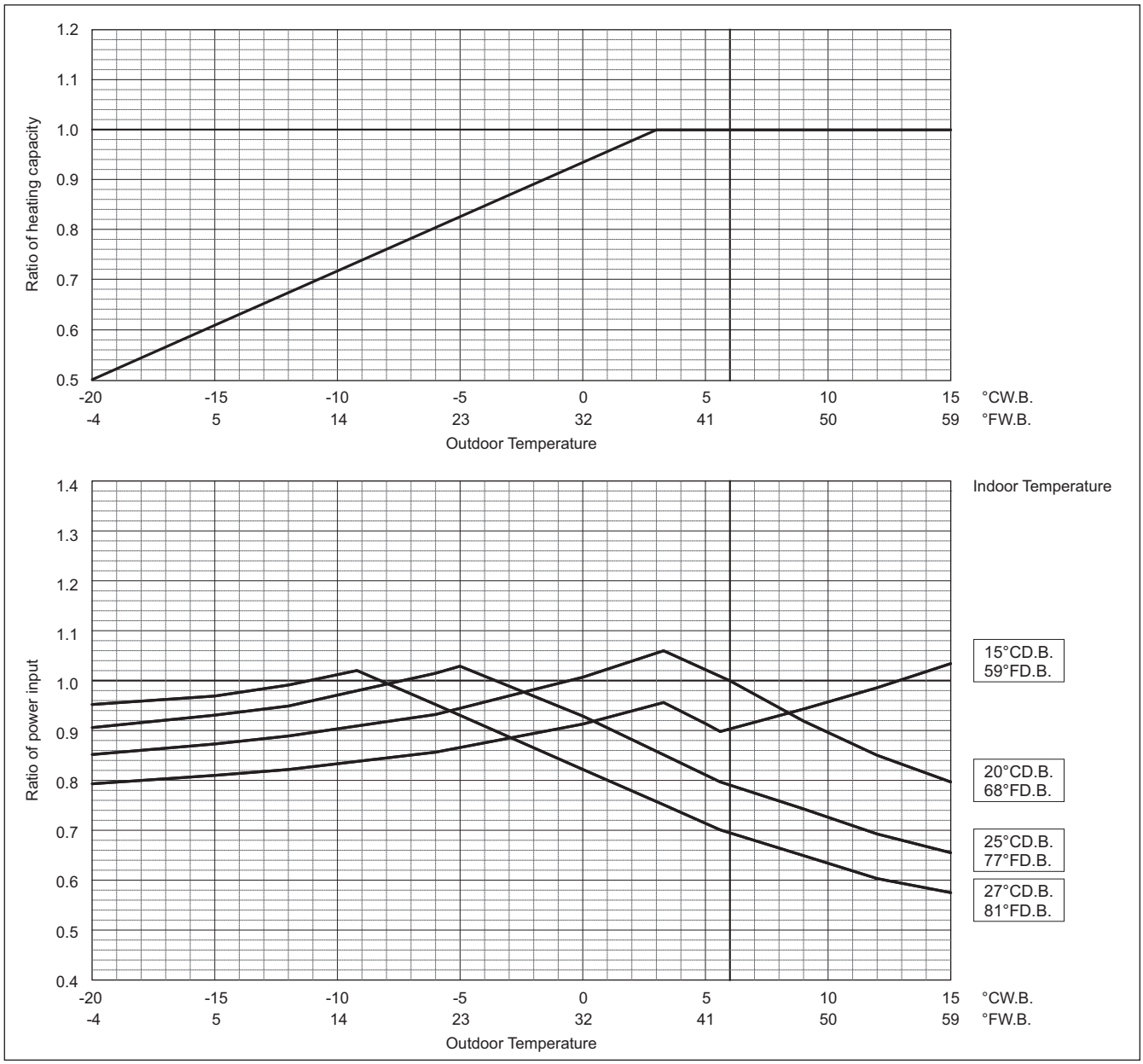


Outdoor unit temperature correction

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.



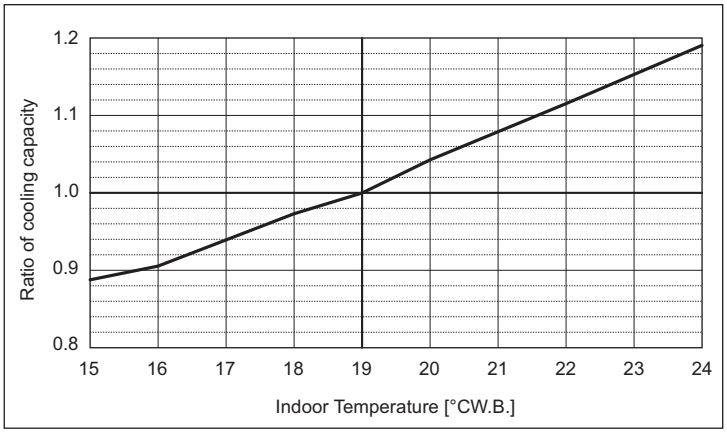
Y

PUHY-		P600TSKA	P650TSKA	P700TSKA
Nominal Cooling Capacity	kW	68.0	73.0	76.0
	BTU/h	232,000	249,100	259,300
Input	kW	18.18	19.78	21.40

PUHY-		P750TSKA
Nominal Cooling Capacity	kW	81.5
	BTU/h	278,100
Input	kW	23.90

Indoor unit temperature correction

To be used to correct indoor unit capacity only

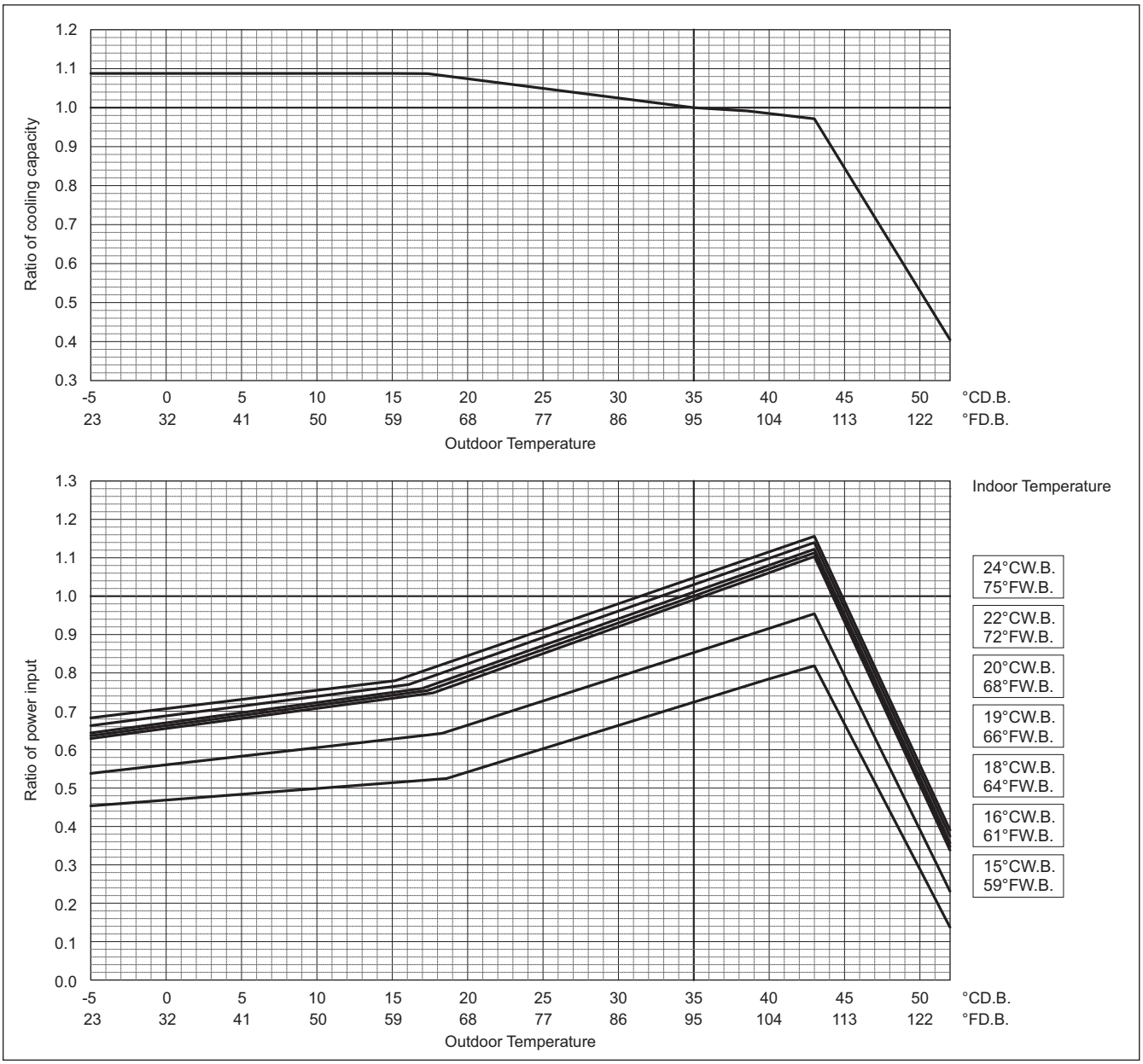


Outdoor unit temperature correction

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.



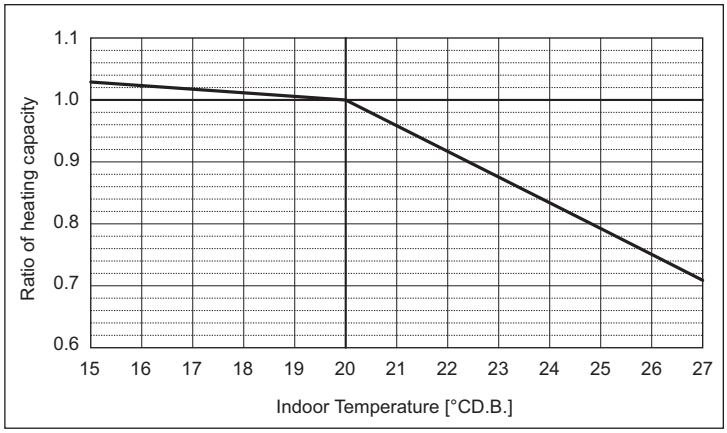
COP Priority Mode

PUHY-		P600TSKA	P650TSKA	P700TSKA
Nominal Heating Capacity	kW	68.0	73.0	76.0
	BTU/h	232,000	249,100	259,300
Input	kW	16.70	18.02	20.00

PUHY-		P750TSKA
Nominal Heating Capacity	kW	81.5
	BTU/h	278,100
Input	kW	22.20

Indoor unit temperature correction

To be used to correct indoor unit capacity only

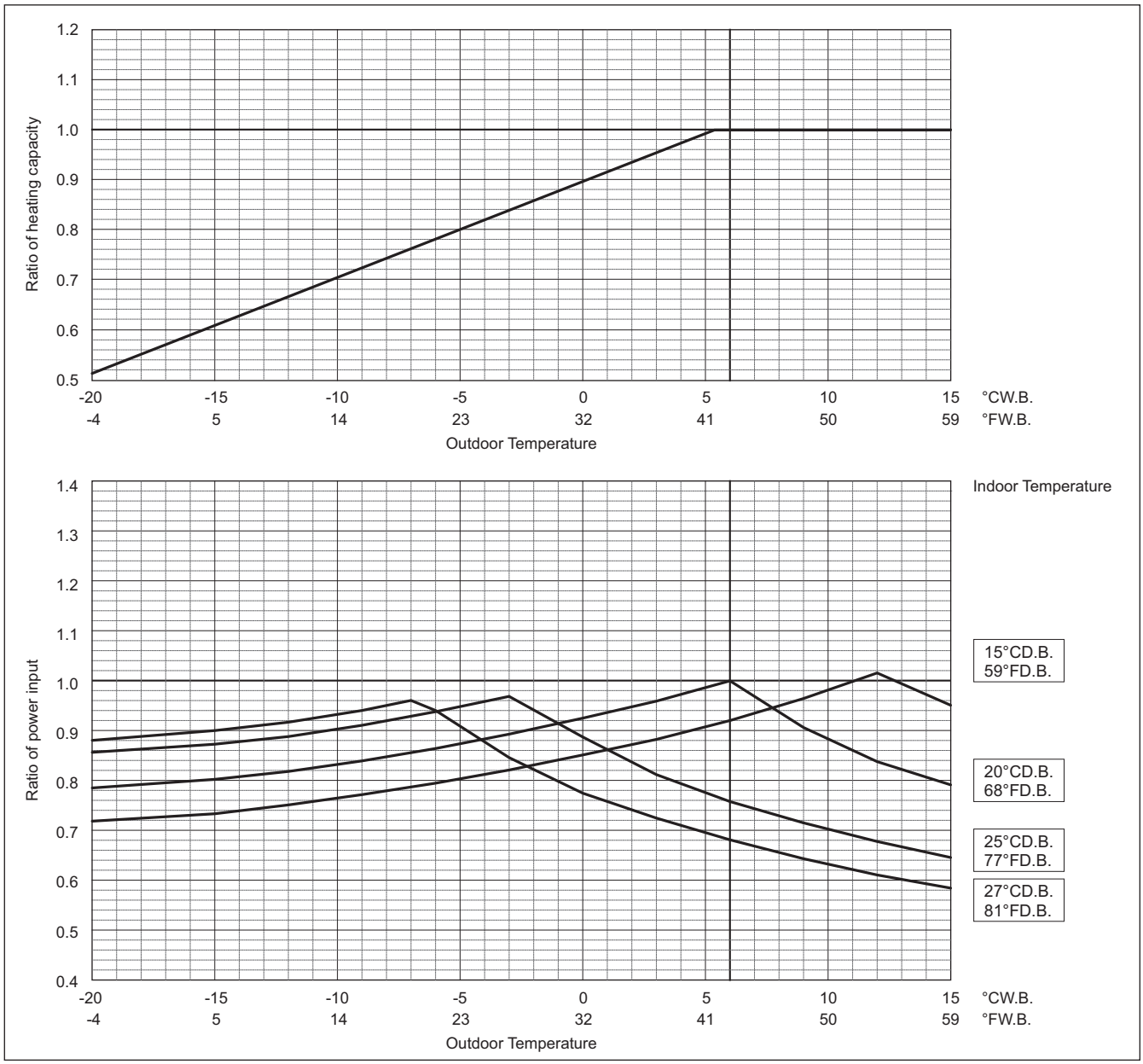


Outdoor unit temperature correction

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.

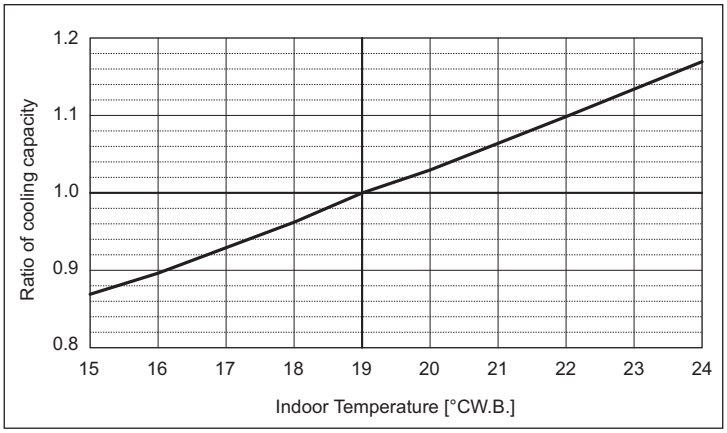


Y

PUHY-		P800TSKA	P850TSKA	P900TSKA
Nominal Cooling Capacity	kW	90.0	93.0	96.0
	BTU/h	307,100	317,300	327,600
Input	kW	27.10	29.24	31.57

Indoor unit temperature correction

To be used to correct indoor unit capacity only

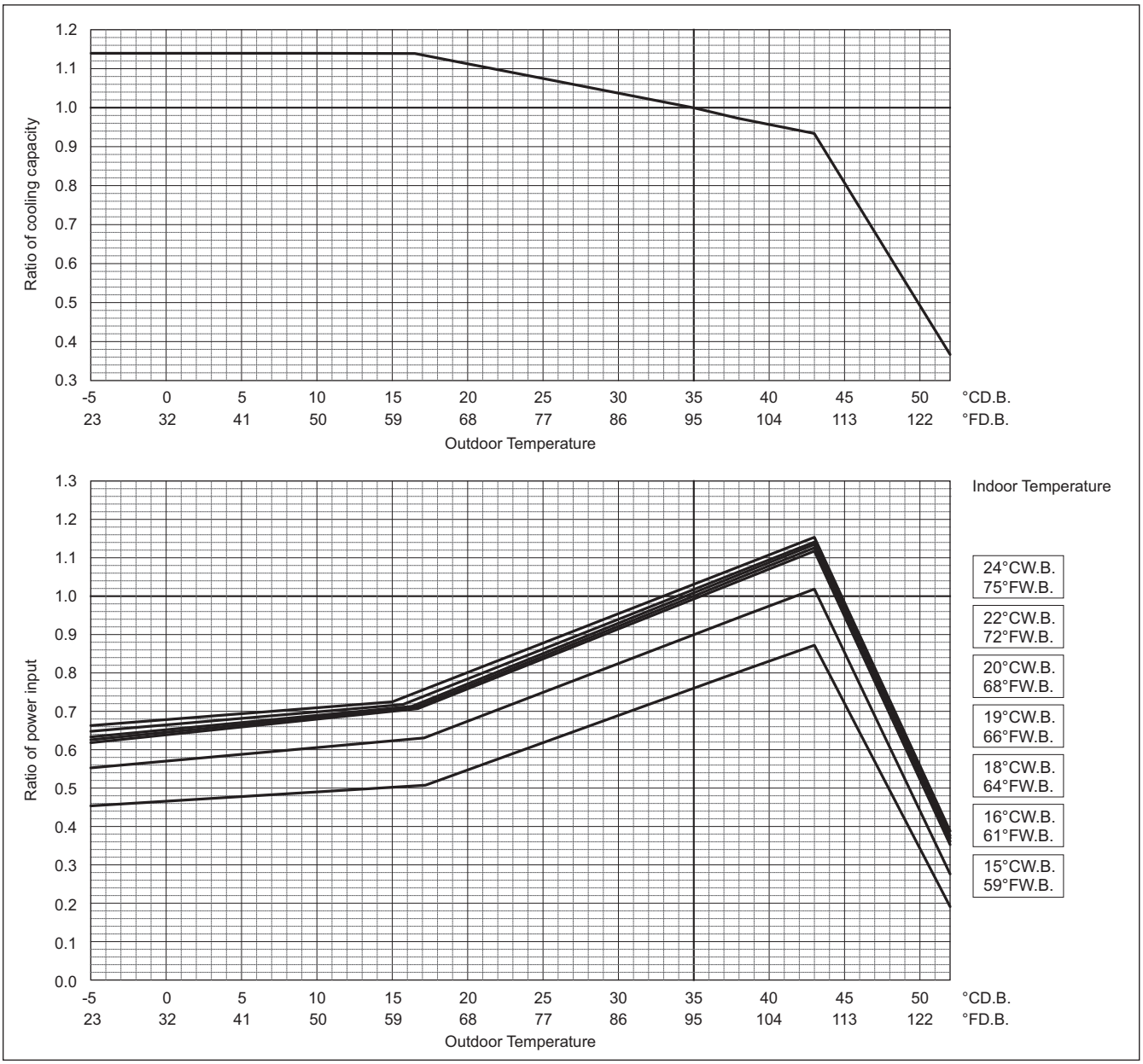


Outdoor unit temperature correction

To be used to correct outdoor unit only

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

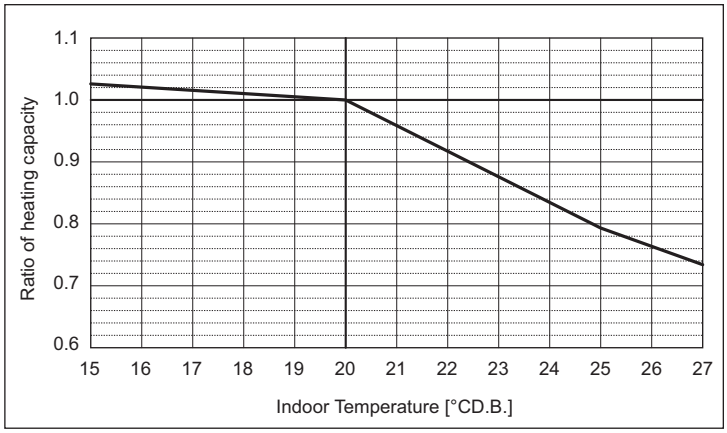


COP Priority Mode

PUHY-		P800TSKA	P850TSKA	P900TSKA
Nominal Heating Capacity	kW	90.0	93.0	96.0
	BTU/h	307,100	317,300	327,600
Input	kW	23.01	25.40	28.07

Indoor unit temperature correction

To be used to correct indoor unit capacity only

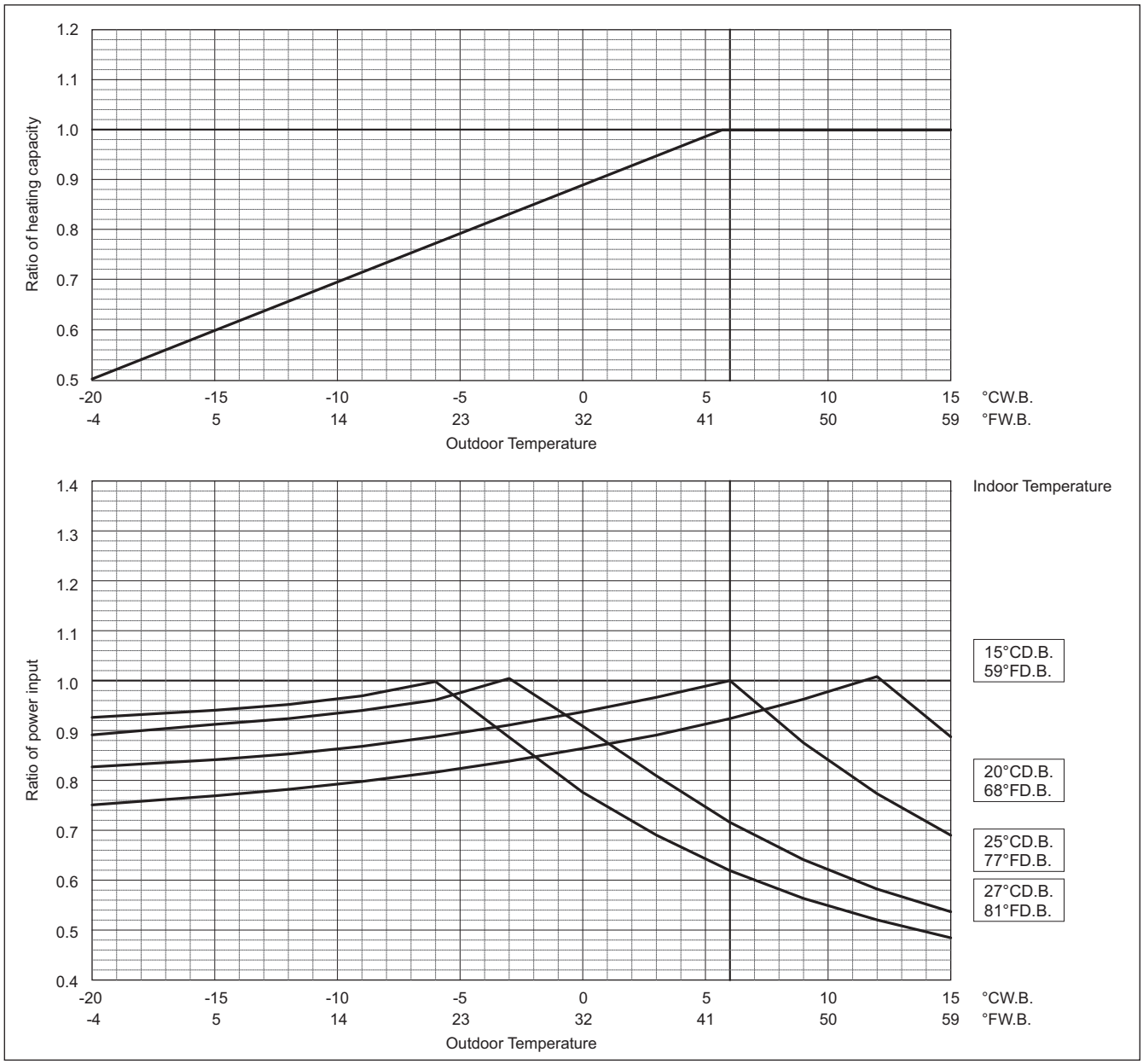


Outdoor unit temperature correction

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.



Y

PUHY-		P950TSKA	P1000TSKA	P1050TSKA
Nominal Cooling Capacity	kW	103.0	110.0	115.0
	BTU/h	351,400	375,300	392,400
Input	kW	34.21	36.78	32.57

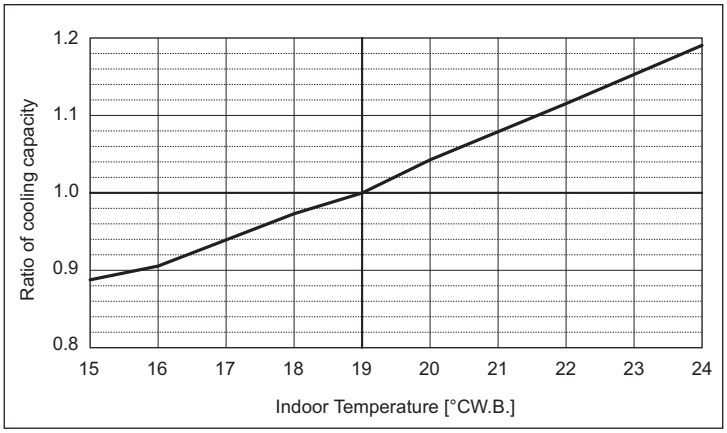
PUHY-		P1100TSKA	P1150TSKA	P1200TSKA
Nominal Cooling Capacity	kW	121.5	130.0	135.0
	BTU/h	414,600	443,600	460,600
Input	kW	35.63	38.80	40.66

PUHY-		P1250TSKA	P1300TSKA	P1350TSKA
Nominal Cooling Capacity	kW	138.0	141.0	144.0
	BTU/h	470,900	481,100	491,300
Input	kW	43.12	45.77	48.64

PUHY-		P1400TSKA	P1450TSKA	P1500TSKA
Nominal Cooling Capacity	kW	151.0	158.0	165.0
	BTU/h	515,200	539,100	563,000
Input	kW	52.24	55.83	59.56

Indoor unit temperature correction

To be used to correct indoor unit capacity only

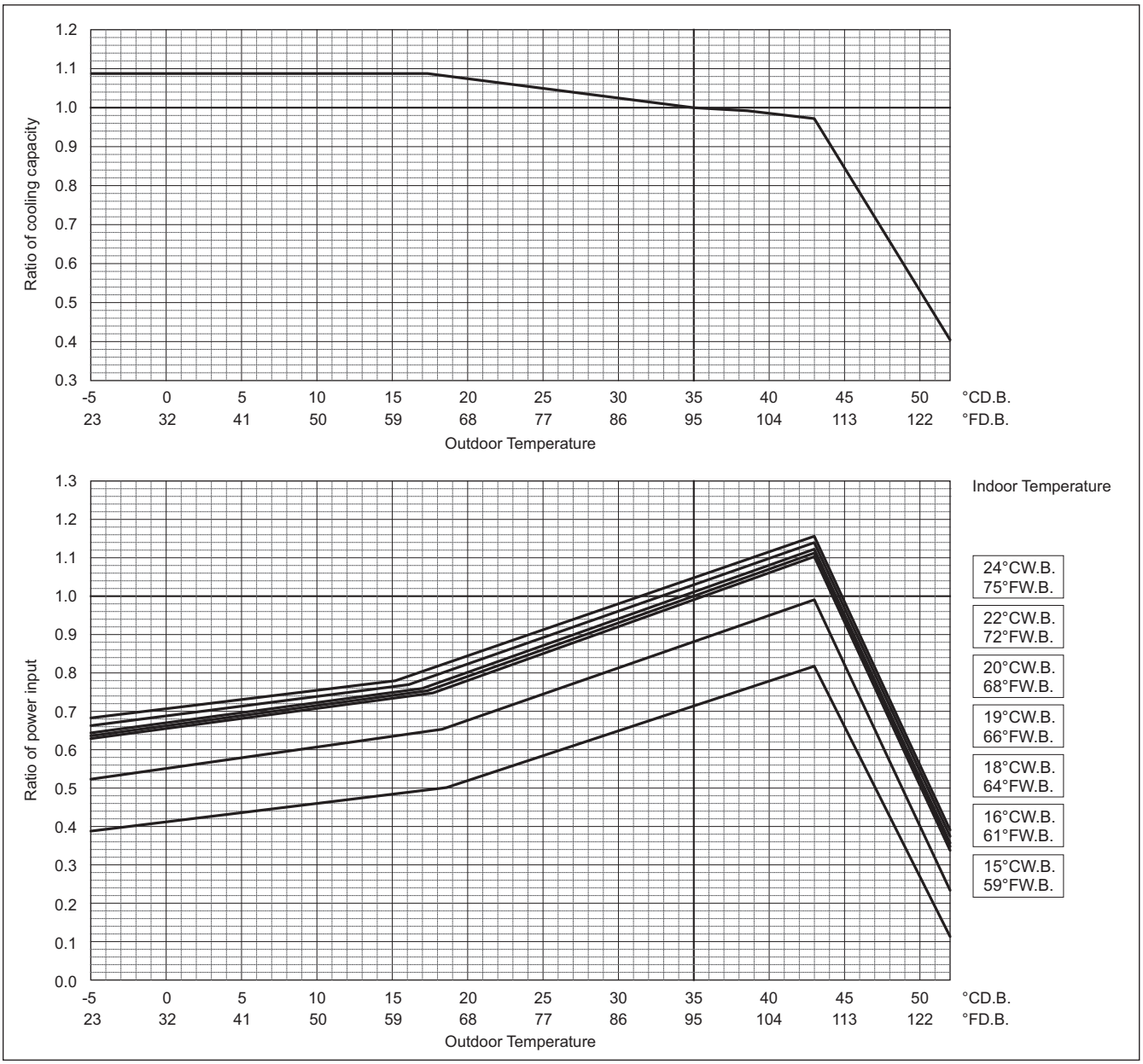


Outdoor unit temperature correction

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.



COP Priority Mode

PUHY-		P950TSKA	P1000TSKA	P1050TSKA
Nominal Heating Capacity	kW	103.0	110.0	115.0
	BTU/h	351,400	375,300	392,400
Input	kW	30.56	33.13	31.50

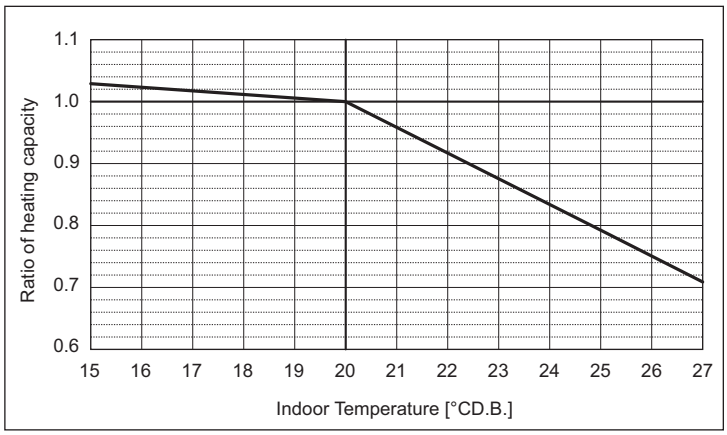
PUHY-		P1100TSKA	P1150TSKA	P1200TSKA
Nominal Heating Capacity	kW	121.5	130.0	135.0
	BTU/h	414,600	443,600	460,600
Input	kW	33.80	35.51	37.70

PUHY-		P1250TSKA	P1300TSKA	P1350TSKA
Nominal Heating Capacity	kW	138.0	141.0	144.0
	BTU/h	470,900	481,100	491,300
Input	kW	40.35	42.98	46.15

PUHY-		P1400TSKA	P1450TSKA	P1500TSKA
Nominal Heating Capacity	kW	151.0	158.0	165.0
	BTU/h	515,200	539,100	563,000
Input	kW	49.50	52.49	56.12

Indoor unit temperature correction

To be used to correct indoor unit capacity only

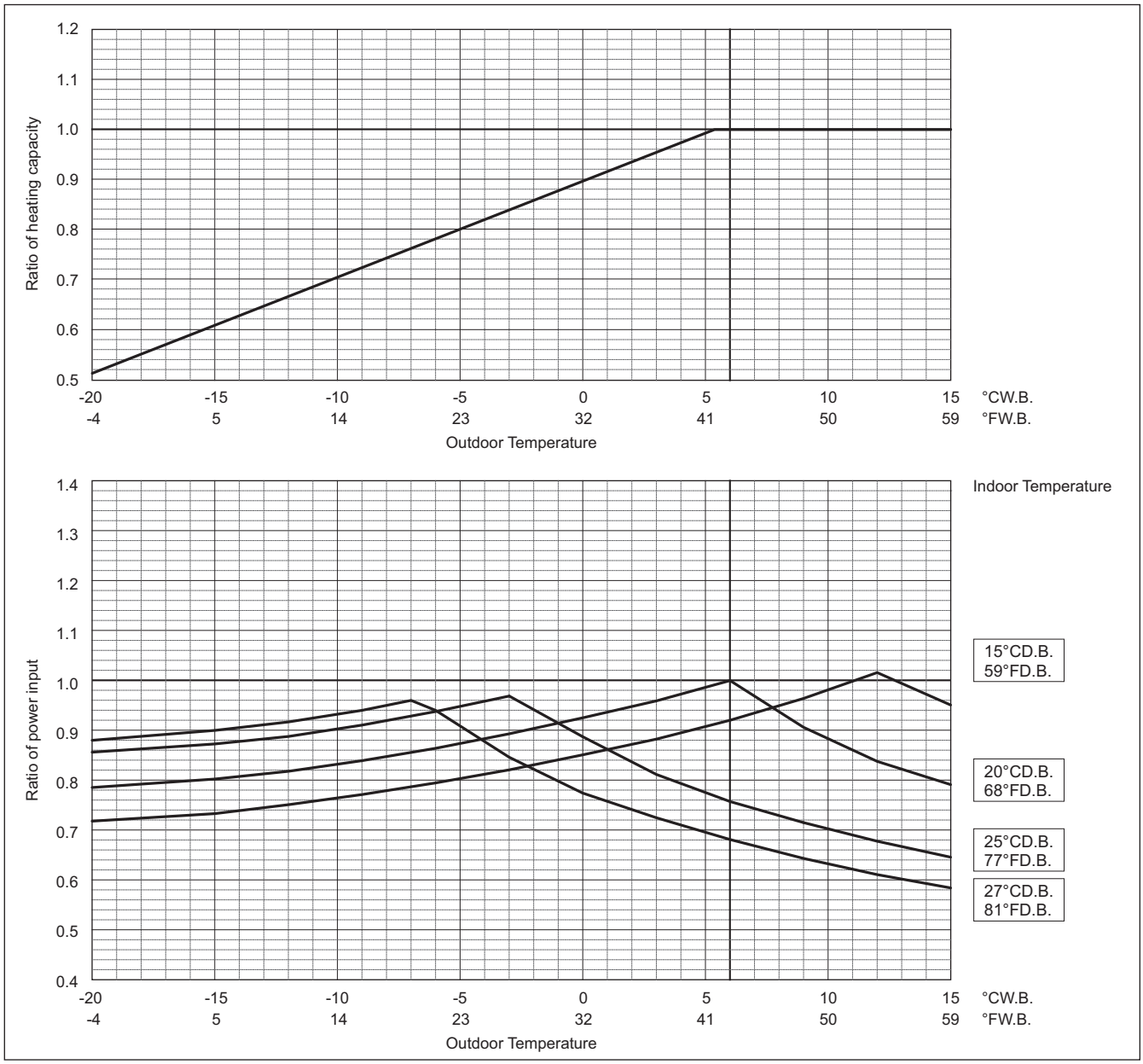


Outdoor unit temperature correction

To be used to correct outdoor unit only

Outdoor unit capacity is NOT affected by the indoor temperature.

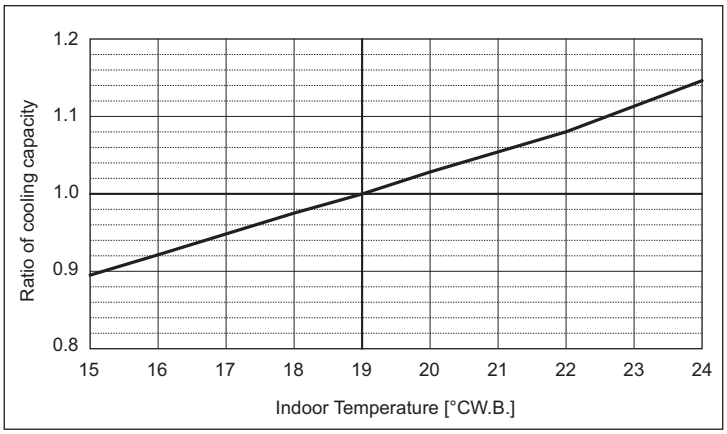
Outdoor unit power input is affected by the indoor and outdoor temperatures. Please consult the sales office for details.



PUHY-		EP400TSKA	EP450TSKA	EP500TSKA
Nominal Cooling Capacity	kW	44.8	50.4	56.0
	BTU/h	152,900	172,000	191,100
Input	kW	10.39	12.05	13.79

Indoor unit temperature correction

To be used to correct indoor unit capacity only

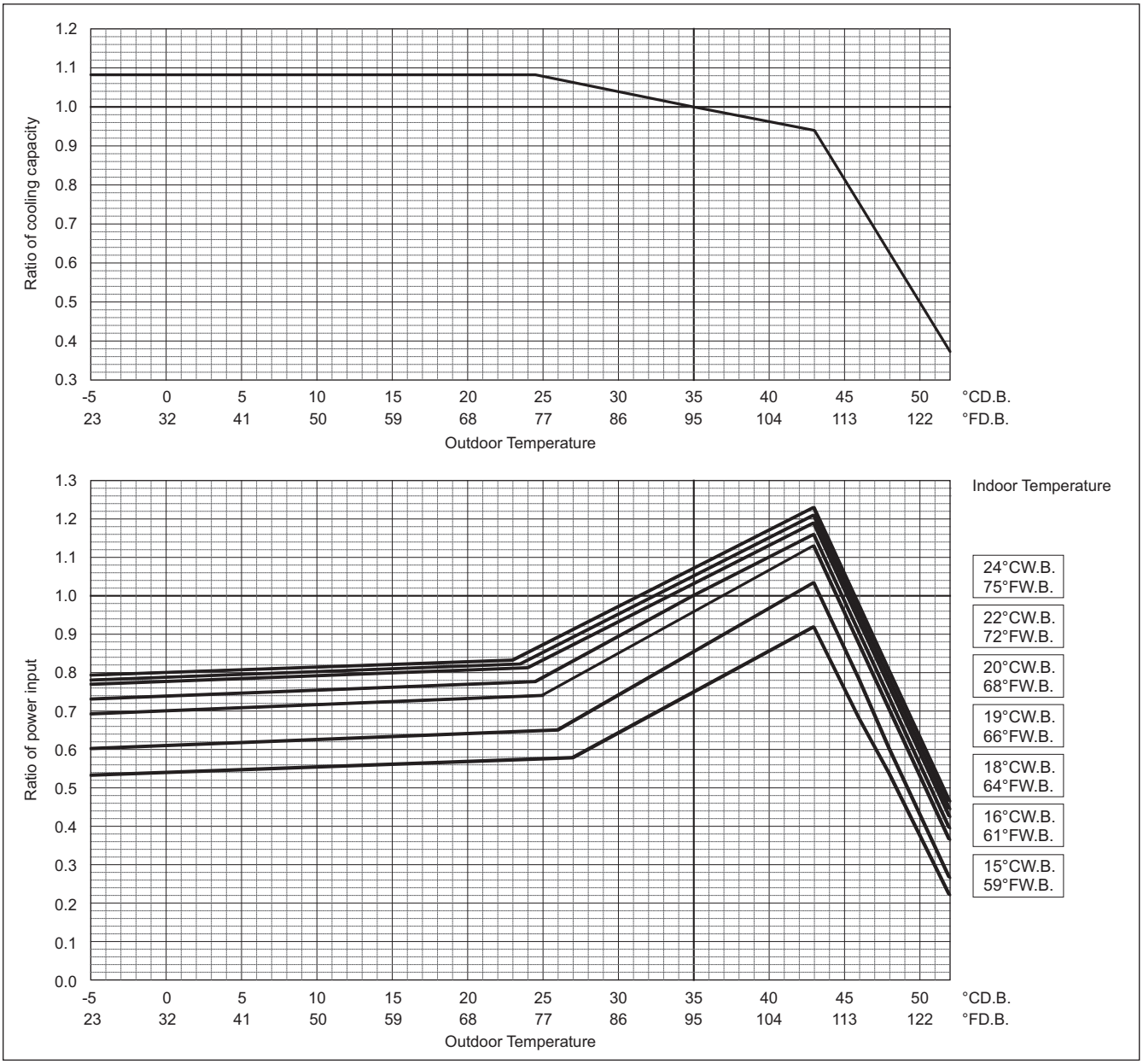


Outdoor unit temperature correction

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.

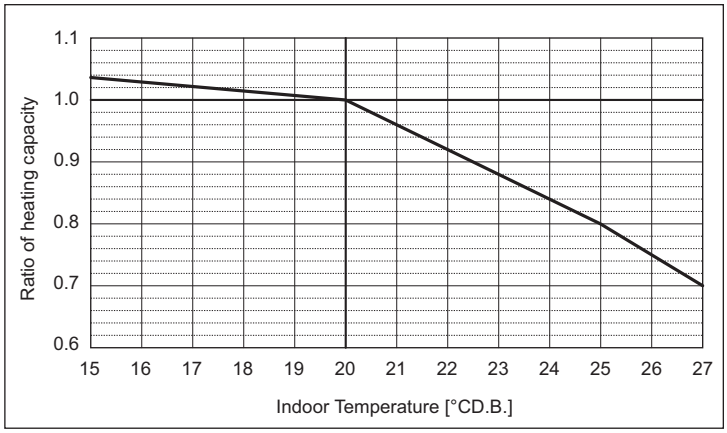


COP Priority Mode

PUHY-		EP400TSKA	EP450TSKA	EP500TSKA
Nominal Heating Capacity	kW	44.8	50.4	56.0
	BTU/h	152,900	172,000	191,100
Input	kW	10.66	12.00	13.36

Indoor unit temperature correction

To be used to correct indoor unit capacity only

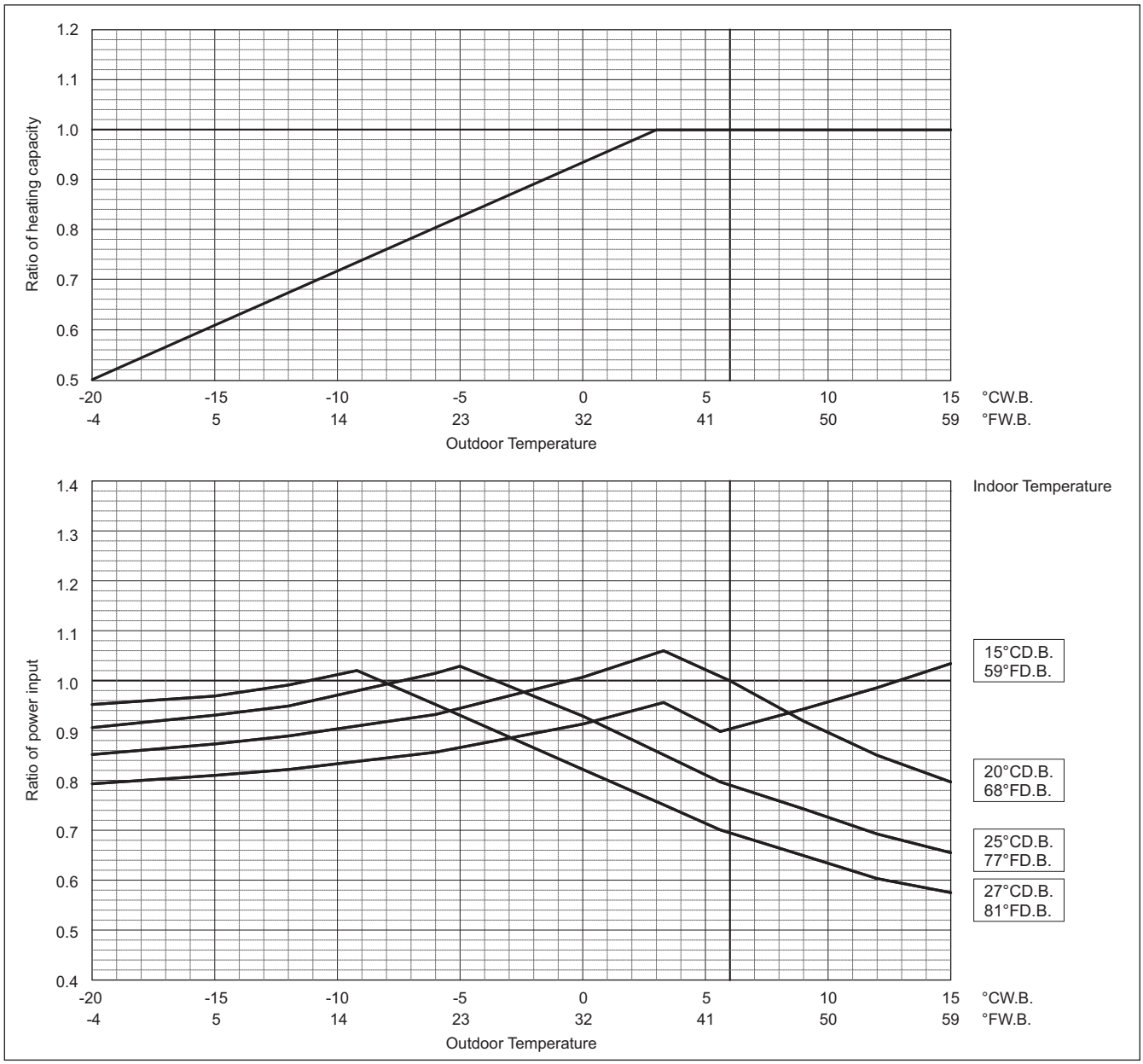


Outdoor unit temperature correction

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.

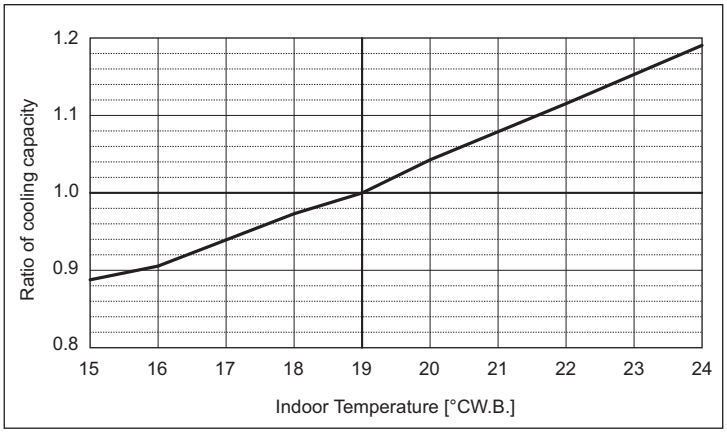


Y

PUHY-		EP650TSKA
Nominal Cooling Capacity	kW	73.5
	BTU/h	250,800
Input	kW	20.41

Indoor unit temperature correction

To be used to correct indoor unit capacity only

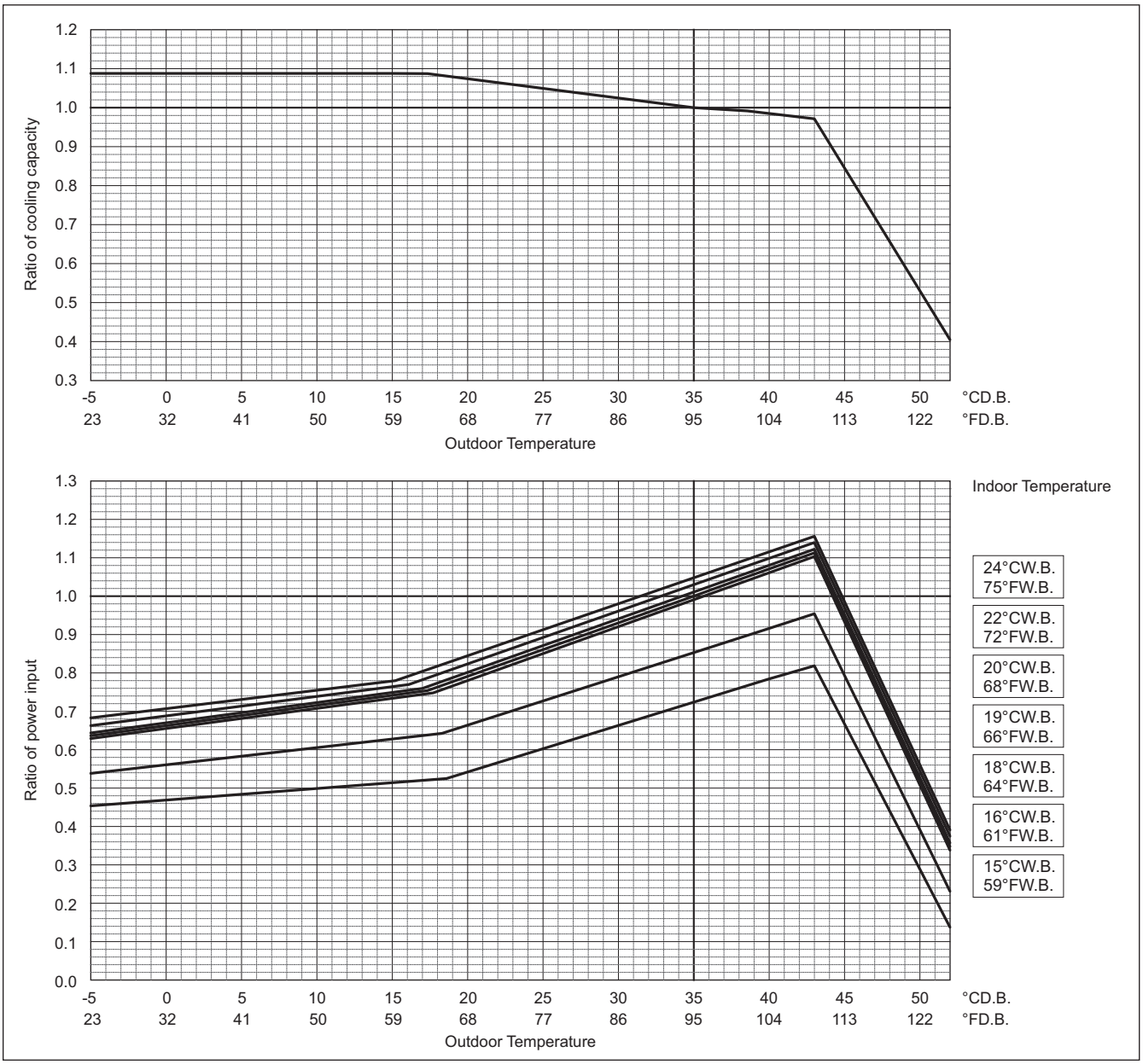


Outdoor unit temperature correction

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.

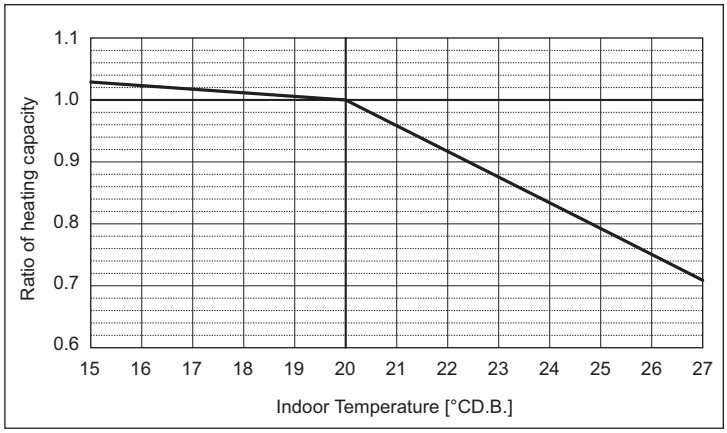


COP Priority Mode

PUHY-		EP650TSKA
Nominal Heating Capacity	kW	73.5
	BTU/h	250,800
Input	kW	18.70

Indoor unit temperature correction

To be used to correct indoor unit capacity only

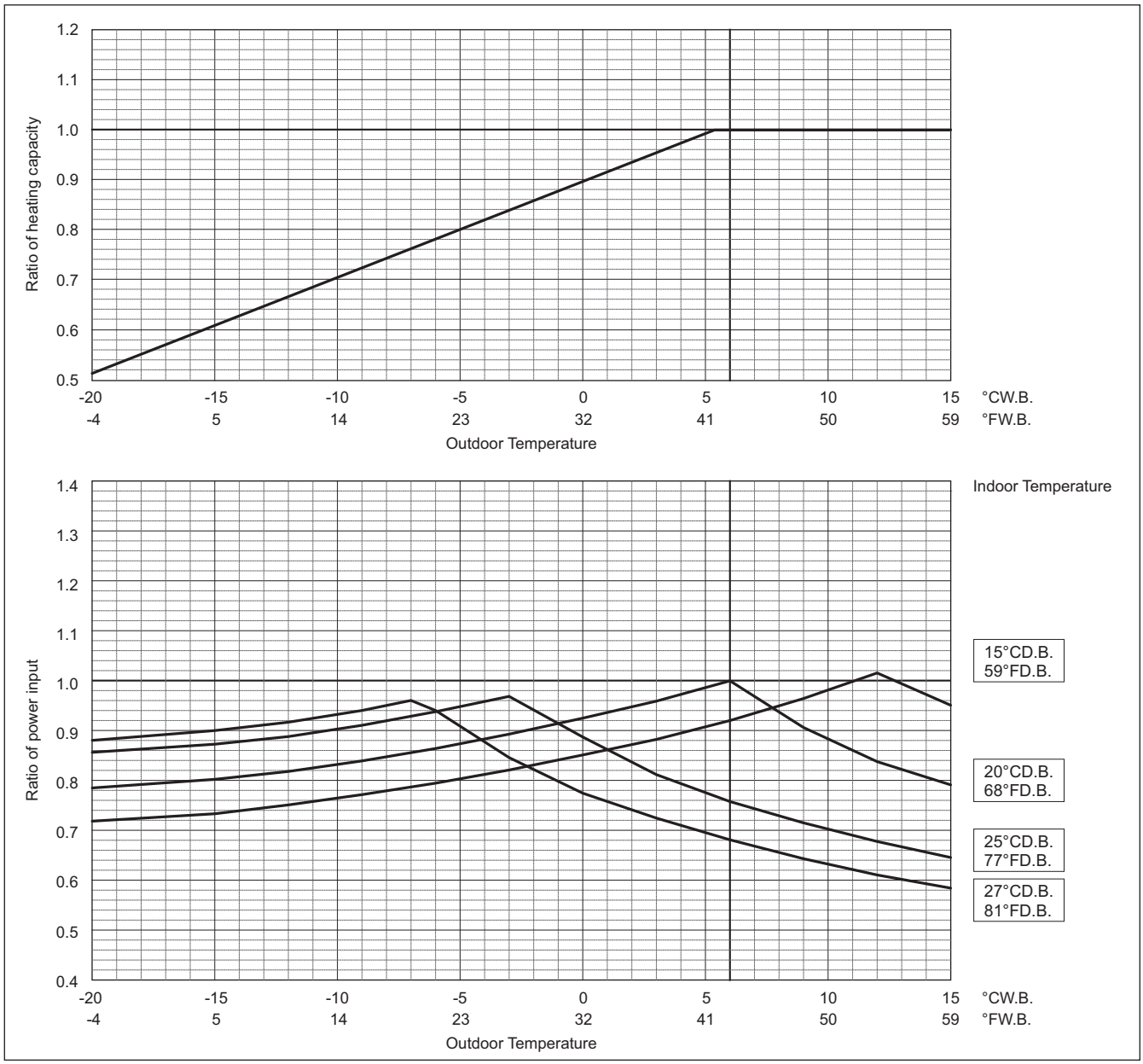


Outdoor unit temperature correction

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.

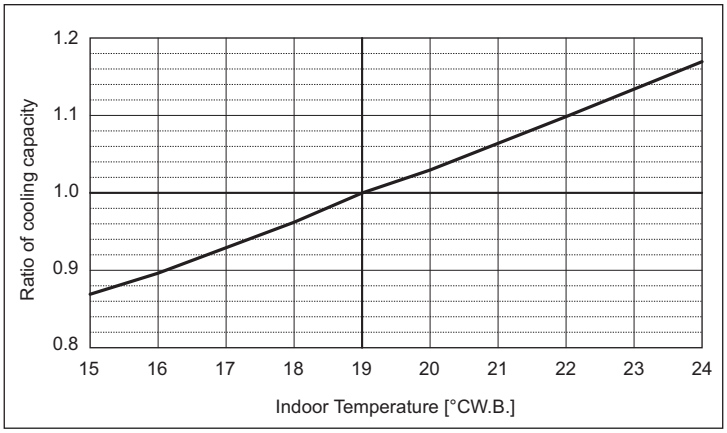


Y

PUHY-		EP700TSKA
Nominal Cooling Capacity	kW	80.0
	BTU/h	273,000
Input	kW	23.39

Indoor unit temperature correction

To be used to correct indoor unit capacity only

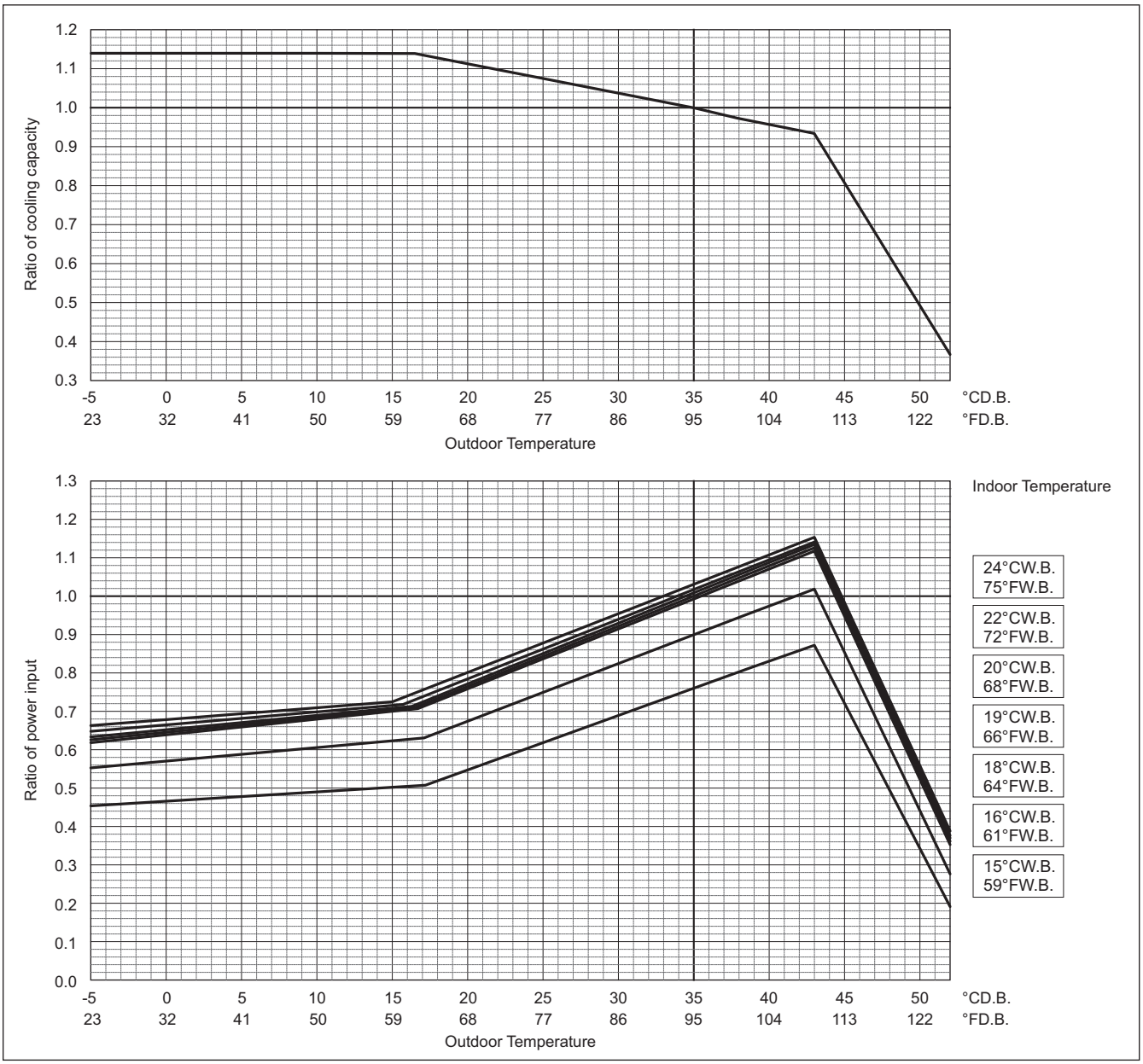


Outdoor unit temperature correction

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.

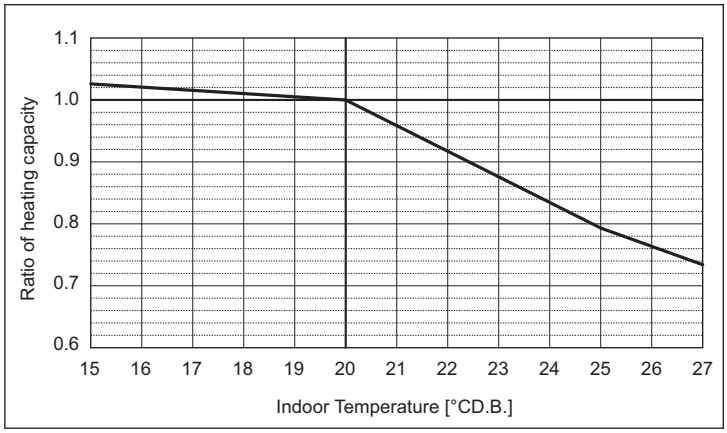


COP Priority Mode

PUHY-		EP700TSKA
Nominal Heating Capacity	kW	80.0
	BTU/h	273,000
Input	kW	20.25

Indoor unit temperature correction

To be used to correct indoor unit capacity only

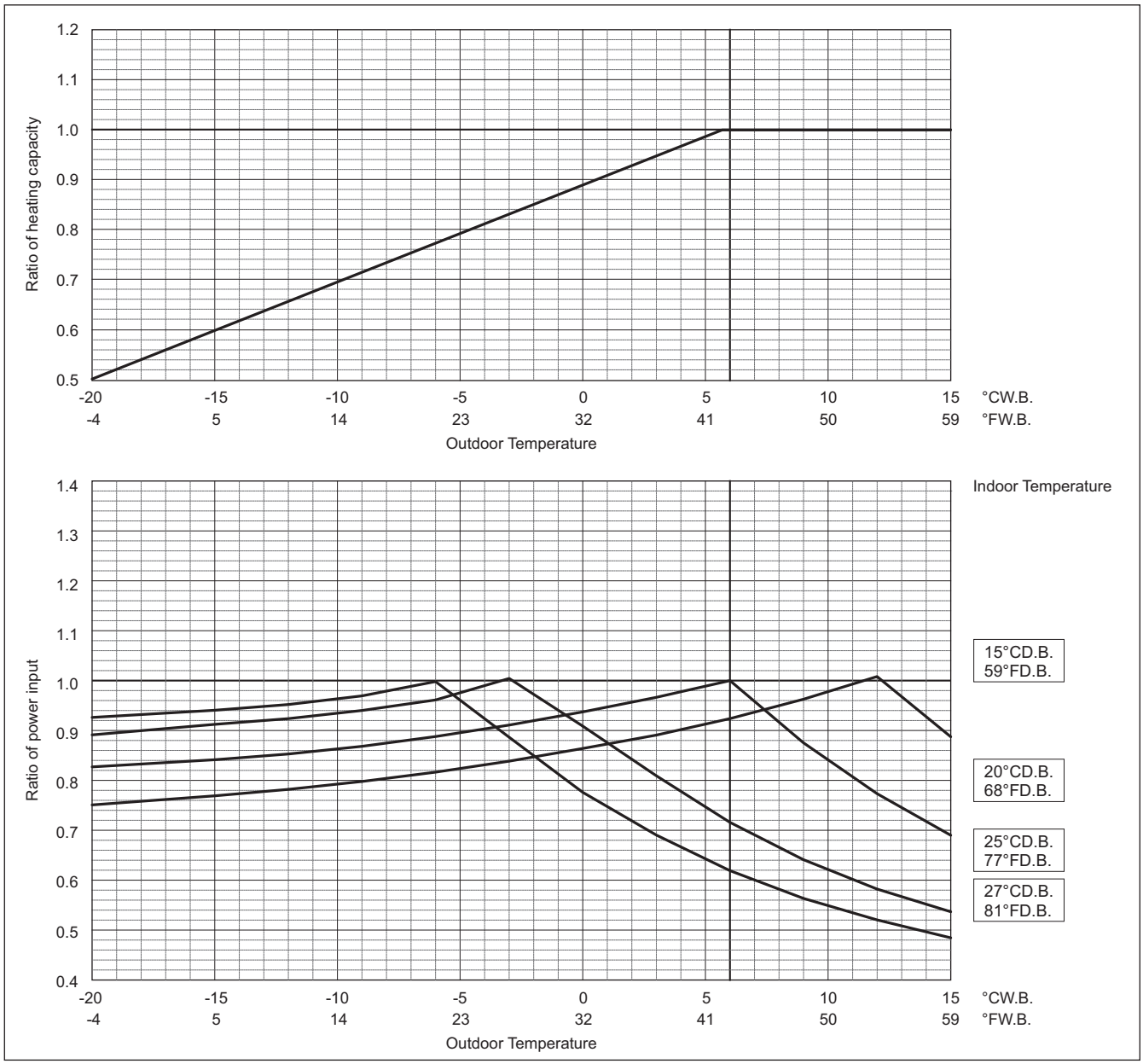


Outdoor unit temperature correction

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.



Y

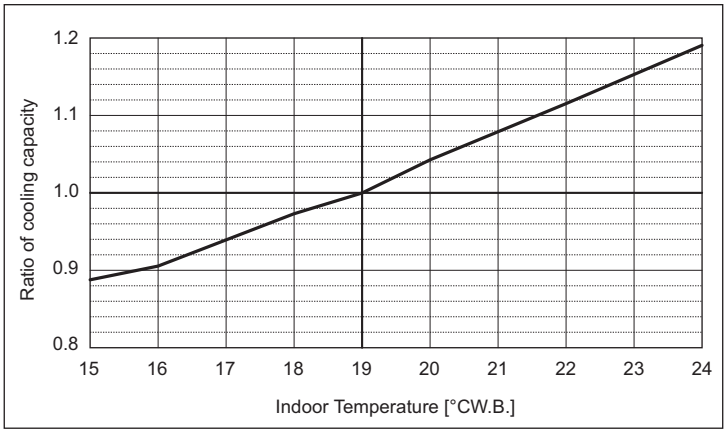
PUHY-		EP750TSKA	EP800TSKA	EP850TSKA
Nominal Cooling Capacity	kW	84.8	90.4	96.0
	BTU/h	289,300	308,400	327,600
Input	kW	21.14	23.00	25.00

PUHY-		EP900TSKA	EP950TSKA	EP1000TSKA
Nominal Cooling Capacity	kW	101.5	107.0	113.5
	BTU/h	346,300	365,100	387,300
Input	kW	27.06	29.23	32.06

PUHY-		EP1050TSKA	EP1100TSKA
Nominal Cooling Capacity	kW	120.0	125.0
	BTU/h	409,400	426,500
Input	kW	35.08	36.76

Indoor unit temperature correction

To be used to correct indoor unit capacity only

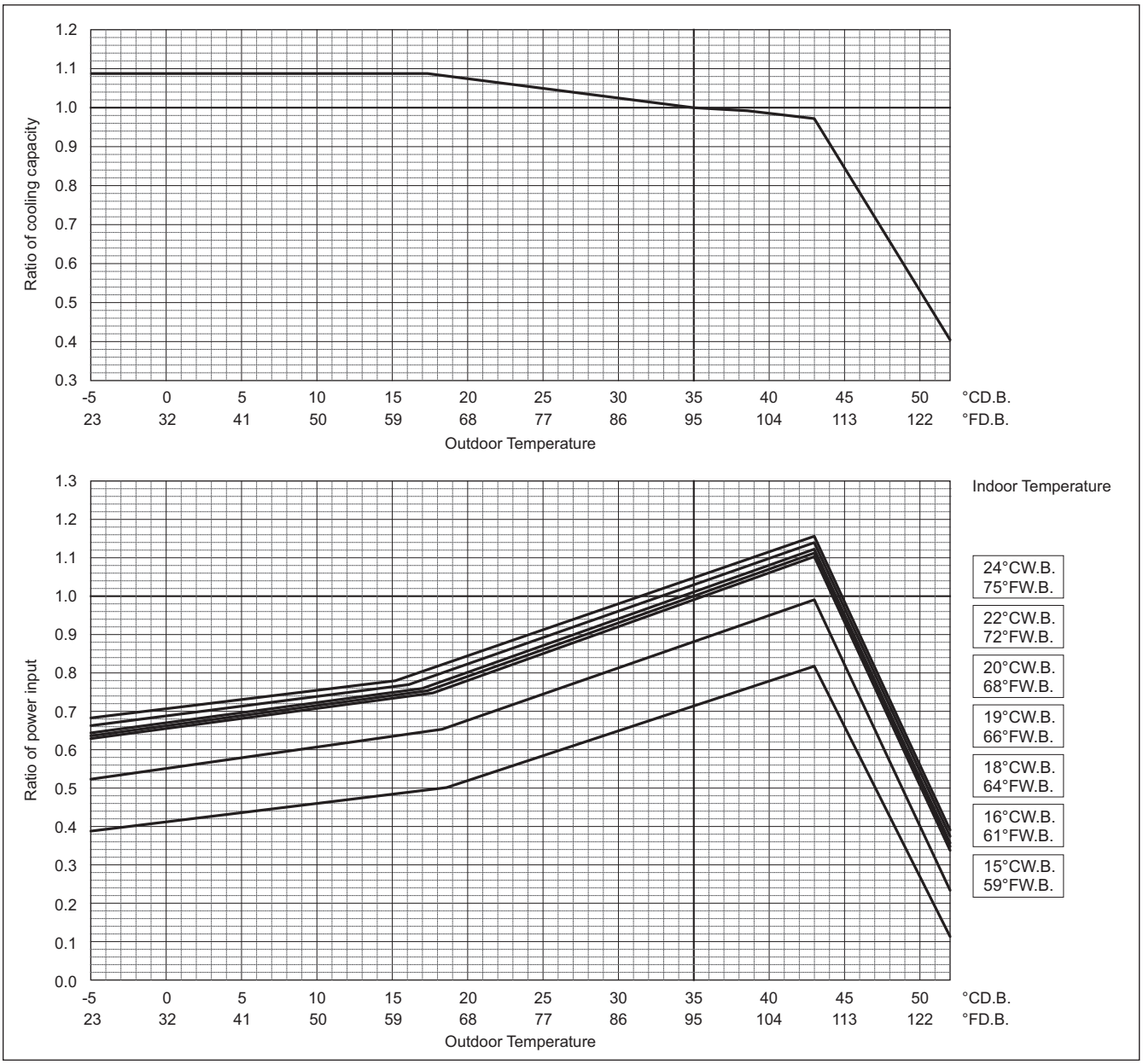


Outdoor unit temperature correction

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.



COP Priority Mode

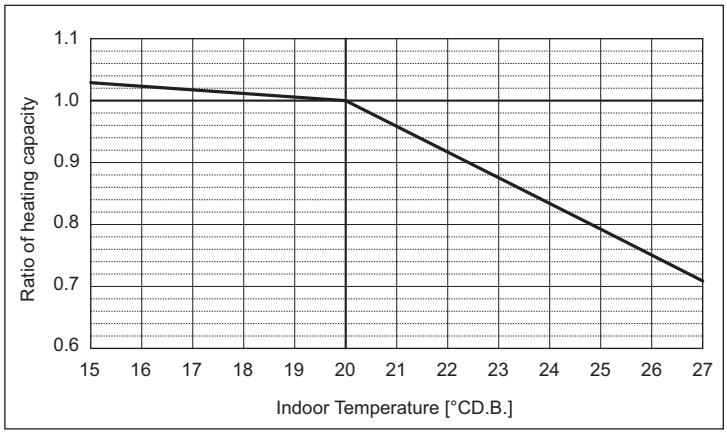
PUHY-		EP750TSKA	EP800TSKA	EP850TSKA
Nominal Heating Capacity	kW	84.8	90.4	96.0
	BTU/h	289,300	308,400	327,600
Input	kW	20.58	21.99	23.35

PUHY-		EP900TSKA	EP950TSKA	EP1000TSKA
Nominal Heating Capacity	kW	101.5	107.0	113.5
	BTU/h	346,300	365,100	387,300
Input	kW	25.24	27.22	28.80

PUHY-		EP1050TSKA	EP1100TSKA
Nominal Heating Capacity	kW	120.0	125.0
	BTU/h	409,400	426,500
Input	kW	31.25	33.24

Indoor unit temperature correction

To be used to correct indoor unit capacity only

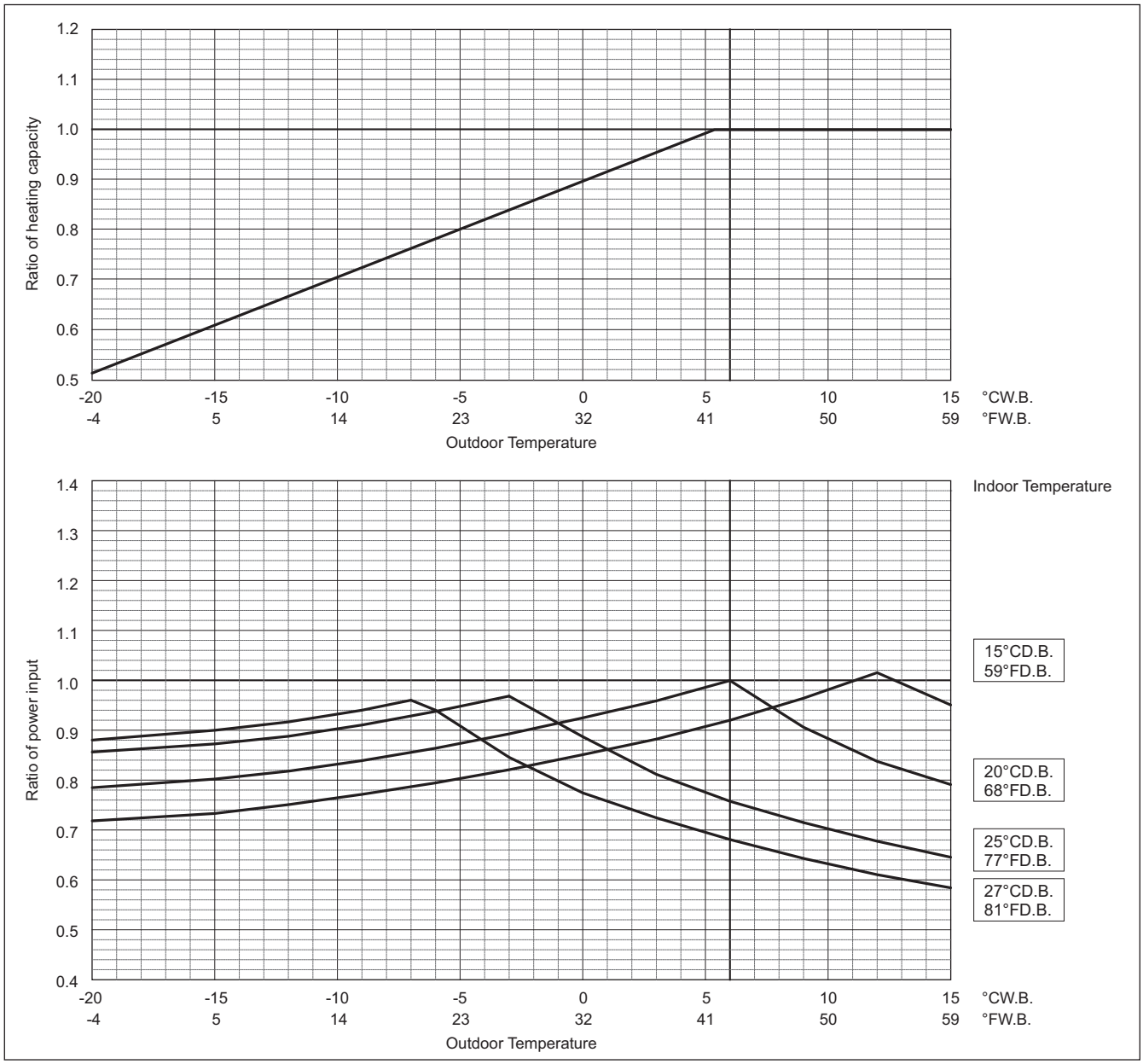


Outdoor unit temperature correction

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.

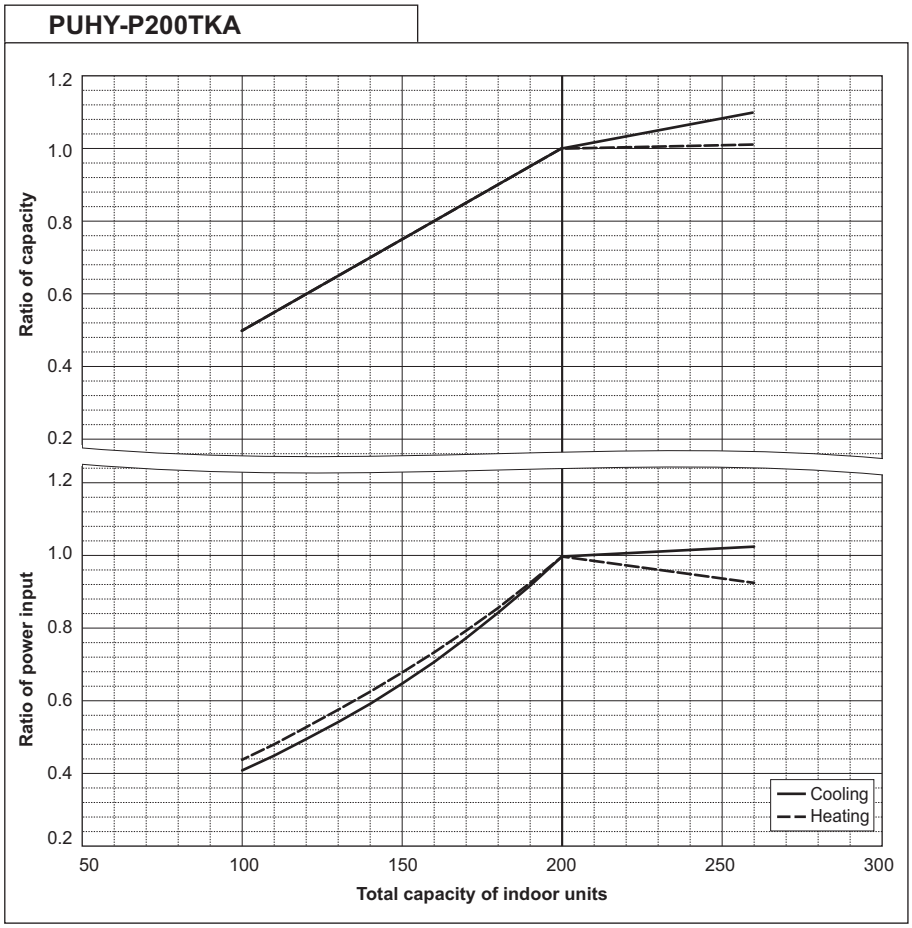


8-3. Correction by total indoor

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.

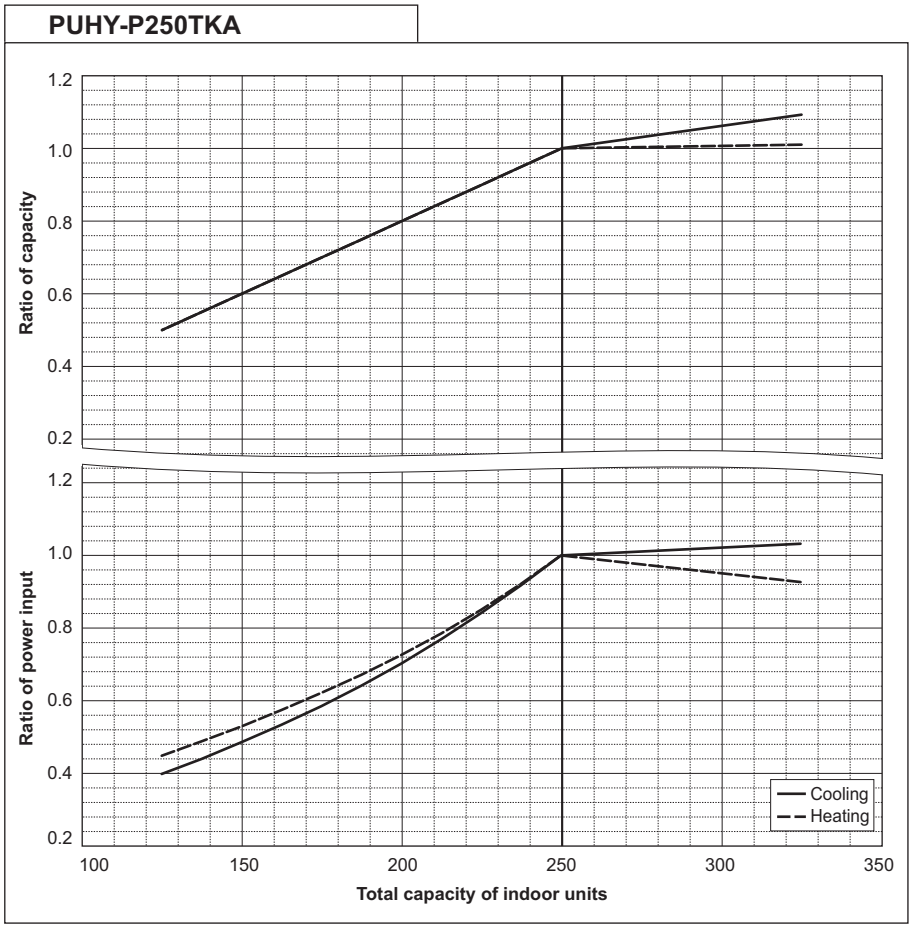
PUHY-P200TKA		
Nominal Cooling Capacity	kW	22.4
	BTU/h	76,400
Input	kW	5.19

PUHY-P200TKA		
Nominal Heating Capacity	kW	22.4
	BTU/h	76,400
Input	kW	5.05



PUHY-P250TKA		
Nominal Cooling Capacity	kW	28.0
	BTU/h	95,500
Input	kW	6.89

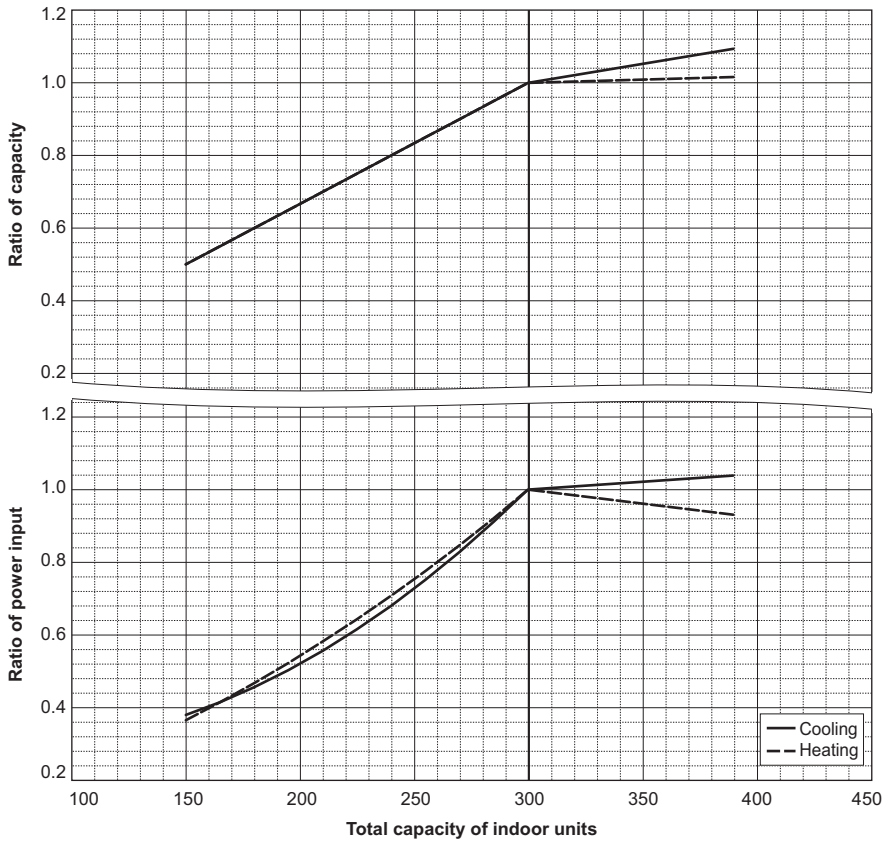
PUHY-P250TKA		
Nominal Heating Capacity	kW	28.0
	BTU/h	95,500
Input	kW	6.33



PUHY-P300TKA		
Nominal Cooling Capacity	kW	33.5
	BTU/h	114,300
Input	kW	8.86

PUHY-P300TKA		
Nominal Heating Capacity	kW	33.5
	BTU/h	114,300
Input	kW	8.11

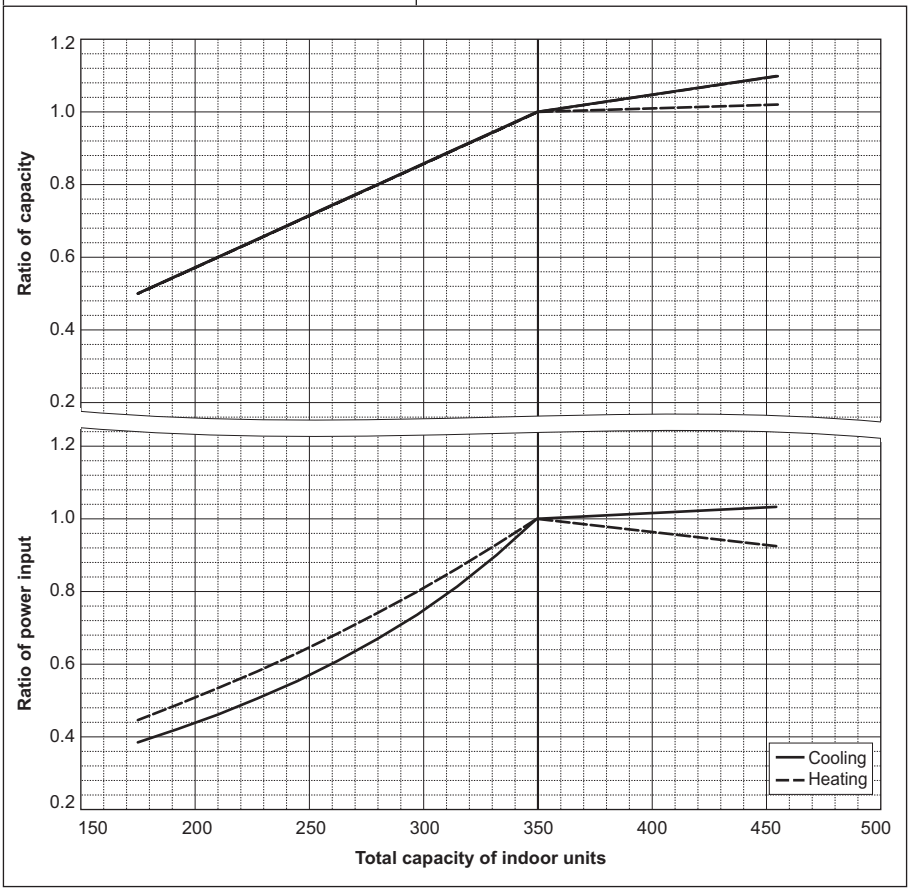
PUHY-P300TKA



PUHY-P350TKA		
Nominal Cooling Capacity	kW	40.0
	BTU/h	136,500
Input	kW	11.69

PUHY-P350TKA		
Nominal Heating Capacity	kW	40.0
	BTU/h	136,500
Input	kW	9.61

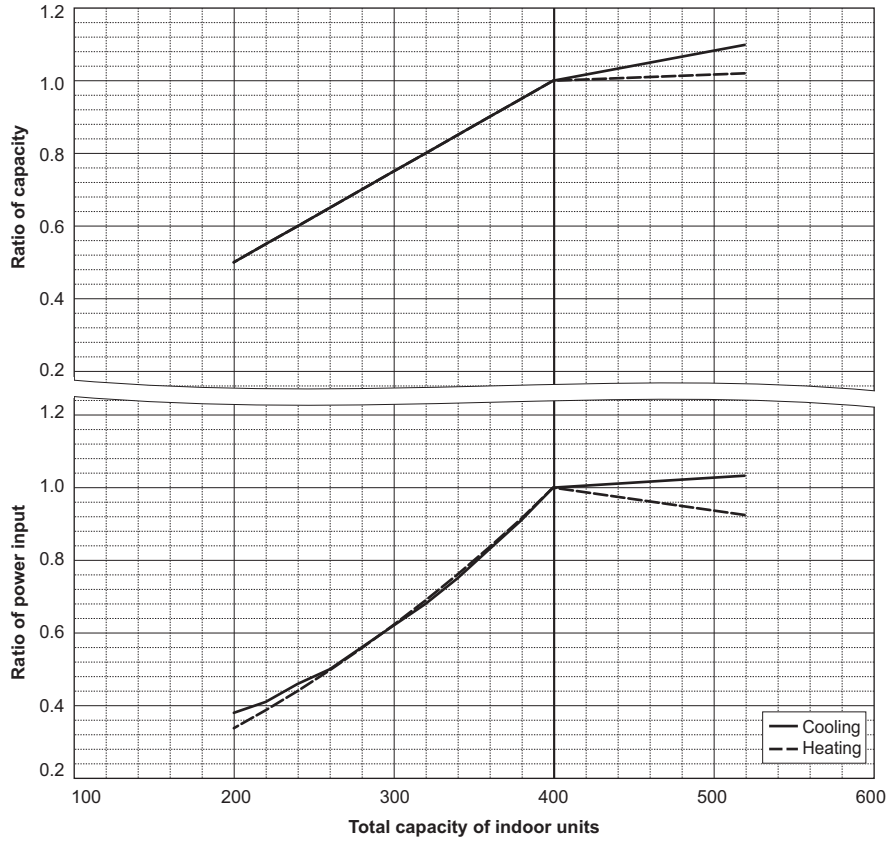
PUHY-P350TKA



PUHY-P400TKA		
Nominal Cooling Capacity	kW	45.0
	BTU/h	153,500
Input	kW	13.55

PUHY-P400TKA		
Nominal Heating Capacity	kW	45.0
	BTU/h	153,500
Input	kW	10.92

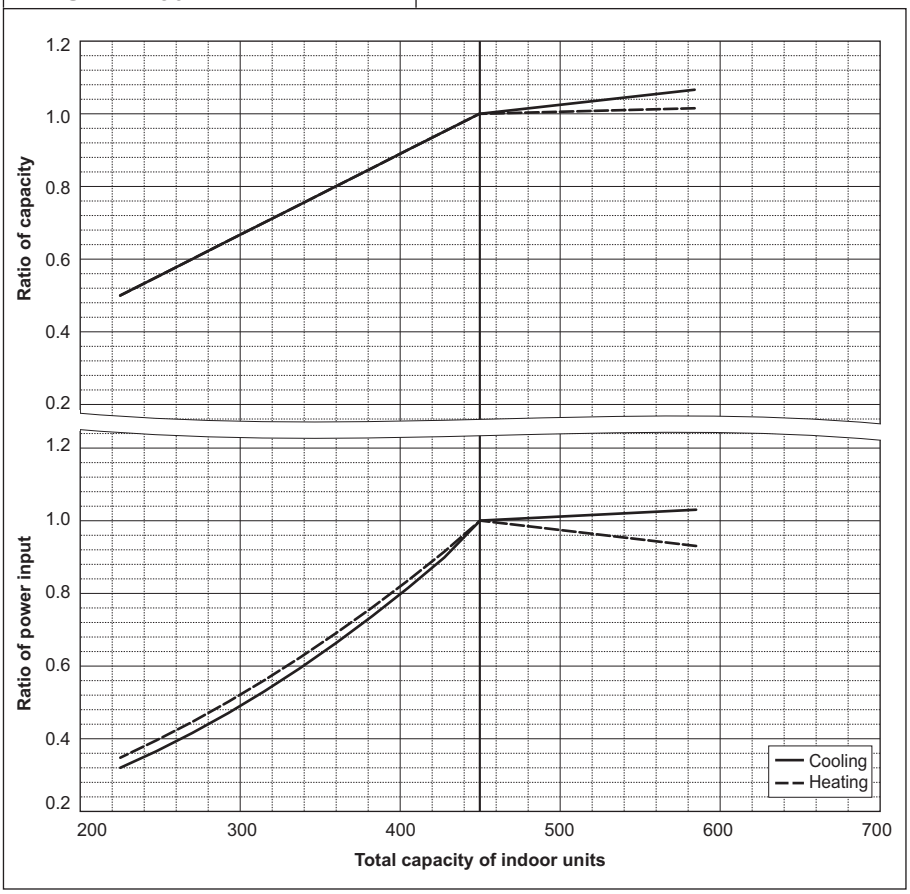
PUHY-P400TKA



PUHY-P450TKA		
Nominal Cooling Capacity	kW	48.0
	BTU/h	163,800
Input	kW	15.78

PUHY-P450TKA		
Nominal Heating Capacity	kW	48.0
	BTU/h	163,800
Input	kW	13.33

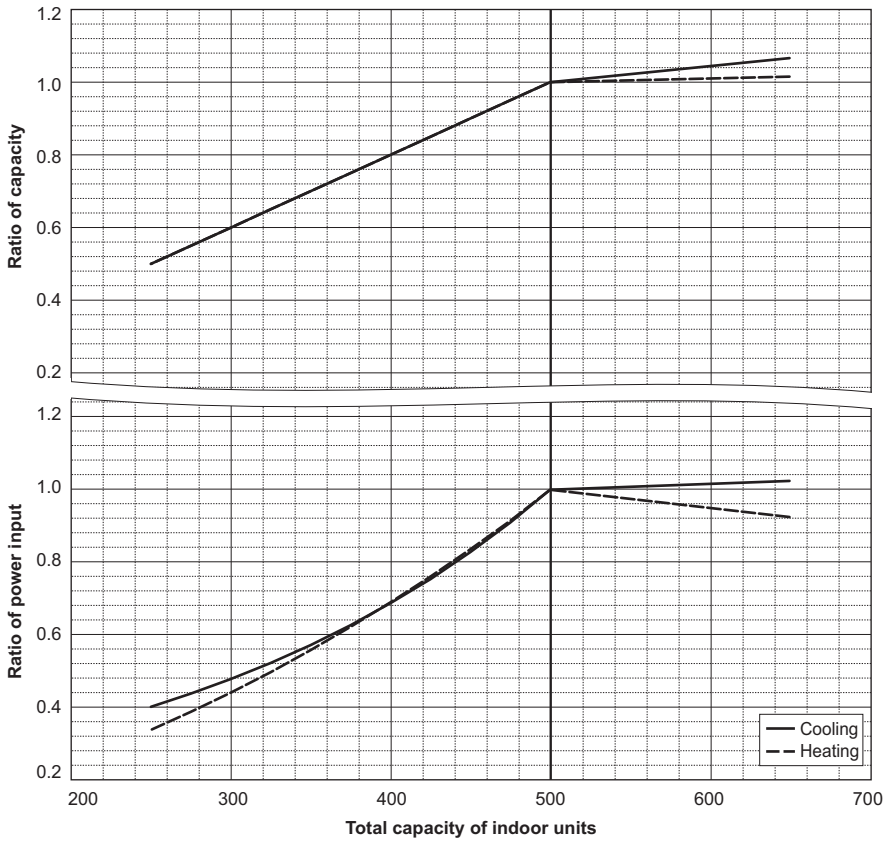
PUHY-P450TKA



PUHY-P500TKA		
Nominal Cooling Capacity	kW	55.0
	BTU/h	187,700
Input	kW	18.39

PUHY-P500TKA		
Nominal Heating Capacity	kW	55.0
	BTU/h	187,700
Input	kW	15.71

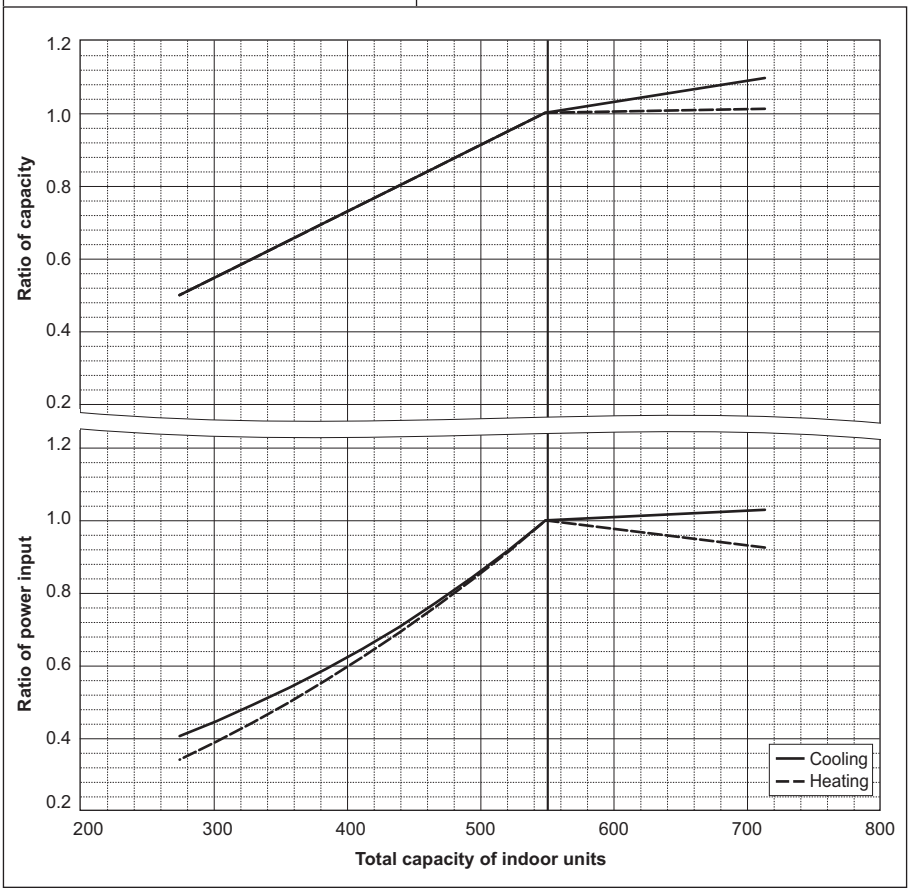
PUHY-P500TKA



PUHY-P550TSKA		
Nominal Cooling Capacity	kW	63.0
	BTU/h	215,000
Input	kW	16.07

PUHY-P550TSKA		
Nominal Heating Capacity	kW	63.0
	BTU/h	215,000
Input	kW	15.51

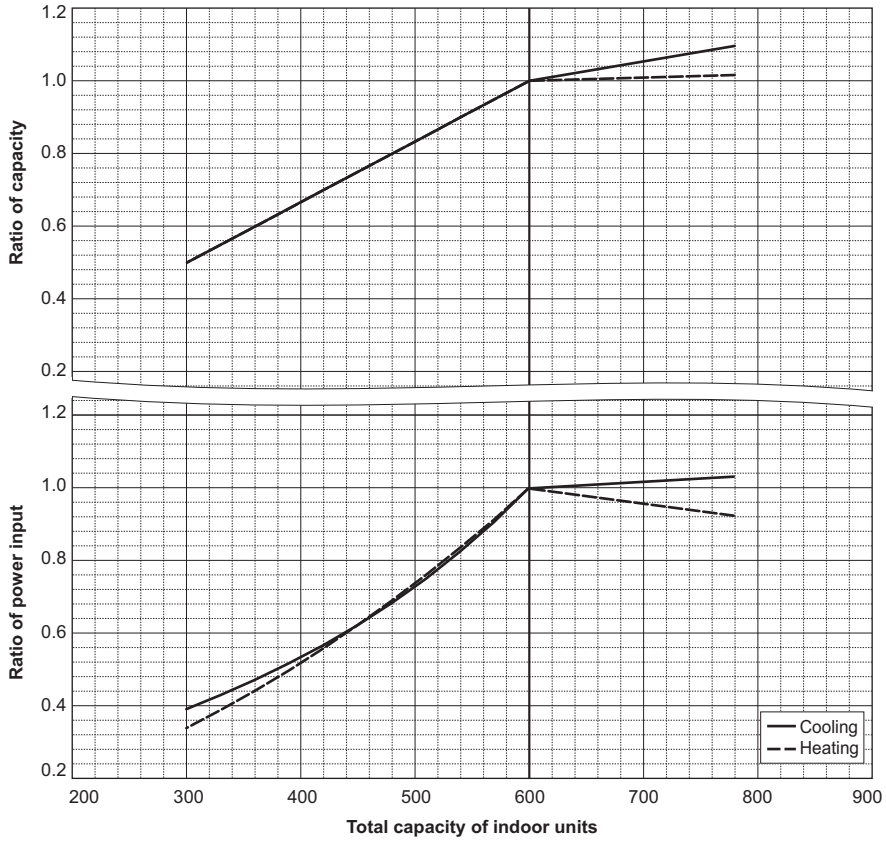
PUHY-P550TSKA



PUHY-P600TSKA		
Nominal Cooling Capacity	kW	68.0
	BTU/h	232,000
Input	kW	18.18

PUHY-P600TSKA		
Nominal Heating Capacity	kW	68.0
	BTU/h	232,000
Input	kW	16.70

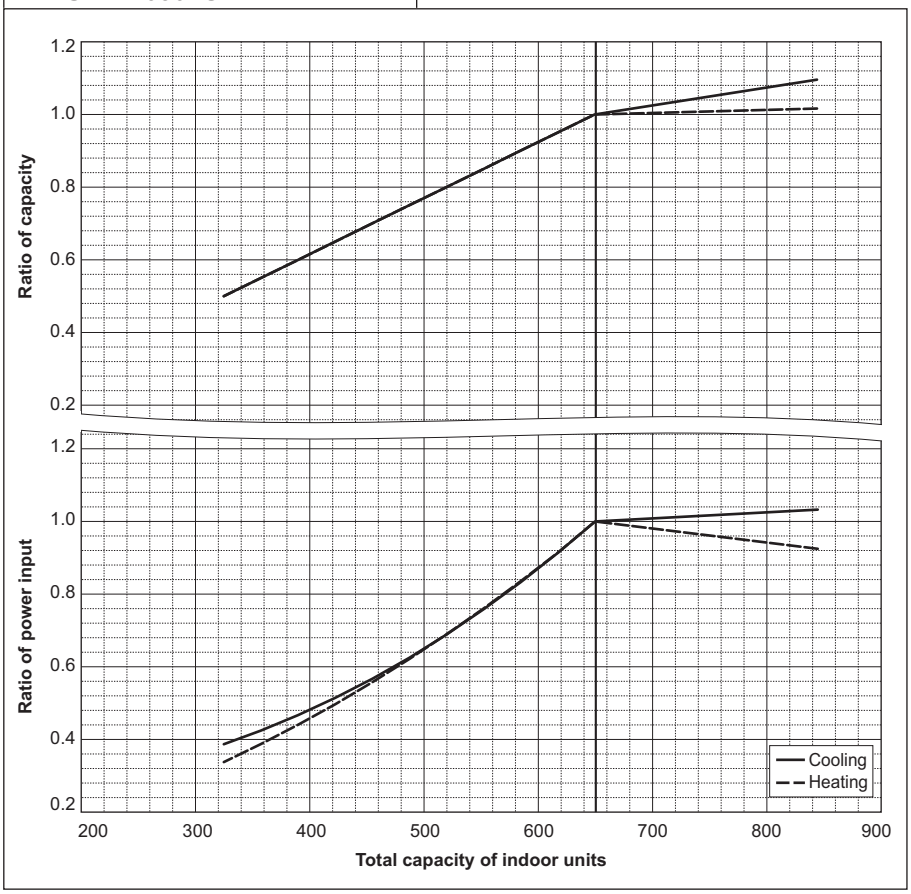
PUHY-P600TSKA



PUHY-P650TSKA		
Nominal Cooling Capacity	kW	73.0
	BTU/h	249,100
Input	kW	19.78

PUHY-P650TSKA		
Nominal Heating Capacity	kW	73.0
	BTU/h	249,100
Input	kW	18.02

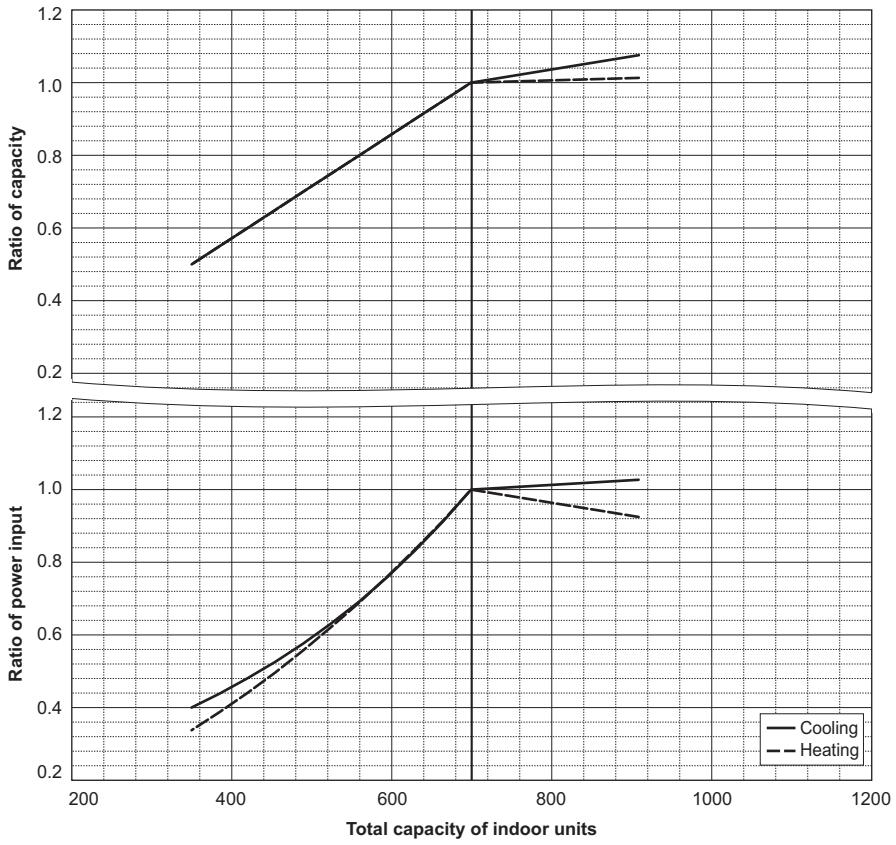
PUHY-P650TSKA



PUHY-P700TSKA		
Nominal Cooling Capacity	kW	76.0
	BTU/h	259,300
Input	kW	21.40

PUHY-P700TSKA		
Nominal Heating Capacity	kW	76.0
	BTU/h	259,300
Input	kW	20.00

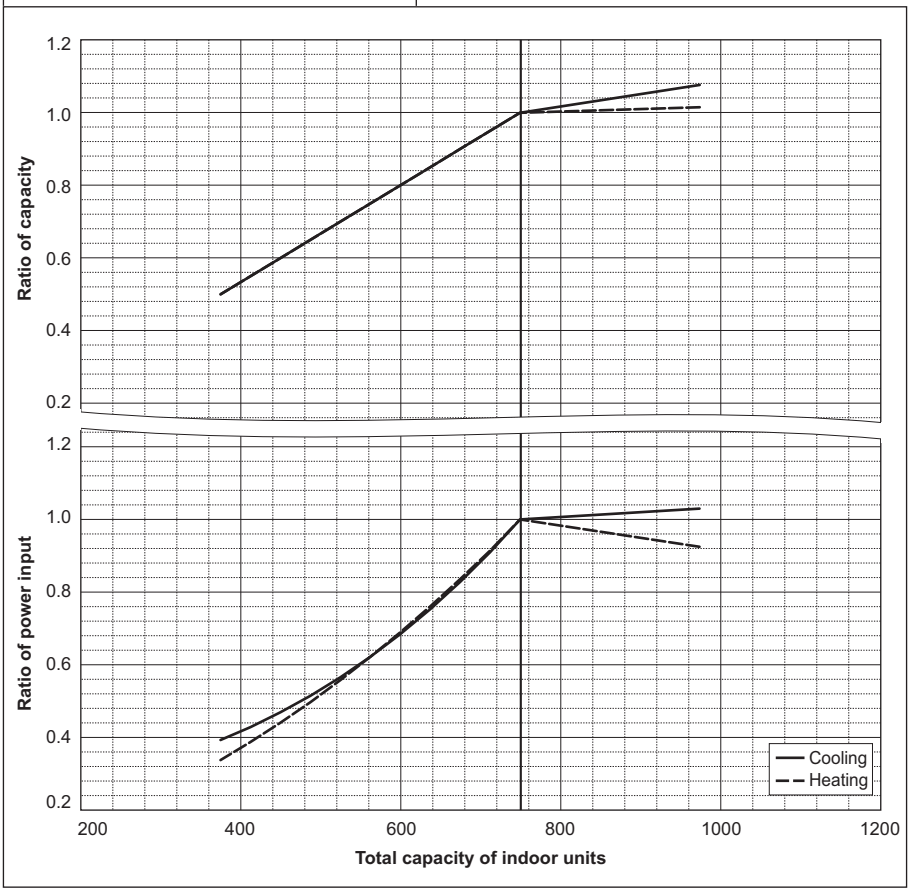
PUHY-P700TSKA



PUHY-P750TSKA		
Nominal Cooling Capacity	kW	81.5
	BTU/h	278,100
Input	kW	23.90

PUHY-P750TSKA		
Nominal Heating Capacity	kW	81.5
	BTU/h	278,100
Input	kW	22.20

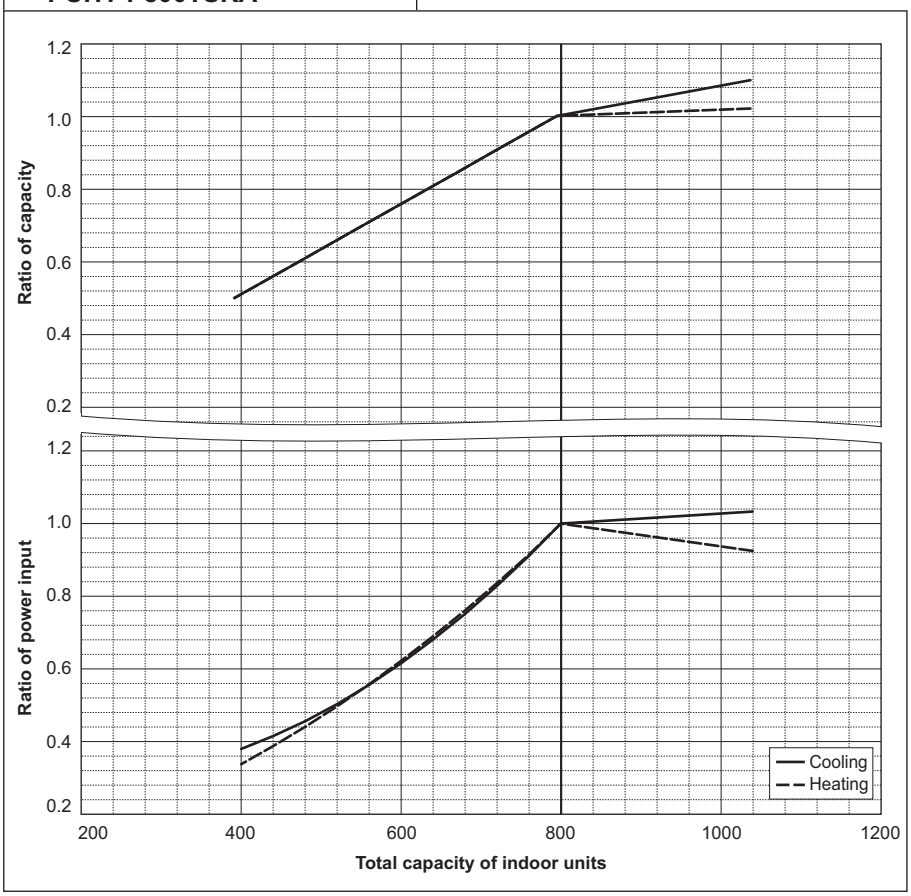
PUHY-P750TSKA



PUHY-P800TSKA		
Nominal Cooling Capacity	kW	90.0
	BTU/h	307,100
Input	kW	27.10

PUHY-P800TSKA		
Nominal Heating Capacity	kW	90.0
	BTU/h	307,100
Input	kW	23.01

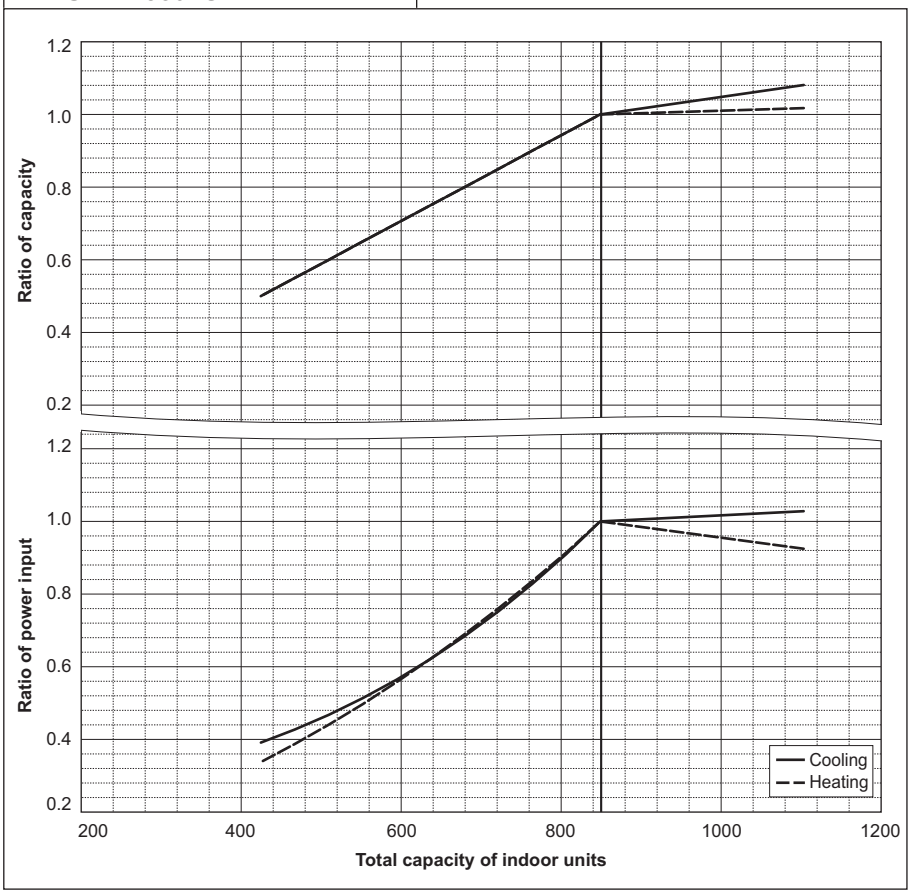
PUHY-P800TSKA



PUHY-P850TSKA		
Nominal Cooling Capacity	kW	93.0
	BTU/h	317,300
Input	kW	29.24

PUHY-P850TSKA		
Nominal Heating Capacity	kW	93.0
	BTU/h	317,300
Input	kW	25.40

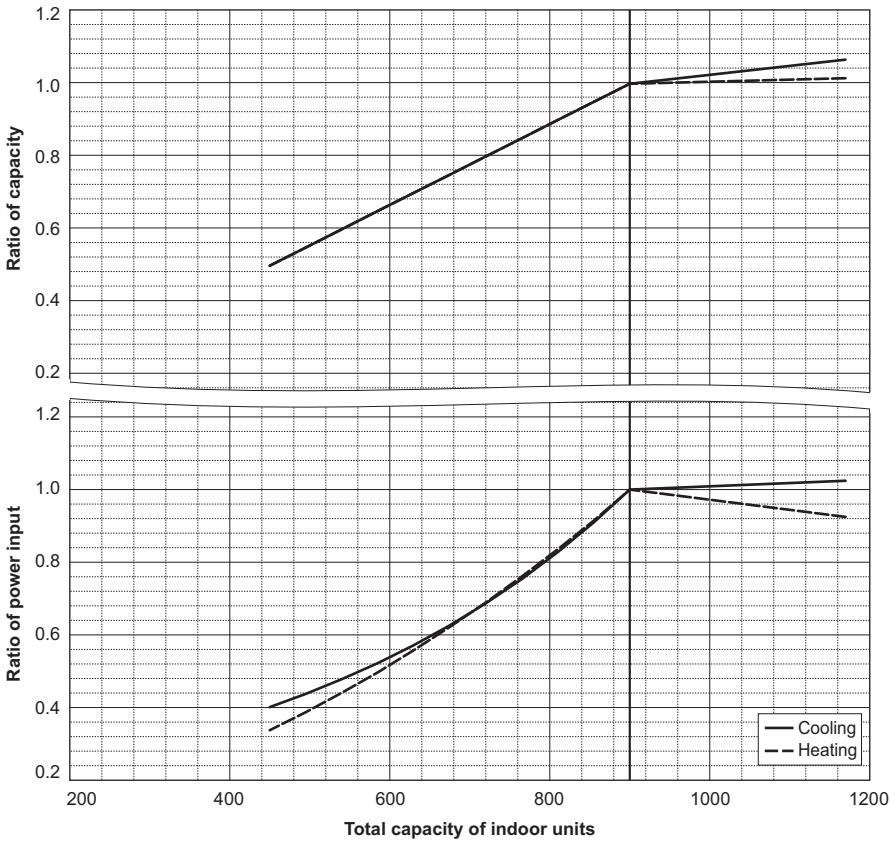
PUHY-P850TSKA



PUHY-P900TSKA		
Nominal Cooling Capacity	kW	96.0
	BTU/h	327,600
Input	kW	31.57

PUHY-P900TSKA		
Nominal Heating Capacity	kW	96.0
	BTU/h	327,600
Input	kW	28.07

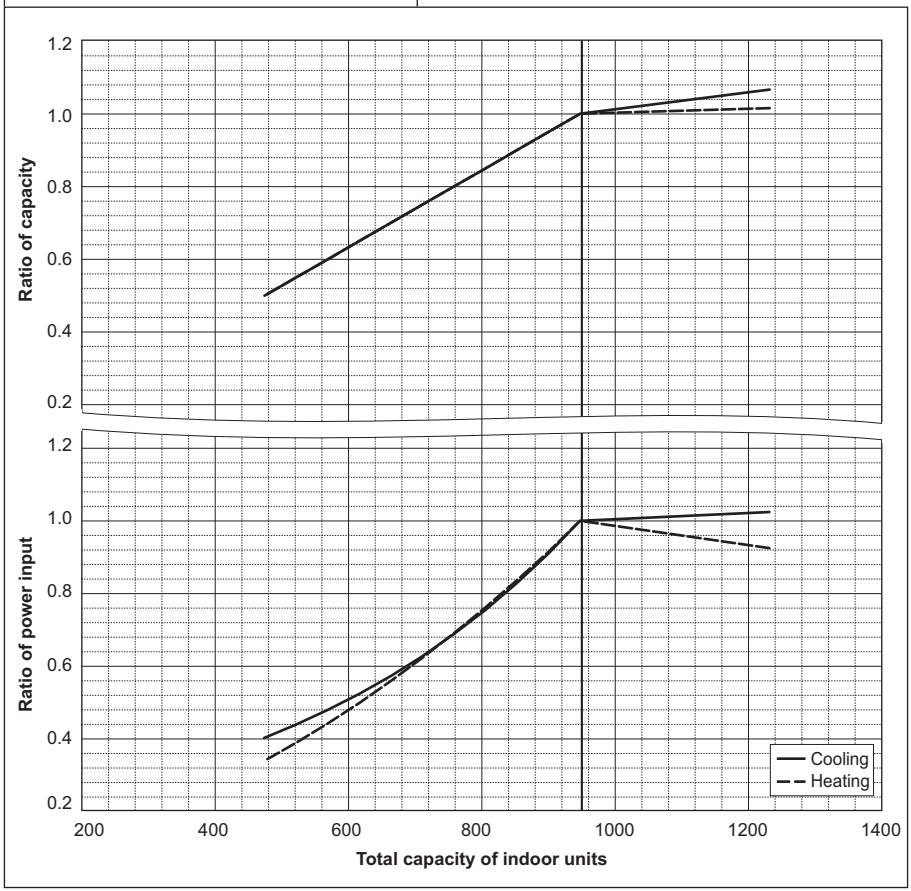
PUHY-P900TSKA



PUHY-P950TSKA		
Nominal Cooling Capacity	kW	103.0
	BTU/h	351,400
Input	kW	34.21

PUHY-P950TSKA		
Nominal Heating Capacity	kW	103.0
	BTU/h	351,400
Input	kW	30.56

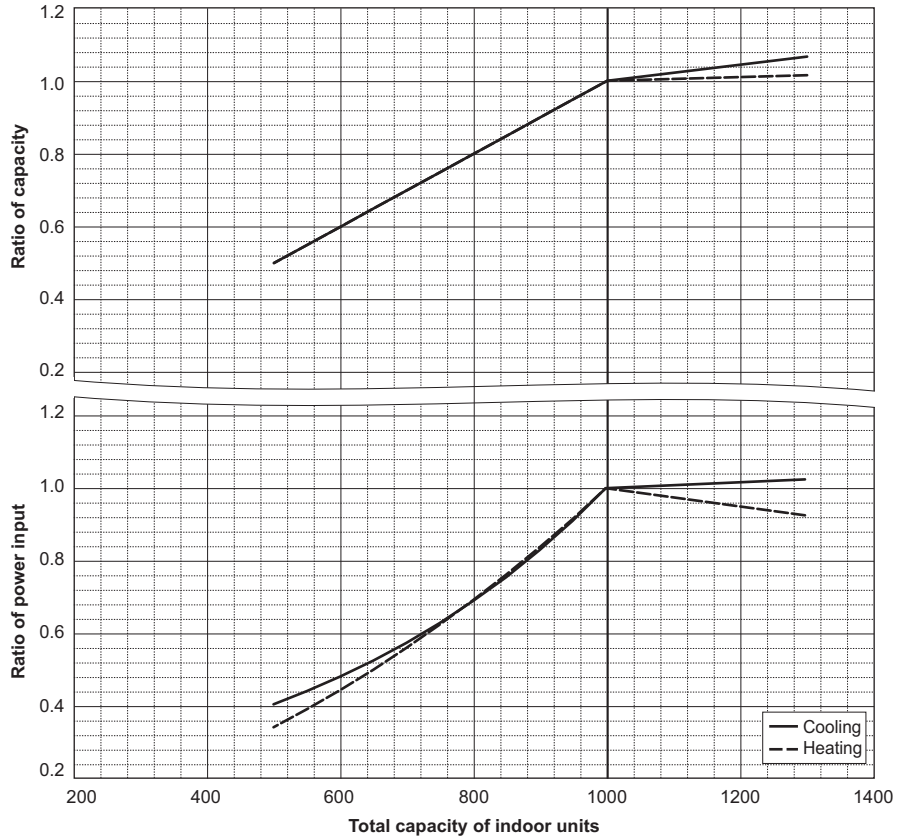
PUHY-P950TSKA



PUHY-P1000TSKA		
Nominal Cooling Capacity	kW	110.0
	BTU/h	375,300
Input	kW	36.78

PUHY-P1000TSKA		
Nominal Heating Capacity	kW	110.0
	BTU/h	375,300
Input	kW	33.13

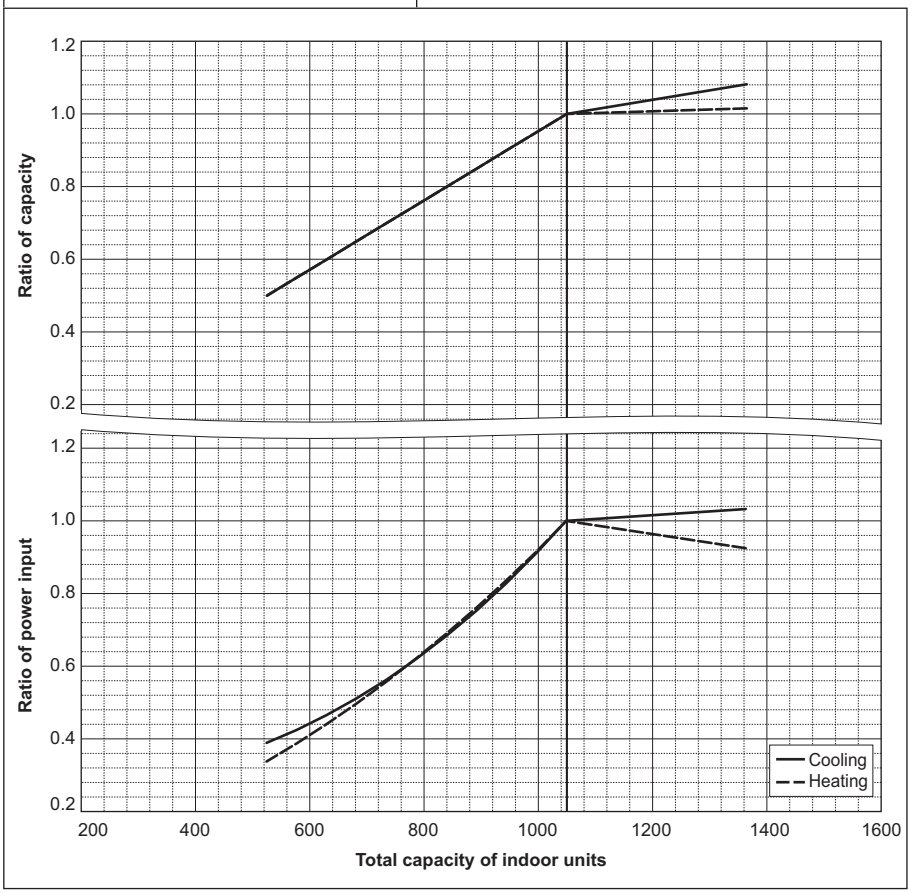
PUHY-P1000TSKA



PUHY-P1050TSKA		
Nominal Cooling Capacity	kW	115.0
	BTU/h	392,400
Input	kW	32.57

PUHY-P1050TSKA		
Nominal Heating Capacity	kW	115.0
	BTU/h	392,400
Input	kW	31.50

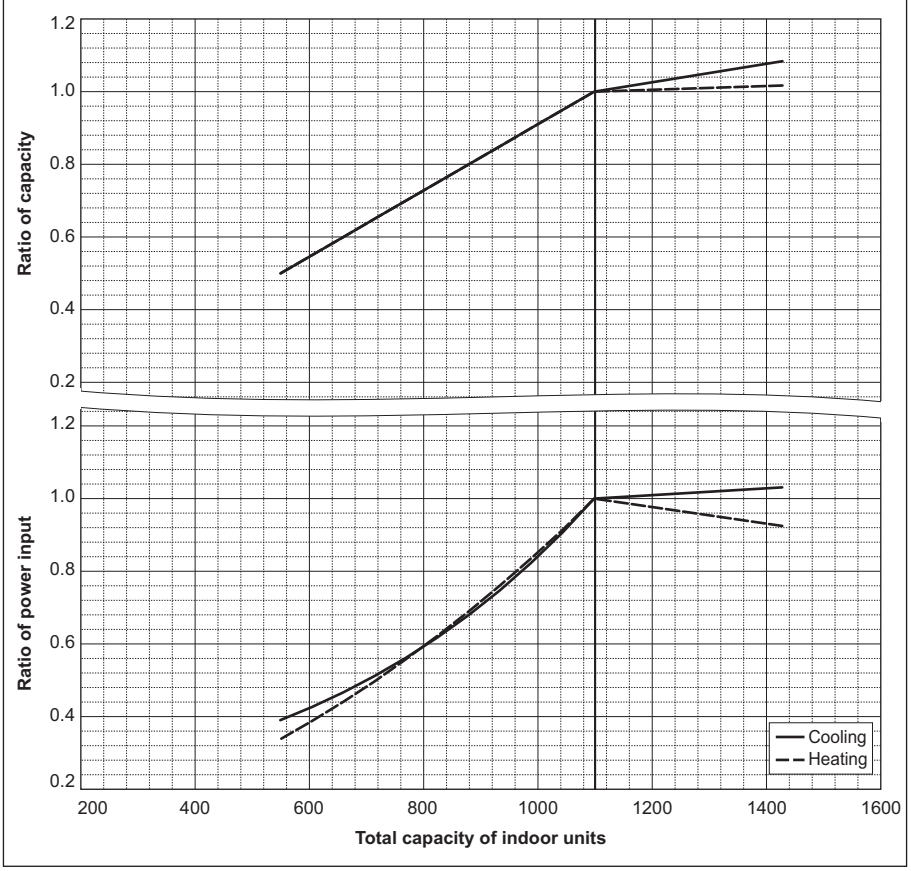
PUHY-P1050TSKA



PUHY-P1100TSKA		
Nominal Cooling Capacity	kW	121.5
	BTU/h	414,600
Input	kW	35.63

PUHY-P1100TSKA		
Nominal Heating Capacity	kW	121.5
	BTU/h	414,600
Input	kW	33.80

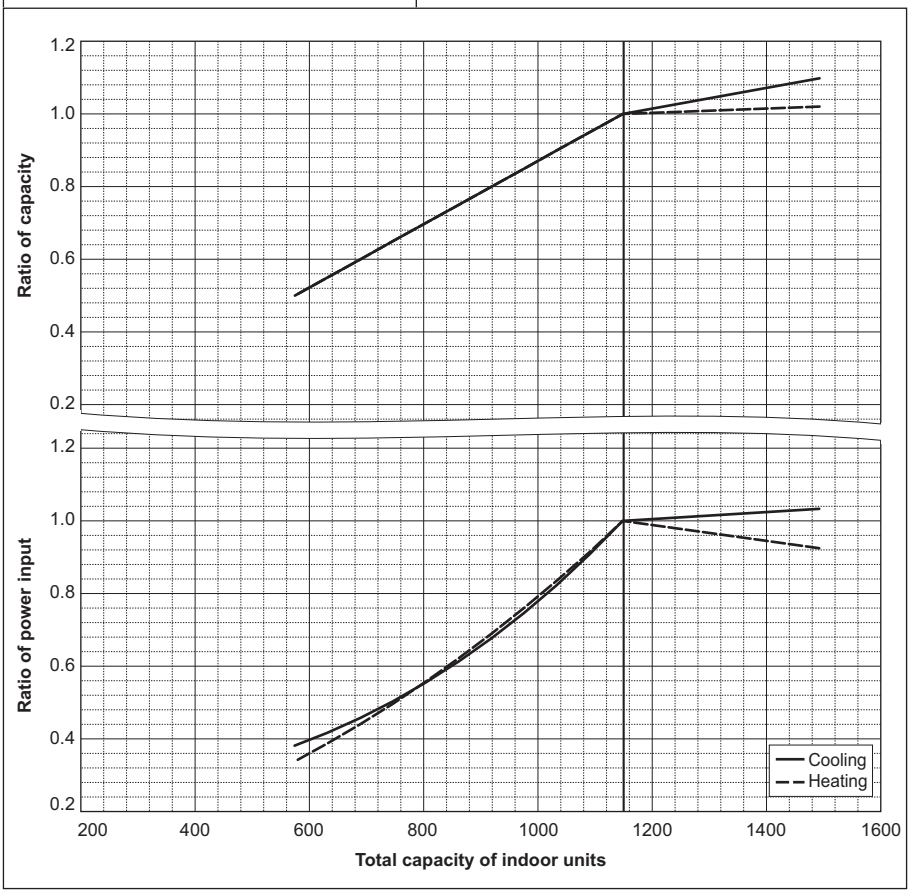
PUHY-P1100TSKA



PUHY-P1150TSKA		
Nominal Cooling Capacity	kW	130.0
	BTU/h	443,600
Input	kW	38.80

PUHY-P1150TSKA		
Nominal Heating Capacity	kW	130.0
	BTU/h	443,600
Input	kW	35.51

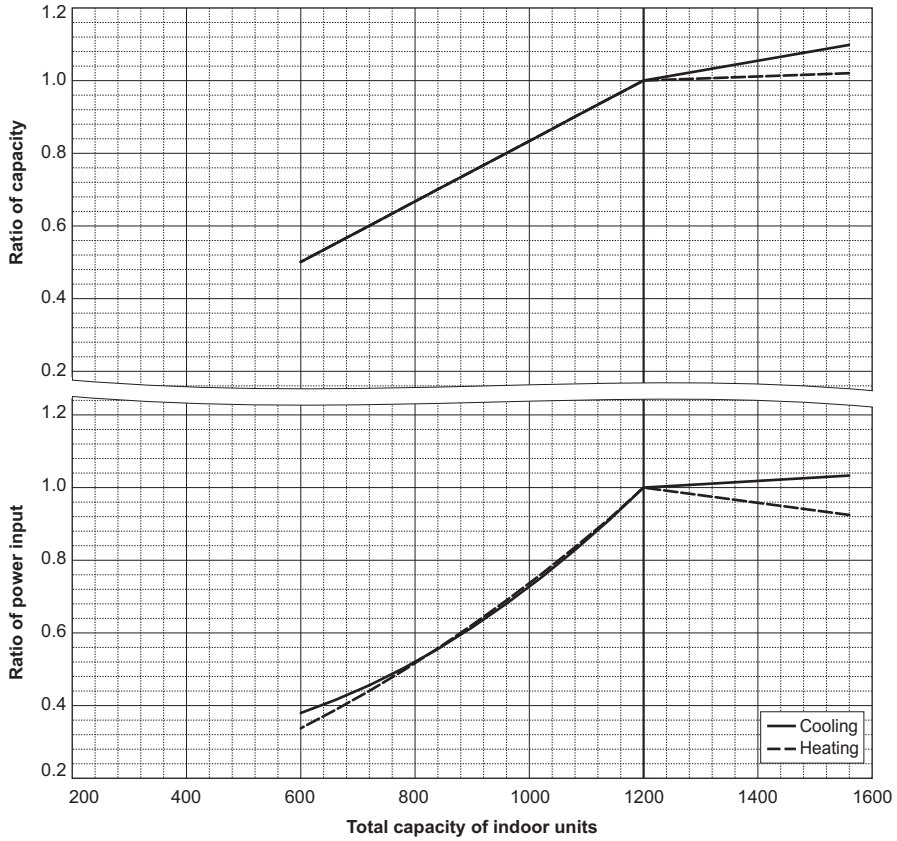
PUHY-P1150TSKA



PUHY-P1200TSKA		
Nominal Cooling Capacity	kW	135.0
	BTU/h	460,600
Input	kW	40.66

PUHY-P1200TSKA		
Nominal Heating Capacity	kW	135.0
	BTU/h	460,600
Input	kW	37.70

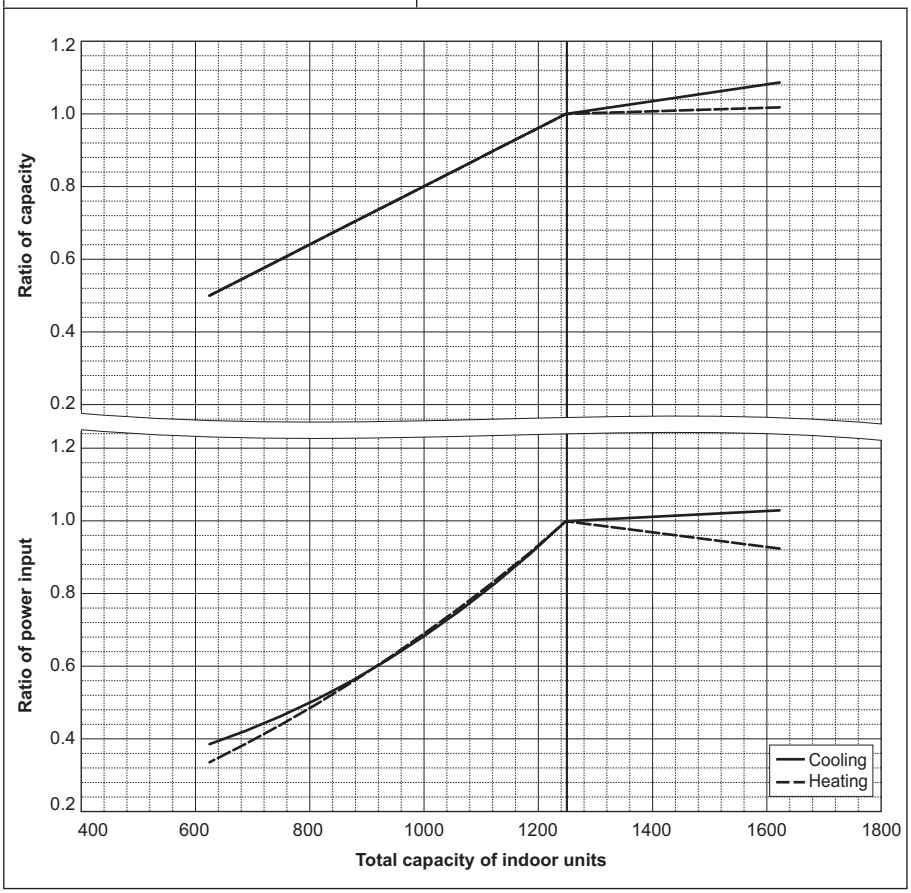
PUHY-P1200TSKA



PUHY-P1250TSKA		
Nominal Cooling Capacity	kW	138.0
	BTU/h	470,900
Input	kW	43.12

PUHY-P1250TSKA		
Nominal Heating Capacity	kW	138.0
	BTU/h	470,900
Input	kW	40.35

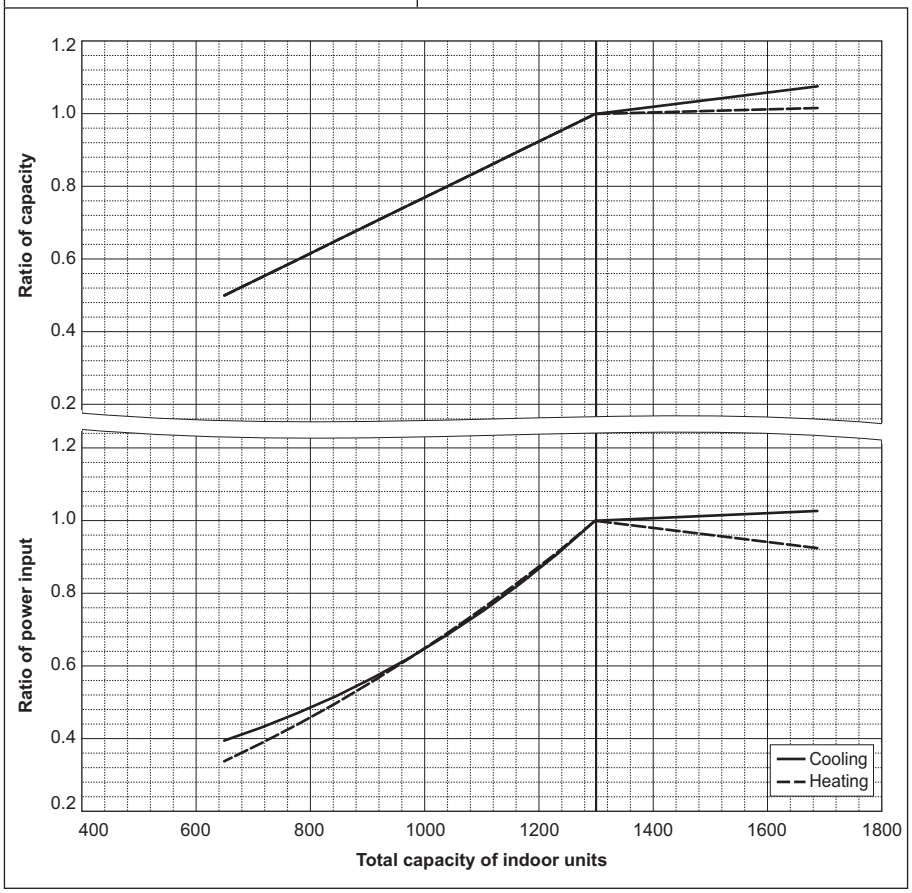
PUHY-P1250TSKA



PUHY-P1300TSKA		
Nominal Cooling Capacity	kW	141.0
	BTU/h	481,100
Input	kW	45.77

PUHY-P1300TSKA		
Nominal Heating Capacity	kW	141.0
	BTU/h	481,100
Input	kW	42.98

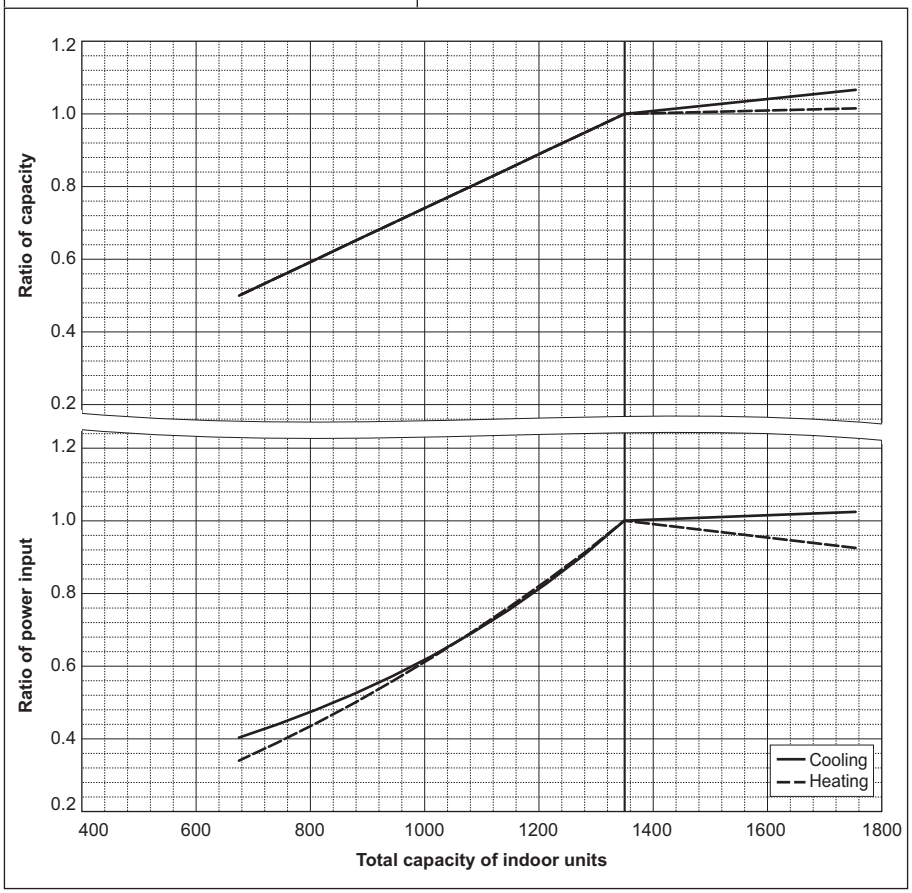
PUHY-P1300TSKA



PUHY-P1350TSKA		
Nominal Cooling Capacity	kW	144.0
	BTU/h	491,300
Input	kW	48.64

PUHY-P1350TSKA		
Nominal Heating Capacity	kW	144.0
	BTU/h	491,300
Input	kW	46.15

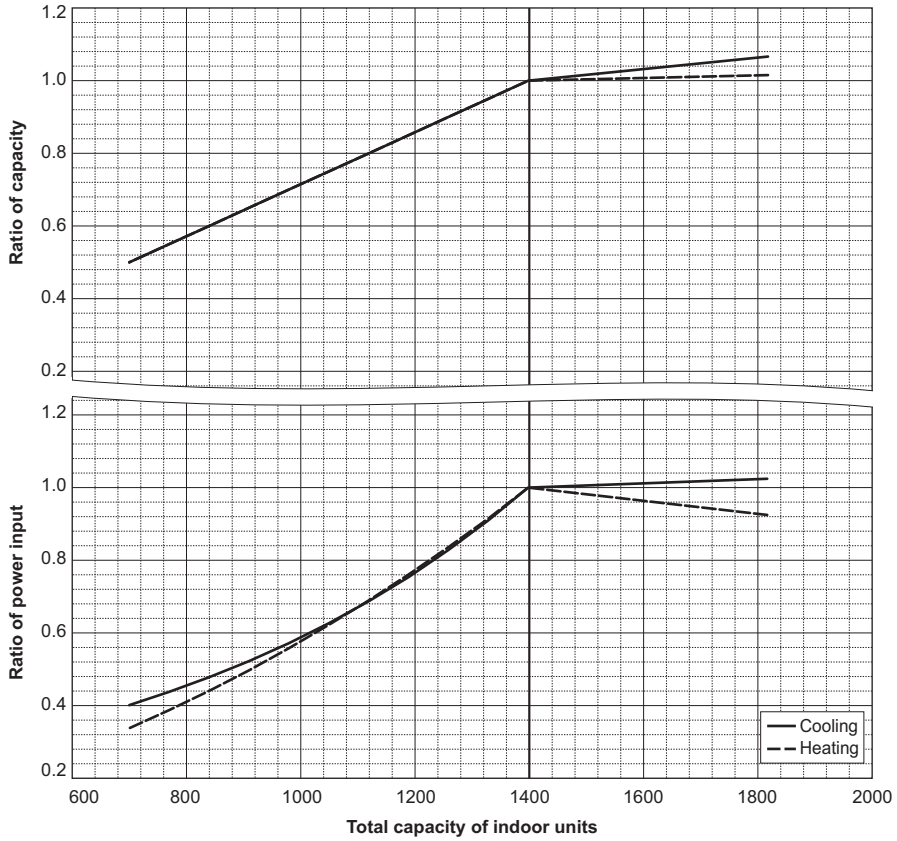
PUHY-P1350TSKA



PUHY-P1400TSKA		
Nominal Cooling Capacity	kW	151.0
	BTU/h	515,200
Input	kW	52.24

PUHY-P1400TSKA		
Nominal Heating Capacity	kW	151.0
	BTU/h	515,200
Input	kW	49.50

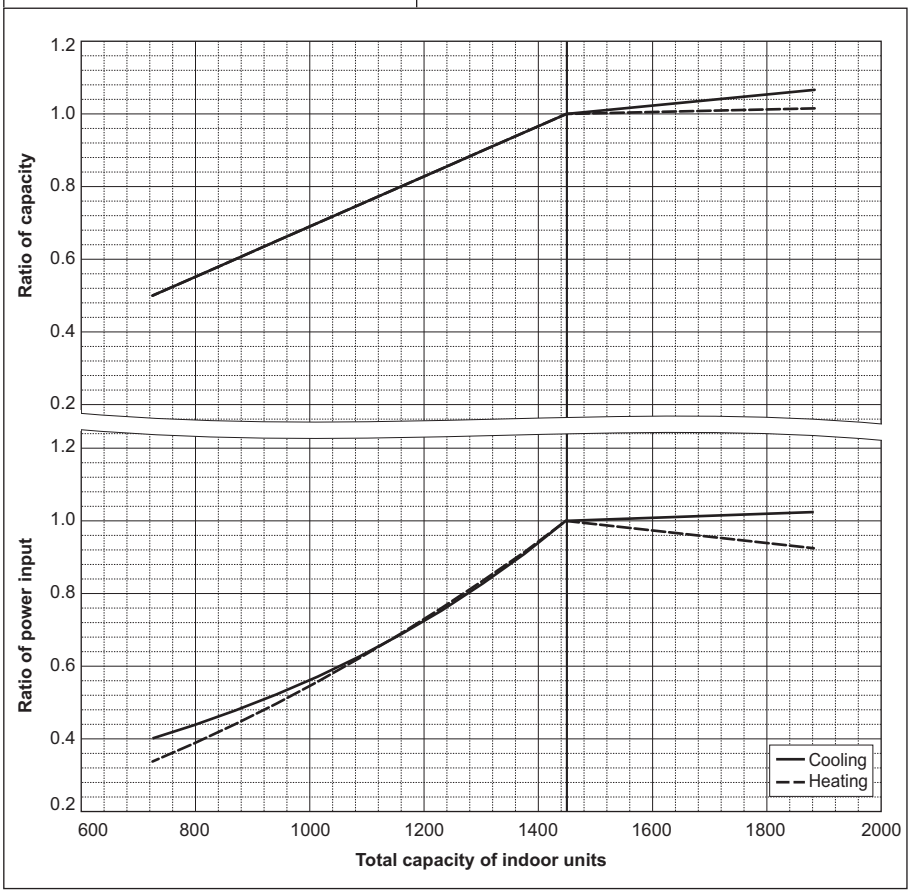
PUHY-P1400TSKA



PUHY-P1450TSKA		
Nominal Cooling Capacity	kW	158.0
	BTU/h	539,100
Input	kW	55.83

PUHY-P1450TSKA		
Nominal Heating Capacity	kW	158.0
	BTU/h	539,100
Input	kW	52.49

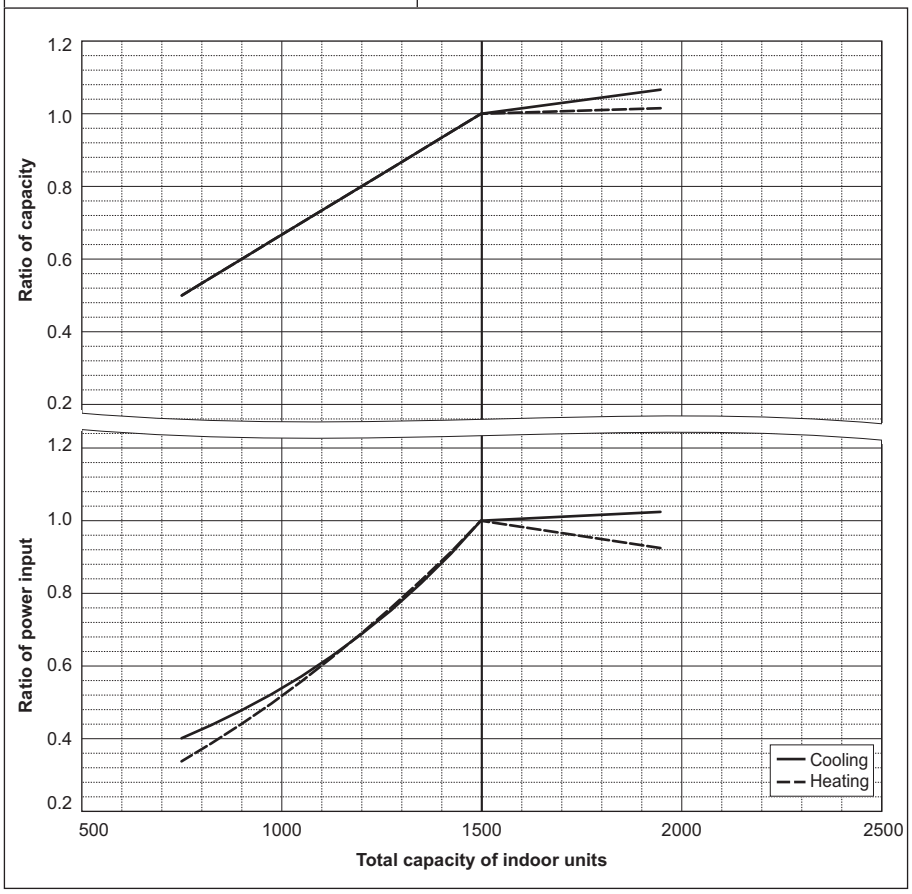
PUHY-P1450TSKA



PUHY-P1500TSKA		
Nominal Cooling Capacity	kW	165.0
	BTU/h	563,000
Input	kW	59.56

PUHY-P1500TSKA		
Nominal Heating Capacity	kW	165.0
	BTU/h	563,000
Input	kW	56.12

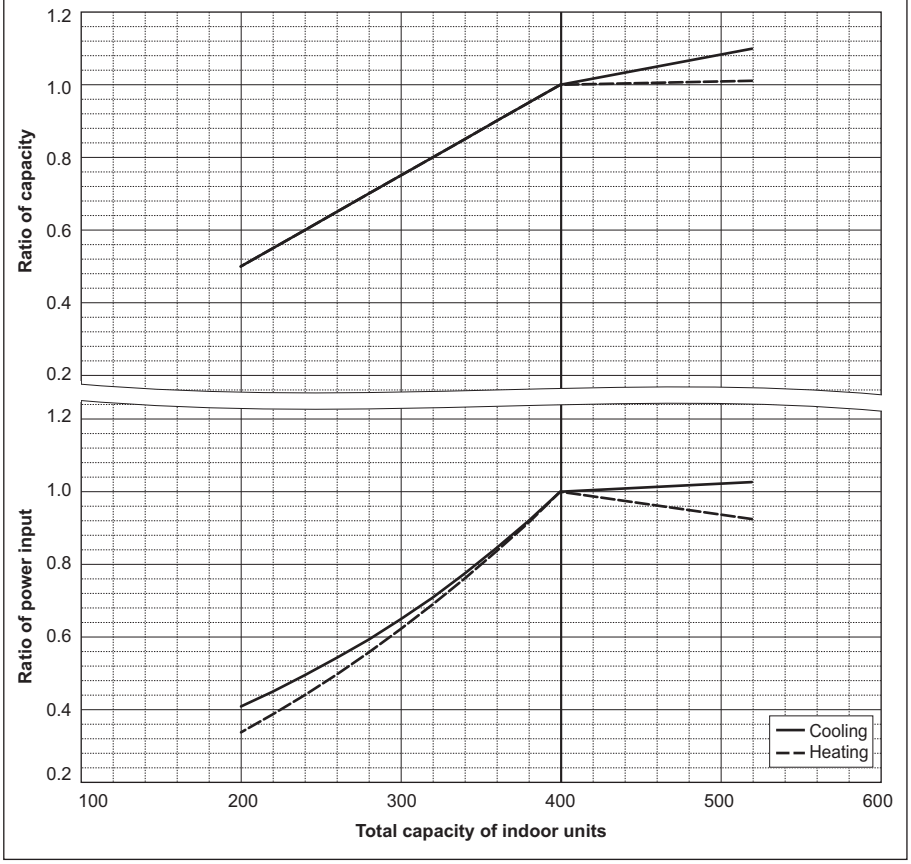
PUHY-P1500TSKA



PUHY-EP400TSKA		
Nominal Cooling Capacity	kW	44.8
	BTU/h	152,900
Input	kW	10.39

PUHY-EP400TSKA		
Nominal Heating Capacity	kW	44.8
	BTU/h	152,900
Input	kW	10.66

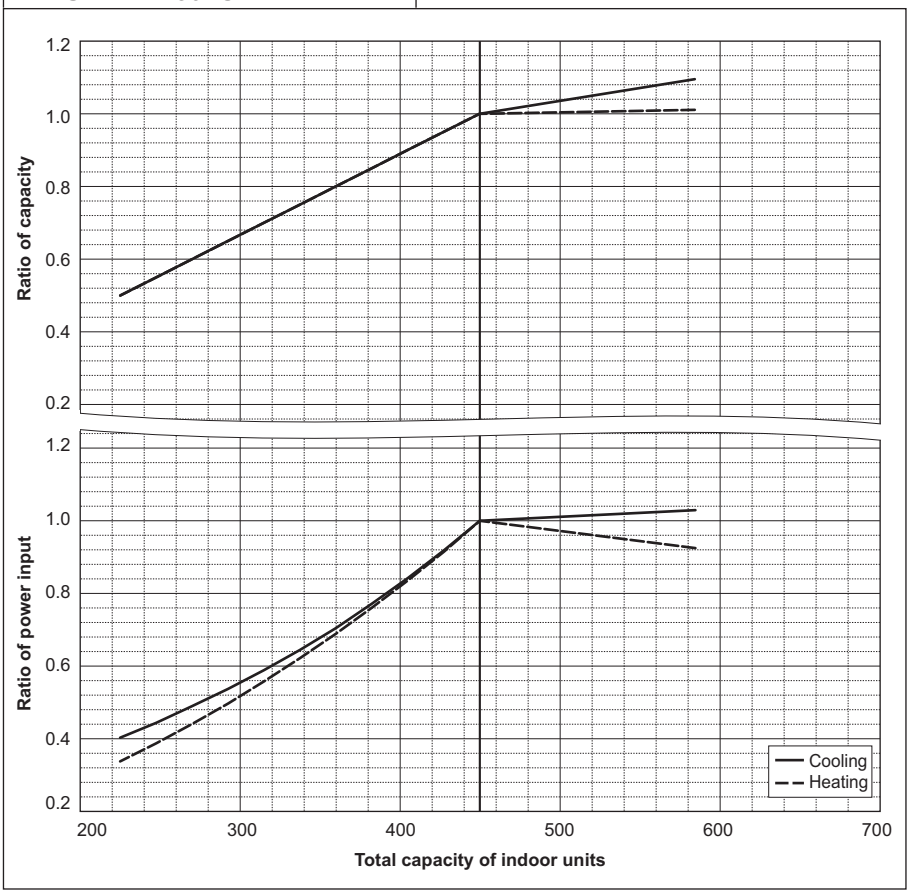
PUHY-EP400TSKA



PUHY-EP450TSKA		
Nominal Cooling Capacity	kW	50.4
	BTU/h	172,000
Input	kW	12.05

PUHY-EP450TSKA		
Nominal Heating Capacity	kW	50.4
	BTU/h	172,000
Input	kW	12.00

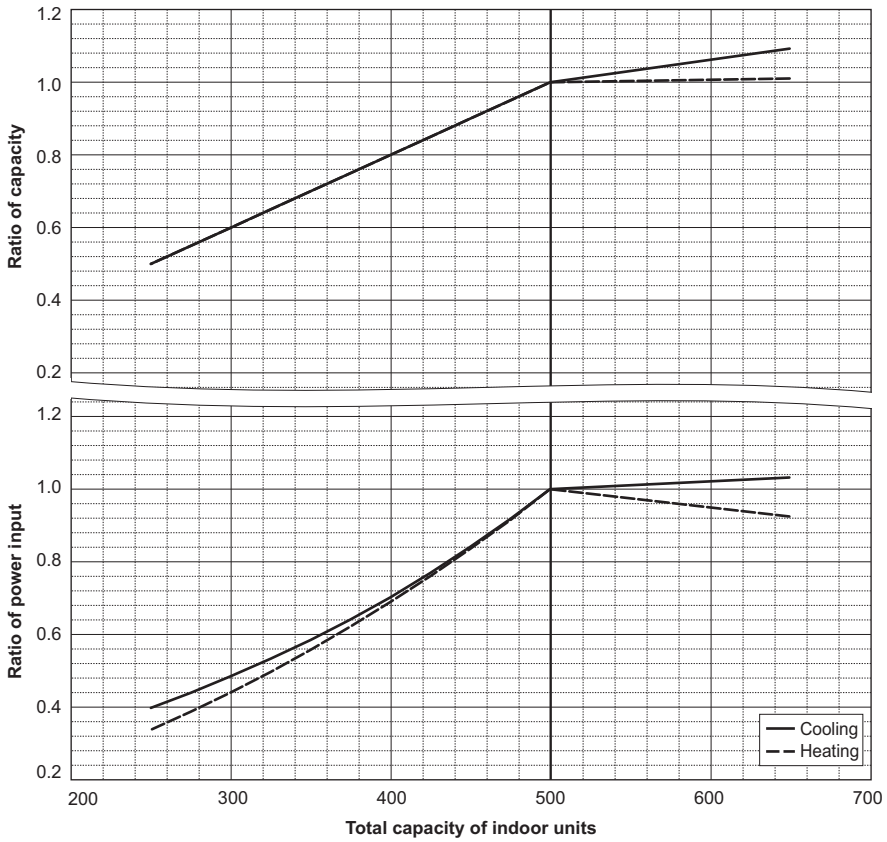
PUHY-EP450TSKA



PUHY-EP500TSKA		
Nominal Cooling Capacity	kW	56.0
	BTU/h	191,100
Input	kW	13.79

PUHY-EP500TSKA		
Nominal Heating Capacity	kW	56.0
	BTU/h	191,100
Input	kW	13.36

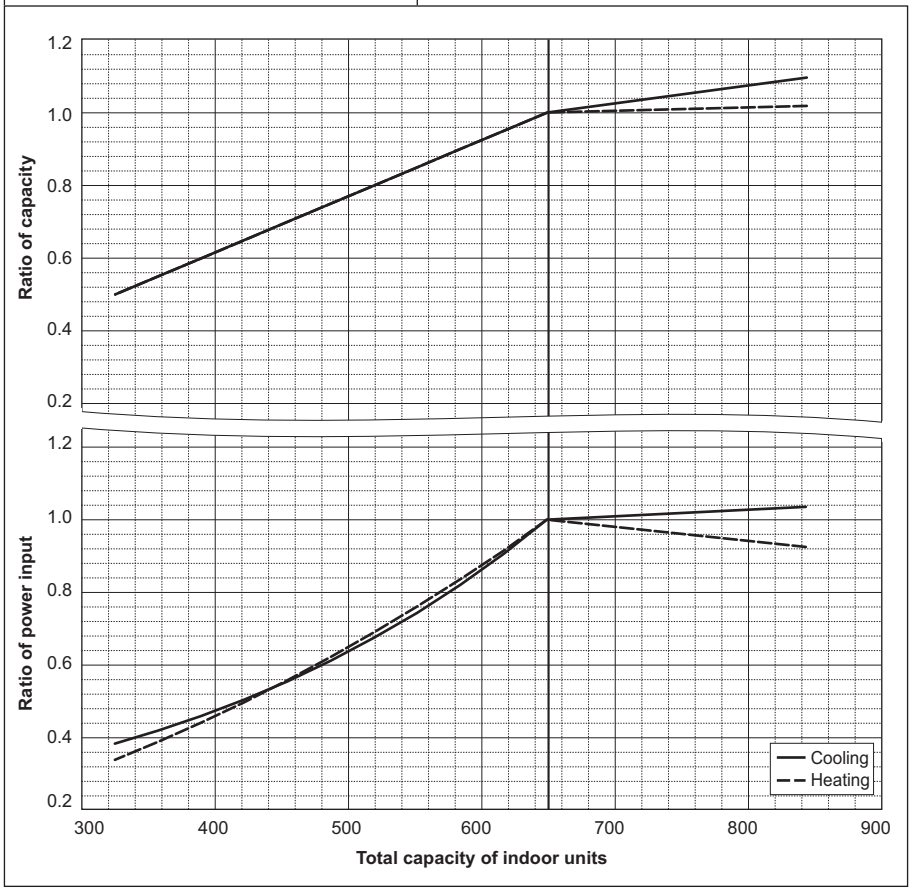
PUHY-EP500TSKA



PUHY-EP650TSKA		
Nominal Cooling Capacity	kW	73.5
	BTU/h	250,800
Input	kW	20.41

PUHY-EP650TSKA		
Nominal Heating Capacity	kW	73.5
	BTU/h	250,800
Input	kW	18.70

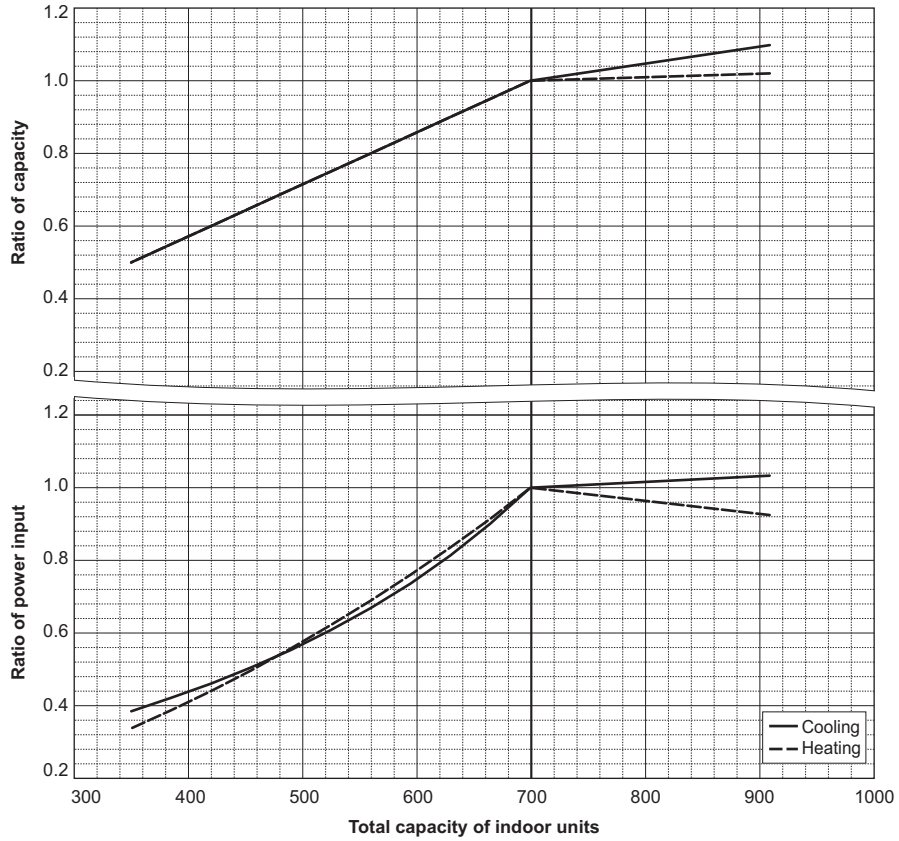
PUHY-EP650TSKA



PUHY-EP700TSKA		
Nominal Cooling Capacity	kW	80.0
	BTU/h	273,600
Input	kW	23.39

PUHY-EP700TSKA		
Nominal Heating Capacity	kW	80.0
	BTU/h	273,000
Input	kW	20.25

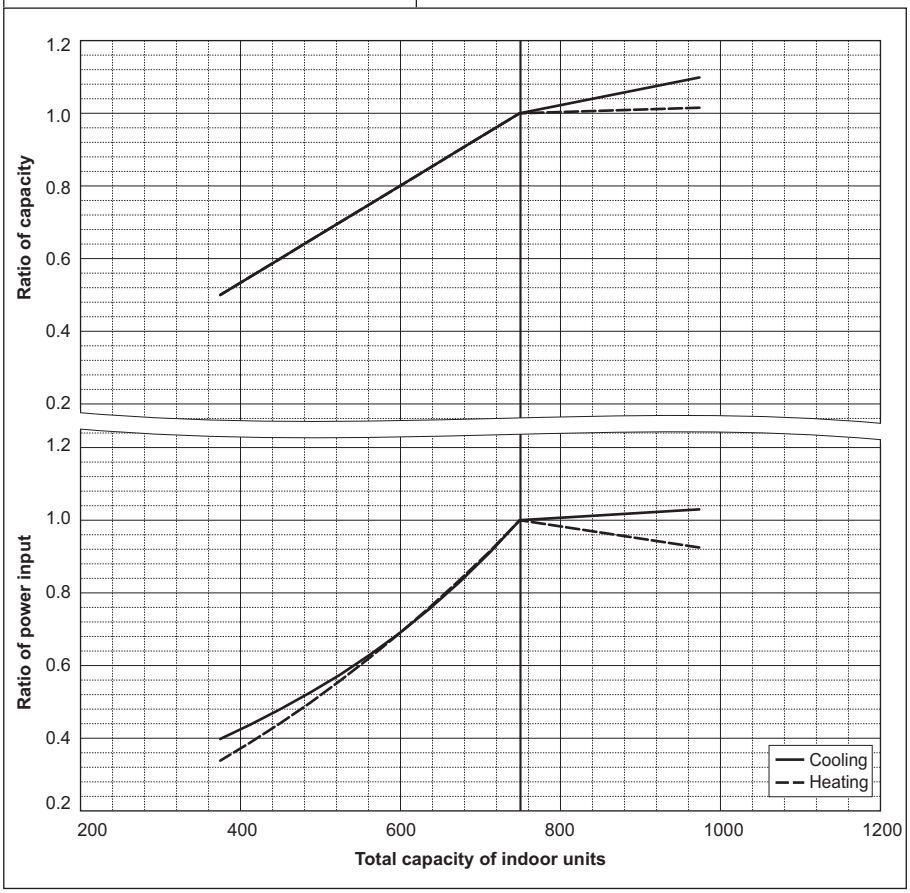
PUHY-EP700TSKA



PUHY-EP750TSKA		
Nominal Cooling Capacity	kW	84.8
	BTU/h	289,300
Input	kW	21.14

PUHY-EP750TSKA		
Nominal Heating Capacity	kW	84.8
	BTU/h	289,300
Input	kW	20.58

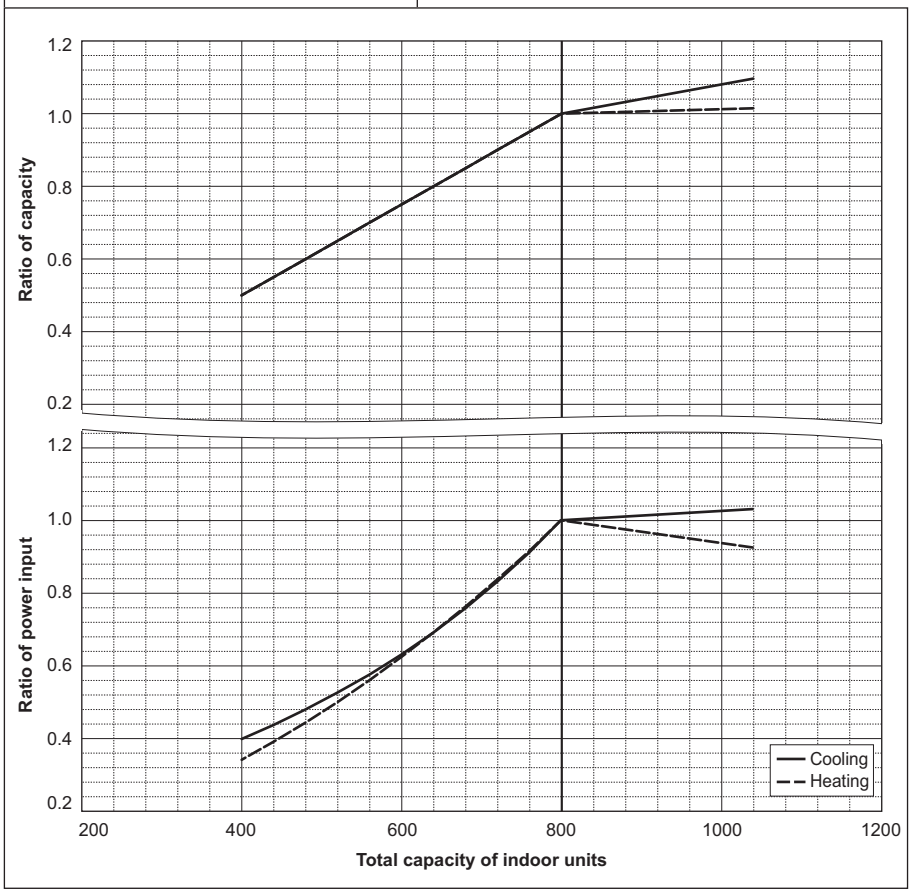
PUHY-EP750TSKA



PUHY-EP800TSKA		
Nominal Cooling Capacity	kW	90.4
	BTU/h	308,400
Input	kW	23.00

PUHY-EP800TSKA		
Nominal Heating Capacity	kW	90.4
	BTU/h	308,400
Input	kW	21.99

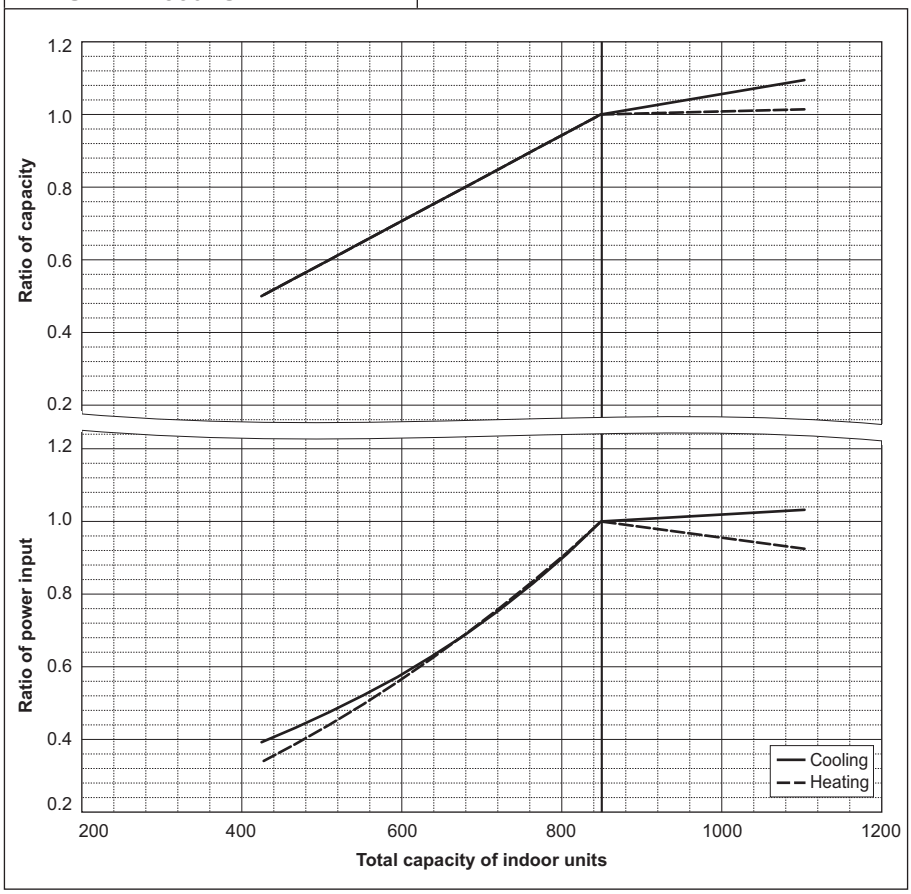
PUHY-EP800TSKA



PUHY-EP850TSKA		
Nominal Cooling Capacity	kW	96.0
	BTU/h	327,600
Input	kW	25.00

PUHY-EP850TSKA		
Nominal Heating Capacity	kW	96.0
	BTU/h	327,600
Input	kW	23.35

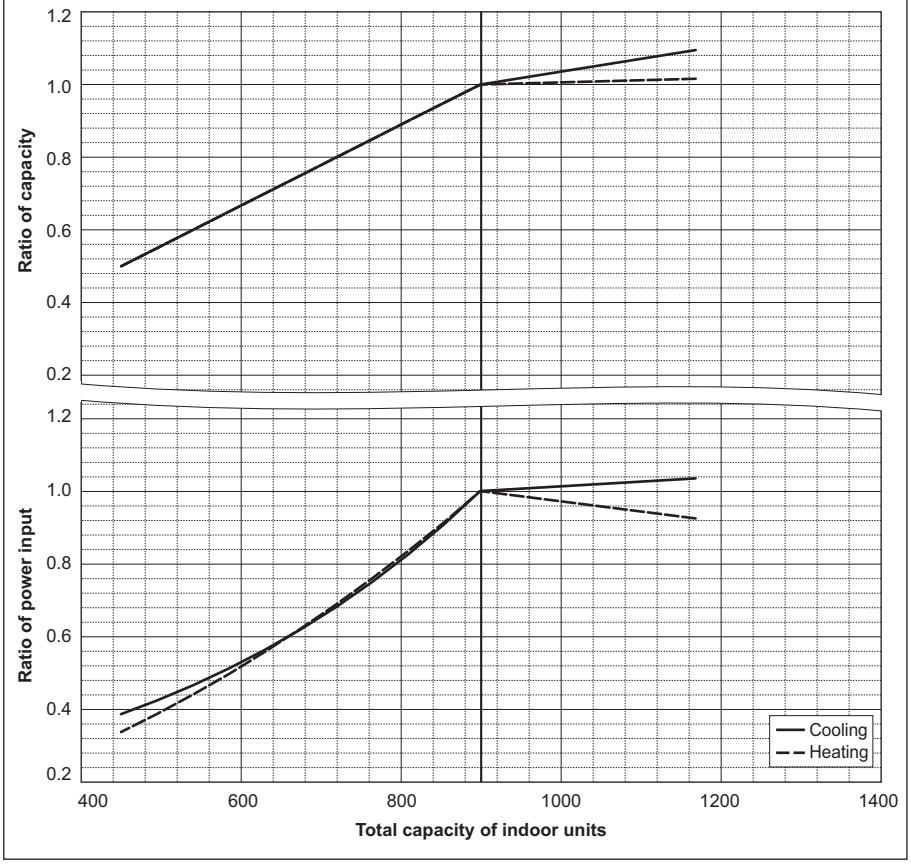
PUHY-EP850TSKA



PUHY-EP900TSKA		
Nominal Cooling Capacity	kW	101.5
	BTU/h	346,300
Input	kW	27.06

PUHY-EP900TSKA		
Nominal Heating Capacity	kW	101.5
	BTU/h	346,300
Input	kW	25.24

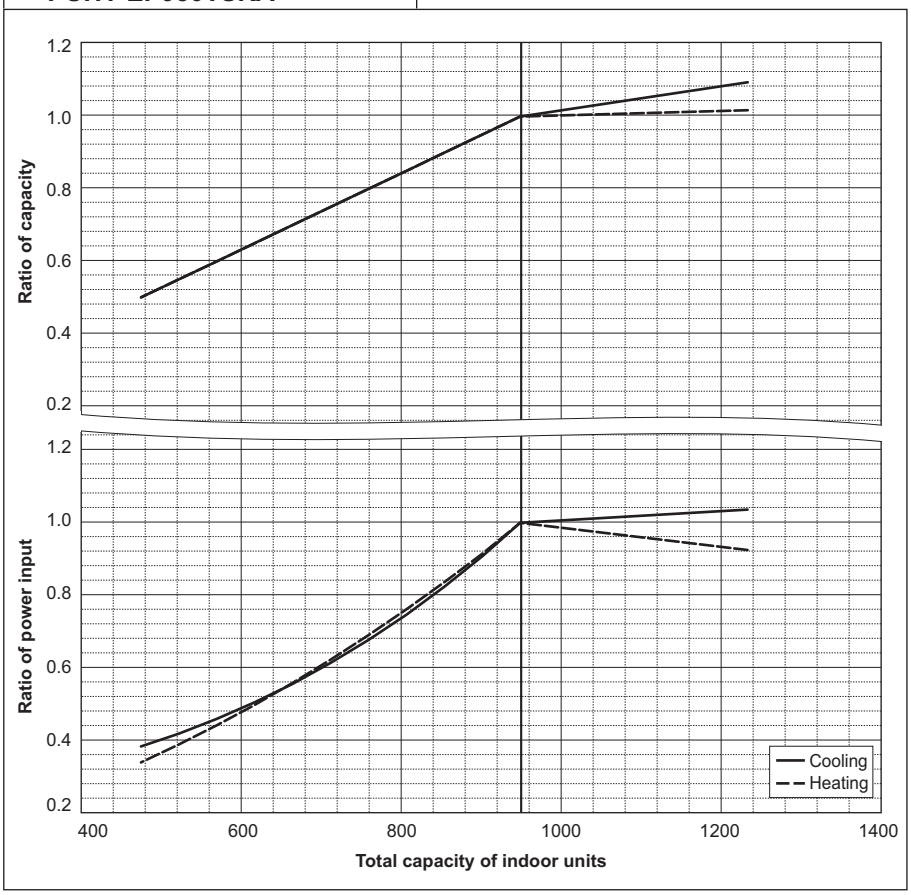
PUHY-EP900TSKA



PUHY-EP950TSKA		
Nominal Cooling Capacity	kW	107.0
	BTU/h	365,100
Input	kW	29.23

PUHY-EP950TSKA		
Nominal Heating Capacity	kW	107.0
	BTU/h	365,100
Input	kW	27.22

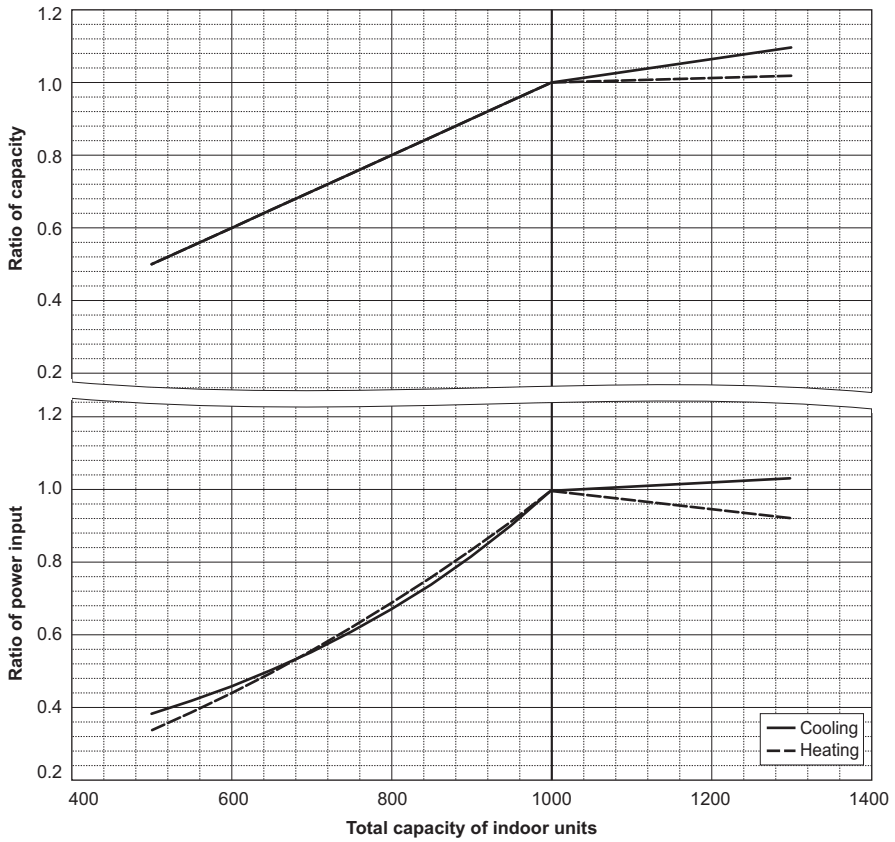
PUHY-EP950TSKA



PUHY-EP1000TSKA		
Nominal Cooling Capacity	kW	113.5
	BTU/h	387,300
Input	kW	32.06

PUHY-EP1000TSKA		
Nominal Heating Capacity	kW	113.5
	BTU/h	387,300
Input	kW	28.80

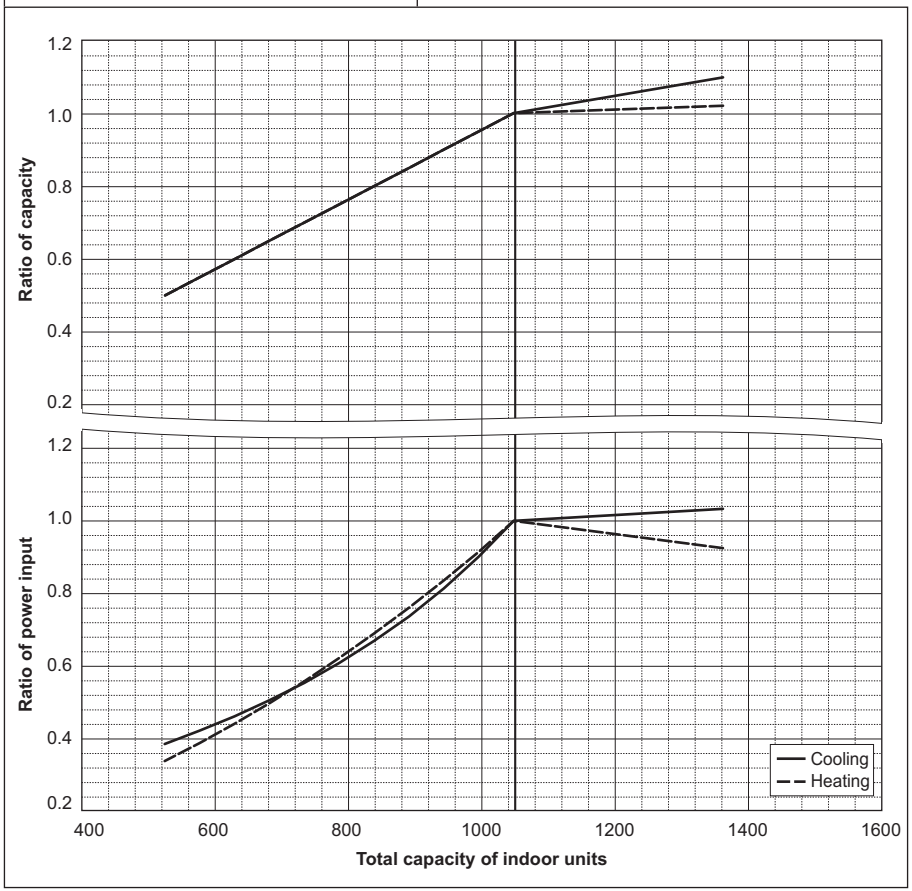
PUHY-EP1000TSKA



PUHY-EP1050TSKA		
Nominal Cooling Capacity	kW	120.0
	BTU/h	409,400
Input	kW	35.08

PUHY-EP1050TSKA		
Nominal Heating Capacity	kW	120.0
	BTU/h	409,400
Input	kW	31.25

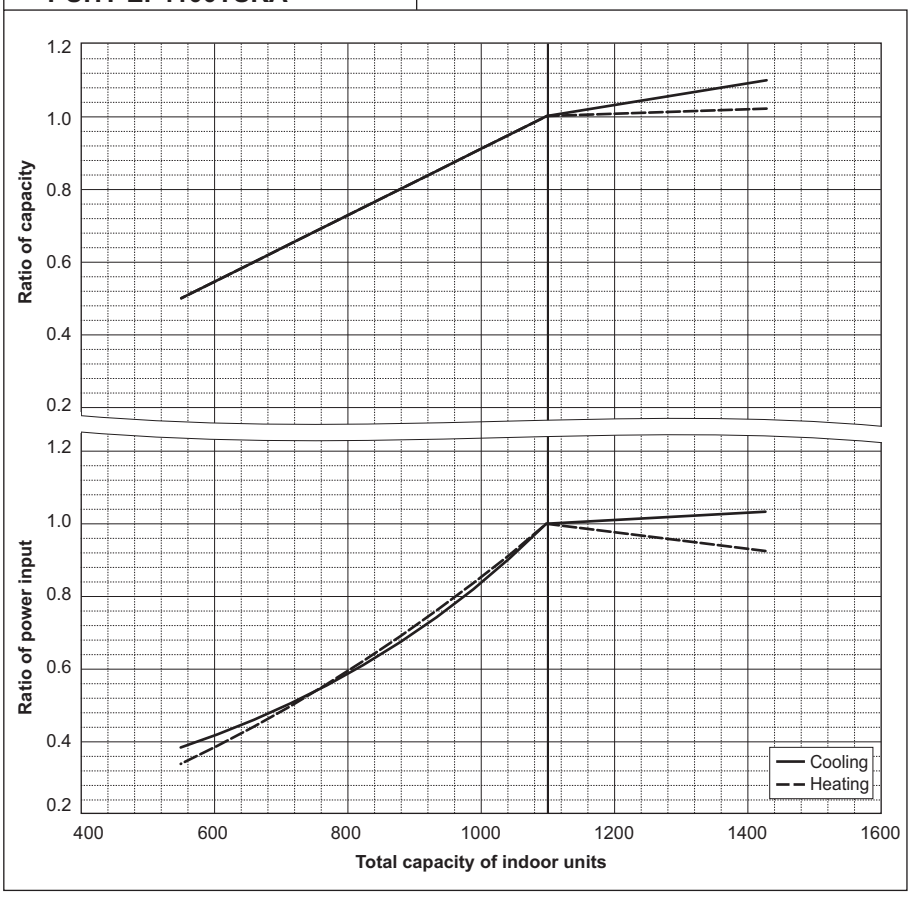
PUHY-EP1050TSKA



PUHY-EP1100TSKA		
Nominal Cooling Capacity	kW	125.0
	BTU/h	426,500
Input	kW	36.76

PUHY-EP1100TSKA		
Nominal Heating Capacity	kW	125.0
	BTU/h	426,500
Input	kW	33.24

PUHY-EP1100TSKA

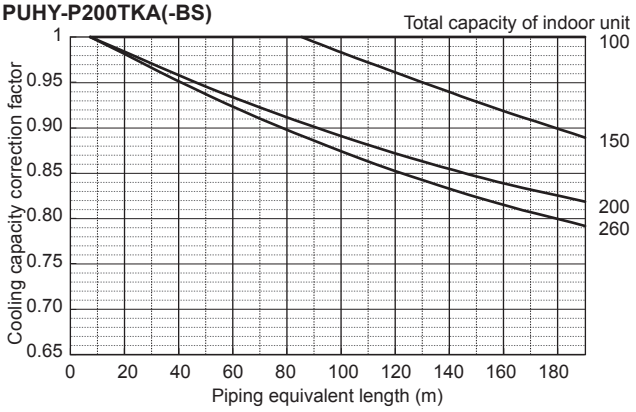


8-4. Correction by refrigerant piping length

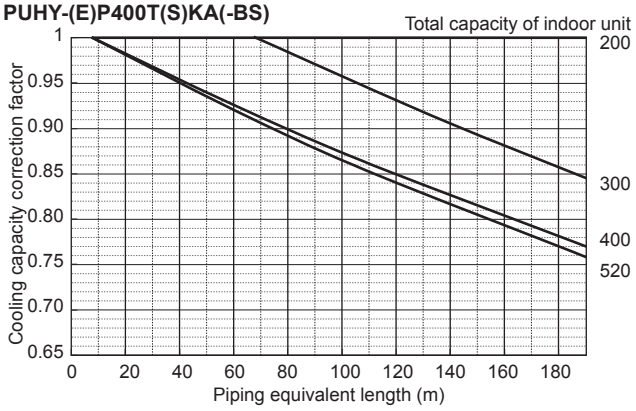
CITY MULTI system can extend the piping flexibly within its limitation for the actual situation. However, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 8-4-1 and 8-4-2, the capacity can be observed. 8-4-3 shows how to obtain the equivalent length of piping.

8-4-1. Cooling capacity correction

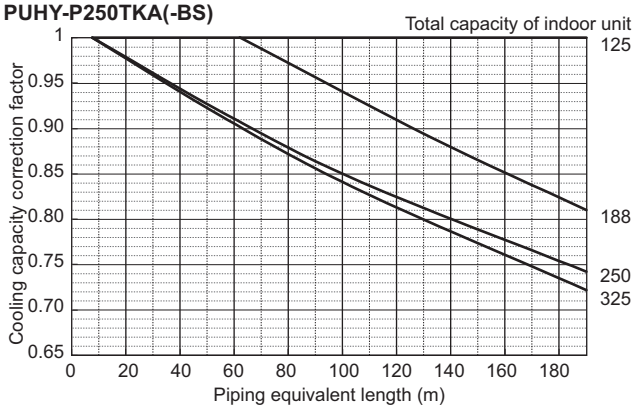
PUHY-P200TKA(-BS)



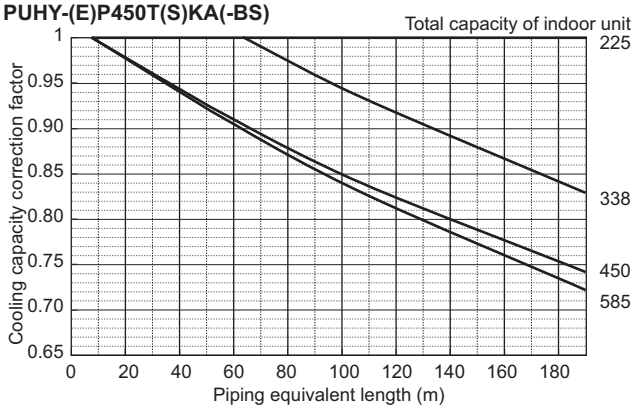
PUHY-(E)P400T(S)KA(-BS)



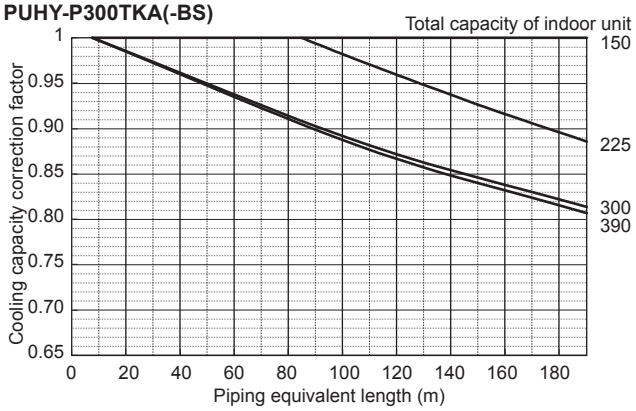
PUHY-P250TKA(-BS)



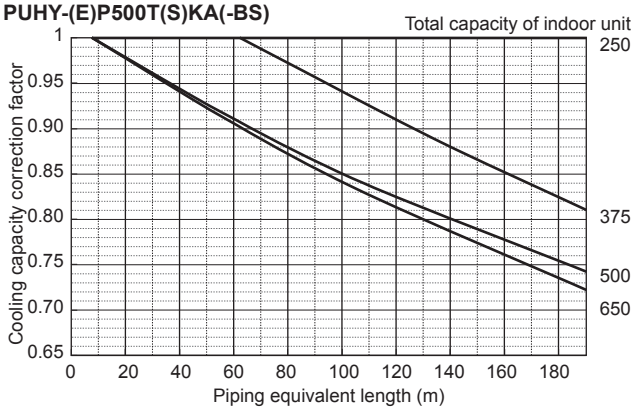
PUHY-(E)P450T(S)KA(-BS)



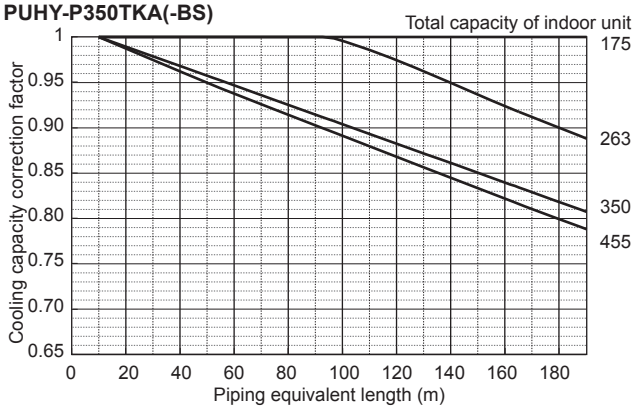
PUHY-P300TKA(-BS)



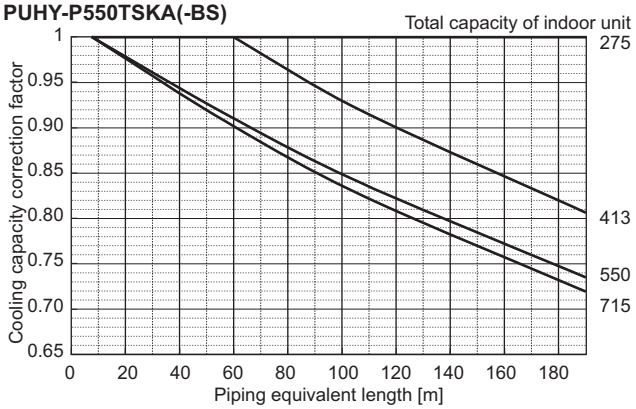
PUHY-(E)P500T(S)KA(-BS)



PUHY-P350TKA(-BS)

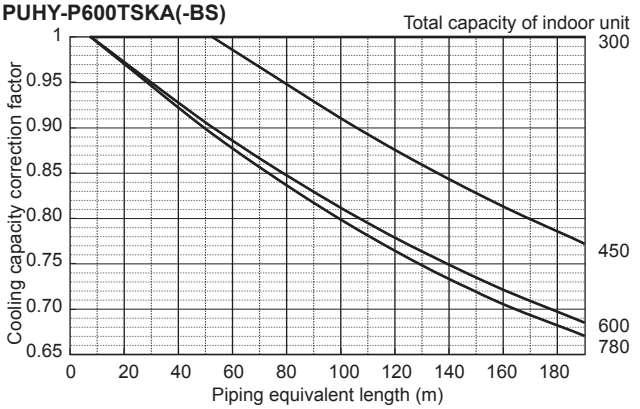


PUHY-P550TSKA(-BS)

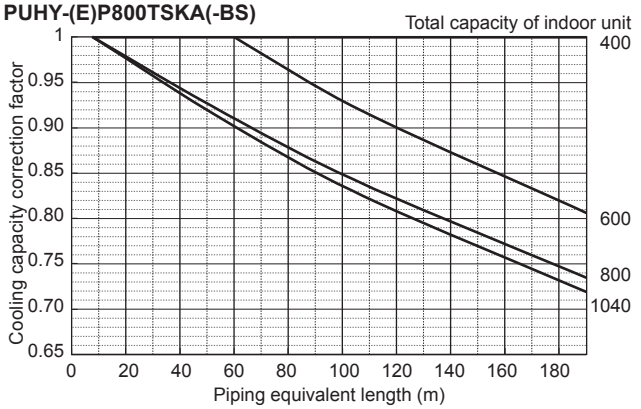


Y

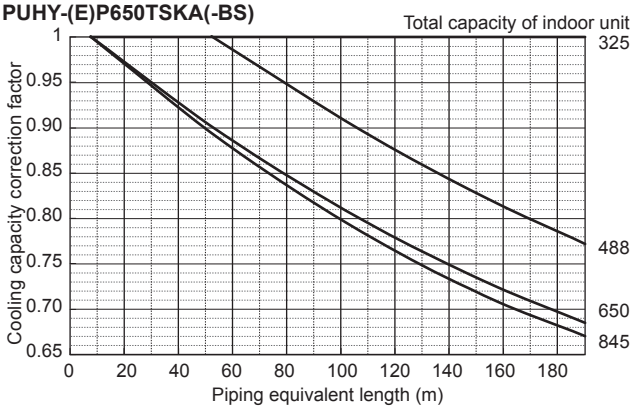
PUHY-P600TSKA(-BS)



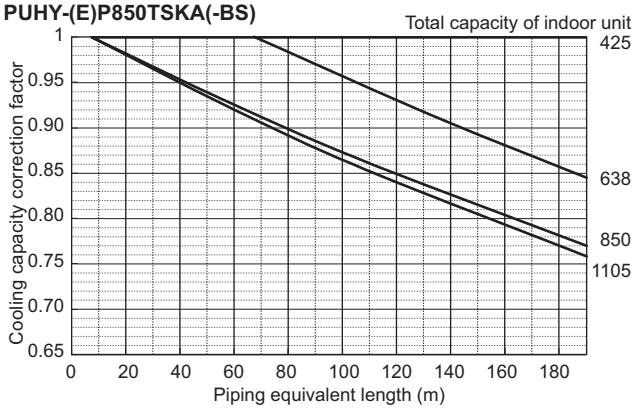
PUHY-(E)P800TSKA(-BS)



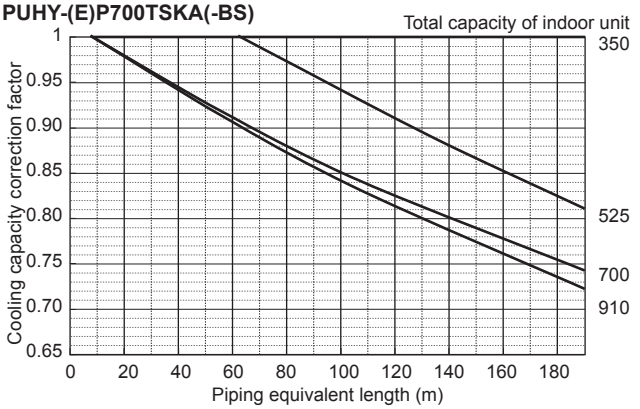
PUHY-(E)P650TSKA(-BS)



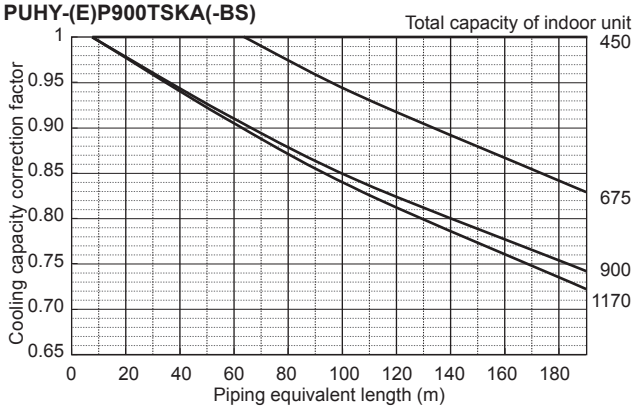
PUHY-(E)P850TSKA(-BS)



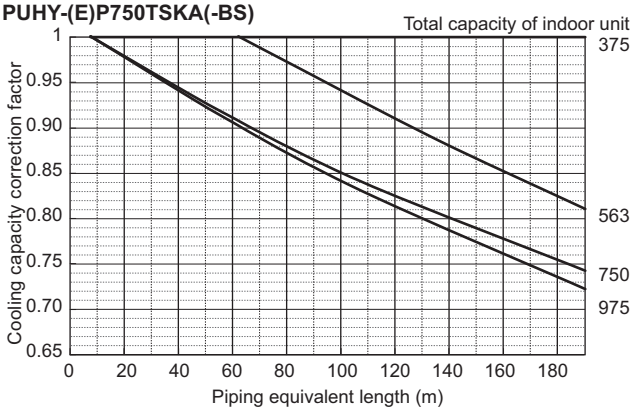
PUHY-(E)P700TSKA(-BS)



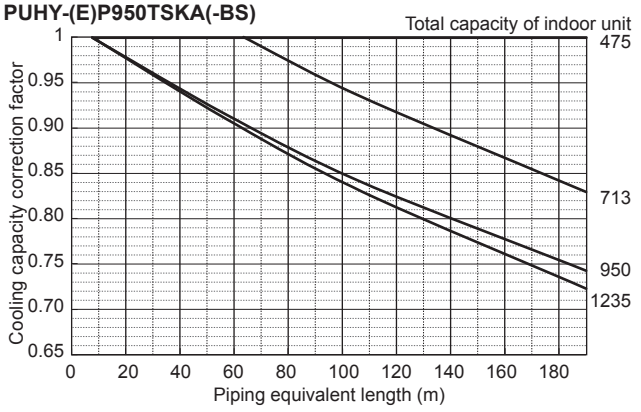
PUHY-(E)P900TSKA(-BS)



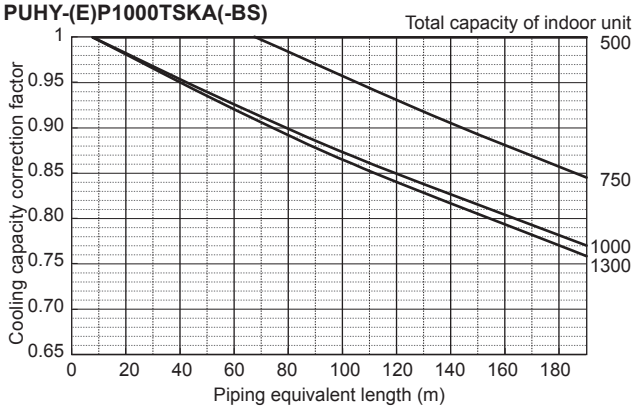
PUHY-(E)P750TSKA(-BS)



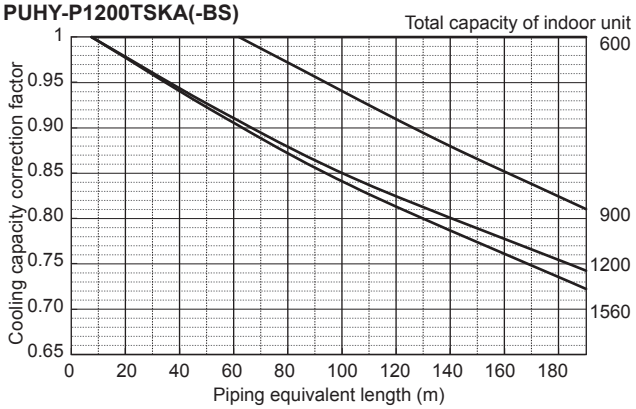
PUHY-(E)P950TSKA(-BS)



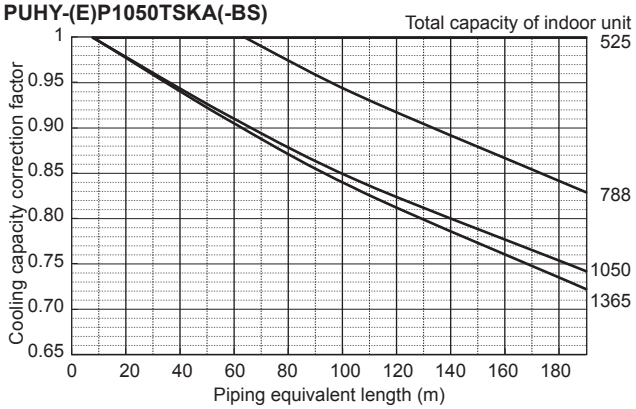
PUHY-(E)P1000TSKA(-BS)



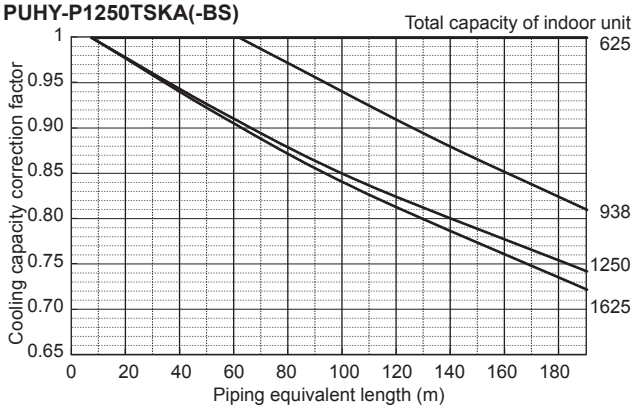
PUHY-P1200TSKA(-BS)



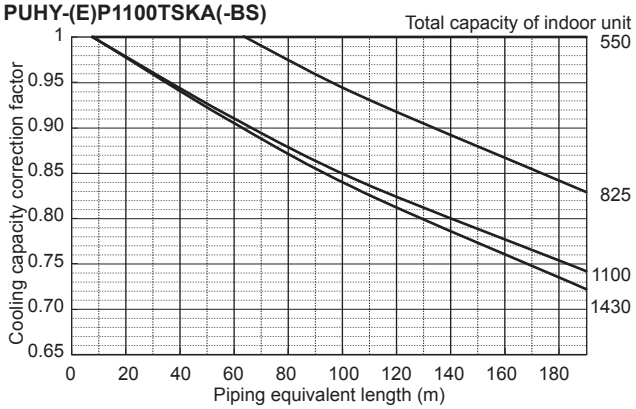
PUHY-(E)P1050TSKA(-BS)



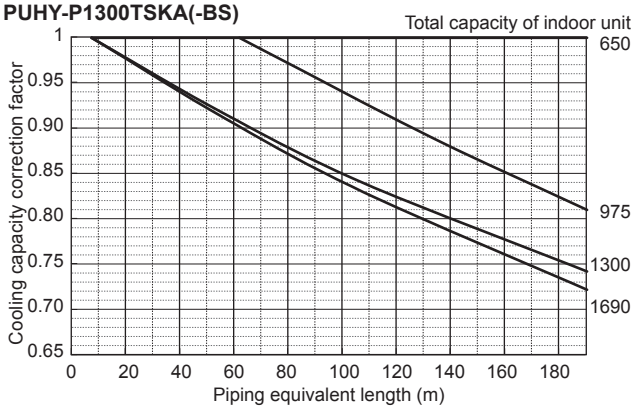
PUHY-P1250TSKA(-BS)



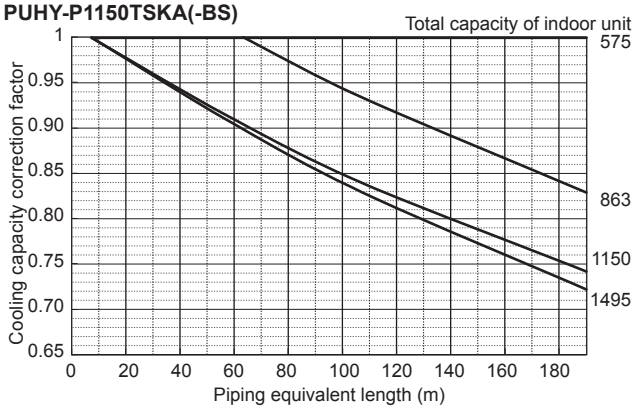
PUHY-(E)P1100TSKA(-BS)



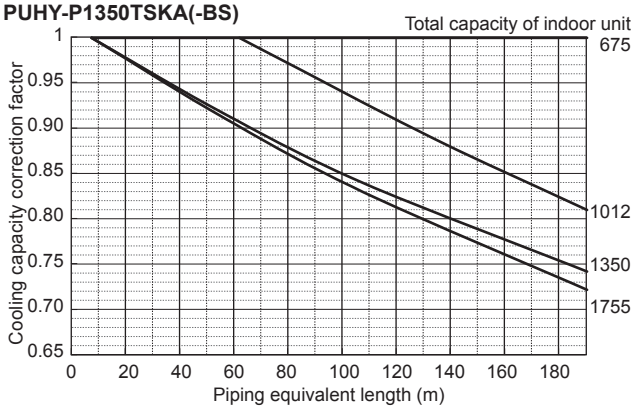
PUHY-P1300TSKA(-BS)



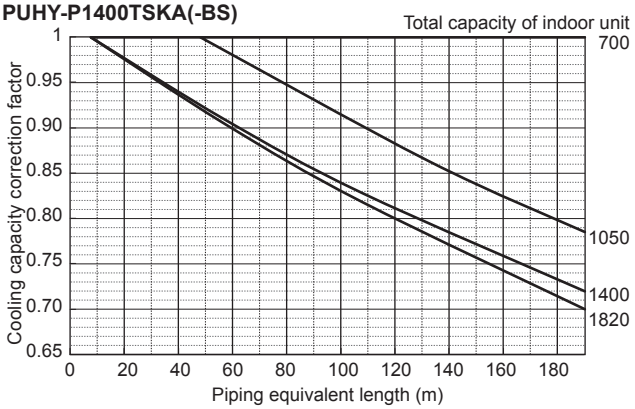
PUHY-P1150TSKA(-BS)



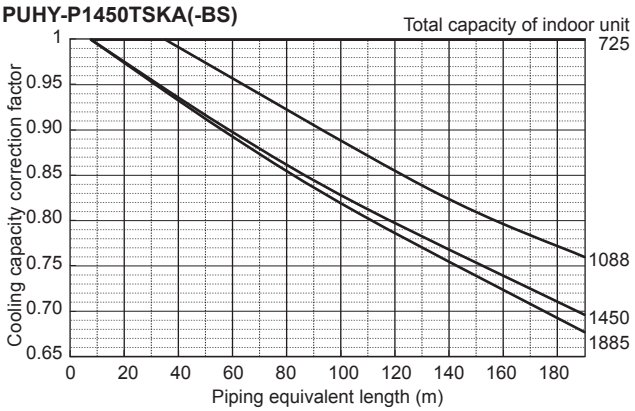
PUHY-P1350TSKA(-BS)



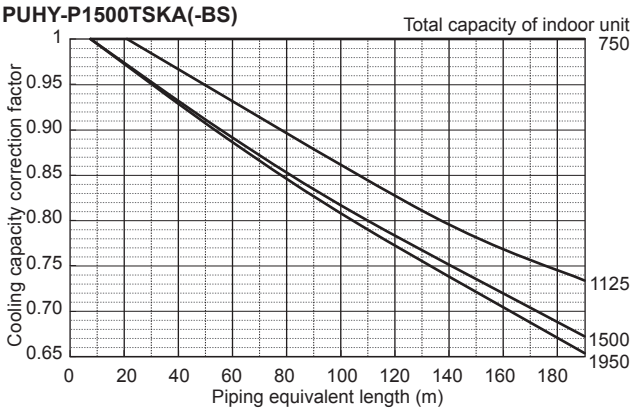
PUHY-P1400TSKA(-BS)



PUHY-P1450TSKA(-BS)

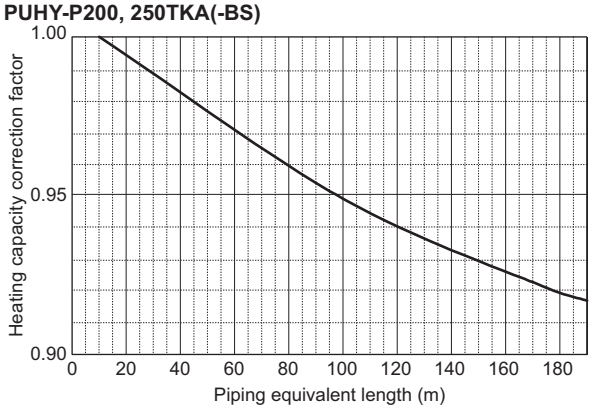


PUHY-P1500TSKA(-BS)

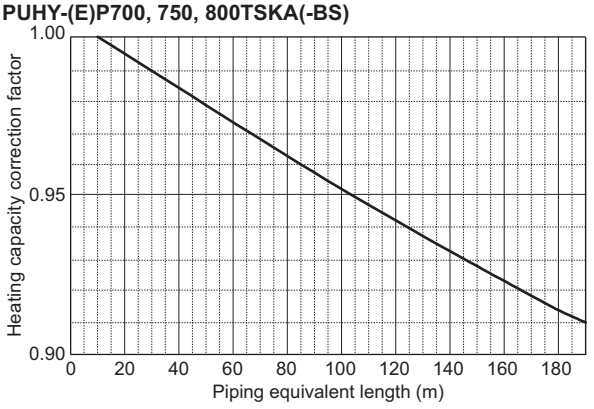


8-4-2. Heating capacity correction

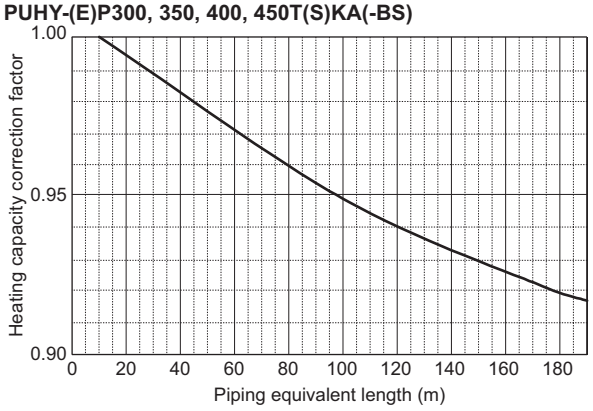
PUHY-P200, 250TKA(-BS)



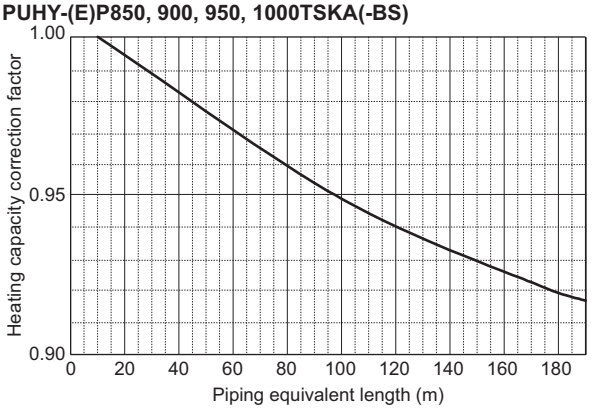
PUHY-(E)P700, 750, 800TSKA(-BS)



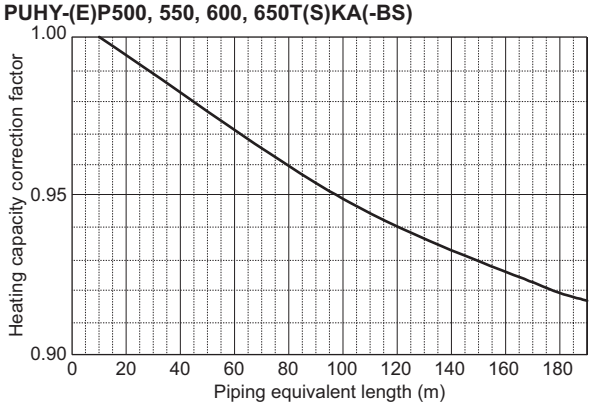
PUHY-(E)P300, 350, 400, 450T(S)KA(-BS)



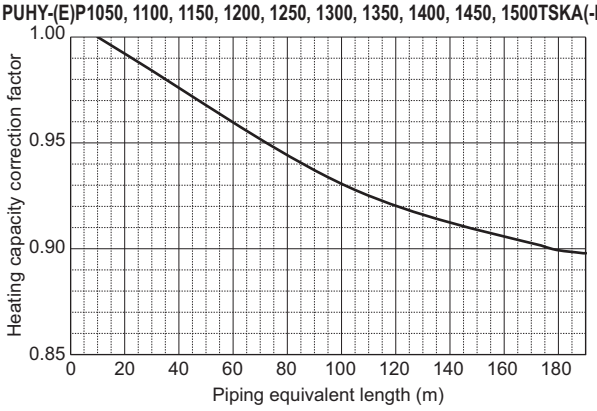
PUHY-(E)P850, 900, 950, 1000TSKA(-BS)



PUHY-(E)P500, 550, 600, 650T(S)KA(-BS)



PUHY-(E)P1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500TSKA(-BS)



8-4-3. How to obtain the equivalent piping length

1 **PUHY-P200TKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) m

2 **PUHY-P250TKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) m

3 **PUHY-P300TKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.42 × number of bends in the piping) m

4 **PUHY-P350TKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.47 × number of bends in the piping) m

5 **PUHY-(E)P400, 450, 500, 550, 600, 650T(S)KA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.50 × number of bends in the piping) m

6 **PUHY-(E)P700, 750, 800TSKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.70 × number of bends in the piping) m

7 **PUHY-(E)P850, 900, 950, 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500TSKA(-BS)**
Equivalent length = (Actual piping length to the farthest indoor unit) + (0.80 × number of bends in the piping) m

8-5. 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
PUHY-P200TKA(-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P250TKA(-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-P300TKA(-BS)	1.00	0.93	0.82	0.80	0.82	0.86	0.90	0.90	0.95	0.95	0.95
PUHY-P350TKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P400TKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P450TKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P500TKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P550TSKA(-BS)	1.00	0.94	0.83	0.81	0.82	0.86	0.90	0.92	0.95	0.95	0.95
PUHY-P600TSKA(-BS)	1.00	0.97	0.87	0.85	0.87	0.89	0.91	0.95	0.95	0.95	0.95
PUHY-P650TSKA(-BS)	1.00	0.97	0.87	0.85	0.87	0.89	0.91	0.95	0.95	0.95	0.95
PUHY-P700TSKA(-BS)	1.00	0.97	0.87	0.85	0.87	0.89	0.91	0.95	0.95	0.95	0.95
PUHY-P750TSKA(-BS)	1.00	0.96	0.86	0.84	0.86	0.88	0.91	0.93	0.95	0.95	0.95
PUHY-P800TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P850TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P900TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P950TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1000TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1050TSKA(-BS)	1.00	0.95	0.85	0.83	0.85	0.88	0.91	0.92	0.95	0.95	0.95
PUHY-P1100TSKA(-BS)	1.00	0.97	0.87	0.85	0.87	0.89	0.91	0.94	0.95	0.95	0.95
PUHY-P1150TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1200TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1250TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1300TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1350TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1400TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1450TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-P1500TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-EP400TSKA(-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-EP450TSKA(-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-EP500TSKA(-BS)	1.00	0.95	0.84	0.83	0.83	0.87	0.90	0.95	0.95	0.95	0.95
PUHY-EP650TSKA(-BS)	1.00	0.96	0.86	0.84	0.86	0.88	0.91	0.93	0.95	0.95	0.95
PUHY-EP700TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-EP750TSKA(-BS)	1.00	0.96	0.86	0.85	0.86	0.88	0.91	0.95	0.95	0.95	0.95
PUHY-EP800TSKA(-BS)	1.00	0.96	0.86	0.84	0.86	0.88	0.91	0.95	0.95	0.95	0.95
PUHY-EP850TSKA(-BS)	1.00	0.96	0.86	0.84	0.85	0.88	0.91	0.95	0.95	0.95	0.95
PUHY-EP900TSKA(-BS)	1.00	0.96	0.85	0.83	0.85	0.88	0.91	0.93	0.95	0.95	0.95
PUHY-EP950TSKA(-BS)	1.00	0.95	0.85	0.83	0.85	0.87	0.91	0.92	0.95	0.95	0.95
PUHY-EP1000TSKA(-BS)	1.00	0.97	0.87	0.85	0.87	0.89	0.91	0.94	0.95	0.95	0.95
PUHY-EP1050TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95
PUHY-EP1100TSKA(-BS)	1.00	0.98	0.89	0.87	0.89	0.90	0.92	0.95	0.95	0.95	0.95

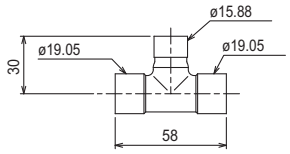
9-1. JOINT

CITY MULTI units can be easily connected by using Joint sets and Header sets provided by Mitsubishi Electric. Four 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.

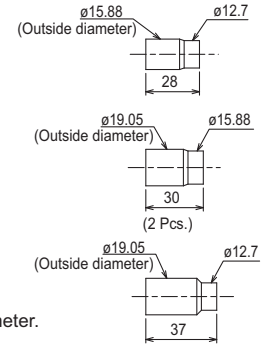
CMY-Y102SS-G2

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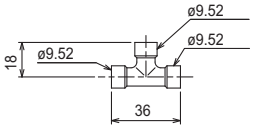
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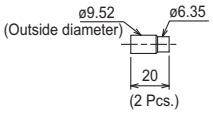
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For Liquid pipe:



<Deformed pipe(Accessory)>

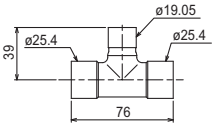


*Pipe diameter is indicated by inside diameter.

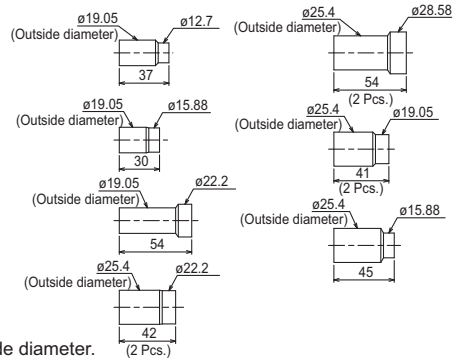
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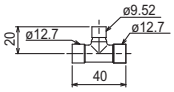
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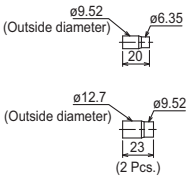
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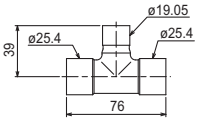


*Pipe diameter is indicated by inside diameter.

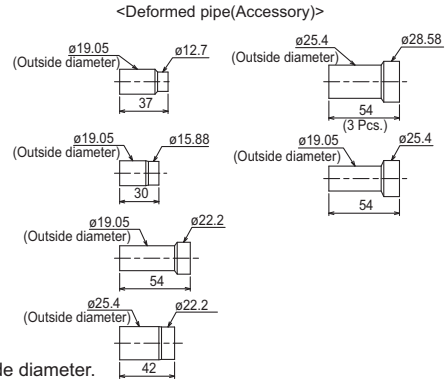
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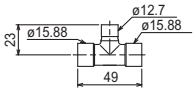
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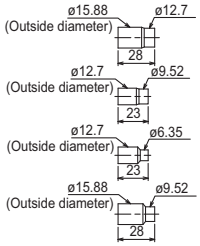
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For Liquid pipe:



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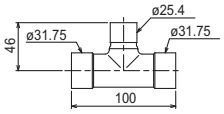


*Pipe diameter is indicated by inside diameter.

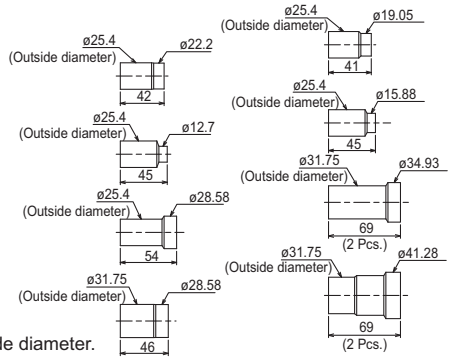
CMY-Y302S-G2

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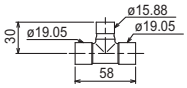
For Gas pipe:



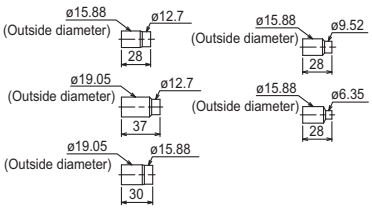
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For Liquid pipe:



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*Pipe diameter is indicated by inside diameter.

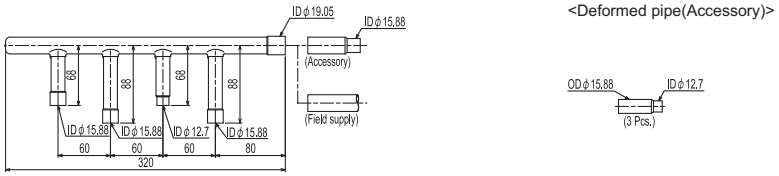
9-2. HEADER

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

CMY-Y104-G

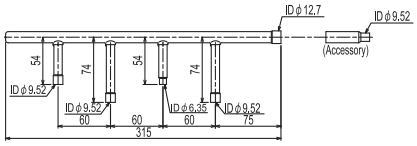
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For Gas pipe:

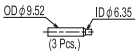


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For Liquid pipe:



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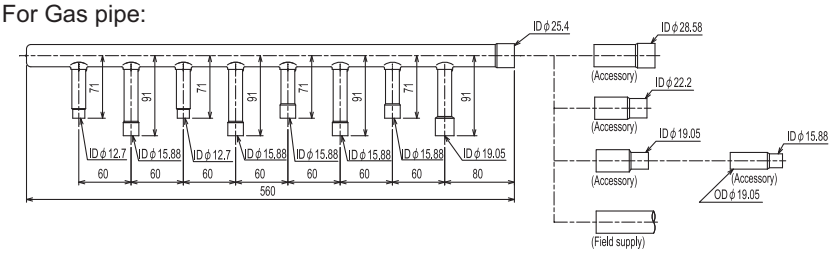
ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of ϕ6.35, ϕ9.52, ϕ12.7, ϕ15.88 (each diameter 1 piece) are included in the Header set.

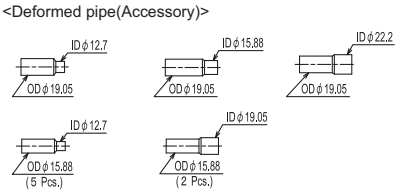
CMY-Y108-G

mm

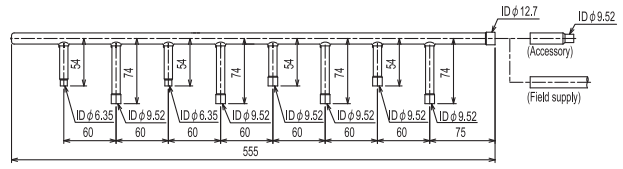
For Gas pipe:



<Deformed pipe(Accessory)>



For Liquid pipe:



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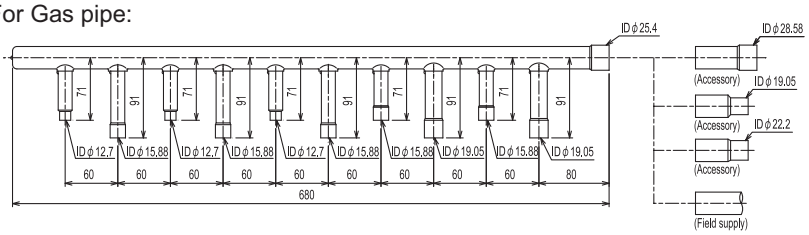
ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of ϕ6.35, ϕ9.52, ϕ12.7, ϕ15.88 (each diameter 2 pieces) and 1 cap for pipe of ϕ19.05 are included in the Header set.

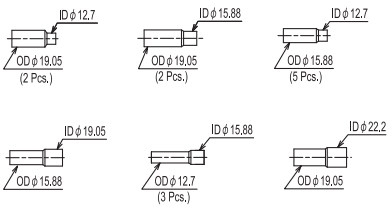
CMY-Y1010-G

mm

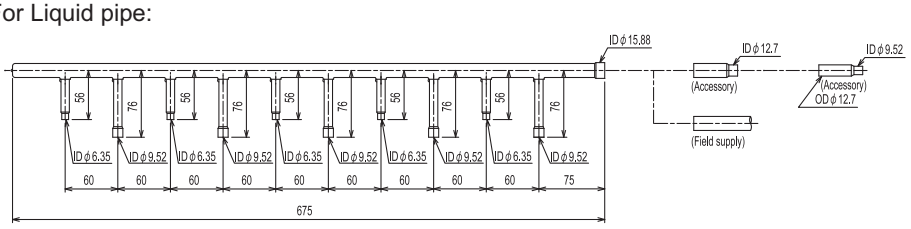
For Gas pipe:



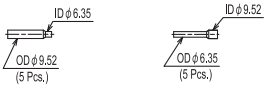
<Deformed pipe(Accessory)>



For Liquid pipe:



<Deformed pipe(Accessory)>



ID: Inner Diameter OD: Outer Diameter

NOTE: Besides above mentioned accessories, caps for pipe of ϕ6.35, ϕ9.52, ϕ12.7, ϕ15.88 (each diameter 2 pieces) and 1 cap for pipe of ϕ19.05 are included in the Header set.

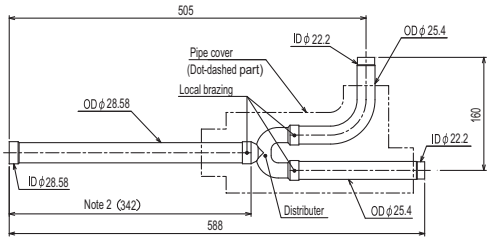
9-3. OUTDOOR TWINNING KIT

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.

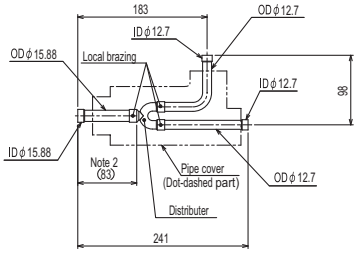
CMY-Y100VBK3

mm

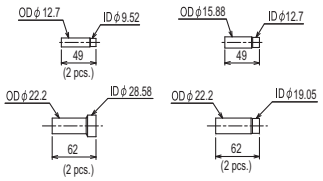
For Gas pipe:



For Liquid pipe:



<Deformed pipe(Accessory)>

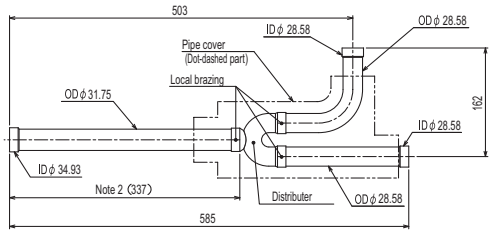


ID: Inner Diameter OD: Outer Diameter

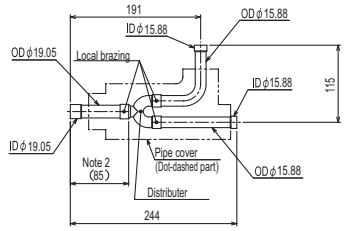
CMY-Y200VBK2

mm

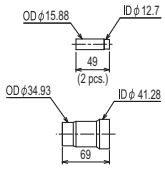
For Gas pipe:



For Liquid pipe:



<Deformed pipe(Accessory)>

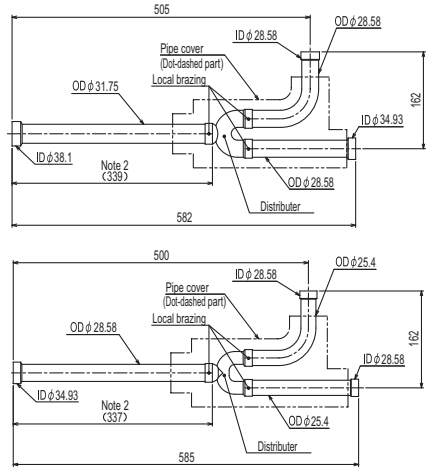


ID: Inner Diameter OD: Outer Diameter

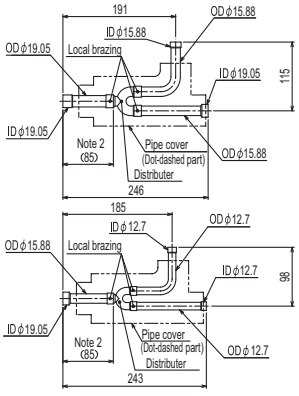
CMY-Y300VBK3

mm

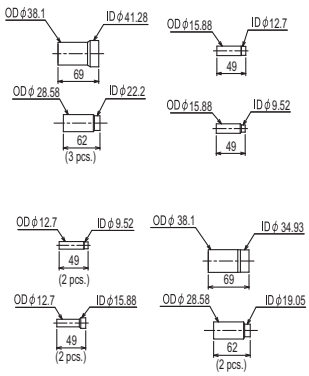
For Gas pipe:



For Liquid pipe:

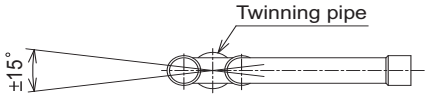


<Deformed pipe(Accessory)>



ID: Inner Diameter OD: Outer Diameter

Note 1. Refer to the figure below for the installation position of the twinning pipe.



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

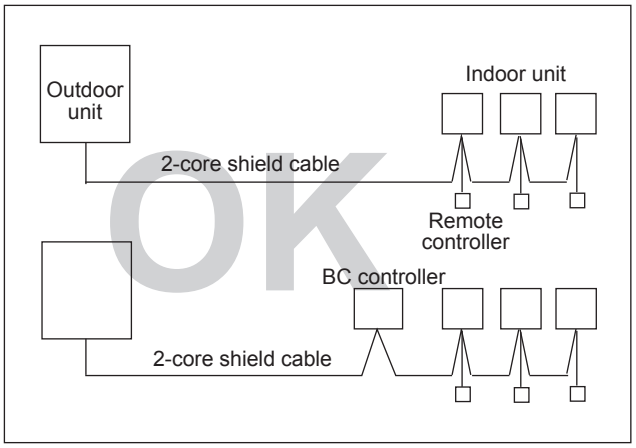
2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.
4. Only use the twinning pipe by Mitsubishi (optional parts).

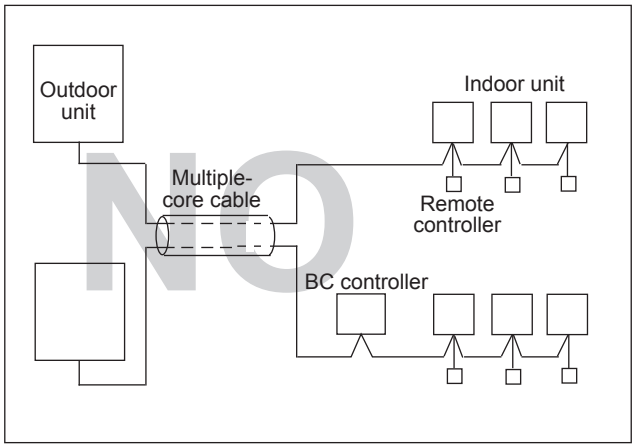
CITY MULTI
SYSTEM DESIGN Y SERIES

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1-1. General cautions

① Follow ordinance of your governmental organization for technical standard related to electrical equipment, wiring regulations, and guidance of each electric power company.
② Wiring for control (hereinafter referred to as transmission cable) shall be (50mm[1-5/8in.] or more) apart from power source wiring so that it is not influenced by electric noise from power source wiring. (Do not insert transmission cable and power source wire in the same conduit.)
③ Be sure to provide designated grounding work to outdoor unit.
④ Give some allowance to wiring for electrical part box of indoor and outdoor units, because the box is sometimes removed at the time of service work.
⑤ Never connect 208~230V power source to terminal block of transmission cable.
If connected,electrical parts will be damaged.
⑥ Use 2-core shield cable for transmission cable. If transmission cables of different systems are wired with the same multiple-core cable, the resultant poor transmitting and receiving will cause erroneous operations.
⑦ When extending the transmission line, make sure to extend the shield cable as well.





1-2. Power supply for Outdoor unit

1-2-1. Electrical characteristics of Outdoor unit

Symbols: MCA (Max Circuit Amps)
RLA (Rated Load Amps), SC (Starting Current)

PUHY-P-TKA	Unit Combination	Units			Power supply	Compressor		FAN	RLA(A)(50/60Hz)	
		Hz	Volts	Voltage range	MCA(A)	Output (kW)	SC(A)	Output (kW)	Cooling	Heating
PUHY-P200TKA(-BS)	-	50/60	208 220 230	Max: 253V Min: 187V	36.1	5.5	15	0.92	16.0/15.1/14.4	15.5/14.7/14.0
PUHY-P250TKA(-BS)	-				40.7	6.9	15	0.92	21.2/20.0/19.2	19.5/18.4/17.6
PUHY-P300TKA(-BS)	-				51.0	8.1	15	0.92	27.3/25.8/24.7	25.0/23.6/22.6
PUHY-P350TKA(-BS)	-				51.0	10.4	15	0.92	36.0/34.0/32.6	29.6/28.0/26.8
PUHY-P400TKA(-BS)	-				59.2	10.8	15	0.92	41.7/39.5/37.7	33.6/31.8/30.4
PUHY-P450TKA(-BS)	-				59.2	12.4	15	0.92	48.6/46.0/44.0	41.1/38.8/37.1
PUHY-P500TKA(-BS)	-				63.9	13.3	15	0.92+0.92	56.7/53.6/51.2	48.4/45.8/43.8
PUHY-P550TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	49.5/46.8/44.8	47.8/45.2/43.2
	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92		
PUHY-P600TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	56.0/53.0/50.7	51.5/48.6/46.5
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-P650TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	61.0/57.6/55.1	55.5/52.5/50.2
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
PUHY-P700TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	66.0/62.4/59.6	61.6/58.3/55.7
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P750TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	73.7/69.6/66.6	68.4/64.7/61.9
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P800TSKA(-BS)	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92	83.5/79.0/75.5	70.9/67.0/64.1
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
PUHY-P850TSKA(-BS)	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92	90.1/85.2/81.5	78.3/74.0/70.8
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P900TSKA(-BS)	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92	97.3/92.0/88.0	86.5/81.8/78.2
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P950TSKA(-BS)	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92	105.5/99.7/95.4	94.2/89.1/85.2
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
PUHY-P1000TSKA(-BS)	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92	113.4/107.2/102.5	102.1/96.6/92.4
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
PUHY-P1050TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	100.4/94.9/90.8	97.1/91.8/87.8
	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92		
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P1100TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	109.8/103.8/99.3	104.2/98.5/94.2
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P1150TSKA(-BS)	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92	119.6/113.1/108.2	109.5/103.5/99.0
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
PUHY-P1200TSKA(-BS)	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92	125.4/118.5/113.4	116.2/109.9/105.1
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
PUHY-P1250TSKA(-BS)	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92	132.9/125.7/120.2	124.4/117.6/112.5
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P1300TSKA(-BS)	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92	141.1/133.4/127.6	132.5/125.3/119.8
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P1350TSKA(-BS)	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92	150.0/141.8/135.6	142.3/134.5/128.7
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
PUHY-P1400TSKA(-BS)	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92	161.1/152.3/145.7	152.6/144.3/138.0
	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92		
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
PUHY-P1450TSKA(-BS)	PUHY-P450TKA(-BS)				59.2	12.4	15	0.92	172.1/162.7/155.7	161.8/153.0/146.4
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
PUHY-P1500TSKA(-BS)	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92	183.6/173.6/166.1	173.0/163.6/156.5
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		
	PUHY-P500TKA(-BS)				63.9	13.3	15	0.92+0.92		

Symbols: MCA (Max Circuit Amps)
RLA (Rated Load Amps), SC (Starting Current)

PUHY-EP-TSKA	Unit Combination	Units			Power supply	Compressor		FAN	RLA(A)(50/60Hz)	
		Hz	Volts	Voltage range	MCA(A)	Output (kW)	SC(A)	Output (kW)	Cooling	Heating
PUHY-EP400TSKA(-BS)	PUHY-P200TKA(-BS)	50/60	208 220 230	Max: 253V Min: 187V	36.1	5.5	15	0.92	32.0/30.2/28.9	32.8/31.0/29.7
	PUHY-P200TKA(-BS)				36.1	5.5	15	0.92		
PUHY-EP450TSKA(-BS)	PUHY-P200TKA(-BS)				36.1	5.5	15	0.92	37.1/35.1/33.6	37.0/34.9/33.4
	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92		
PUHY-EP500TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	42.5/40.2/38.4	41.2/38.9/37.2
	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92		
PUHY-EP650TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	62.9/59.5/56.9	57.6/54.5/52.1
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP700TSKA(-BS)	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92	72.1/68.2/65.2	62.4/59.0/56.4
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP750TSKA(-BS)	PUHY-P200TKA(-BS)				36.1	5.5	15	0.92	65.1/61.6/58.9	63.4/60.0/57.4
	PUHY-P200TKA(-BS)				36.1	5.5	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP800TSKA(-BS)	PUHY-P200TKA(-BS)				36.1	5.5	15	0.92	70.9/67.0/64.1	67.8/64.1/61.3
	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP850TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	77.1/72.8/69.7	72.0/68.0/65.1
	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP900TSKA(-BS)	PUHY-P250TKA(-BS)				40.7	6.9	15	0.92	83.4/78.9/75.4	77.8/73.5/70.3
	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP950TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	90.1/85.2/81.5	83.9/79.3/75.9
	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP1000TSKA(-BS)	PUHY-P300TKA(-BS)				51.0	8.1	15	0.92	98.8/93.4/89.4	88.8/83.9/80.3
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP1050TSKA(-BS)	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92	108.1/102.2/97.8	96.3/91.1/87.1
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
PUHY-EP1100TSKA(-BS)	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92	113.3/107.1/102.5	102.5/96.9/92.7
	PUHY-P350TKA(-BS)				51.0	10.4	15	0.92		
	PUHY-P400TKA(-BS)				59.2	10.8	15	0.92		

1-3. Power cable specifications

PUHY-P-TKA

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

	Model	Minimum wire thickness (mm^2)			Ground-fault interrupter *1	Local switch (A)		Breaker for wiring (A) (Non-fuse breaker)
		Main cable	Branch	Ground		Capacity	Fuse	
Outdoor unit	PUHY-P200TKA	10	-	10	40A 100mA 0.1sec. or less	60	40	40
	PUHY-P250TKA	16	-	16	50A 100mA 0.1sec. or less	60	50	50
	PUHY-P300TKA	16	-	16	60A 100mA 0.1sec. or less	60	60	60
	PUHY-P350TKA	25	-	25	60A 100mA 0.1sec. or less	60	60	60
	PUHY-P400TKA	25	-	25	75A 100mA 0.1sec. or less	75	75	75
	PUHY-P450TKA	35	-	35	75A 100mA 0.1sec. or less	75	75	75
	PUHY-P500TKA	35	-	35	75A 100mA 0.1sec. or less	75	75	75
Total operating current of the indoor unit	F0 = 16A or less *2	1.5	1.5	1.5	20A current sensitivity *3	16	16	20
	F0 = 25A or less *2	2.5	2.5	2.5	30A current sensitivity *3	25	25	30
	F0 = 32A or less *2	4.0	4.0	4.0	40A current sensitivity *3	32	32	40

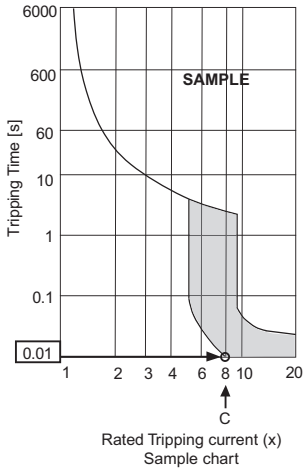
*1 The Ground-fault interrupter should support Inverter circuit.
The Ground-fault interrupter should combine using of local switch or wiring breaker.

*2 Please take the larger of F1 or F2 as the value for F0.
F1 = Total operating maximum current of the indoor units × 1.2
F2 = {V1 × (Quantity of Type1)/C} + {V1 × (Quantity of Type2)/C} + {V1 × (Quantity of Type3)/C} + {V1 × (Quantity of Others)/C}

Indoor unit		V1	V2
Type1	PLFY-VBM, PMFY-VBM, PEFY-VMS, PCFY-VKM, PKFY-VHM, PKFY-VKM, PFFY-VKM, PFFY-VLRMM	18.6	2.4
Type2	PEFY-VMA	38	1.6
Type3	PEFY-VMHS	13.8	4.8
Others	Other indoor unit	0	0

C: Multiple of tripping current at tripping time 0.01s
Please pick up "C" from the tripping characteristic of the breaker.

<Example of "F2" calculation>
*Condition PEFY-VMS × 4 + PEFY-VMA × 1, C = 8 (refer to right sample chart)
F2 = 18.6 × 4/8 + 38 × 1/8
= 14.05
→16 A breaker (Tripping current = 8 × 16 A at 0.01s)



*3 Current sensitivity is calculated using the following formula.
G1 = (V2 × Quantity of Type1) + (V2 × Quantity of Type2) + (V2 × Quantity of Type3) + (V2 × Quantity of Others) + (V3 × Wire length [km])

G1	Current sensitivity
30 or less	30 mA 0.1sec or less
100 or less	100 mA 0.1sec or less

Wire thickness	V3
1.5 mm^2	48
2.5 mm^2	56
4.0 mm^2	66

1. Use dedicated power supplies for the outdoor unit and indoor unit. Ensure OC and OS are wired individually.
2. Bear in mind ambient conditions (ambient temperature, direct sunlight, rain water, etc.) when proceeding with the wiring and connections.
3. The wire size is the minimum value for metal conduit wiring. If the voltage drops, use a wire that is one rank thicker in diameter. Make sure the power-supply voltage does not drop more than 10%. Make sure that the voltage imbalance between the phases is 2% or less.
4. Specific wiring requirements should adhere to the wiring regulations of the region.
5. Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord (design 60245 IEC57). For example, use wiring such as YZW.
6. A switch with at least 3 mm contact separation in each pole shall be provided by the Air conditioner installation.

⚠WARNING

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

⚠CAUTION

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

Note

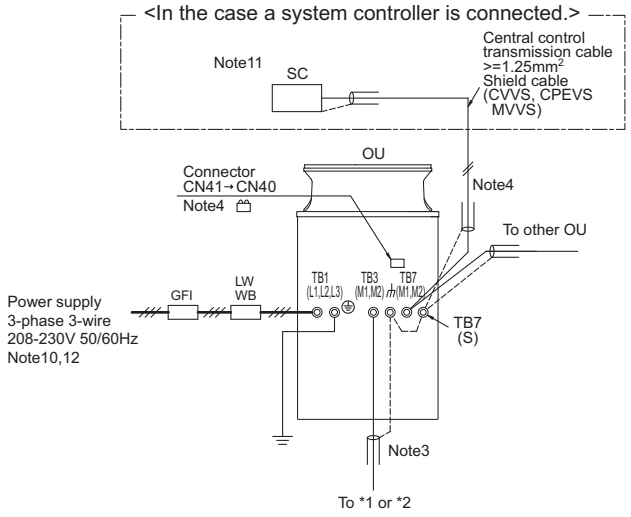
- This device is intended for the connection to a power supply system with a maximum permissible system impedance shown in the above table at the interface point (power service box) of the user's supply.
- The user must ensure that this device is connected only to a power supply system which fulfils the requirement above.
If necessary, the user can ask the public power supply company for the system impedance at the interface point.

S.D. Y

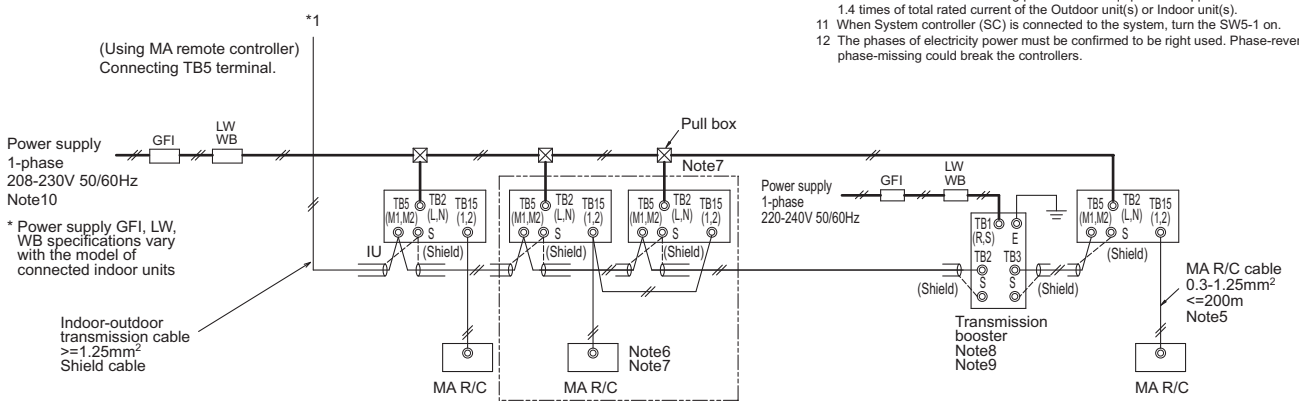
1-4. Power supply examples

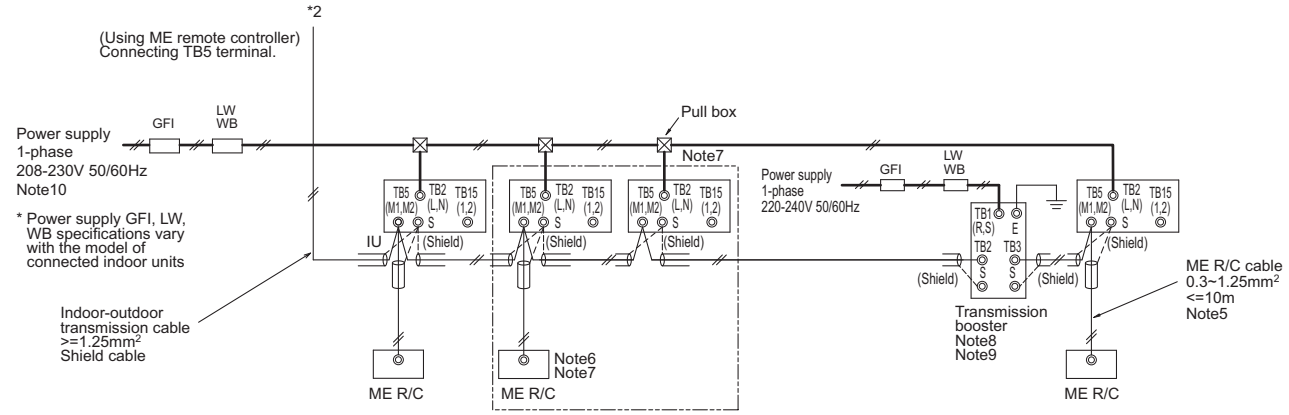
The local standards and/or regulations is applicable at a higher priority.

1-4-1. PUHY-P200, 250, 300, 350, 400, 450, 500TKA



Note:
1 The transmission cable is not-polarity double-wire.
2 Symbol ◎ means a screw terminal for wiring.
3 The shield wire of transmission cable should be connected to the grounding terminal at Outdoor unit. All shield wire of M-Net transmission cable among Indoor units should be connected to the S terminal at Indoor unit or all shield wire should be connected together. The broken line at the scheme means shield wire.
4 When the Outdoor unit connected with system controller, power-supply to TB7 of the outdoor unit(s) is needed. The connector change from CN41 to CN40 at one of the outdoor units will enable the outdoor unit to supply power to TB7, or an extra power supplying unit PAC-SC51KUA should be used. The transmission cable (above 1.25mm², shielded, CVVS/CPEVS/MVVS) among Outdoor units and system controllers is called central control transmission cable. The shield wire of the central control transmission cable must be grounded at the Outdoor unit whose CN41 is changed to CN40. When the power supplying unit PAC-SC51KUA is used, connect the shielded cable to the ground terminal on the PAC-SC51KUA.
5 MA R/C transmission cable (0.3-1.25mm²) must be less than 200m in length, while ME R/C transmission cable (0.3-1.25mm²) must be less than 10m in length. But transmission cable to the ME R/C can be extend using a M-NET cable (>=1.25mm²) when the length is counted in the M-Net length.
6 MA remote controller and ME remote controller should not be grouped together. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.
7 If using 1 or 2 (main/sub) MA remote controller to control more than 1 Indoor unit, use MA transmission cable to connect all the TB15 terminals of the Indoor units. It is called "Grouping".
If using 1 or 2 (main/sub) ME remote controller control more than 1 indoor unit, set address to Indoor unit and ME remote controller. For the method, refer to 2-4. "Address setting".
8 Indoor board consumes power from TB3. The power balance should be considered according to System Design 2-3 "System configuration restrictions".
9 If Transmission booster is needed, be sure to connect the shield wires to the both sides to the booster.
10 The critical current for choosing power source equipment is approximate 1.4 times of total rated current of the Outdoor unit(s) or Indoor unit(s).
11 When System controller (SC) is connected to the system, turn the SW5-1 on.
12 The phases of electricity power must be confirmed to be right used. Phase-reverse, or phase-missing could break the controllers.





Symbol	
GFI	Ground-fault interrupter
LW	Local switch
BKC	Breaker capacity
OCP	Over-current protector
WB	Wiring breaker
NFB	Non-fuse breaker
OU	Outdoor unit
IU	Indoor unit
SC	System controller
MA R/C	MA remote controller
ME R/C	ME remote controller

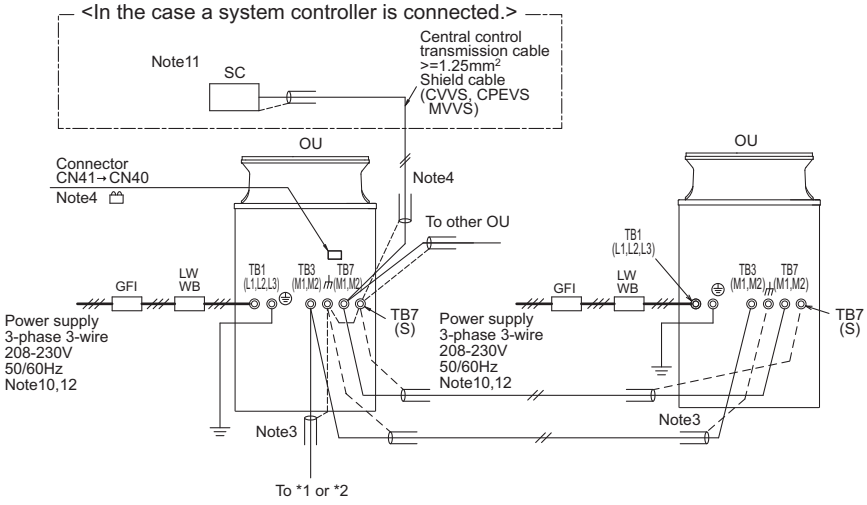
Model	Ground-fault interrupter *1, *2, *4	Local switch		Wiring breaker*4	Minimum Wire thickness	
		BKC <A>	OCP*3, *4 <A>	(NFB) <A>	Power wire <mm²>	Earth wire <mm²>
PUHY-P200TKA	40A 100mA 0.1sec. or less	60	40	40	10	10
PUHY-P250TKA	50A 100mA 0.1sec. or less	60	50	50	16	16
PUHY-P300TKA	60A 100mA 0.1sec. or less	60	60	60	16	16
PUHY-P350TKA	60A 100mA 0.1sec. or less	60	60	60	25	25
PUHY-P400TKA	75A 100mA 0.1sec. or less	75	75	75	25	25
PUHY-P450TKA	75A 100mA 0.1sec. or less	75	75	75	35	35
PUHY-P500TKA	75A 100mA 0.1sec. or less	75	75	75	35	35

*1 The Ground-fault interrupter should support Inverter circuit. (e.g. Mitsubishi Electric's NV-C series or equivalent).
*2 Ground-fault interrupter should combine using of local switch or wiring breaker.
*3 It shows data for B-type fuse of the breaker for current leakage.
*4 If a large electric current flows due to malfunction or faulty wiring, earth-leakage breakers on the unit side and on the centralized controller side may both operate.
Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.

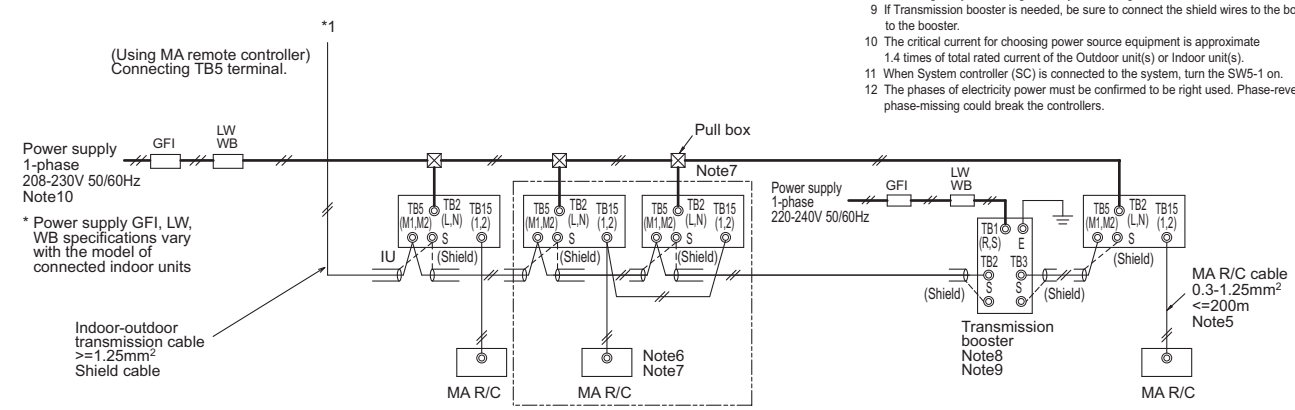
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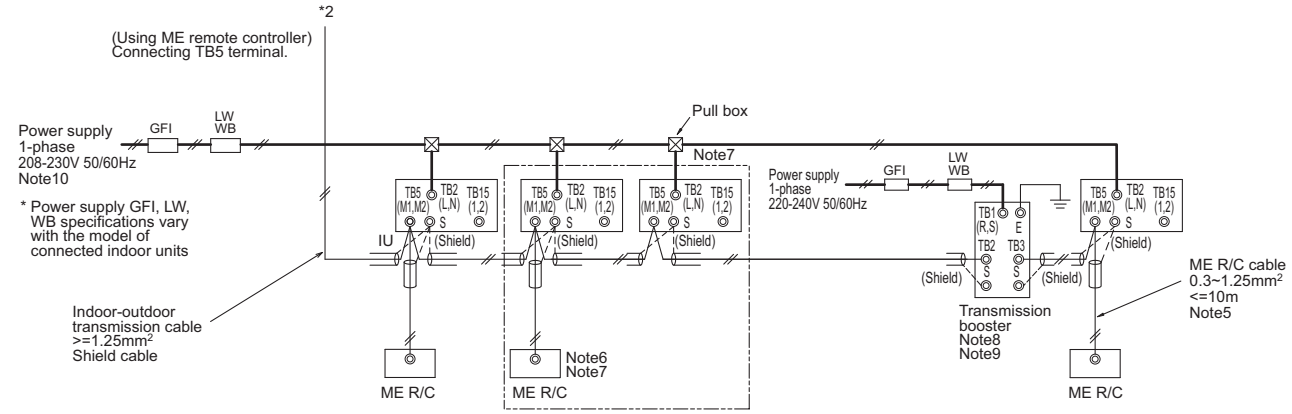
The local standards and/or regulations is applicable at a higher priority.

1-4-2. PUHY-P550, 600, 650, 700, 750, 800, 850, 900, 950, 1000TSKA
PUHY-EP400, 450, 500, 650, 700TSKA



Note:
1 The transmission cable is not-polarity double-wire.
2 Symbol ◎ means a screw terminal for wiring.
3 The shield wire of transmission cable should be connected to the grounding terminal at Outdoor unit. All shield wire of M-Net transmission cable among Indoor units should be connected to the S terminal at Indoor unit or all shield wire should be connected together. The broken line at the scheme means shield wire.
4 When the Outdoor unit connected with system controller, power-supply to TB7 of the outdoor unit(s) is needed. The connector change from CN41 to CN40 at one of the outdoor units will enable the outdoor unit to supply power to TB7, or an extra power supplying unit PAC-SC51KUA should be used. The transmission cable (above 1.25mm2, shielded, CVVS/CPEVS/MVVS) among Outdoor units and system controllers is called central control transmission cable. The shield wire of the central control transmission cable must be grounded at the Outdoor unit whose CN41 is changed to CN40. When the power supplying unit PAC-SC51KUA is used, connect the shielded cable to the ground terminal on the PAC-SC51KUA.
5 MA R/C transmission cable (0.3-1.25mm2) must be less than 200m in length, while ME R/C transmission cable (0.3-1.25mm2) must be less than 10m in length. But transmission cable to the ME R/C can be extend using a M-NET cable (>=1.25mm2) when the length is counted in the M-Net length.
6 MA remote controller and ME remote controller should not be grouped together. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.
7 If using 1 or 2 (main/sub) MA remote controller to control more than 1 Indoor unit, use MA transmission cable to connect all the TB15 terminals of the Indoor units. It is called "Grouping".
If using 1 or 2 (main/sub) ME remote controller control more than 1 indoor unit, set address to Indoor unit and ME remote controller. For the method, refer to 2-4. "Address setting".
8 Indoor board consumes power from TB3. The power balance should be considered according to System Design 2-3 "System configuration restrictions".
9 If Transmission booster is needed, be sure to connect the shield wires to the both sides to the booster.
10 The critical current for choosing power source equipment is approximate 1.4 times of total rated current of the Outdoor unit(s) or Indoor unit(s).
11 When System controller (SC) is connected to the system, turn the SW5-1 on.
12 The phases of electricity power must be confirmed to be right used. Phase-reverse, or phase-missing could break the controllers.





Symbol	
GFI	Ground-fault interrupter
LW	Local switch
BKC	Breaker capacity
OCP	Over-current protector
WB	Wiring breaker
NFB	Non-fuse breaker
OU	Outdoor unit
IU	Indoor unit
SC	System controller
MA R/C	MA remote controller
ME R/C	ME remote controller

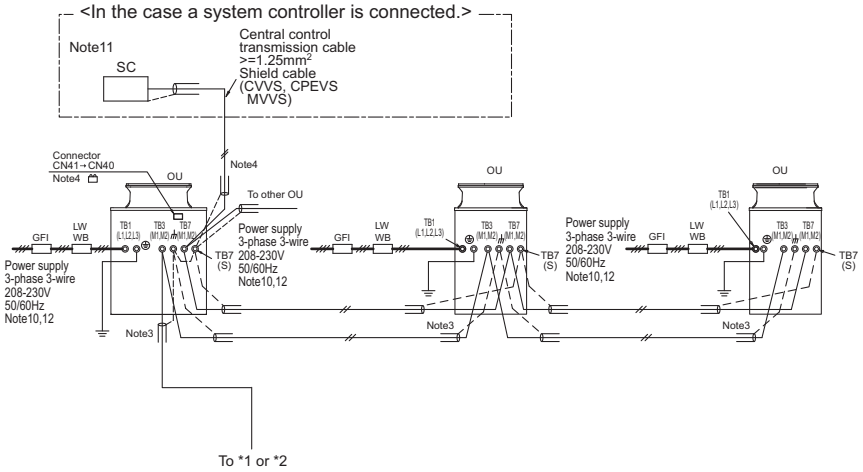
Model	Ground-fault interrupter *1, *2, *4	Local switch BKC <A>	Local switch OCP*3, *4 <A>	Wiring breaker*4 (NFB) <A>	Minimum Wire thickness Power wire <mm2>	Minimum Wire thickness Earth wire <mm2>
PUHY-P200TKA	40A 100mA 0.1sec. or less	60	40	40	10	10
PUHY-P250TKA	50A 100mA 0.1sec. or less	60	50	50	16	16
PUHY-P300TKA	60A 100mA 0.1sec. or less	60	60	60	16	16
PUHY-P350TKA	60A 100mA 0.1sec. or less	60	60	60	25	25
PUHY-P400TKA	75A 100mA 0.1sec. or less	75	75	75	25	25
PUHY-P450TKA	75A 100mA 0.1sec. or less	75	75	75	35	35
PUHY-P500TKA	75A 100mA 0.1sec. or less	75	75	75	35	35

*1 The Ground-fault interrupter should support Inverter circuit. (e.g. Mitsubishi Electric's NV-C series or equivalent).
*2 Ground-fault interrupter should combine using of local switch or wiring breaker.
*3 It shows data for B-type fuse of the breaker for current leakage.
*4 If a large electric current flows due to malfunction or faulty wiring, earth-leakage breakers on the unit side and on the centralized controller side may both operate.
Depending on the importance of the system, separate the power supply system or take protective coordination of breakers.

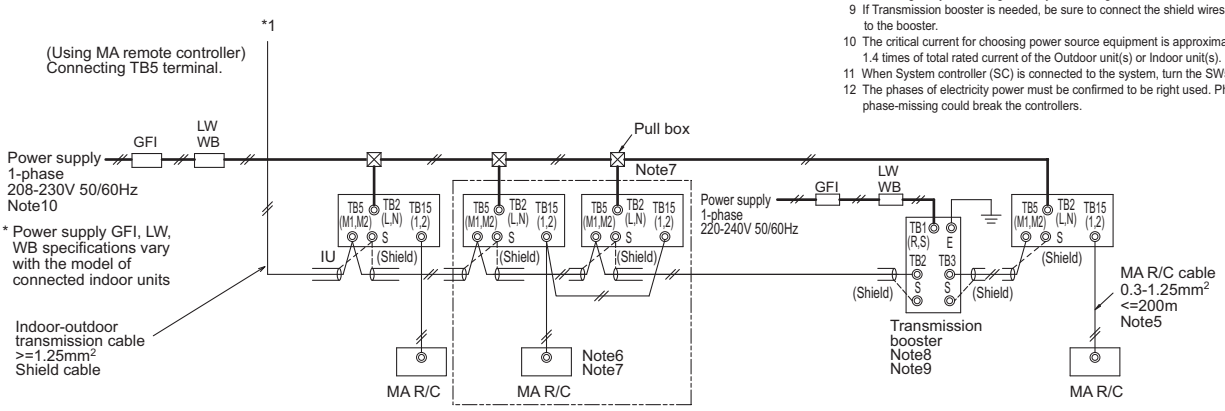
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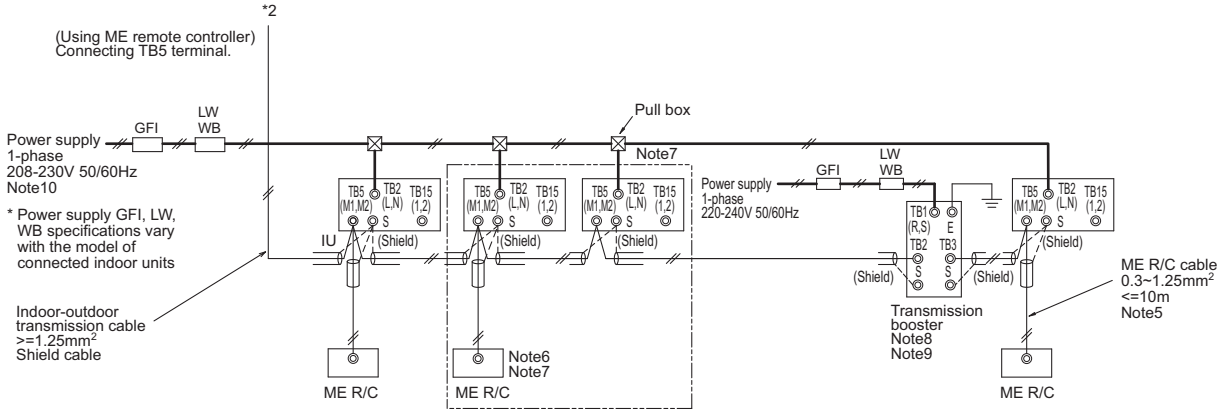
The local standards and/or regulations is applicable at a higher priority.

1-4-3. PUHY-P1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500TSKA
PUHY-EP750, 800, 850, 900, 950, 1000, 1050, 1100TSKA



Note:
1 The transmission cable is not-polarity double-wire.
2 Symbol ◎ means a screw terminal for wiring.
3 The shield wire of transmission cable should be connected to the grounding terminal at Outdoor unit. All shield wire of M-Net transmission cable among Indoor units should be connected to the S terminal at Indoor unit or all shield wire should be connected together. The broken line at the scheme means shield wire.
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5 MA R/C transmission cable (0.3-1.25mm²) must be less than 200m in length, while ME R/C transmission cable (0.3-1.25mm²) must be less than 10m in length. But transmission cable to the ME R/C can be extend using a M-NET cable (>=1.25mm²) when the length is counted in the M-Net length.
6 MA remote controller and ME remote controller should not be grouped together. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.
7 If using 1 or 2 (main/sub) MA remote controller to control more than 1 Indoor unit, use MA transmission cable to connect all the TB15 terminals of the Indoor units. It is called "Grouping".
If using 1 or 2 (main/sub) ME remote controller control more than 1 indoor unit, set address to Indoor unit and ME remote controller. For the method, refer to 2-4. "Address setting".
8 Indoor board consumes power from TB3. The power balance should be considered according to System Design 2-3 "System configuration restrictions".
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Symbol	
GFI	Ground-fault interrupter
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WB	Wiring breaker
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OU	Outdoor unit
IU	Indoor unit
SC	System controller
MA R/C	MA remote controller
ME R/C	ME remote controller

Model	Ground-fault interrupter *1, *2, *4	Local switch BKC <A>	Local switch OCP*3, *4 <A>	Wiring breaker*4 (NFB) <A>	Minimum Wire thickness Power wire <mm²>	Minimum Wire thickness Earth wire <mm²>
PUHY-P200TKA	40A 100mA 0.1sec. or less	60	40	40	10	10
PUHY-P250TKA	50A 100mA 0.1sec. or less	60	50	50	16	16
PUHY-P300TKA	60A 100mA 0.1sec. or less	60	60	60	16	16
PUHY-P350TKA	60A 100mA 0.1sec. or less	60	60	60	25	25
PUHY-P400TKA	75A 100mA 0.1sec. or less	75	75	75	25	25
PUHY-P450TKA	75A 100mA 0.1sec. or less	75	75	75	35	35
PUHY-P500TKA	75A 100mA 0.1sec. or less	75	75	75	35	35

*1 The Ground-fault interrupter should support Inverter circuit. (e.g. Mitsubishi Electric's NV-C series or equivalent).
*2 Ground-fault interrupter should combine using of local switch or wiring breaker.
*3 It shows data for B-type fuse of the breaker for current leakage.
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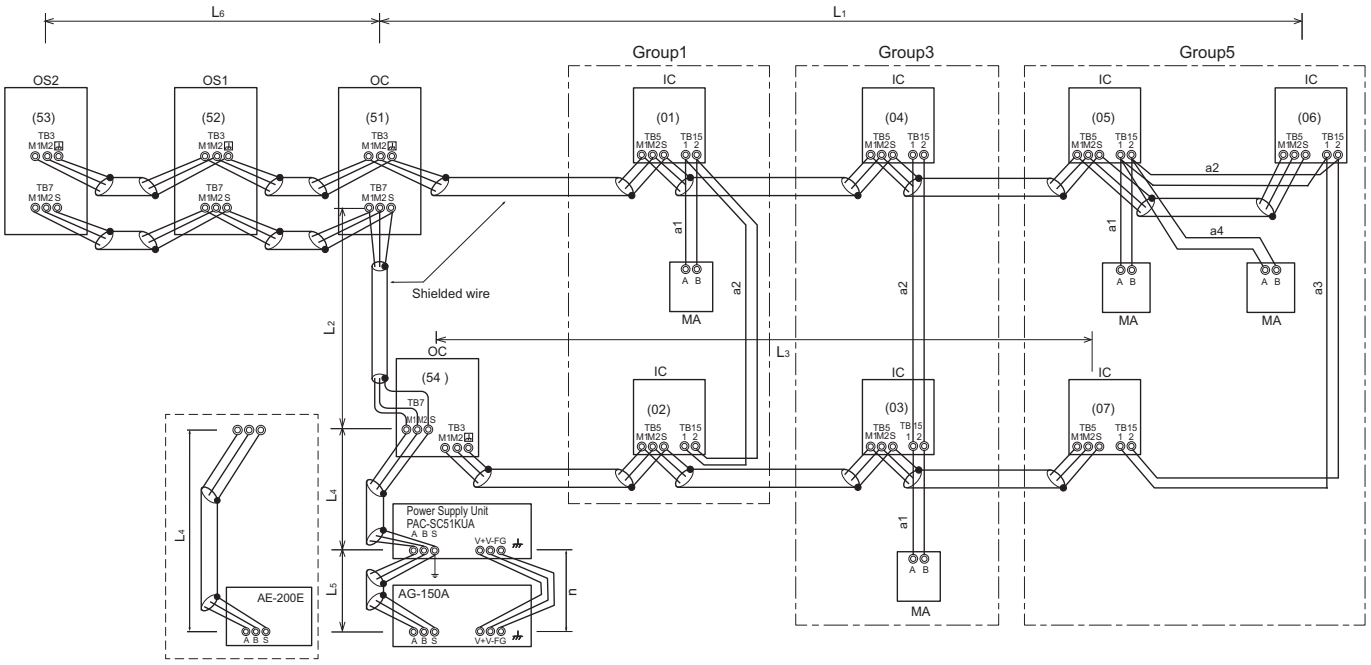
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2-1. Transmission cable length limitation

2-1-1. Using MA Remote controller

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

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



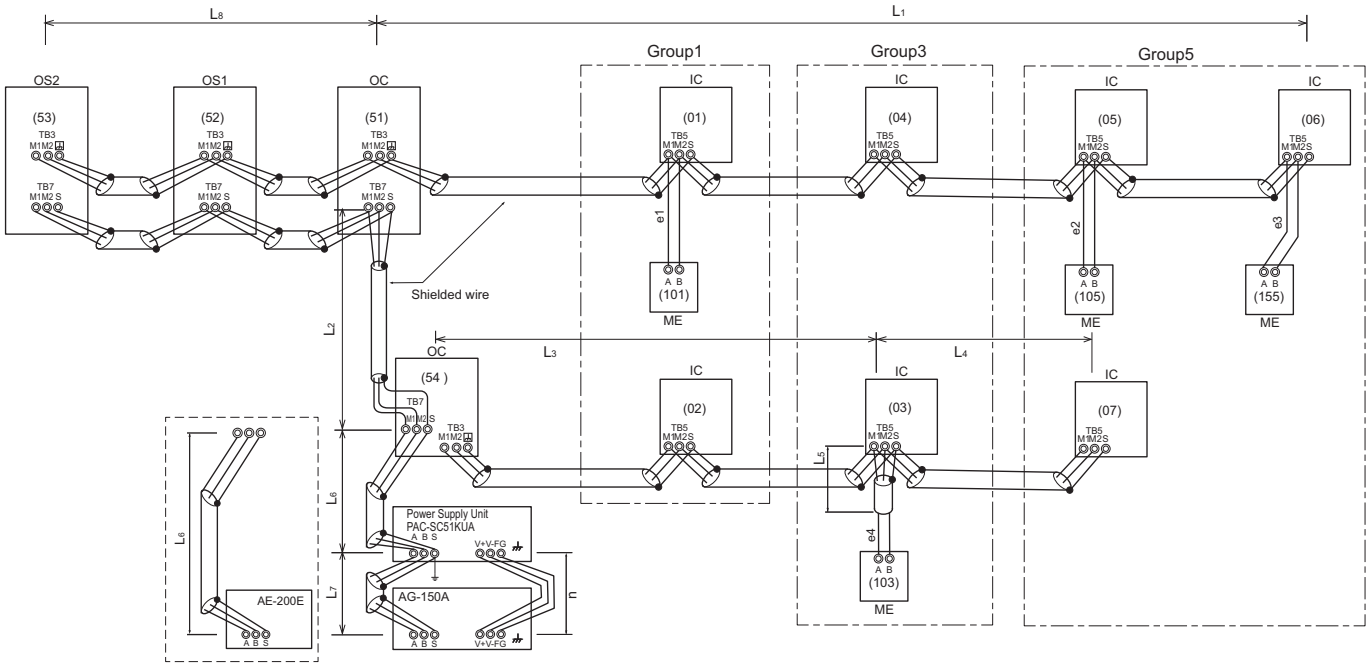
OC, OS1, OS2 : Outdoor unit controller; IC: Indoor unit controller; MA: MA remote controller

2-1-2. Using ME Remote controller

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

Max. length via Outdoor (M-NET cable)	L1+L2+L3+L4, L1+L2+L6+L7,L1+L2+L3+L5, L3+L4+L6+L7, L8+L2+L3+L4, L8+L2+L3+L5, L8+L2+L6+L7	<=500m[1640ft.]	1.25mm^2 [AWG16] or thicker
Max. length to Outdoor (M-NET cable)	L1+L8, L3+L4, L2+L6+L8, L7, L3+L5	<=200m[656ft.]	1.25mm^2 [AWG16] or thicker
Max. length from ME to Indoor	e1, e2+e3, e4	<=10m[32ft.]*1	0.3-1.25 mm^2 [AWG22-16] *1
24VDC to AG-150A	n	<=50m[164ft.]	0.75-2.0 mm^2 [AWG18-14]

*1. If the length from ME to Indoor exceed 10m, use 1.25 mm^2 [AWG16] shielded cable, but the total length should be counted into Max. length via Outdoor.



OC, OS1, OS2: Outdoor unit controller; IC: Indoor unit controller; ME: ME remote controller

2-2. Transmission cable specifications

	Transmission cables (L_i)	M-NET remote controller cables (e_i)	MA Remote controller cables (a_i)
Type of cable	Shielding wire (2-core) CVVS, CPEVS or MVVS	Sheathed 2-core cable (unshielded) CVV	
Cable size	More than 1.25 mm^2 [AWG16]	0.3 ~ 1.25 mm^2 [AWG22~16]	0.3 ~ 1.25 mm^2 [AWG22 ~16]*1
Remarks	Max length: within 200 m	When 10 m [32ft] is exceeded, use cables with the same specification as transmission cables.	Max length: 200 m [656ft]

*1 To wire PAR-3X MAA series (X indicates 1, 2…) and Simple MA remote controller use a wire with a diameter of 0.3 mm^2 [AWG22]

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

2-3. System configuration restrictions

2-3-1. Common restrictions for the CITYMULTI system

For each Outdoor/Heat source unit, the maximum connectable quantity of Indoor unit is specified at its Specifications table.

A) 1 Group of Indoor units can have 1-16 Indoor units;
*OA processing unit GUF-RD(H) is considered as Indoor unit.

B) Maximum 2 remote controllers for 1 Group;
*MA/ME remote controllers cannot be present together in 1group.
*When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

C) 1 LOSSNAY unit can interlock maximum 16 Indoor units; 1 Indoor unit can interlock only 1 LOSSNAY unit.

D) Maximum 3 System controllers are connectable when connecting to TB3 of the Outdoor/Heat source unit.

E) 4 System controllers or more are connectable when connecting to TB7 of the Outdoor/Heat source unit, if the transmission power is supplied by the power supply unit PAC-SC51KUA. Details refer to 2-3-3-C.
*System controller connected as described in D) and E) would have a risk that the failure of connected Outdoor/Heat source unit would stop power supply to the System controller.

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

In order to ensure proper communication among Outdoor/Heat source unit, Indoor unit, LOSSNAY, OA processing unit GUF-RD(H), and Controllers, the transmission power situation for the M-NET should be observed. In some cases, Transmission booster should be used. Taking the power consumption of Indoor unit sized P15-P140 as 1, the equivalent power consumption or supply of others are listed at Table 1 and Table 2.
Both the transmission line for centralized controller and indoor-outdoor transmission line must meet the conditions listed below. (Both conditions a) and b) must be met.)

a) [Total equivalent power consumption] ≤ [The equivalent power supply]
b) [Total equivalent number of units] ≤ [40]

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

Category	Model	The equivalent power consumption	The equivalent number of units
Indoor, OA unit CITY MULTI connection kit	Sized P15-P140 GUF-50, 100 PAC-LV11M-J	1	1
Indoor unit Air handling unit controller	Sized P200, P250 PAC-AH125, 140, 250, 500M-J	2	2
Indoor unit	Sized P400, P500	3	1
BC controller	CMB	2	1
PWFY	P100VM-E-BU	6	1
	EP100VM-E1-AU EP100VM-E2-AU	1	1
PFAV	P250, 300, 500, 600VM-E(-F)	1	2
	P750, 900VM-E(-F)	2	4
PFV PEV	P200, 250, 400, 500YM-A	2	1
MA remote controller/LOSSNAY	PAR-31MAAE PAC-YT52CRA PAR-FA32MA LGH-RX5-E PZ-60DR-E PZ-43SMF-E	0	0
ME remote controller	PAR-U02MEDA PAC-IF01AHC-J	0.5	1
System controller	AE-200E AE-50E EW-50E	0	0
	AG-150A EB-50GU-J	0.5	1
	AT-50B	1.5	5
	PAC-YG60MCA PAC-YG66DCA PAC-YG63MCA	0.25	1
ON/OFF controller	PAC-YT40ANRA	1	1
MN converter	CMS-MNG-E	2	1
Outdoor/Heat source unit	TB7 power consumption	0	0
M-NET adapter	MAC-333IF-E PAC-SF83MA-E	0	0

Table 2 The equivalent power supply

Category	Model	The equivalent power supply
Transmission Booster	PAC-SF46EPA	25
Power supply unit	PAC-SC51KUA	5
Expansion controller	PAC-YG50ECA	6
BM ADAPTER	BAC-HD150	6
System controller	AE-200E/AE-50E	0 *1
	EW-50E	1.5 *1
Outdoor/Heat source unit	Connector TB3 and TB7 total *	32 (except S series)/12 (S series)
	Connector TB7 only	6 (except S series and TKA)
	Connector TB7 only (TKA)	0

*If PAC-SC51KUA is used to supply power at TB7 side, no power supply need from Outdoor/Heat source unit at TB7, Connector TB3 itself will therefore have 32. Not applicable to the PUMY model.

*1 AE-200E/AE-50E/EW-50E has a built-in function to supply power to the M-NET transmission line. The amount of power that an AE-200E or an AE-50E can supply is equivalent to the power required by an MN converter (CMS-MNG-E) that is used for maintenance. An MN converter is connectable to EW-50E only when the equivalent power consumption is less than 1.5.

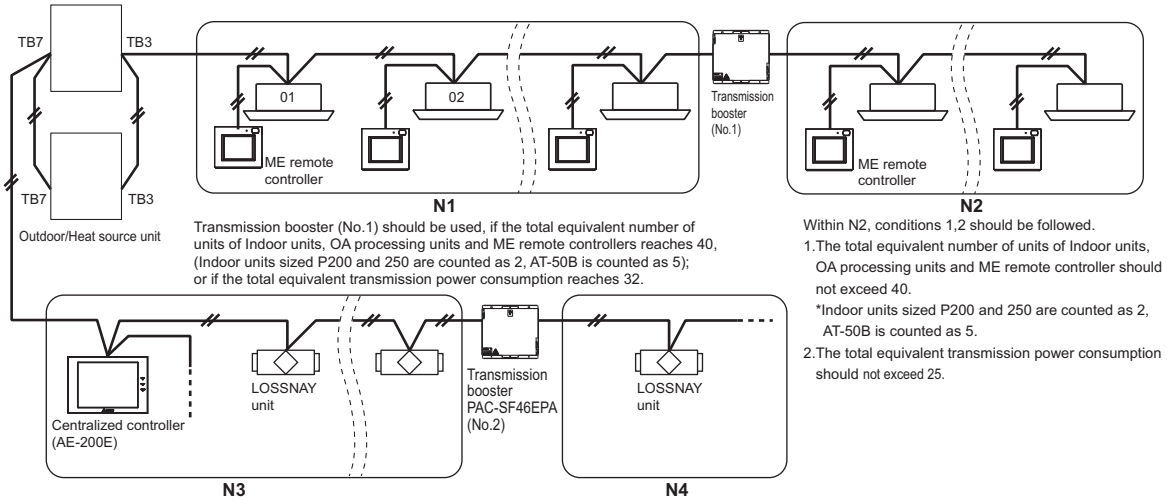
With the equivalent power consumption values and the equivalent number of units in Table 1 and Table 2, PAC-SF46EPA can be designed into the air-conditioner system to ensure proper system communication according to (A), (B), (C).

(A) Firstly, count from TB3 at TB3 side the total equivalent number of units of Indoor units, OA processing units, ME remote controller, and System controllers. If the total equivalent number of units reaches 40, a PAC-SF46EPA should be set. In this case, Indoor units sized P200 and 250 are counted as 2, AT-50B is counted as 5, but MA remote controller(s), PZ-60DR-E, and PZ-43SMF-E are NOT counted.

(B) Secondly, count from TB7 side to TB3 side the total transmission power consumption. If the total power consumption reaches 32, a PAC-SF46EPA should be set. Yet, if a PAC-SC51KUA or another controller with a built-in power supply, such as PAC-YG50ECA, is used to supply power at TB7 side, count from TB3 side only.

(C) Thirdly, count from TB7 at TB7 side the total transmission power consumption, If the total power consumption reaches 6, a PAC-SF46EPA should be set. Also, count from TB7 at TB7 side the total equivalent number of units of System controllers, and so on. If the total equivalent number of units reaches 40, a PAC-SF46EPA should be set.

■ System example



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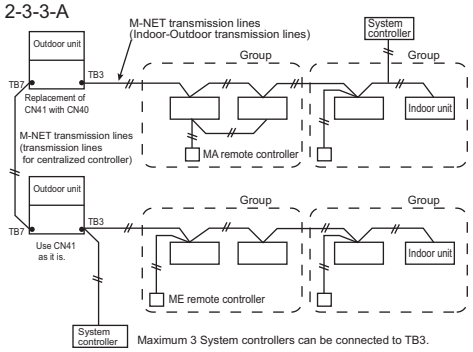
2-3-3. Ensuring proper power supply to System controller

The power to System controller (excluding AE-200E, AE-50E, EW-50E, BAC-HD150, LM-AP) is supplied via M-NET transmission line. M-NET transmission line at TB7 side is called Centralized control transmission line while one at TB3 side is called Indoor-Outdoor transmission line.
There are 3 ways to supply power to the System controller .
A) Connecting to TB3 of the Outdoor unit and receiving power from the Outdoor unit.
B) Connecting to TB7 of the Outdoor unit and receiving power from the Outdoor unit.
C) Connecting to TB7 of the Outdoor unit but receiving power from power supply unit PAC-SC51KUA.
* System controllers (AE-200E, AE-50E, EW-50E, BAC-HD150, LM-AP) have a built-in function to supply power to the M-NET transmission lines, so no power needs to be supplied to the M-NET transmission lines from the outdoor units or from PAC-SC51KUA.

2-3-3-A. When connecting to TB3 of the Outdoor unit and receiving power from the Outdoor unit.

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

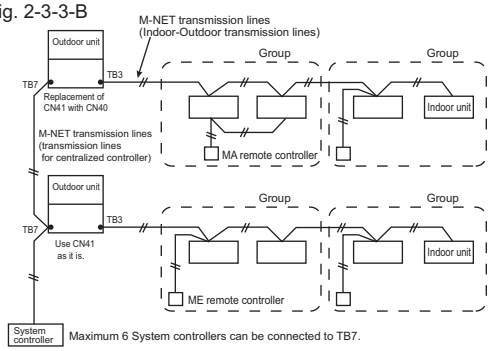
Fig. 2-3-3-A



2-3-3-B. When connecting to TB7 of the Outdoor unit and receiving power from the Outdoor unit.

Maximum 6 System controllers can be connected to TB7 and receiving power from the Outdoor unit.
It is necessary to replace power supply switch connector CN41 with CN40 on one Outdoor unit.
* An error code may appear when the power to the outdoor unit is turned off.

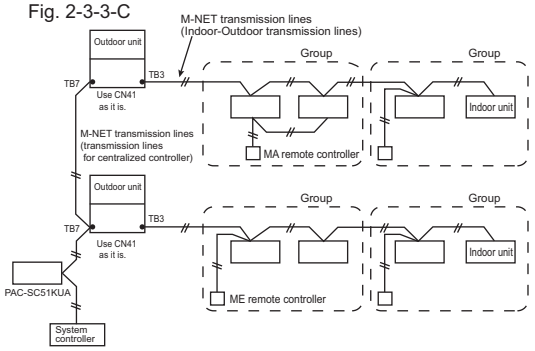
Fig. 2-3-3-B



2-3-3-C. When connecting to TB7 of the Outdoor unit but receiving power from PAC-SC51KUA.

When using PAC-SC51KUA to supply transmission power, the power supply connector CN41 on the Outdoor units should be kept as it is. It is also a factory setting.
1 PAC-SC51KUA supports maximum 1 AG-150A unit due to the limited power 24VDC at its TB3.
However, 1 PAC-SC51KUA supplies transmission power at its TB2 equal to 5 Indoor units, which is referable at Table 2-3-2.
If PZ-52SF-E, System controller, ON/OFF controller connected to TB7 consume transmission power more than 5 (Indoor units), Transmission booster PAC-SF46EPA is needed. PAC-SF46EPA supplies transmission power equal to 25 Indoor units.

Fig. 2-3-3-C

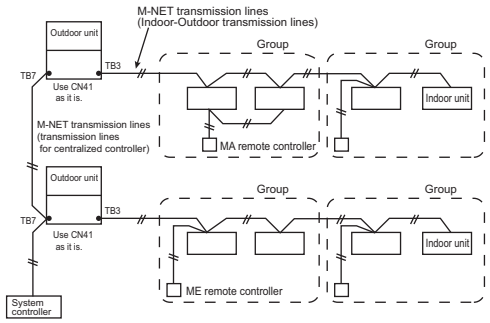


⚠ CAUTION

■AG-150A*1 is recommended to connect to TB7 because it performs back-up to a number of data.
In an air conditioner system has more than 1 Outdoor units, AG-150A receiving transmission power through TB7 on one of the Outdoor units would have a risk that the connected Outdoor unit failure would stop power supply to AG-150A, and disrupt the whole system.
When applying apportioned electric power function, AG-150A is necessary to connected to TB7 and has its own power supply unit PAC-SC51KUA.*2
*1: AG-150A is an example model of system controllers.
*2: Power supply unit PAC-SC51KUA is for AG-150A.

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

Fig. 2-3-3-D



2-3-4. Power supply to LM-AP

1-phase 208-230VAC power supply is needed.
The power supply unit PAC-SC51KUA is not necessary when connecting only the LM-AP. Yet, make sure to change the power supply changeover connector CN41 to CN40 on the LM-AP.

2-3-5. Power supply to expansion controller

1-phase 100-240VAC power supply is needed.
The power supply unit PAC-SC51KUA is not necessary.
The expansion controller supplies power through TB3, which equals 6 indoor units. (refer to Table 2)

2-3-6. Power supply to BM ADAPTER

1-phase 100-240VAC power supply is needed.
The power supply unit PAC-SC51KUA is not necessary when only BM ADAPTER is connected.
Yet, make sure to move the power jumper from CN41 to CN40 on the BM ADAPTER.

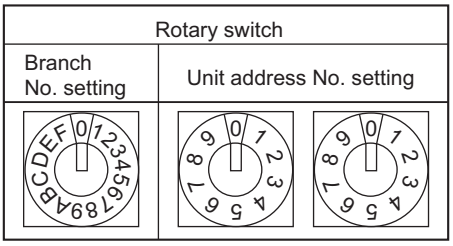
2-3-7. Power supply to AE-200E/AE-50E/EW-50E

1-phase 100-240VAC power supply is needed.
The power supply unit PAC-SC51KUA is not necessary when connecting only the AE-200E/AE-50E/EW-50E.

2-4. Address setting

2-4-1. Switch operation

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



① Address No. of outdoor unit, indoor unit and remote controller.
The address No. is set at the address setting board.

② Caution for switch operations

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

③ MA remote controller

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

PAR-3X MAA series (X indicates 1, 2…)
The MA remote controller does not have the switches listed above.
Refer to the installation manual for the function setting.

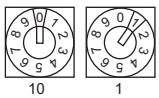
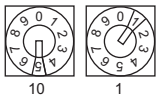
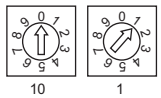
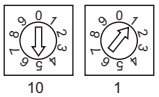
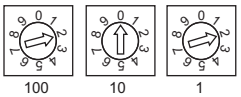
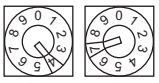
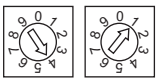
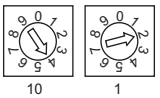
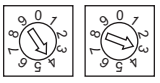
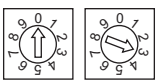
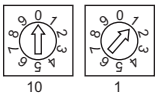
PAC-YT52CRA

Setting the dip switches

There are switches on the back of the top case. Remote controller Main/Sub and other function settings are performed using these switches. Ordinarily, only change the Main/Sub setting of SW1.
(The factory settings are ON for SW1, 2, and 3 and OFF for SW4.)

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

2-4-2. Rule of setting address

Unit		Address setting	Example	Note
Indoor unit System control interface (MAC-333IF-E) A-M converter (PAC-SF83MA-E) Air handling unit controller (PAC-AH125, 140, 250, 500M-J) CITY MULTI connection Kit (PAC-LV11M-J)		01 ~ 50		Use the most recent address within the same group of indoor units.
Outdoor unit		51 ~ 99, 100 (Note1)		The smallest address of indoor unit in same refrigerant system + 50 Assign sequential address numbers to the outdoor units in one refrigerant circuit system. OC, OS1 and OS2 are automatically detected. (Note 2) * Please reset one of them to an address between 51 and 99 when two addresses overlap. * The address automatically becomes "100" if it is set as "01~ 50"
Local remote controller	ME remote controller (Main)	101 ~ 150	1 Fixed 	The smallest address of indoor unit in the group + 100 ∗The place of "100" is fixed to "1"
	ME remote controller (Sub)	151 ~ 199, 200	1 Fixed 	The address of main remote controller + 50 ∗The address automatically becomes "200" if it is set as "00"
System controller	ON/OFF remote controller	201 ~ 250		The smallest group No. to be managed + 200 ∗The smallest group No. to be managed is changeable.
	AE-200E/AE-50E EW-50E AG-150A EB-50GU-J AT-50B	000, 201 ~ 250	0,2 0~5 0~9 100 10 1	∗AT-50B cannot be set to "000".
	PAC-YG50ECA	000, 201 ~ 250	0,2 0~5 0~9 100 10 1	∗Settings are made on the initial screen of AG-150A.
	BAC-HD150	000, 201 ~ 250	0,2 0~5 0~9 100 10 1	∗Settings are made with setting tool of BM ADAPTER.
	LMAP04-E	201 ~ 250	2 Fixed 	
PI, AI, DIDO	PAC-YG60MCA	01 ~ 50		
	PAC-YG63MCA	01 ~ 50		
	PAC-YG66DCA	01 ~ 50		
Lossnay, OA processing unit		01 ~ 50		After setting the addresses of all the indoor units, assign an arbitrary address.
PAC-IF01AHC		201 ~ 250	2 Fixed 	

Note1: To set the address to "100", set it to "50"
Note2: Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.

2-4-3. System examples

Factory setting

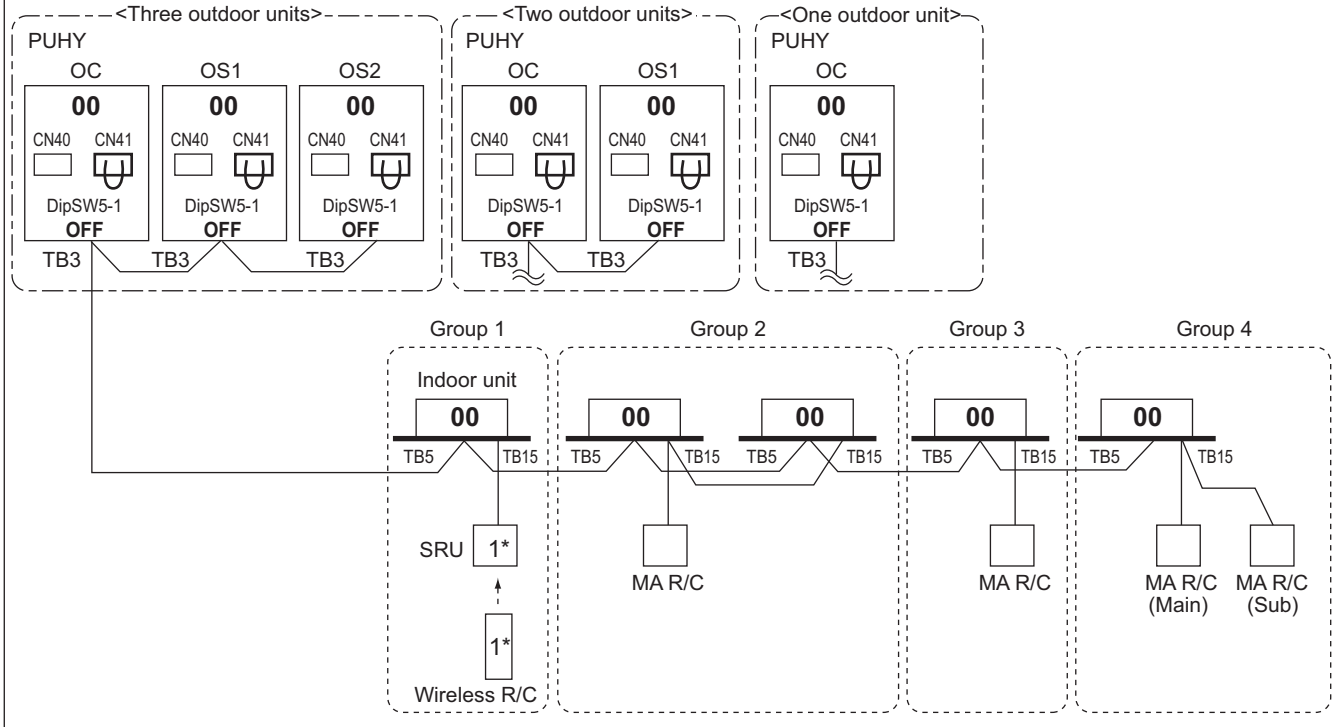
Original switch setting of the outdoors, indoors, controllers, LM-AP and BM ADAPTER at shipment is as follows.

- Outdoor unit : Address: 00, CN41: ON (Jumper), DipSW5-1: OFF
- Indoor unit : Address: 00
- ME remote controller : Address: 101
- LM-AP : Address: 247, CN41: ON (Jumper), DipSW1-2: OFF
- BM ADAPTER : Address: 000, CN41: ON (Jumper)
- AE-200E/AE-50E/EW-50E : Address: 000, CN21: ON (Jumper)

Setting at the site

- DipSW5-1(Outdoor) : When the System Controller is used, all the Dip SW5-1 at the outdoor units should be set to "ON". * Dip SW5-1 remains OFF when only LM-AP is used.
- DipSW1-2(LM-AP) : When the LM-AP is used together with System Controller, DipSW1-2 at the LM-AP should be set to "ON".
- CN40/CN41 : Change jumper from CN41 to CN 40 at outdoor control board will activate central transmission power supply to TB7;
  (Change jumper at only one outdoor unit when activating the transmission power supply without using a power supply unit.)
  Change jumper from CN41 to CN 40 at LM-AP/BM ADAPTER will activate transmission power supply to LM-AP/BM ADAPTER itself;
  Power supply unit is recommended to use for a system having more than 1 outdoor unit, because the central transmission power supply from TB7 of one of outdoor units is risking that the outdoor unit failure may let down the whole system controller system.
- CN21(AE-200E/AE-50E/EW-50E) : Activates the power supply to M-NET transmission line from AE-200E/AE-50E/EW-50E (CN21: ON (power supplied), OFF (power not supplied)

2-4-3-1. MA remote controller, Single-refrigerant-system, No System Controller

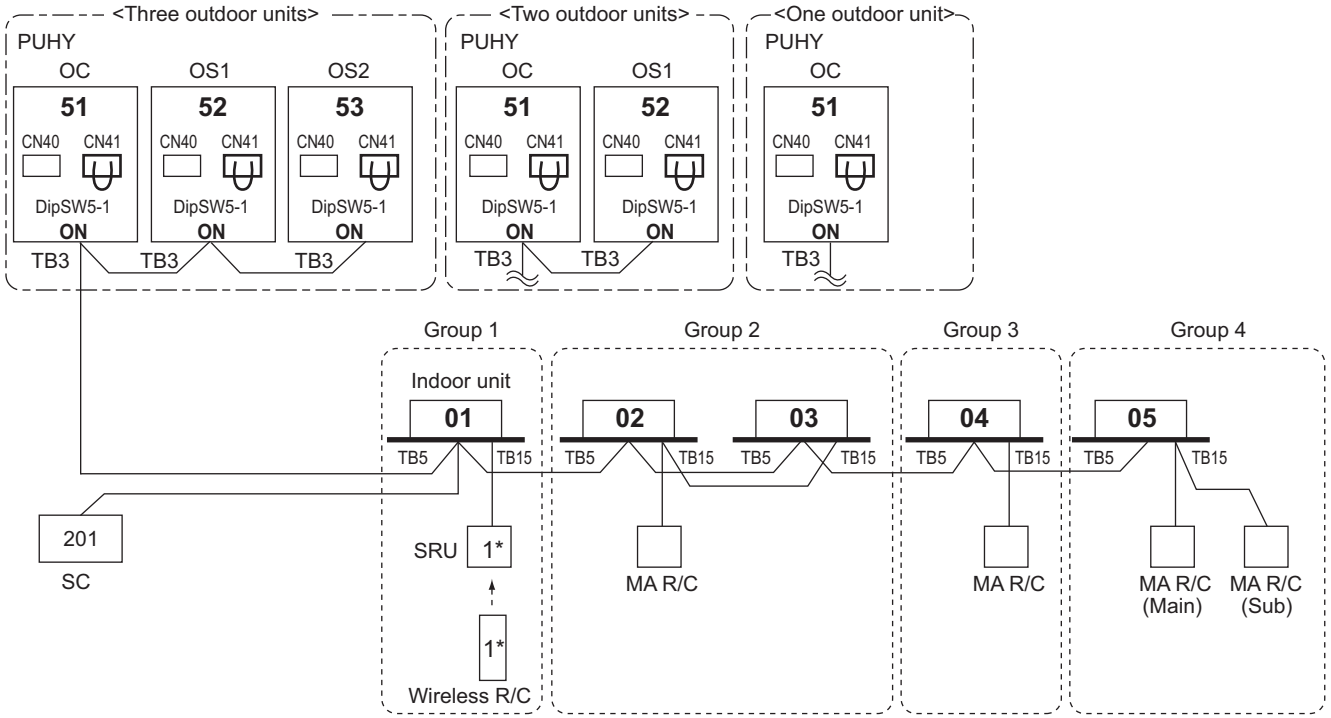


*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

NOTE:

1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
   OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. No address setting is needed.
3. For a system having more than 32 indoor unit (P15-P140), confirm the need of Booster at **2-3 "System configuration restrictions".**
4. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

2-4-3-2. MA remote controller, Single-refrigerant-system, System Controller



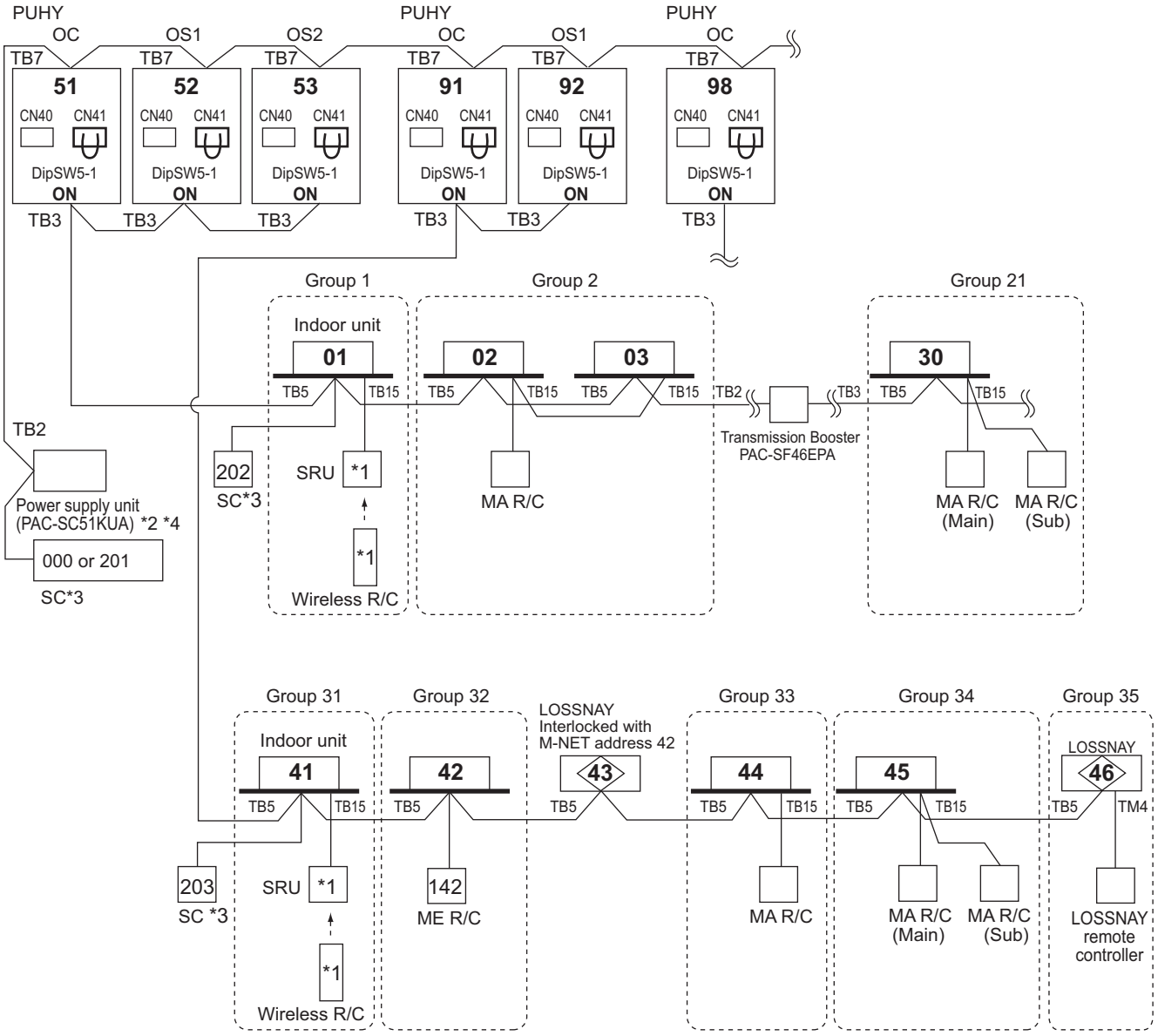
*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

*SC can be connected to TB3 side or TB7 side;
Should SC connected to TB7 side, change Jumper from CN41 to CN40 at the Outdoor unit module so as to supply power to the SC.
NOTE:

1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
   OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units and centralized controller.
3. For a system having more than 32 indoor unit (P15-P140), confirm the need of Booster at **2-3 "System configuration restrictions".**
4. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

S.D.Y

2-4-3-3. MA remote controller, Multi-refrigerant-system, System Controller at TB7/TB3 side, Booster for long M-NET wiring



*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

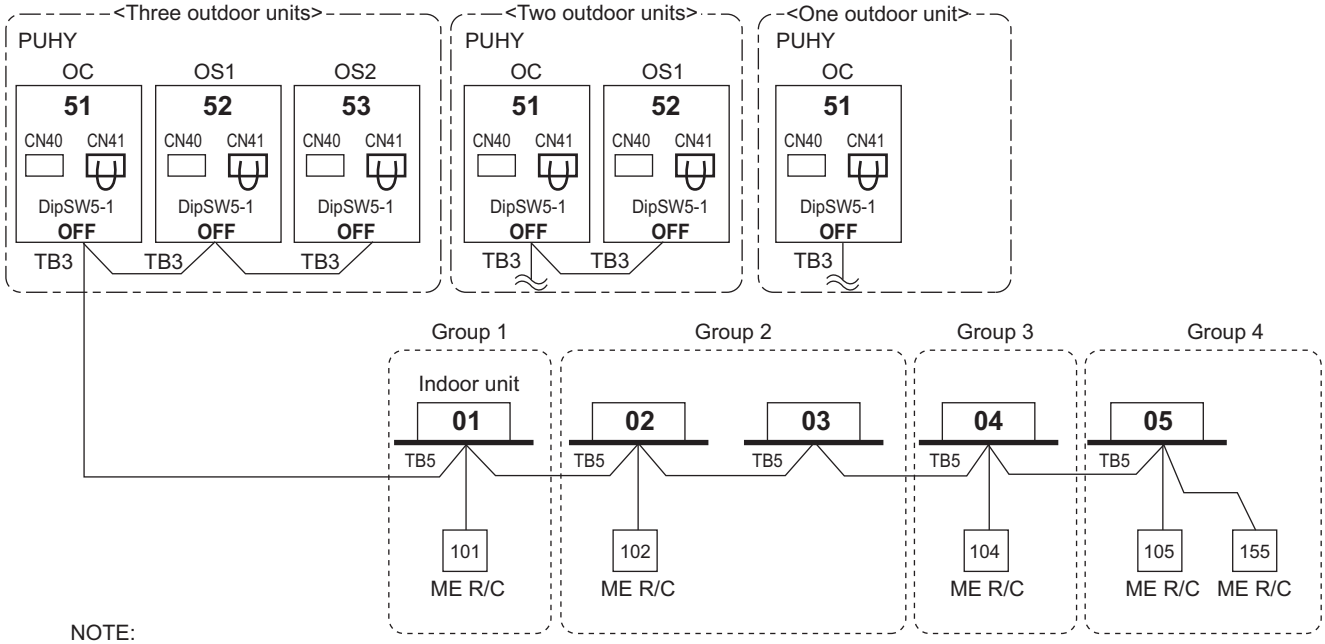
*2 System controller should connect to TB7 at Outdoor and use power supply unit together in Multi-Refrigerant-System.
For AG-150A, 24V DC should be used with the PAC-SC51KUA.
For AE-200E, AE-50E, and EW-50E the power supply unit PAC-SC51KUA is unused.

*3 When multiple system controllers are connected in the system, set the controller with more functions than others as a "main" controller and others as "sub".
AE-200E, AE-50E, EW-50E, BAC-HD150, and LM-AP are for exclusive use as a "main" system controller and cannot be used as a “sub” system controller.
Make the setting to only one of the system controllers for "prohibition of operation from local remote controller".

*4 The power supply unit is not necessary for AE-200E, AE-50E, EW-50E, BAC-HD150, and LM-AP.

NOTE:
1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units, LOSSNAY, and system controller.
3. M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME remote controller consume the M-NET power for transmission use. The power balance is needed to consider for long M-NET wiring. Details refer to **2-3 "System configuration restrictions".**
4. When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

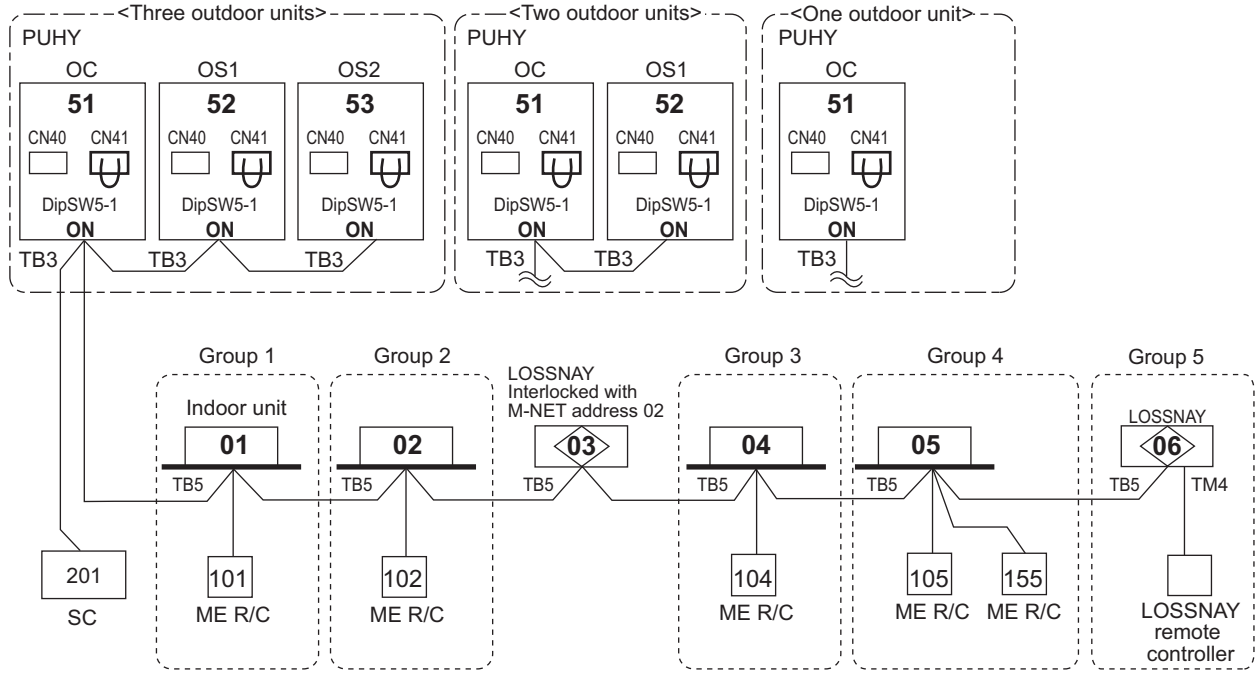
2-4-3-4. ME remote controller, Single-refrigerant-system, No system controller



NOTE:

1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
   OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units and ME remote controllers.
3. M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME RC consume the M-NET power for transmission use. The power balance is needed to consider for long M-NET wiring. Details refer to **2-3 "System configuration restrictions".**

2-4-3-5. ME remote controller, Single-refrigerant-system, System controller, LOSSNAY



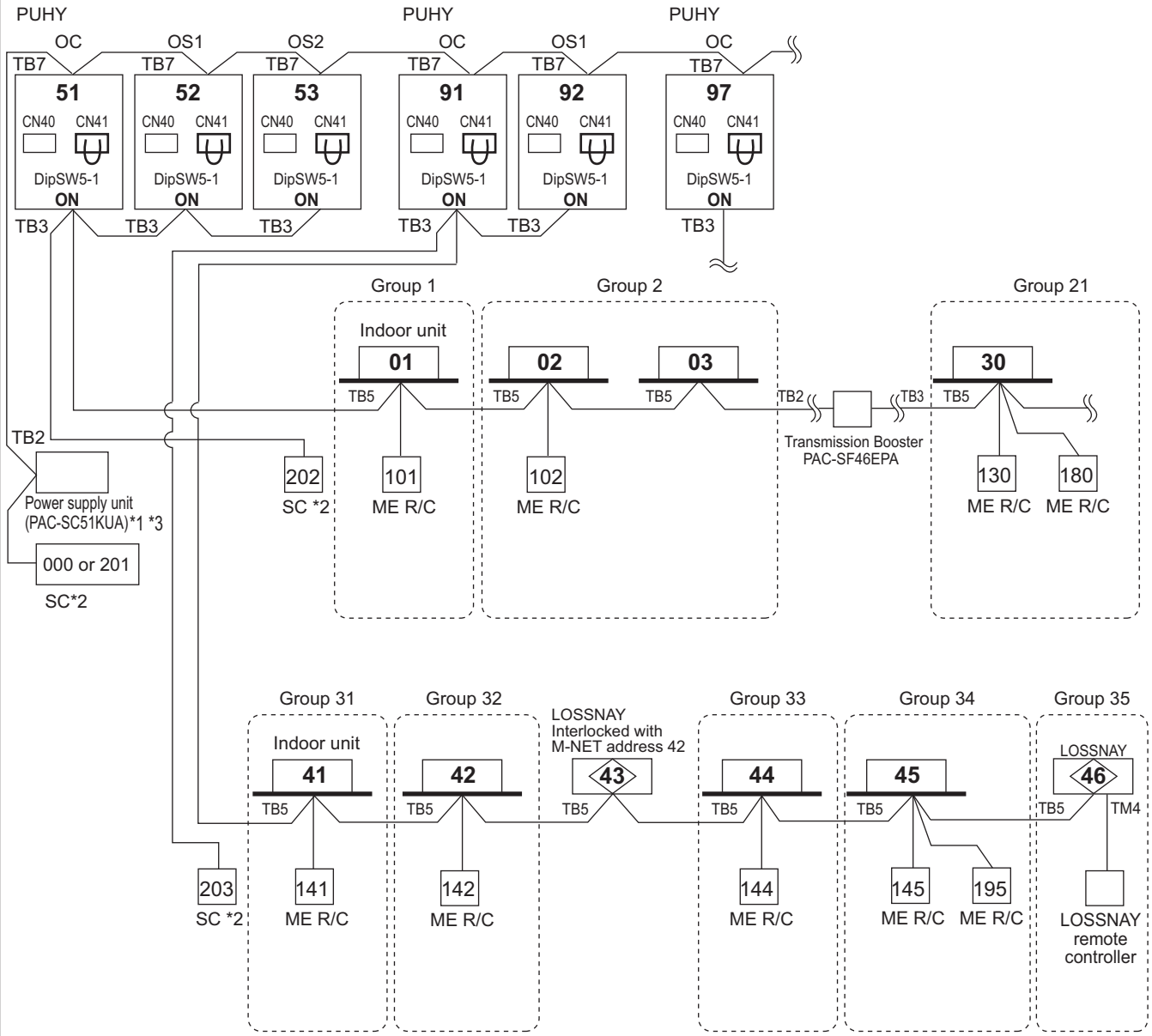
*SC can be connected to TB3 side or TB7 side;
Should SC connected to TB7 side, change Jumper from CN41 to CN40 at the Outdoor unit module so as to supply power to the SC.

NOTE:

1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
   OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. Address should be set to Indoor units, LOSSNAY, centralized controller, and ME remote controllers.
3. For a system having more than 32 indoor unit (P15-P140), confirm the need of Booster at **2-3 "System configuration restrictions".**

S.D.Y

2-4-3-6. ME remote controller, Multi-refrigerant-system, System Controller at TB 7side, LOSSNAY, Booster for long M-NET wiring



*1 System controller should connect to TB7 at Outdoor and use power supply unit together in Multi-Refrigerant-System.
For AG-150A, 24V DC should be used with the PAC-SC51KUA.
For AE-200E, AE-50E, and EW-50E the power supply unit PAC-SC51KUA is unused.

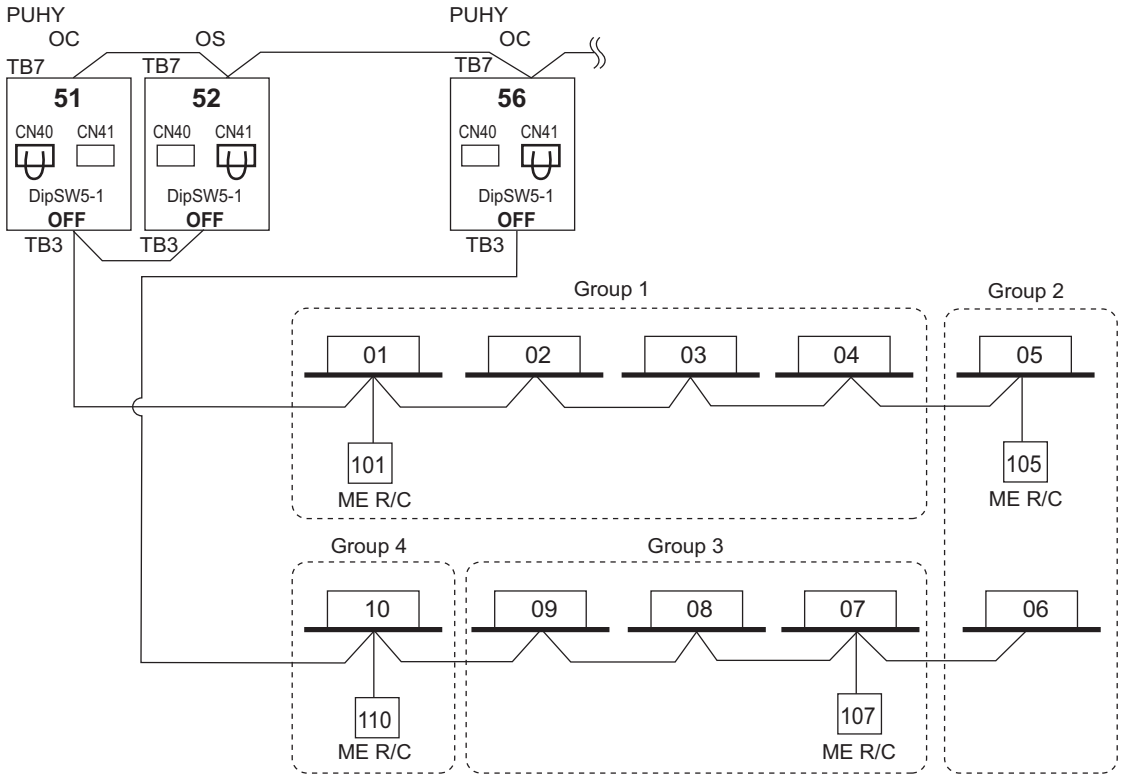
*2 When multiple system controllers are connected in the system, set the controller with more functions than others as a "main" controller and others as "sub".
AE-200E, AE-50E, EW-50E, BAC-HD150, and LM-AP are for exclusive use as a "main" system controller and cannot be used as a “sub” system controller.

*3 The power supply unit is not necessary for AE-200E, AE-50E, EW-50E, BAC-HD150, and LM-AP.

NOTE:

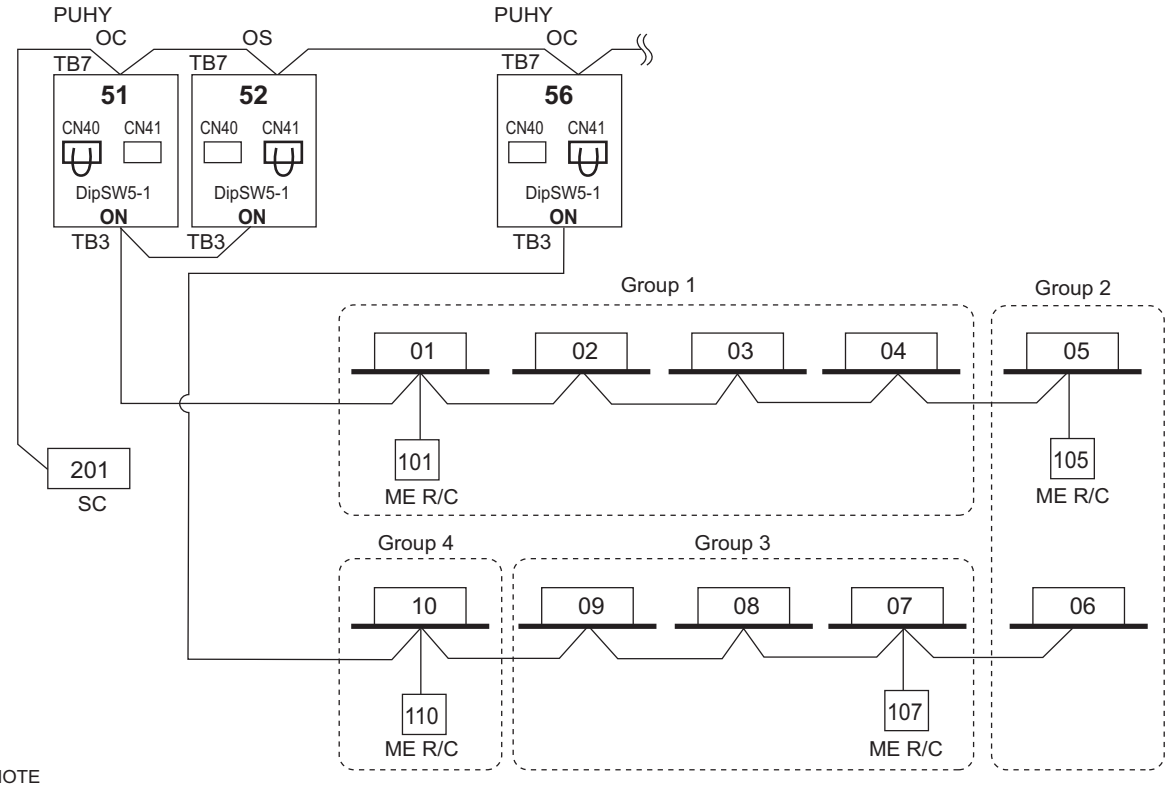
1. Outdoor units OC, OS1 and OS2 in one refrigerant circuit system are automatically detected.
OC, OS1 and OS2 are ranked in descending order of capacity. If units are the same capacity, they are ranked in ascending order of their address.
2. M-NET power is supplied by the Outdoor unit at TB3, while Indoor unit and ME remote controller consume the M-NET power for transmission use. The power balance is needed to consider for long M-NET wiring. Details refer to **2-3 "System configuration restrictions".**

2-4-3-7. ME remote controller, Multi-refrigerant-system, No Power supply unit



NOTE
- It is necessary to change the connecter to CN40 on the outdoor unit control board (only one outdoor unit) when the group is set between other refrigerant systems.
- It is necessary to set on the remote controller by manual when group sets on the different refrigerant system. Please refer to remote controller installation manual.

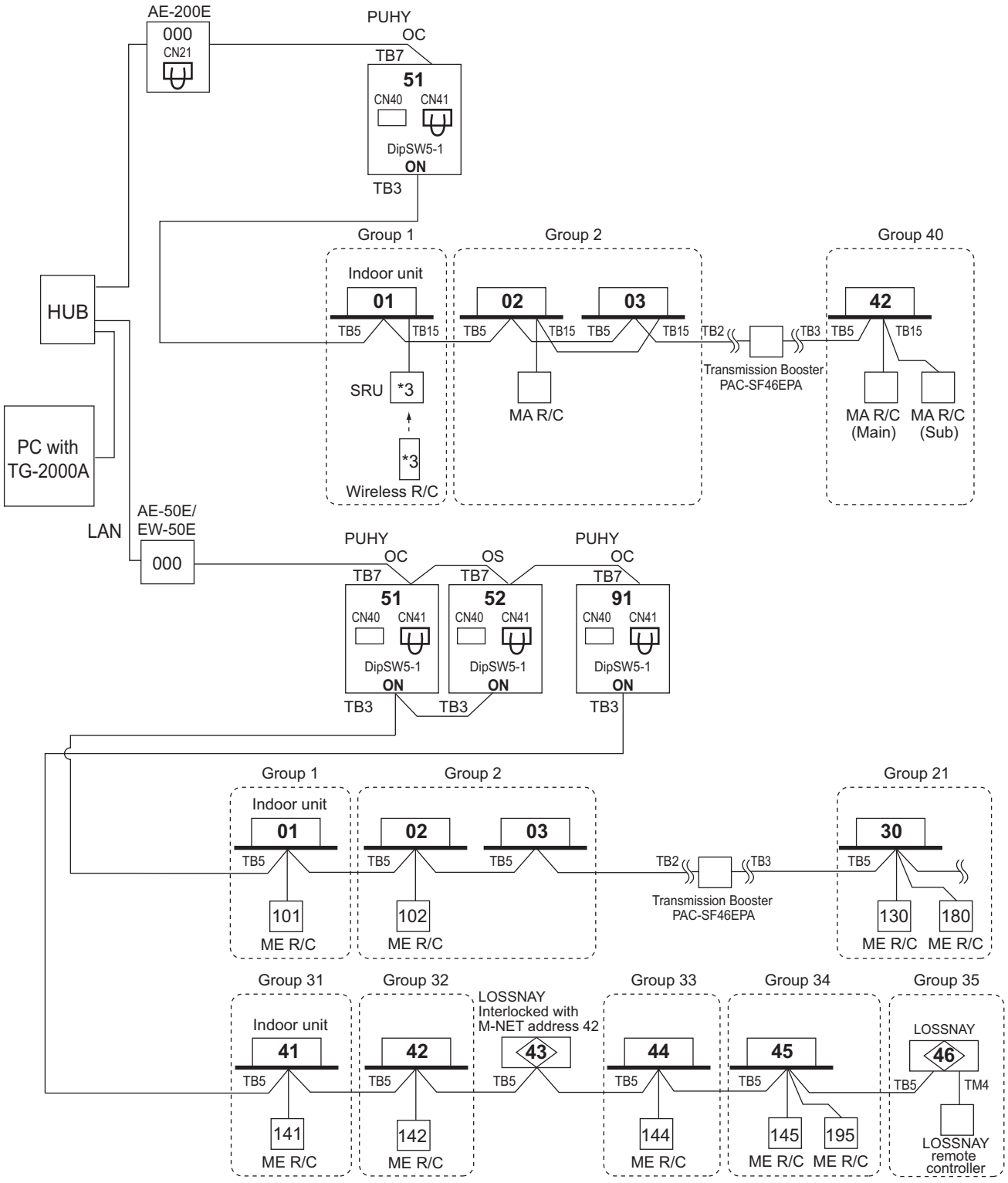
2-4-3-8. ME remote controller, Multi-refrigerant-system, System Controller at TB7 side, No Power sypply unit



NOTE
- It is necessary to change the connecter to CN40 on the outdoor unit control board (only one outdoor unit) when the group is set between other refrigerant systems.
- It is necessary to set on the remote controller by manual when group sets on the different refrigerant system. Please refer to remote controller installation manual.

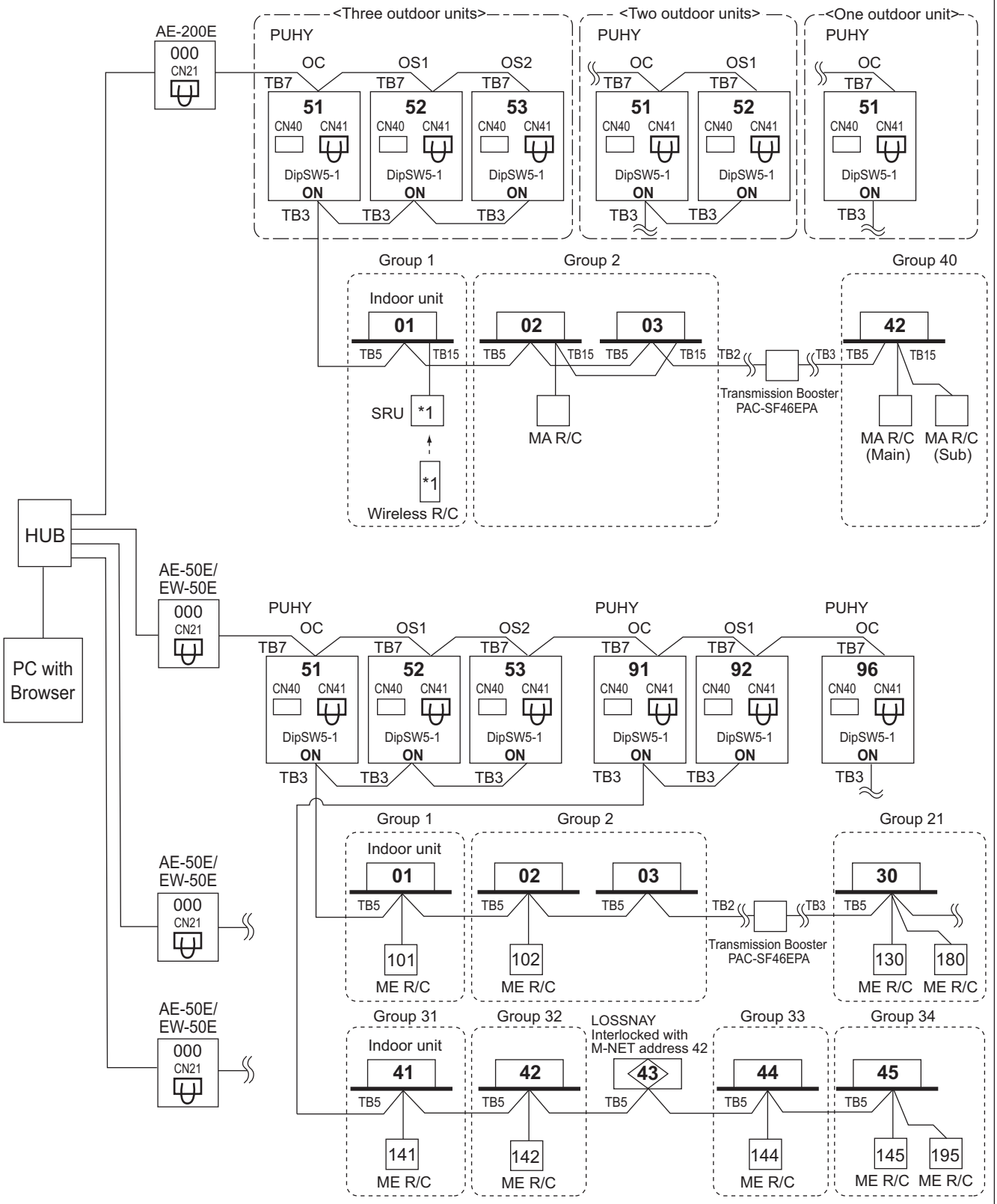
S.D.Y

2-4-3-9. TG-2000A(*1)+AE-200E/AE-50E/EW-50E
AE-200E can control max. 50 indoor units;
TG-2000A can control max. 40 of AE-200E/AE-50E/EW-50E;*2
TG-2000A can control max. 2000 indoor units.



*1 TG-2000A (Ver.6.5 or later) supports AE-200E/AE-50E (Ver.7.10 or later).
TG-2000A (Ver.6.60 or later) supports EW-50E.
*2 When AE-200E connected with AE-50E/EW-50E is connected, the number of AE-50E/EW-50E will be the maximum controllable number.
TG-2000A can control up to 40 AE-200E/AE-50E/EW-50E or AE-200E without AE-50E/EW-50E connection.
*3 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.
*4 When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

2-4-3-10. AE-200E + AE-50E/EW-50E
AE-200E can control max. 200 indoor units/via AE-50E/EW-50E.



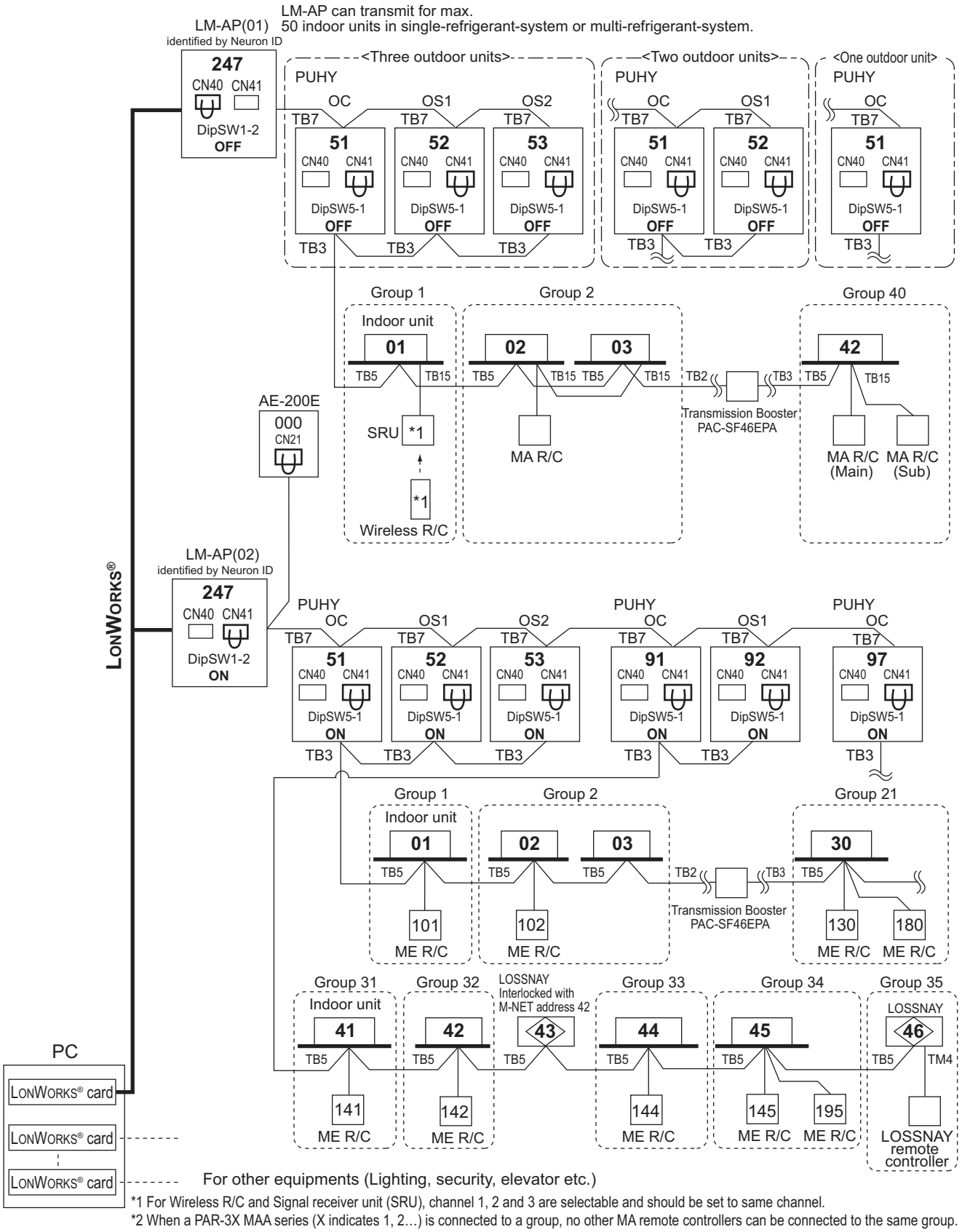
*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

*2 When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

S.D.Y

2-4-3-11. LM-AP

LM-AP can transmit for max. 50 indoor units;
If system controller (SC) is used, DipSW1-2 at LM-AP and DipSW5-1 at Outdoor unit should set to "ON".
Change Jumper from CN41 to CN40 to activate power supply to LM-AP itself for those LM-AP connected without system controller (SC).

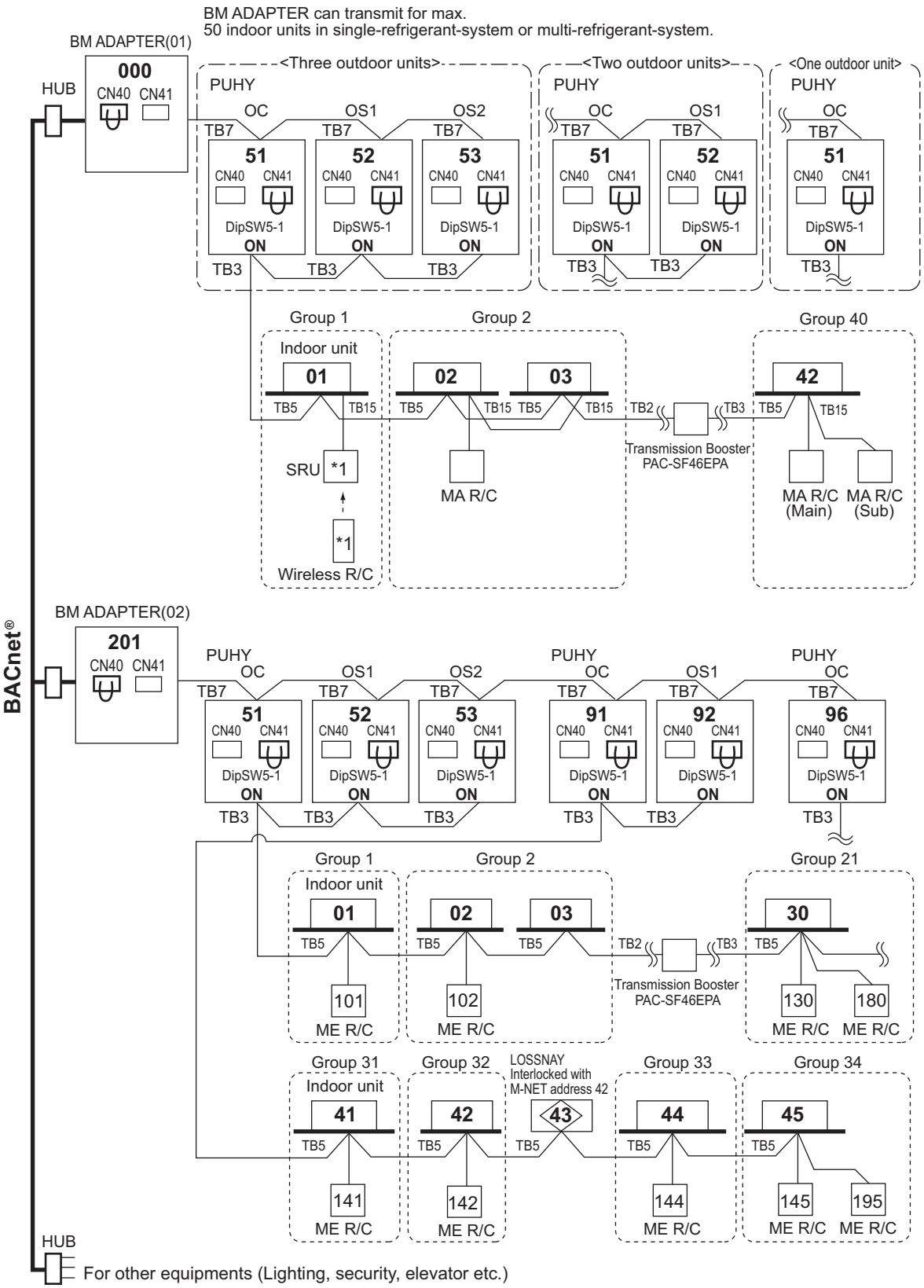


*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.
*2 When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

S.D. Y

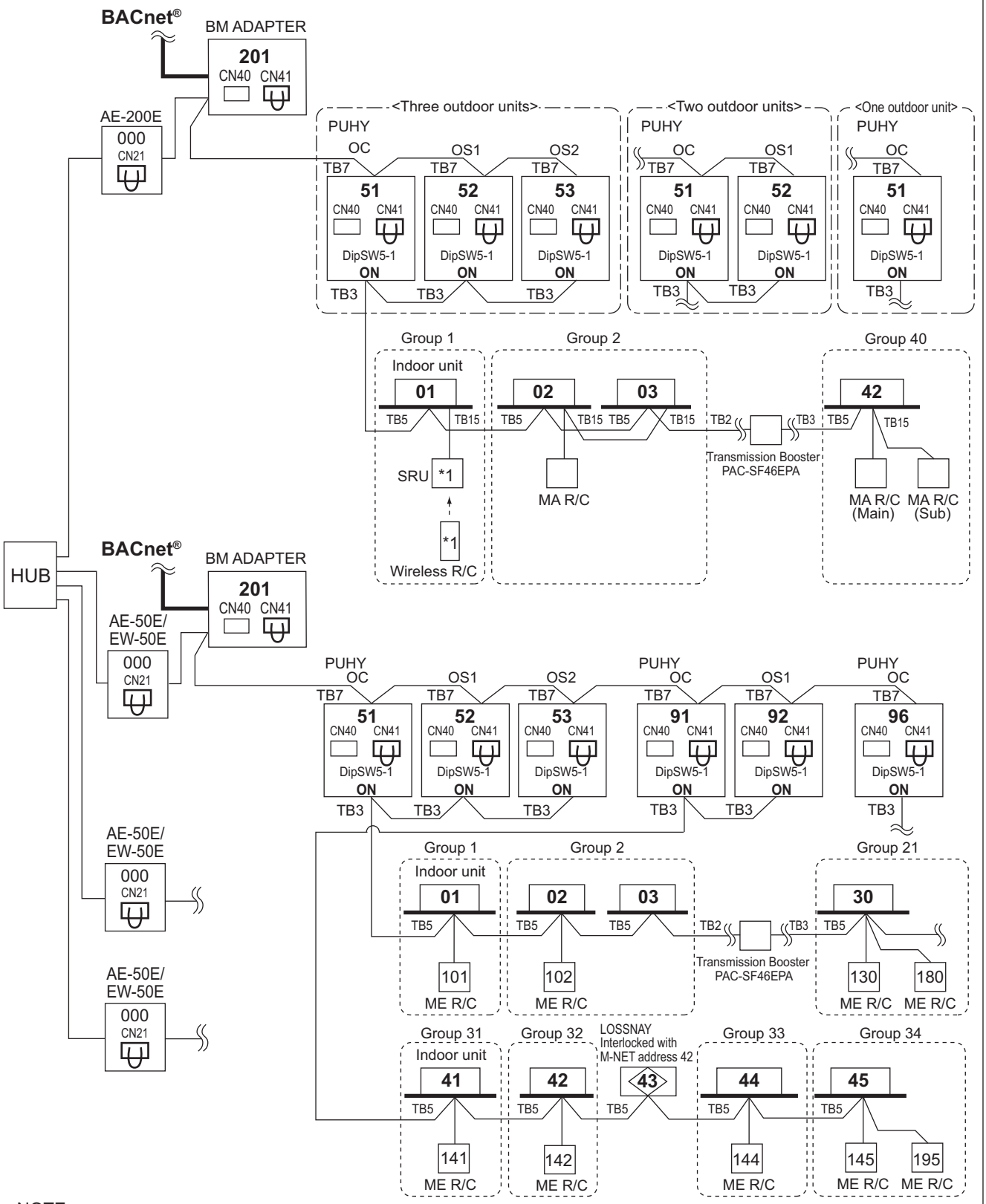
2-4-3-12. BM ADAPTER

BM ADAPTER can transmit for max. 50 indoor units;
Change Jumper from CN41 to CN40 to activate power supply to BM ADAPTER itself for those BM ADAPTER connected without the power supply unit.



*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.
*2 When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

2-4-3-13. BM ADAPTER+AE-200E/AE-50E/EW-50E



NOTE

•It is not necessary to connect the M-NET transmission line to the TB3 on BM ADAPTER. Leave the power jumper of BM ADAPTER connected to CN41.

*1 For Wireless R/C and Signal receiver unit (SRU), channel 1, 2 and 3 are selectable and should be set to same channel.

*2 Consult your dealer for restrictions when connecting both AE-200E/AE-50E/EW-50E and BM ADAPTER.

*3 When a PAR-3X MAA series (X indicates 1, 2…) is connected to a group, no other MA remote controllers can be connected to the same group.

*4 In a system that uses AE-200E and/or AE-50E/EW-50E, each BM-ADAPTER must be connected to the M-NET line.

3-1. R410A Piping material

Refrigerant pipe for CITY MULTI shall be made of phosphorus deoxidized copper, and has two types.
A. Type-O: Soft copper pipe (annealed copper pipe), can be easily bent with human's hand.
B. Type-1/2H pipe: Hard copper pipe (Straight pipe), being stronger than Type-O pipe of the same radical thickness.

The maximum operation pressure of R410A air conditioner is 4.30 MPa [623psi]. The refrigerant piping should ensure the safety under the maximum operation pressure. MITSUBISHI ELECTRIC recommends pipe size as Table 3-1, or You shall follow the local industrial standard. Pipes of radical thickness 0.7mm or less shall not be used.

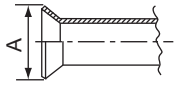
Table 3-1. Copper pipe size and radial thickness for R410A CITY MULTI.

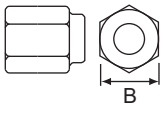
Size (mm)	Size (inch)	Radial thickness (mm)	Radial thickness (mil)	Pipe type
ø6.35	ø1/4"	0.8	[32]	Type-O
ø9.52	ø3/8"	0.8	[32]	Type-O
ø12.7	ø1/2"	0.8	[32]	Type-O
ø15.88	ø5/8"	1.0	[40]	Type-O
ø19.05	ø3/4"	1.2	[48]	Type-O
ø19.05	ø3/4"	1.0	[40]	Type-1/2H or H
ø22.2	ø7/8"	1.0	[40]	Type-1/2H or H
ø25.4	ø1"	1.0	[40]	Type-1/2H or H
ø28.58	ø1-1/8"	1.0	[40]	Type-1/2H or H
ø31.75	ø1-1/4"	1.1	[44]	Type-1/2H or H
ø34.93	ø1-3/8"	1.2	[48]	Type-1/2H or H
ø41.28	ø1-5/8"	1.4	[56]	Type-1/2H or H

* For pipe sized ø19.05 (3/4") for R410A air conditioner, choice of pipe type is up to you.
* The figures in the radial thickness column are based on the Japanese standards and provided only as a reference. Use pipes that meet the local standards.

Flare

Due to the relative higher operation pressure of R410A compared to R22, the flare connection should follow dimensions mentioned below so as to achieve enough the air-tightness.

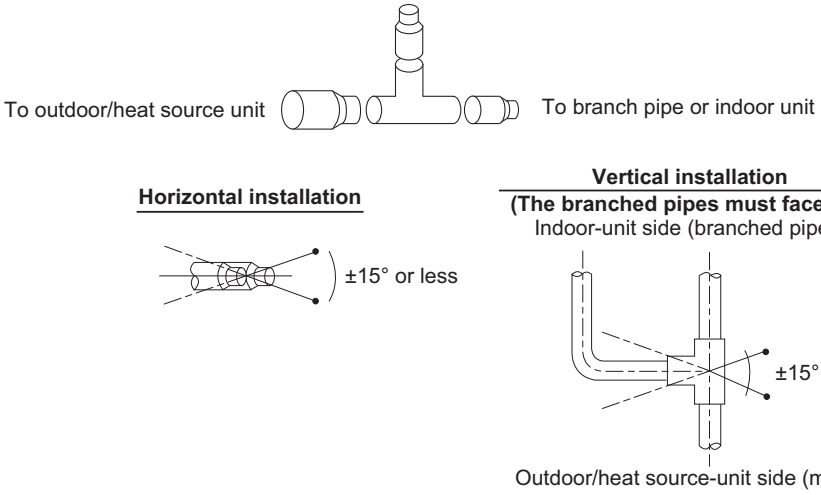
Flare pipe	Pipe size	A (For R410A) (mm[in.])
	ø6.35 [1/4"]	9.1
	ø9.52 [3/8"]	13.2
	ø12.70 [1/2"]	16.6
	ø15.88 [5/8"]	19.7
	ø19.05 [3/4"]	24.0

Flare nut	Pipe size	B (For R410A) (mm[in.])
	ø6.35 [1/4"]	17.0
	ø9.52 [3/8"]	22.0
	ø12.70 [1/2"]	26.0
	ø15.88 [5/8"]	29.0
	ø19.05 [3/4"]	36.0

Procedures for installing the branched pipes

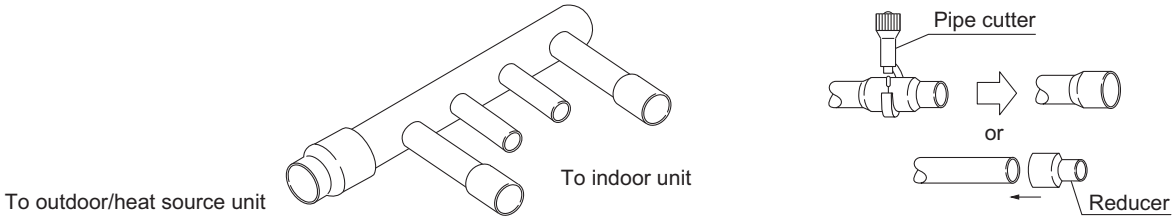
Refer to the instructions that came with the branched pipe kit (separately sold) for details.
[1] Branches on the indoor-unit side

■Joint



- Restrictions for installing the joint described here only apply to CMY-Y202S-G2 and CMY-Y302S-G2 in the gas line.
- CMY-Y202S-G2 and CMY-Y302S-G2 in the gas line must be installed horizontally (see figure above) or with the branched pipes facing up.
- If the size of the refrigerant pipe that is selected by following the instructions under 3-2. Piping Design does not match the size of the joint, use a reducer to connect them. A reducer is included in the kit.

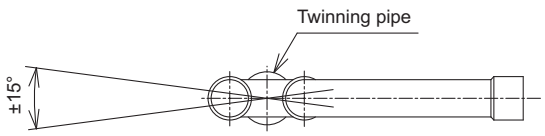
■Header



- No restrictions apply to the installation of the header.
- If the size of the refrigerant pipe that is selected by following the instructions under 3-2. Piping Design does not match the size of the header, cut the pipe to an appropriate size using a pipe cutter, or use a reducer to connect them.
- If the number of header branches exceeds the number of pipes to be connected, cap the unused header branches. Caps are included in the kit.

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

Note. Refer to the figure below for the installation position of the twinning pipe.



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

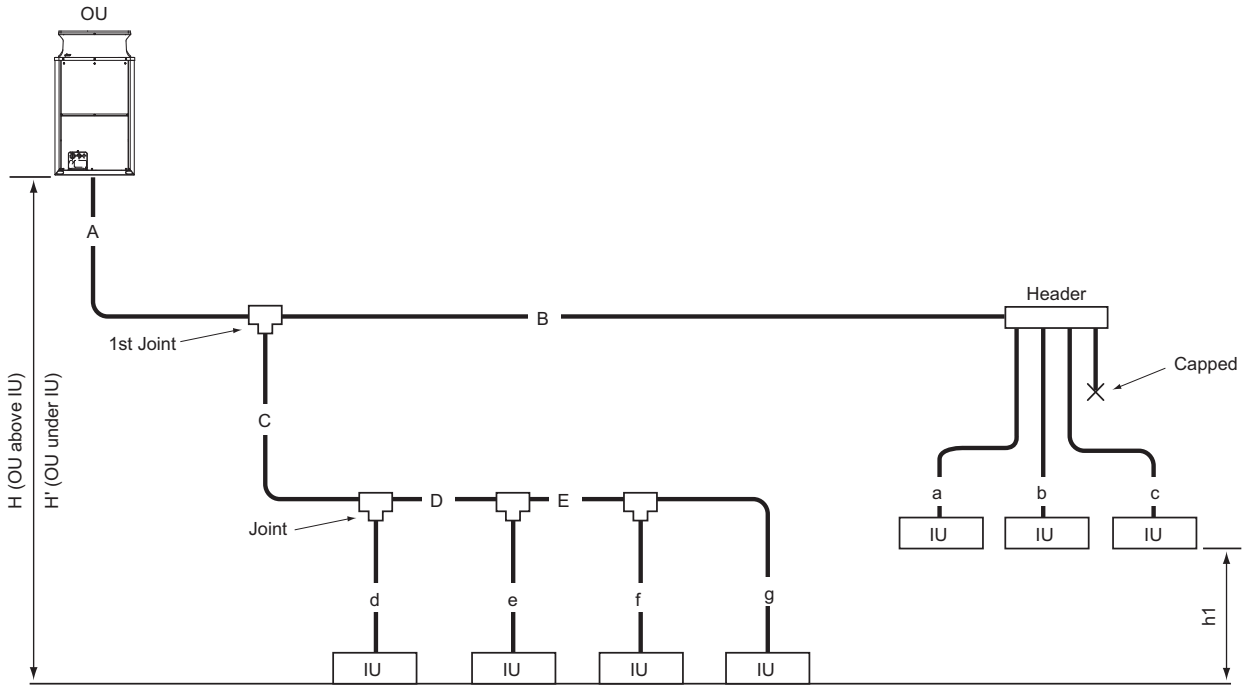
- Inclination of the branched pipes
  The inclination of the branched pipes must be ±15° or less against the horizontal plane.
  Excessive inclination of the branched pipes may damage the unit.

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

S.D. Y

3-2. Piping Design

Rule for piping size selection



IU: Indoor unit , OU: Outdoor unit

1. Selecting joints
   Select joints from Table 4-1 [Selection criteria for joints] based on the total capacity of indoor units on the downstream side.
   When selecting the first joint for the system to which the outdoor unit listed in Table 4-2 [See the table below for the first joint of the outdoor unit described below.] is connected, select the first joint from Table 4-2.

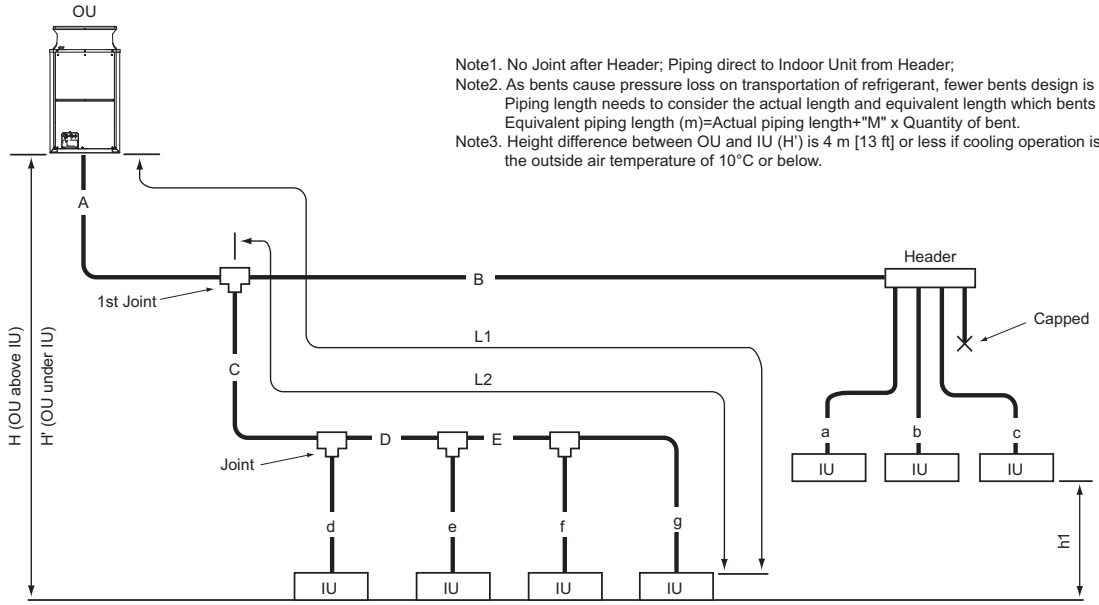
2. Selecting headers
   Select headers from Table 5 [Header selection rule] based on the number of indoor units to be connected.
   Refer to Table 5, which shows the total capacity limits, for the indoor units to be connected on the downstream side.
   When connecting a header directly to the outdoor unit, select the header by referring to the notes in Table 5.
   *The piping cannot be branched on the downstream of the header.

3. Selecting refrigerant pipe sizes
   (1) Between outdoor unit and the 1st joint [A]
   Select the appropriate size pipes for the selected outdoor unit from Table 1 [Piping "A" size selection rule].
   (2) Between joints [B, C, D, and E]
   Select the appropriate size pipes from Table 2 [Piping "B", "C", "D", … size selection rule] based on the total capacity of indoor units on the downstream side.
   (3) Between joints and indoor units [a, b, c, d, e, f, and g]
   Select the appropriate size pipes from Table 3 [Piping "a", "b", "c", "d", … size selection rule] based on the capacity of indoor units.
   (4) After selecting the pipe sizes in accordance with steps (1) through (3) above, if the size of the pipes on the downstream is larger than that on the upstream, it is not necessary to be bigger than the upstream one.
   (5) If any of the following applies to the selection made in Item 3-(1)-(4) above, reselect the pipe size.
   (a) If the length of the pipe to any indoor unit from the first joint exceeds 40 m [131 ft.], use one size larger liquid pipe after the joint that is located before the point where the pipe length exceeds 40 m [131 ft.].
   (b) Set indoor unit(s) which is vertically closer to the outdoor unit as “base unit(s)”.
   Only the indoor units that have a height difference of more than 15 m [49 ft.] from base unit will be termed “Target units”.
   Use one size larger liquid pipe from the target units to the joint prior to which 15 m [49 ft.] height difference has exceeded.
   (Not applicable to the liquid pipes whose sizes were increased under item (5)-(a)).

   (6) Calculate the amount of refrigerant to be added based on the pipe sizes selected in Items 1 through 3-(5) above, and make sure that the total amount of the initial charge and the additional charge combined will not exceed the maximum allowable refrigerant charge amount.
   If this amount exceeds the maximum allowable amount, redesign the system (i.e., piping length) so that the total refrigerant charge will not exceed the maximum allowable amount.

S.D.Y

3-2-1. PUHY-P200-500TKA Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Quantity of bent.
Note3. Height difference between OU and IU (H') is 4 m [13 ft] or less if cooling operation is performed with the outside air temperature of 10°C or below.

Fig. 3-2-1A Piping scheme

IU : Indoor unit , OU : Outdoor unit

Piping length **(m [ft.])**

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	A+B+C+D+E+a+b+c+d+e+f+g	1000 [3280']	-
Farthest IU from OU (L1)	A+C+D+E+g / A+B+c	165 [541']	190 [623']
Farthest IU from first Joint (L2)	C+D+E+g / B+c	40 [131'] *2	40 [131']
Height between OU and IU (OU above IU)	H	50 [164'] *1	-
Height between OU and IU (OU under IU)	H'	40 [131']	-
Height between IU and IU	h1	15 [49'] *3	-

Bent equivalent length "M"

Outdoor unit model	M (m/bent [ft./bent])
PUHY-P200TKA	0.42 [1.38]
PUHY-P250TKA	0.42 [1.38]
PUHY-P300TKA	0.47 [1.54]
PUHY-P350TKA	0.47 [1.54]
PUHY-P400TKA	0.50 [1.64]
PUHY-P450TKA	0.50 [1.64]
PUHY-P500TKA	0.50 [1.64]

OU: Outdoor Unit, IU: Indoor Unit

*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.

*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point. In the figure above, if the piping labeled "E" exceeds 40 meters (but does not exceed 90 meters), increase the size of the liquid piping labeled E, f, and g by one size.

*3 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes. In the figure above, if "h1" exceeds 15 meters, increase the size of the liquid piping labeled d, e, f, and g by one size.

Table1 Piping "A" size selection rule **(mm [in.])**

Outdoor unit	Pipe(Liquid)	Pipe(Gas)
PUHY-P200TKA	ø9.52 [3/8"]	ø22.20 [7/8"]
PUHY-P250TKA	ø9.52 [3/8"] *1	ø22.20 [7/8"]
PUHY-P300TKA	ø9.52 [3/8"] *2	ø22.20 [7/8"]
PUHY-P350TKA	ø12.70 [1/2"]	ø28.58 [1-1/8"]
PUHY-P400TKA	ø12.70 [1/2"]	ø28.58 [1-1/8"]
PUHY-P450TKA	ø15.88 [5/8"]	ø28.58 [1-1/8"]
PUHY-P500TKA	ø15.88 [5/8"]	ø28.58 [1-1/8"]

*1. L1>=90m [295ft.], ø12.70mm [1/2in.] ; L1<90m [295ft.], ø9.52mm [3/8in.]

*2. L1>=40m [131ft.], ø12.70mm [1/2in.] ; L1<40m [131ft.], ø9.52mm [3/8in.]

Table4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*Concerning detailed usage of Joint parts, refer to its Installation Manual.

Table4-2
See the table below for the first joint of the outdoor unit described below.

Outdoor unit model	Joint model
P450, P500	CMY-Y202S-G2

Table2 Piping"B","C","D","E"size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table3 Piping "a","b","c","d","e","f","g" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table5 Header selection rule

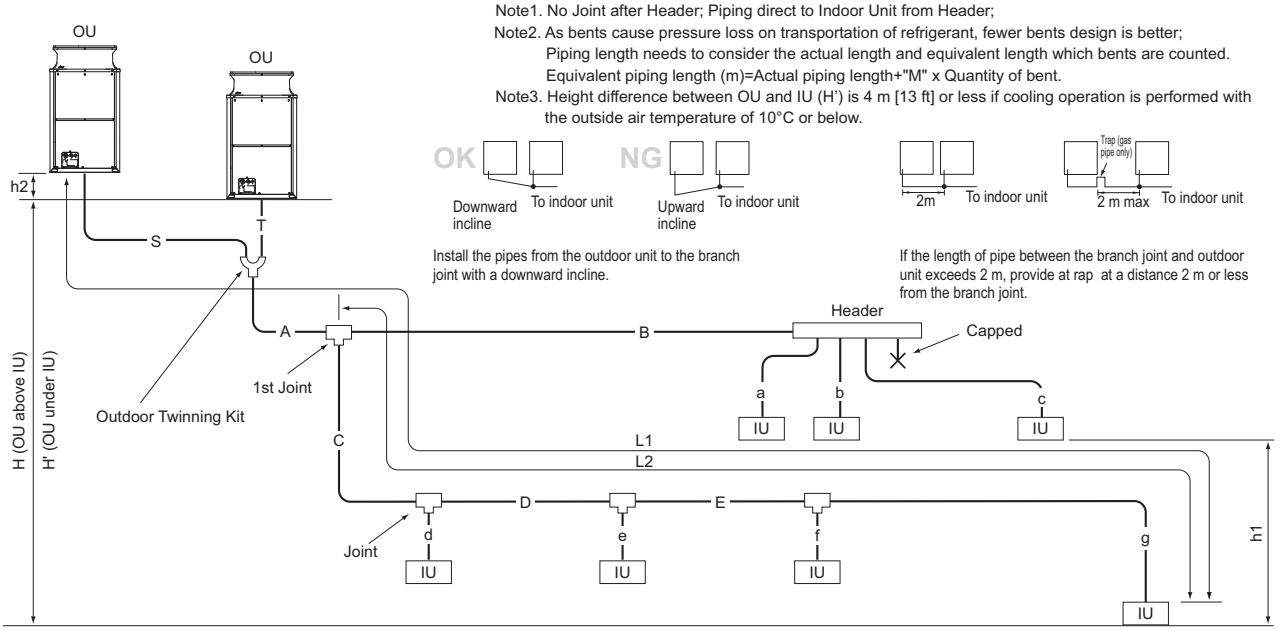
	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P400	<=P650

* CMY-Y104-G can directly connect PUHY-P200TKA, but can NOT directly connect PUHY-P250TKA or above;
* CMY-Y108-G can directly connect PUHY-P200-450TKA, but can NOT directly connect PUHY-P500TKA or above;
* CMY-Y1010-G can directly connect PUHY-P200-600T(S)KA
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

S.D. Y

3-2-2. PUHY-P550-1000TSKA Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Quantity of bent.
Note3. Height difference between OU and IU (H') is 4 m [13 ft] or less if cooling operation is performed with the outside air temperature of 10°C or below.

Fig. 3-2-2A Piping scheme

IU : Indoor unit , OU : Outdoor unit

Piping length (m [ft.])

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+A+B+C+D+E+a+b+c+d+e+f+g	1000 [3280']	-
Distance between OU and OU	S+T	10[32']	-
Height between OU and OU	h2	0.1[0.3']	-
Farthest IU from OU (L1)	S(T)+A+C+D+E+g / S(T)+A+B+c	165 [541']	190 [623']
Farthest IU from the first Joint (L2)	C+D+E+g / B+c	40 [131'] *2	40 [131']
Height between OU and IU (OU above IU)	H	50 [164'] *1	-
Height between OU and IU (OU under IU)	H'	40 [131']	-
Height between IU and IU	h1	15 [49'] *3	-

Bent equivalent length "M"

Outdoor unit model	M (m/bent [ft./bent])
PUHY-P550TSKA	0.50 [1.64]
PUHY-P600TSKA	0.50 [1.64]
PUHY-P650TSKA	0.50 [1.64]
PUHY-P700TSKA	0.70 [2.29]
PUHY-P750TSKA	0.70 [2.29]
PUHY-P800TSKA	0.70 [2.29]
PUHY-P850TSKA	0.80 [2.62]
PUHY-P900TSKA	0.80 [2.62]
PUHY-P950TSKA	0.80 [2.62]
PUHY-P1000TSKA	0.80 [2.62]

OU: Outdoor Unit, IU: Indoor Unit

*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point.
In the figure above, if the piping labeled "E" exceeds 40 meters (but does not exceed 90 meters), increase the size of the liquid piping labeled E, f, and g by one size.
*3 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes.
In the figure above, if "h1" exceeds 15 meters, increase the size of the liquid piping labeled g by one size.

Table1 Piping "A" size selection rule (mm [in.])

Outdoor unit	Twinning kit	Pipe(Liquid)	Pipe(Gas)
PUHY-P550-650TSKA	CMY-Y100VBK3	ø15.88[5/8"]	ø28.58[1-1/8"]
PUHY-P700-800TSKA	CMY-Y200VBK2	ø19.05[3/4"]	ø34.93[1-3/8"]
PUHY-P850-1000TSKA	CMY-Y200VBK2	ø19.05[3/4"]	ø41.28[1-5/8"]

For Piping size "S","T", please refer to specification of the Twinning kit CMY-Y100VBK3 at the Outdoor unit's external drawing.

Table2 Piping"B","C","D","E" size selection rule (mm [in.])

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table3 Piping"a","b","c","d","e","f","g" size selection rule (mm [in.])

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*Concerning detailed usage of Joint parts, refer to its Installation Manual.
*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 650 or below.
If the total capacity of the units in the downstream of the branch joints on both lines is 650 or above use two branch joints (CMY-Y302S-G2).

Table4-2
See the table below for the first joint of the outdoor unit described below.

Outdoor unit model	Joint model
P550 to P650	CMY-Y202S-G2
P700 to P1000	CMY-Y302S-G2

Table5 Header selection rule

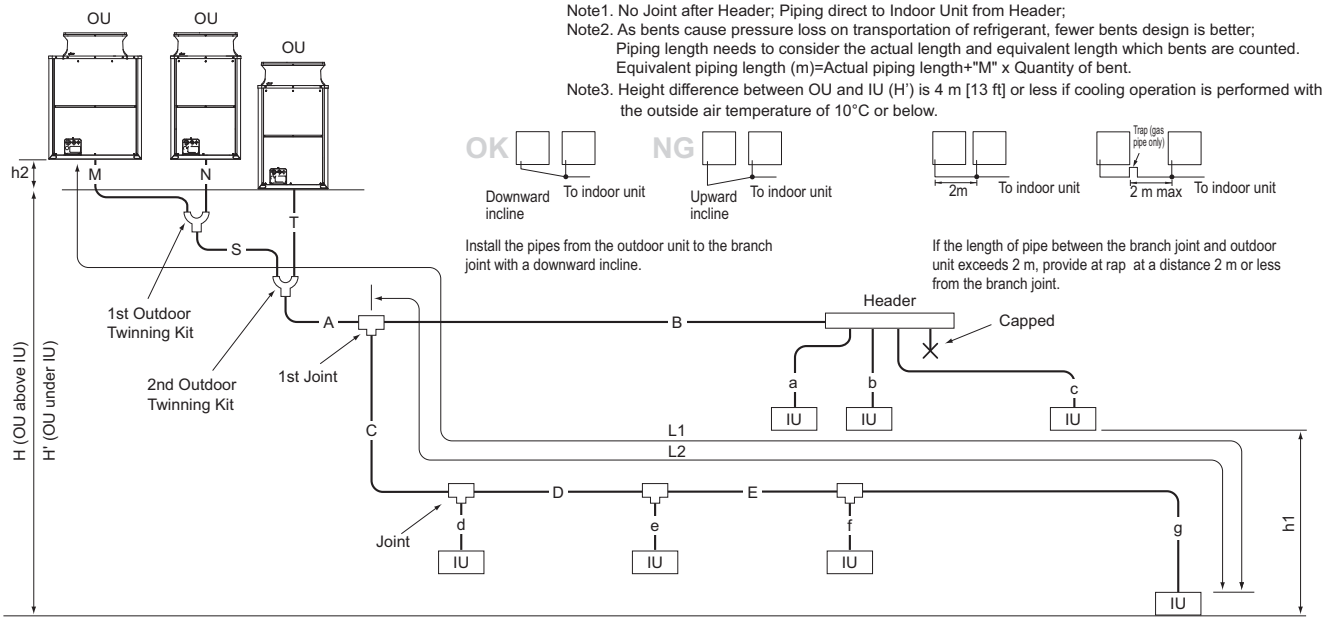
	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P400	<=P650

* CMY-Y104-G can directly connect PUHY-P200TKA, but can NOT directly connect PUHY-P250TKA or above;
* CMY-Y108-G can directly connect PUHY-P200-450TKA, but can NOT directly connect PUHY-P500TKA or above;
* CMY-Y1010-G can directly connect PUHY-P200-600T(S)KA;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

S.D.Y

3-2-3. PUHY-P1050-1500TSKA Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Quantity of bent.
Note3. Height difference between OU and IU (H') is 4 m [13 ft] or less if cooling operation is performed with the outside air temperature of 10°C or below.

Fig. 3-2-3A Piping scheme

IU : Indoor unit , OU : Outdoor unit

Piping length **(m [ft.])**

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+M+N+A+B+C+D+E+a+b+c+d+e+f+g	1000[3280'] (800[2624'] *4)	-
Distance between OU and OU	M+N+S+T	10[32']	-
Height between OU and OU	h2	0.1[0.3']	-
Farthest IU from OU (L1)	M(N)+S+A+C+D+E+g / M(N)+S+A+B+c	165[541']	190[623']
Farthest IU from the first Joint (L2)	C+D+E+g / B+c	40[131'] *2	40[131']
Height between OU and IU (OU above IU)	H	50[164'] *1	-
Height between OU and IU (OU under IU)	H'	40[131']	-
Height between IU and IU	h1	15[49'] *3	-

Bent equivalent length "M"

Outdoor unit model	M (m/bent [ft./bent])
PUHY-P1050TSKA	0.80 [2.62]
PUHY-P1100TSKA	0.80 [2.62]
PUHY-P1150TSKA	0.80 [2.62]
PUHY-P1200TSKA	0.80 [2.62]
PUHY-P1250TSKA	0.80 [2.62]
PUHY-P1300TSKA	0.80 [2.62]
PUHY-P1350TSKA	0.80 [2.62]
PUHY-P1400TSKA	0.80 [2.62]
PUHY-P1450TSKA	0.80 [2.62]
PUHY-P1500TSKA	0.80 [2.62]

OU: Outdoor Unit, IU: Indoor Unit
Note: The pipe length restrictions apply to the piping "A" as follows.
P1400: 110 m max.
P1450: 90 m max.
P1500: 60 m max.

*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point.
In the figure above, if the piping labeled "E" exceeds 40 meters (but does not exceed 90 meters), increase the size of the liquid piping labeled E, f, and g by one size.
*3 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes.
In the figure above, if "h1" exceeds 15 meters, increase the size of the liquid piping labeled g by one size.
*4 The maximum total piping length in the system with the P1400 through P1500 model units is 800 meters.

Table1 Piping "A" size selection rule **(mm [in.])**

Outdoor unit	Twinning kit	Pipe(Liquid)	Pipe(Gas)
PUHY-P1050-1500TSKA	CMY-Y300VBK3	ø19.05[3/4"]	ø41.28[1-5/8"]

For Piping size"M","N","S","T", please refer to specification of the Twinning kit CMY-Y300VBK3 at the Outdoor unit's external drawing.

Table2 Piping"B","C","D","E" size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table3 Piping"a","b","c","d","e","f","g" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 650 or below.
If the total capacity of the units in the downstream of the branch joints on both lines is 650 or above use two branch joints (CMY-Y302S-G2).
*Concerning detailed usage of Joint parts, refer to its Installation Manual.

Table4-2
See the table below for the first joint of the outdoor unit described below.

Outdoor unit model	Joint model
P1050 to P1500	CMY-Y302S-G2

Table5 Header selection rule

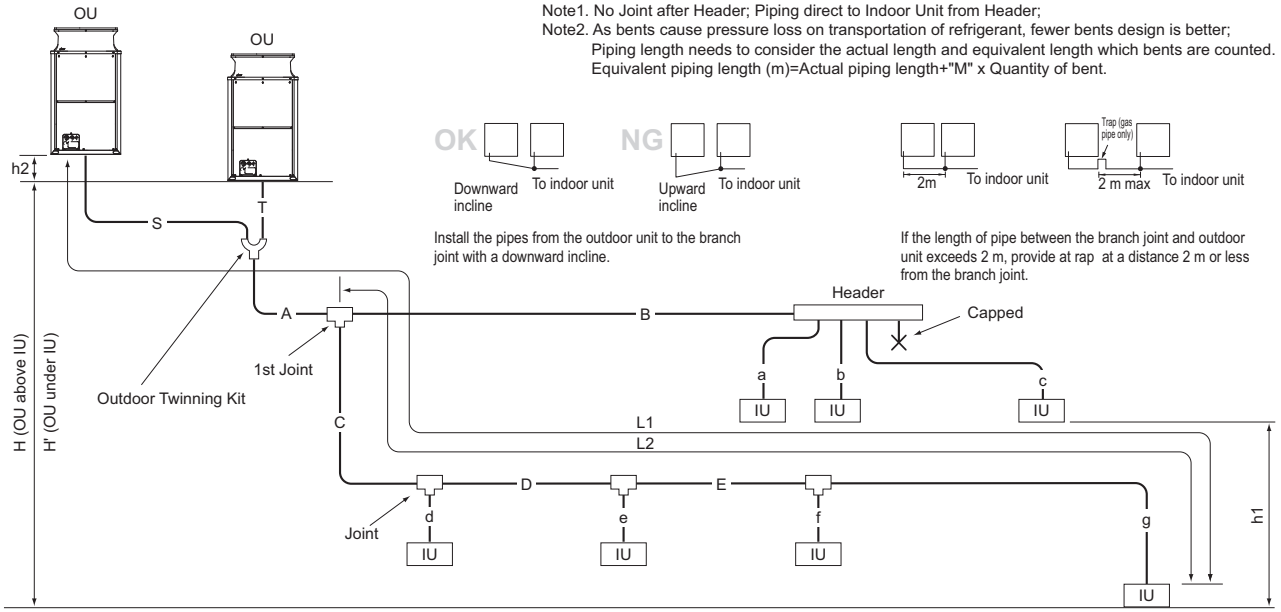
	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P400	<=P650

* CMY-Y104-G can directly connect PUHY-P200TKA, but can NOT directly connect PUHY-P250TKA or above;
* CMY-Y108-G can directly connect PUHY-P200-450TKA, but can NOT directly connect PUHY-P500TKA or above;
* CMY-Y1010-G can directly connect, PUHY-P200-600T(S)KA;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

S.D. Y

3-2-4. PUHY-EP400-500, 650-700TSKA Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Quantity of bent.

Fig. 3-2-5A Piping scheme

IU : Indoor unit , OU : Outdoor unit

Piping length **(m [ft.])**

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+A+B+C+D+E+a+b+c+d+e+f+g	1000 [3280']	-
Distance between OU and OU	S+T	10[32']	-
Height between OU and OU	h2	0.1[0.3']	-
Farthest IU from OU (L1)	S(T)+A+C+D+E+g / S(T)+A+B+c	165 [541']	190 [623']
Farthest IU from the first Joint (L2)	C+D+E+g / B+c	40 [131'] *2	40 [131']
Height between OU and IU (OU above IU)	H	50 [164'] *1	-
Height between OU and IU (OU under IU)	H'	40 [131']	-
Height between IU and IU	h1	15 [49'] *3	-

Bent equivalent length "M"

Outdoor unit model	M (m/bent [ft./bent])
PUHY-EP400TSKA	0.50 [1.64]
PUHY-EP450TSKA	0.50 [1.64]
PUHY-EP500TSKA	0.50 [1.64]
PUHY-EP650TSKA	0.50 [1.64]
PUHY-EP700TSKA	0.70 [2.29]

OU: Outdoor Unit, IU: Indoor Unit

*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point.
In the figure above, if the piping labeled "E" exceeds 40 meters (but does not exceed 90 meters), increase the size of the liquid piping labeled E, f, and g by one size.
*3 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes.
In the figure above, if "h1" exceeds 15 meters, increase the size of the liquid piping labeled g by one size.

Table1 Piping "A" size selection rule **(mm [in.])**

Outdoor unit	Twinning kit	Pipe(Liquid)	Pipe(Gas)
PUHY-EP400TSKA	CMY-Y100VBK3	ø12.70[1/2"]	ø28.58[1-1/8"]
PUHY-EP450-650TSKA	CMY-Y100VBK3	ø15.88[5/8"]	ø28.58[1-1/8"]
PUHY-EP700TSKA	CMY-Y200VBK2	ø19.05[3/4"]	ø34.93[1-3/8"]

For Piping size "S","T", please refer to specification of the Twinning kit CMY-Y100VBK3 at the Outdoor unit's external drawing.

Table2 Piping"B","C","D","E" size selection rule **(mm [in.])**

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table3 Piping"a","b","c","d","e","f","g" size selection rule **(mm [in.])**

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*Concerning detailed usage of Joint parts, refer to its Installation Manual.
*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 650 or below.
If the total capacity of the units in the downstream of the branch joints on both lines is 650 or above use two branch joints (CMY-Y302S-G2).

Table4-2
See the table below for the first joint of the outdoor unit described below.

Outdoor unit model	Joint model
EP400 to EP650	CMY-Y202S-G2
EP700	CMY-Y302S-G2

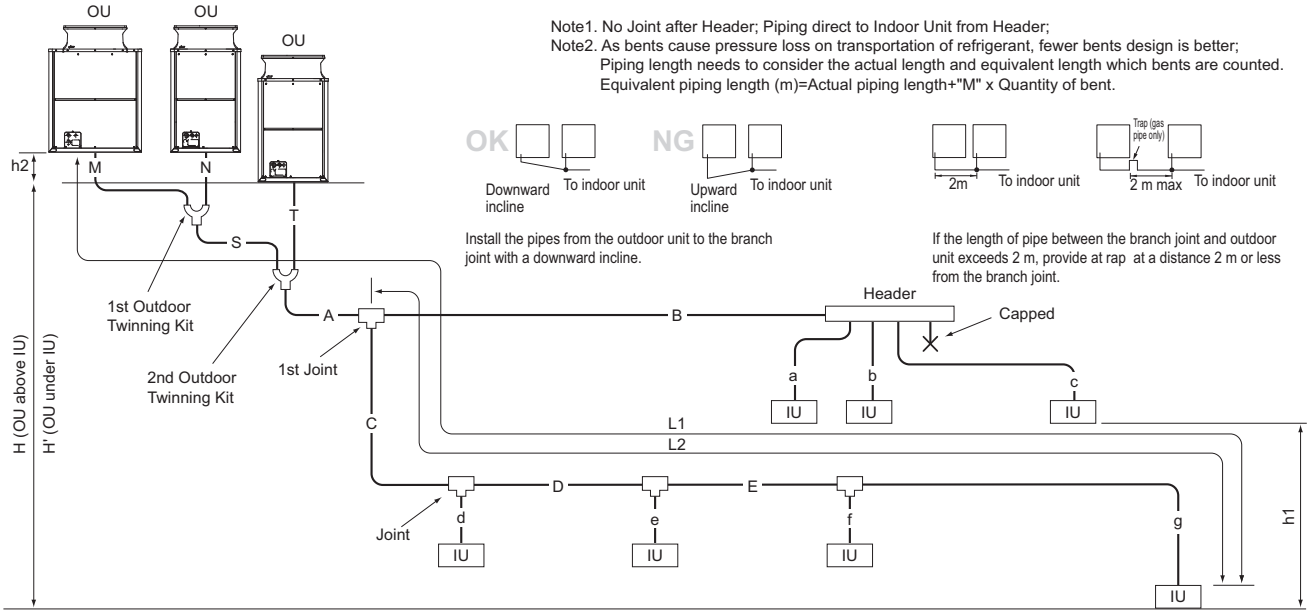
Table5 Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P400	<=P650

* CMY-Y104-G can directly connect PUHY-P200TKA, but can NOT directly connect PUHY-P250TKA or above;
* CMY-Y108-G can directly connect PUHY-EP400-450TSKA, but can NOT directly connect PUHY-EP500TSKA or above;
* CMY-Y1010-G can directly connect PUHY-EP400-600TSKA;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

3-2-5. PUHY-EP750-1100TSKA Piping



Note1. No Joint after Header; Piping direct to Indoor Unit from Header;
Note2. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+"M" x Quantity of bent.

Fig. 3-2-6A Piping scheme

IU : Indoor unit , OU : Outdoor unit

Piping length (m [ft.])

Item	Piping in the figure	Max. length	Max. equivalent length
Total piping length	S+T+M+N+A+B+C+D+E+a+b+c+d+e+f+g	1000[3280']	-
Distance between OU and OU	M+N+S+T	10[32']	-
Height between OU and OU	h2	0.1[0.3']	-
Farthest IU from OU (L1)	M(N)+S+A+C+D+E+g / M(N)+S+A+B+c	165[541']	190[623']
Farthest IU from the first Joint (L2)	C+D+E+g / B+c	40[131'] *2	40[131']
Height between OU and IU (OU above IU)	H	50[164'] *1	-
Height between OU and IU (OU under IU)	H'	40[131']	-
Height between IU and IU	h1	15[49'] *3	-

Bent equivalent length "M"

Outdoor unit model	M (m/bent [ft./bent])
PUHY-EP750TSKA	0.70 [2.29]
PUHY-EP800TSKA	0.70 [2.29]
PUHY-EP850TSKA	0.80 [2.62]
PUHY-EP900TSKA	0.80 [2.62]
PUHY-EP950TSKA	0.80 [2.62]
PUHY-EP1000TSKA	0.80 [2.62]
PUHY-EP1050TSKA	0.80 [2.62]
PUHY-EP1100TSKA	0.80 [2.62]

OU: Outdoor Unit, IU: Indoor Unit

*1 90m is available depending on the model and installation conditions. For more detailed information, contact your local distributor.
*2 90m is available. When the piping length exceeds 40m, use one size larger liquid pipe starting with the section of piping where 40m is exceeded and all piping after that point. In the figure above, if the piping labeled "E" exceeds 40 meters (but does not exceed 90 meters), increase the size of the liquid piping labeled E, f, and g by one size.
*3 30m is available. If the height difference between indoor units exceeds 15 meters (but does not exceed 30 meters), use one-size larger pipes for indoor unit liquid pipes. In the figure above, if "h1" exceeds 15 meters, increase the size of the liquid piping labeled g by one size.

Table1 Piping "A" size selection rule (mm [in.])

Outdoor unit	Twinning kit	Pipe(Liquid)	Pipe(Gas)
PUHY-EP750-800TSKA	CMY-Y300VBK3	ø19.05[3/4"]	ø34.93[1-3/8"]
PUHY-EP850-1100TSKA	CMY-Y300VBK3	ø19.05[3/4"]	ø41.28[1-5/8"]

For Piping size"M","N","S","T", please refer to specification of the Twinning kit CMY-Y300VBK3 at the Outdoor unit's external drawing.

Table2 Piping"B","C","D","E" size selection rule (mm [in.])

Total down-stream Indoor capacity	Pipe(Liquid)	Pipe(Gas)
~ P140	ø9.52 [3/8"]	ø15.88 [5/8"]
P141 ~ P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P201 ~ P300	ø9.52 [3/8"]	ø22.20 [7/8"]
P301 ~ P400	ø12.70 [1/2"]	ø28.58 [1-1/8"]
P401 ~ P650	ø15.88 [5/8"]	ø28.58 [1-1/8"]
P651 ~ P800	ø19.05 [3/4"]	ø34.93 [1-3/8"]
P801 ~	ø19.05 [3/4"]	ø41.28 [1-5/8"]

Table3 Piping"a","b","c","d","e","f","g" size selection rule (mm [in.])

Indoor Unit size	Pipe(Liquid)	Pipe(Gas)
P20,P25,P32,P40,P50,GUF-50RD(H)	ø6.35 [1/4"]	ø12.70 [1/2"]
P63,P71,P80,P100,P125,P140,GUF-100RD(H)	ø9.52 [3/8"]	ø15.88 [5/8"]
P200	ø9.52 [3/8"]	ø19.05 [3/4"]
P250	ø9.52 [3/8"]	ø22.20 [7/8"]

Table4-1 Selection criteria for joints

Total down-stream Indoor capacity	Joint
~ P200	CMY-Y102SS-G2
P201 ~ P400	CMY-Y102LS-G2
P401 ~ P650	CMY-Y202S-G2
P651 ~	CMY-Y302S-G2

*The total capacity of the units in the downstream of the branch joint on at least one of the piping lines that are connected to the branch joint should be 650 or below.
If the total capacity of the units in the downstream of the branch joints on both lines is 650 or above use two branch joints (CMY-Y302S-G2).
*Concerning detailed usage of Joint parts, refer to its Installation Manual.

Table4-2
See the table below for the first joint of the outdoor unit described below.

Outdoor unit model	Joint model
EP750 to EP1100	CMY-Y302S-G2

Table5 Header selection rule

	4-branch Header	8-branch Header	10-branch Header
	CMY-Y104-G	CMY-Y108-G	CMY-Y1010-G
Total down-stream Indoor capacity	<=P200	<=P400	<=P650

* CMY-Y104-G can directly connect PUHY-P200TKA, but can NOT directly connect PUHY-P250TKA or above;
* CMY-Y108-G can directly connect PUHY-EP400-450TSKA, but can NOT directly connect PUHY-EP500TSKA or above;
* CMY-Y1010-G can directly connect, PUHY-EP400-600TSKA;
* CMY-Y104-G can NOT connect P200,P250 Indoor, but CMY-Y108, Y1010-G can do;
* Concerning detailed usage of Header parts, refer to its Installation Manual.

Note3. Indoor capacity is described as its model size;
For example, PEFY-P32VMA-E, its capacity is P32;
Note4. Total down-stream Indoor capacity is the summary of the model size of Indoors downstream.
For example, PEFY-P25VMA-E+PEFY-P32VMA-E: Total Indoor capacity=P25+P32=P57
Note5. Piping sized determined by the Total down-stream indoor capacity is NOT necessary to be bigger than the up-stream one.
i.e. A>=B; A>=C>=D

3-3. Refrigerant charging calculation

PUHY-P-TKA

At the time of shipping, the outdoor unit is charged with the refrigerant. As this charge does not include the amount needed for extended piping, additional charging for each refrigerant line will be required on site. In order that future servicing may be properly provided, always keep a record of the size and length of each refrigerant line and the amount of additional charge by writing it in the space provided on the outdoor unit.

(1) Calculation of additional refrigerant charge

- Calculate the amount of additional charge based on the length of the piping extension and the size of the refrigerant line.
- Use the table below as a guide to calculate the amount of additional charging and charge the system accordingly.
- If the calculation results in a fraction of less than 0.1kg, round up to the next 0.1kg. For example, if the result of the calculation was 12.33kg, round the result up to 12.4kg.

* When connecting one or more PEFY-P20VMA3-E units, add 0.54 kg of refrigerant for each of these units.

<Additional Charge>

Units "m" and "kg"

<Formula>

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

Amount of additional charge (kg)	=	ø19.05 total length × 0.29 (kg/m)	+	ø15.88 total length × 0.2 (kg/m)	+	ø12.7 total length × 0.12 (kg/m)	+	ø9.52 total length × 0.06 (kg/m)	+	ø6.35 total length × 0.024 (kg/m)

+

Outdoor unit model	Amount (kg)
P200	0
P250	0
P300	0
P350	0
P400	0
P450	0
P500	0

+

Total capacity of connected indoor units	Amount (kg)
80 or below	2.0
81 to 160	2.5
161 to 330	3.0
331 to 390	3.5
391 to 480	4.5
481 to 630	5.0
631 to 710	6.0
711 to 800	8.0
801 to 890	9.0
891 to 1070	10.0
1071 to 1250	12.0
1251 or above	14.0

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

Amount of additional charge (kg)	=	ø19.05 total length × 0.26 (kg/m)	+	ø15.88 total length × 0.18 (kg/m)	+	ø12.7 total length × 0.11 (kg/m)	+	ø9.52 total length × 0.054 (kg/m)	+	ø6.35 total length × 0.021 (kg/m)

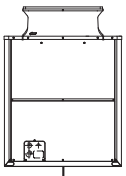
+

Outdoor unit model	Amount (kg)
P200	0
P250	0
P300	0
P350	0
P400	0
P450	0
P500	0

+

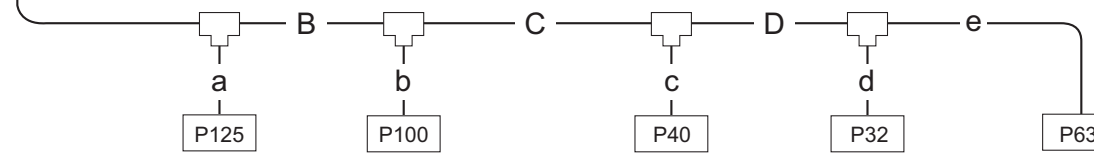
Total capacity of connected indoor units	Amount (kg)
80 or below	2.0
81 to 160	2.5
161 to 330	3.0
331 to 390	3.5
391 to 480	4.5
481 to 630	5.0
631 to 710	6.0
711 to 800	8.0
801 to 890	9.0
891 to 1070	10.0
1071 to 1250	12.0
1251 or above	14.0

Example: PUHY-P350TKA



Indoor	1: P125	A: ø12.7	40 m	a: ø9.52	10 m
	2: P100	B: ø9.52	10 m	b: ø9.52	5 m
	3: P40	C: ø9.52	15 m	c: ø6.35	10 m
	4: P32	D: ø9.52	10 m	d: ø9.52	10 m
	5: P63			e: ø12.7	10 m

The total length of liquid pipe of each size is as follows:
ø12.7: A + e = 40 + 10 = 50 m
ø9.52: B + C + D + a + b + d = 10 + 15 + 10 + 10 + 5 + 10 = 60 m
ø6.35: c = 10 = 10 m



Additional refrigerant charge	=	Total length of liquid pipe sized ø19.05 x 0.26 (kg/m)	+	Total length of liquid pipe sized ø15.88 x 0.18 (kg/m)	+	Total length of liquid pipe sized ø12.7 x 0.11 (kg/m)	+	Total length of liquid pipe sized ø9.52 x 0.054 (kg/m)	+	Total length of liquid pipe sized ø6.35 x 0.021 (kg/m)	+ 0 + 3.5
(kg)		0 (m) x 0.26 (kg/m)		0 (m) x 0.18 (kg/m)		50 (m) x 0.11 (kg/m)		60 (m) x 0.054 (kg/m)		10 (m) x 0.021 (kg/m)	

= 0 + 0 + 50 x 0.11 + 60 x 0.054 + 10 x 0.021 + 0 + 3.5
= 12.5 (12.45) kg

■Amount of factory charged refrigerant

Outdoor unit model	Charged amount
P200	8.0 kg
P250	8.0 kg
P300	8.0 kg
P350	11.5 kg
P400	11.5 kg
P450	11.5 kg
P500	11.8 kg

■Maximum refrigerant charge

There is a limit to the amount of refrigerant that can be charged into a unit. Regardless of the amount yielded by the formula above, observe the maximum refrigerant charge in the table below.

Total index of the outdoor units			P200 TKA	P250 TKA	P300 TKA	P350 TKA	P400 TKA	P450 TKA	P500 TKA	P550 TSKA	P600 TSKA	P650 TSKA	P700 TSKA	P750 TSKA	P800 TSKA	P850 TSKA
Maximum refrigerant charge	Factory charged	kg	8.0	8.0	8.0	11.5	11.5	11.5	11.8	16.0	19.5	19.5	19.5	19.5	23.0	23.0
	Charged on site	kg	14.3	21.7	24.7	22.1	25.7	33.5	34.1	35.3	34.4	37.0	49.4	49.4	48.4	50.2
	Total for system	kg	22.3	29.7	32.7	33.6	37.2	45.0	45.9	51.3	53.9	56.5	68.9	68.9	71.4	73.2

Total index of the outdoor units			P900 TSKA	P950 TSKA	P1000 TSKA	P1050 TSKA	P1100 TSKA	P1150 TSKA	P1200 TSKA	P1250 TSKA	P1300 TSKA	P1350 TSKA	P1400 TSKA	P1450 TSKA	P1500 TSKA
Maximum refrigerant charge	Factory charged	kg	23.0	23.3	23.6	27.5	31.0	34.5	34.5	34.5	34.5	34.5	34.8	35.1	35.4
	Charged on site	kg	52.7	73.6	76.3	75.4	75.0	74.5	77.5	77.5	77.5	77.5	77.2	76.9	76.6
	Total for system	kg	75.7	96.9	99.9	102.9	106.0	109.0	112.0	112.0	112.0	112.0	112.0	112.0	112.0

Total index of the outdoor units			EP400 TSKA	EP450 TSKA	EP500 TSKA	EP650 TSKA	EP700 TSKA	EP750 TSKA	EP800 TSKA	EP850 TSKA	EP900 TSKA	EP950 TSKA	EP1000 TSKA	EP1050 TSKA	EP1100 TSKA
Maximum refrigerant charge	Factory charged	kg	16.0	16.0	16.0	19.5	23.0	27.5	27.5	27.5	27.5	27.5	31.0	34.5	34.5
	Charged on site	kg	29.0	29.9	31.0	37.0	45.9	41.4	43.9	45.7	48.2	69.4	68.9	68.4	71.5
	Total for system	kg	45.0	45.9	47.0	56.5	68.9	68.9	71.4	73.2	75.7	96.9	99.9	102.9	106.0

4-1. Requirement on installation site

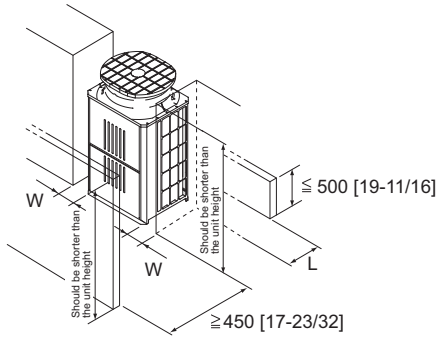
1. No direct thermal radiation to the unit.
2. No possibility of annoying the neighbors by the sound of the unit.
   Valves and refrigerant flow on the outdoor unit may generate noise.
3. Avoid the sites where strong winds blow.
4. With strength to bear the weight of the unit.
5. Drain flow from the unit is cared at heating mode.
6. Enough space for installation and service as shown at 4-2.
7. Avoid the sites where acidic solutions or chemical sprays (sulfur series) are used frequently.
8. The unit should be secure from combustible gas, oil, steam, chemical gas like acidic solution, sulfur gas and so on.

4-2. Spacing

In case of single installation

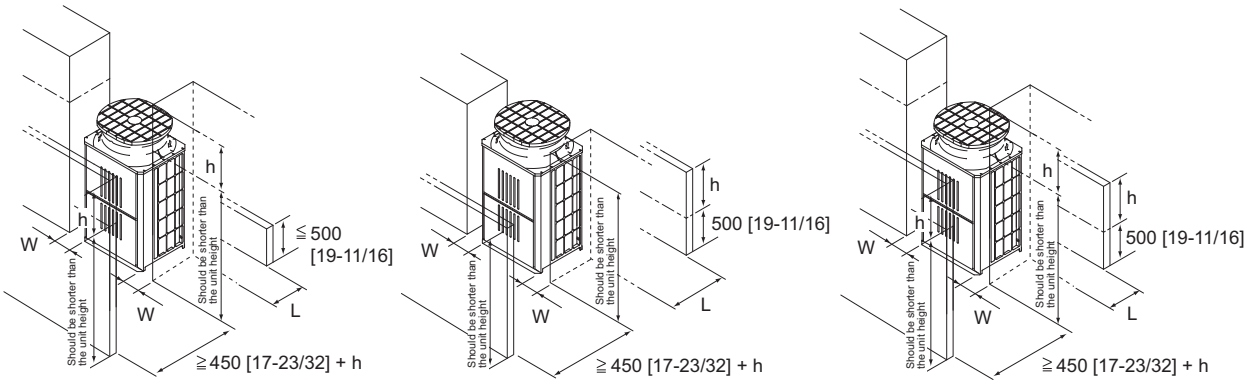
- Secure enough space around the unit as shown in the figure.
- If the wall height exceeds the height limit, widen the space labeled "L" and "W" by the amount that exceeds the limit (labeled <h> in the figure).
- Clearance shown in this section are proper airflow, installation, and service. Additional spacing maybe required depending on load code.

(1) Walls are lower than the height limit.



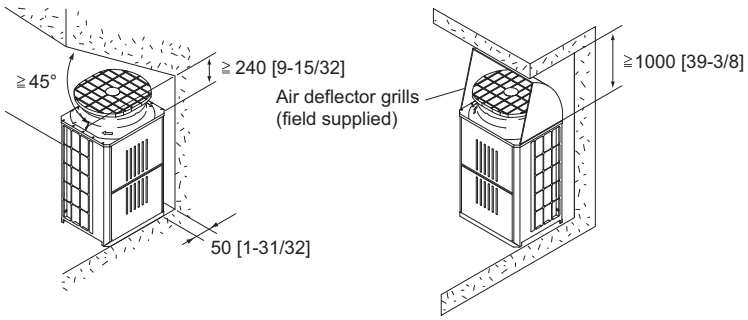
Condition	L	W
Minimum space behind the unit	≧ 100 [3-15/16]	≧ 50 [1-31/32]
Minimum space on both sides of the unit	≧ 300 [11-13/16]	≧ 15 [19/32]

(2) If the wall height (H) of the front, rear or side exceeds the wall height restriction



Condition	L	W
Minimum space behind the unit	≧ 100 [3-15/16] + h	≧ 50 [1-31/32] + h
Minimum space on both sides of the unit	≧ 300 [11-13/16] + h	≧ 15 [19/32] + h

(3) If there are obstacles at the upper part of the unit



(Unit : mm [in.])

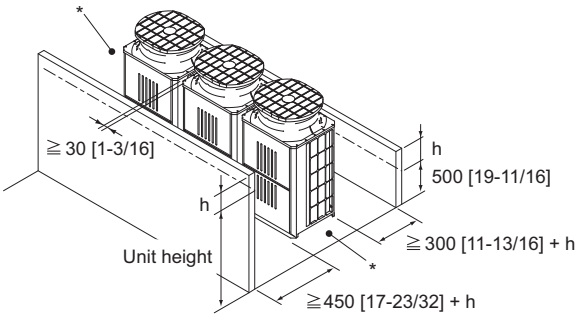
S.D. Y

In case of collective installation and continuous installation

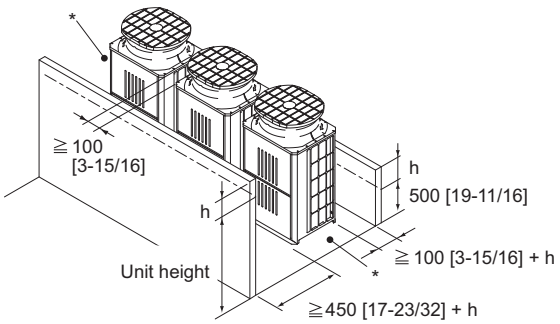
- When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and passageways between groups of units as shown in the figures.
  * Leave both sides of each group of units open.
- As with single installation, if the wall height exceeds the height limit, widen the space in the front and the back of a given group of units by the amount that exceeds the limit (labeled <h> in the figure).
- If there is a wall at both the front and the rear of the unit, install up to six units (three units: P500) consecutively in the side direction and provide a space of 1000mm or more as inlet space/passage space for each six units (three units: P500).
- Clearance shown in this section are proper airflow, installation, and service. Additional spacing maybe required depending on load code.

(1) Side-by-side installation

<The space on both sides of a given group of units is minimum.>

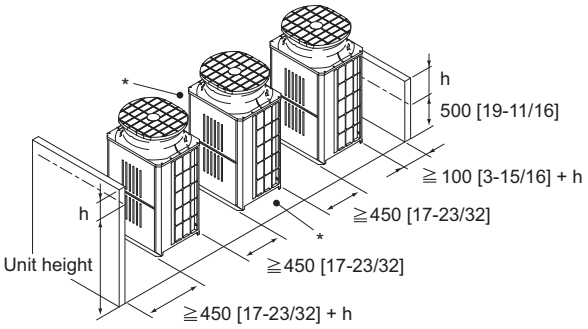


<The space on both sides of a given group of units is minimum.>

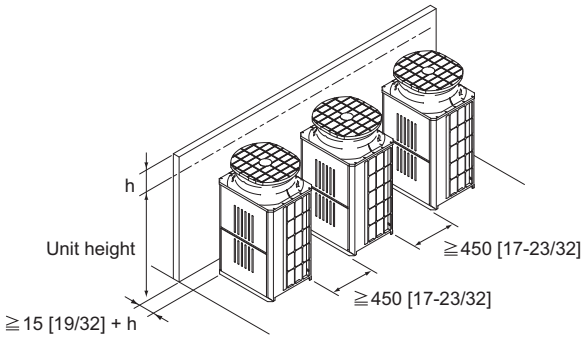


(2) Face-to-face installation

<There are walls in the front and the back of a given group of units.>

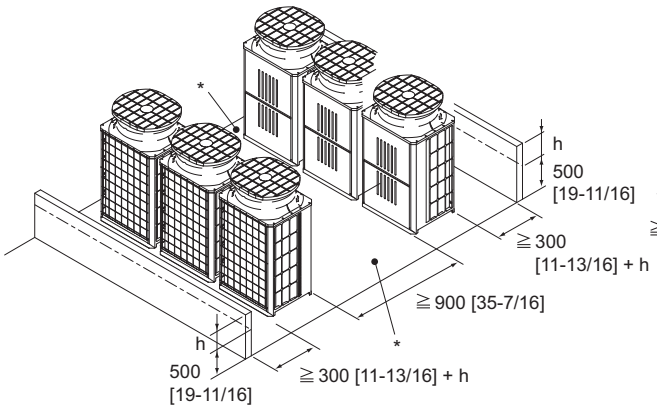


<There is a wall on one side.>

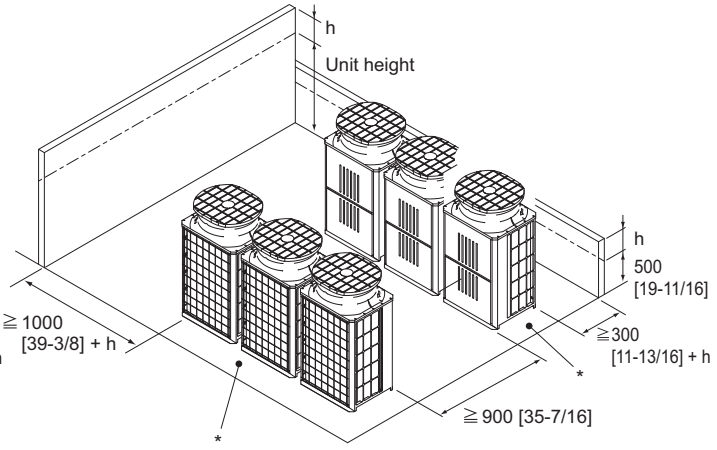


(3) Combination of face-to-face and side-by-side installations

<There are walls in the front and the back of a given group of units.>



<There is a wall on one side and either the front or the back of a given group of unit.>



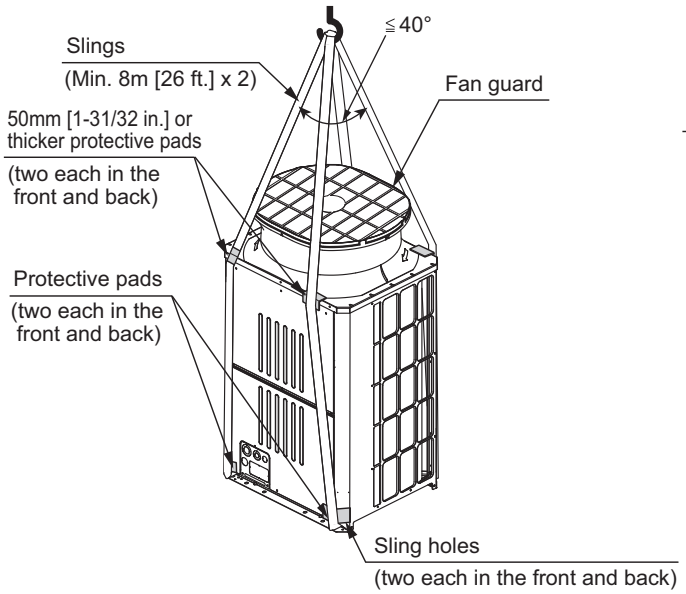
(Unit: mm [in.])

4-3. Piping direction

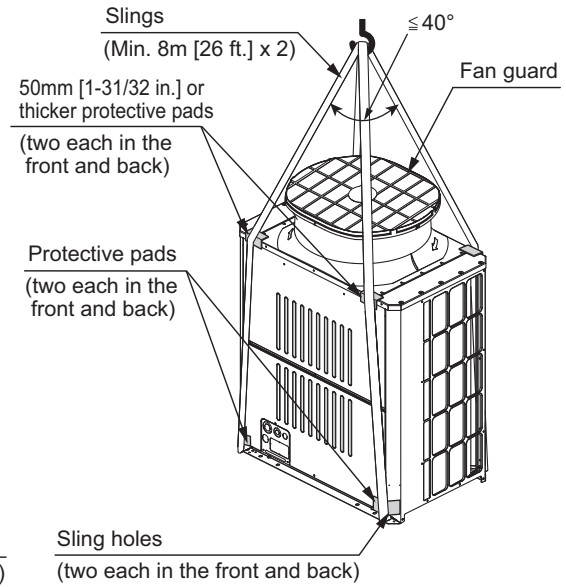
4-3-1. Lifting method

· When lifting the unit with ropes, run the ropes under the unit and use the lifting hole.
· Support the unit at four points with two ropes, and avoid giving mechanical shock.
· Suspension rope angle must be 40° or less, so as to avoid compressing fan guard.
· Use two ropes, each at least 8m [26 ft.] in length
· Use ropes strong enough to support the weight of the unit.
· Always suspend the unit from four corners. (It is dangerous to suspend a unit from two corners and must not be attempted.)
· Use protective pads to keep the ropes from scratching the panels on the unit.
· Use a 50mm [1-31/32 in.] or thicker cardboard or cloth as a protective pad on the top of the unit to prevent contact between the fan guard and slings.

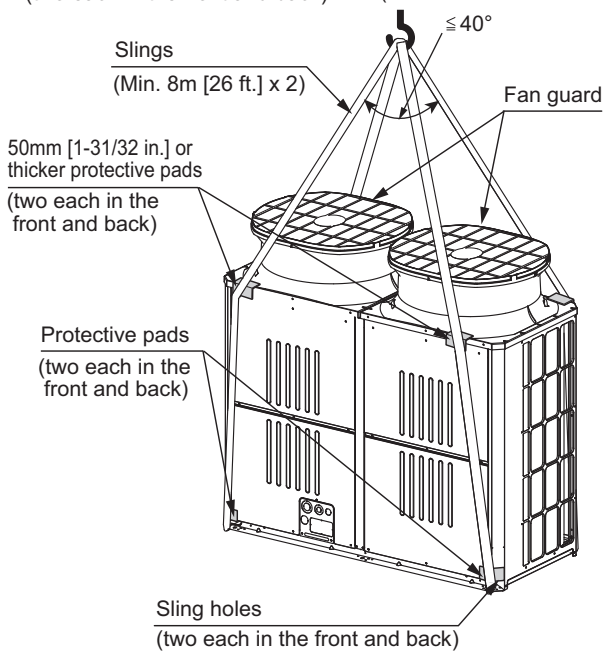
① P200, 250, 300



② P350, 400, 450



③ P500



⚠ CAUTION

Exercise caution when transporting products.

· Products weighing more than 20 kg [45 LBS] should not be carried alone.
· Do not carry the product by the PPbands.
· To avoid the risk of injury, do not touch the heat exchanger fins.
· Plastic bags may pose a risk of choking hazard to children. Tear plastic bags into pieces before disposing of them.
· When lifting and transporting outdoor units with ropes, run the ropes through lifting hole at the unit base. Securely fix the unit so that the ropes will not slide off, and always lift the unit at four points to prevent the unit from falling.

S.D. Y

4-3-2. Installation

- Secure the unit with anchor bolts as shown in the figure below so that the unit will not topple over with strong wind or during an earthquake.
- Install the unit on a durable base made of such materials as concrete or angle steel.
- Take appropriate anti-vibration measures (e.g., vibration damper pad, vibration isolation base) to keep vibrations and noise from being transmitted from the unit through walls and floors.
- When using a rubber cushion, install it so that the cushion covers the entire width of the unit leg.
- Install the unit in such a way that the corner of the angle bracket at the base of the unit shown in the figure below is securely supported.
- Install the anchor bolt in such a way that the top end of the anchor bolt do not stick out more than 30 mm [1-3/16 in.].
- This unit is not designed to be anchored with post-installation-type anchor bolts, although by adding fixing brackets anchoring with such type of anchor bolts becomes possible.

Ⓐ: M10 anchor bolt procured at the site.

Ⓑ: Corner is not seated.

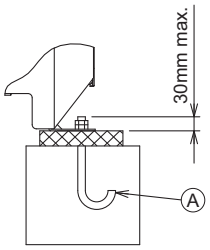
Ⓒ: Fixing bracket for hole-in anchor bolt (3 locations to fix with screws).

⚠WARNING

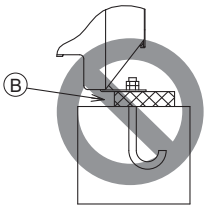
Properly install the unit on a surface that can withstand the weight of the unit. Unit installed on an unstable surface may fall and cause injury.

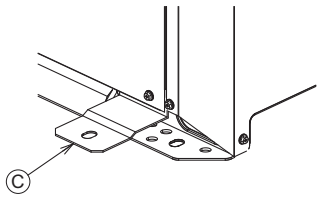
⚠WARNING

Take appropriate safety measures against strong winds and earthquakes to prevent the unit from falling.



Install the unit in such a way that the corner of the angle bracket at the base of the unit shown in the figure is securely supported. The brackets may bend if they are not securely supported.





Take into consideration the durability of the base, water drainage route (Drain water is discharged from outdoor units during operation.), piping route, and wiring route when performing foundation work.

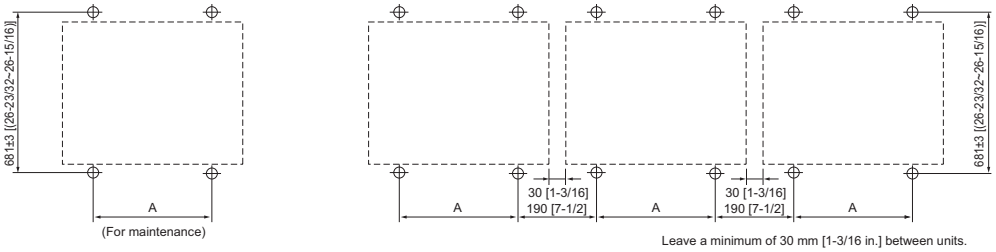
4-3-3. Anchor bolt positions

<P200-450>

• Individual installation

• Collective installation

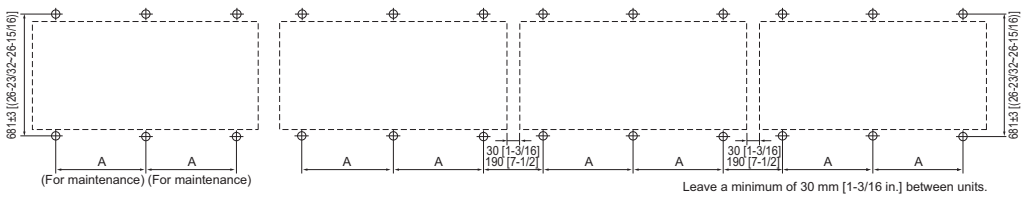
(Unit : mm [in.])



PUHY	P200, 250, 300
A	760±2 [29-15/16(29-27/32~30)]

PUHY	P350, 400, 450
A	1060±2 [41-3/4(41-21/32~41-13/16)]

<P500>

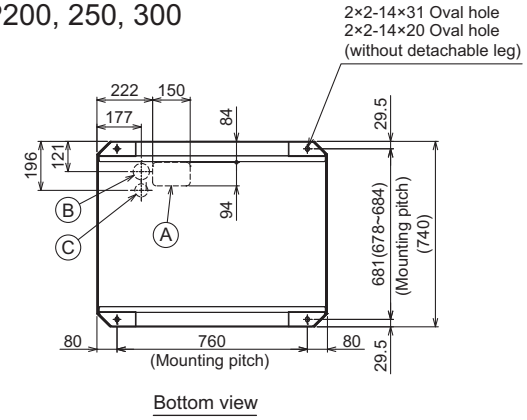


PUHY	P500
A	795±2 [31-5/16(31-1/4~31-13/32)]

4-3-4. Installation

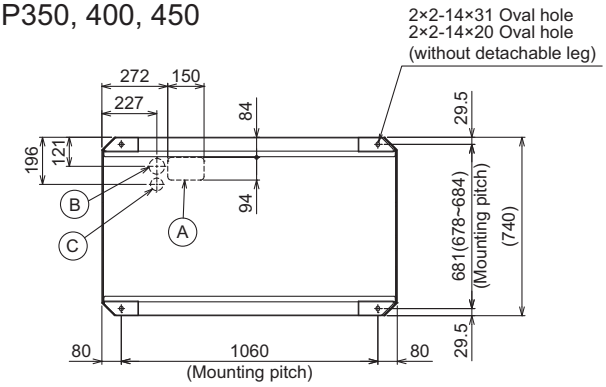
When the pipes and/or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
When the pipes are routed at the bottom of the unit, the base should be at least 100 mm [3-15/16 in.] in height.

·P200, 250, 300



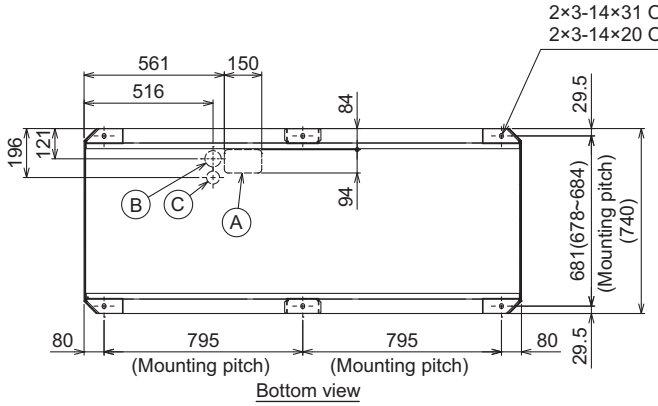
Bottom view

·P350, 400, 450



Bottom view

·P500

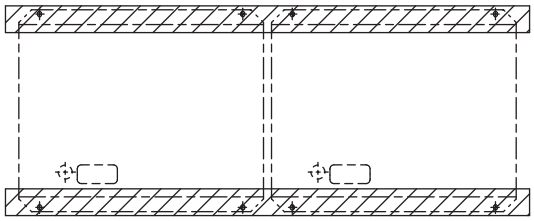


Bottom view

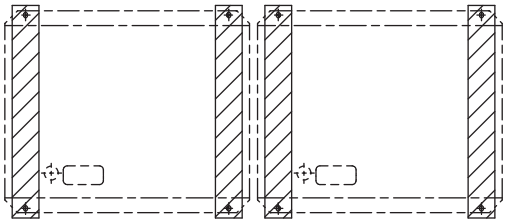
(Unit : mm [in.])

NO.	Usage		Specifications
Ⓐ	For pipes	Bottom through hole	150 × 94 Knockout hole (5-29/32) (3-23/32)
Ⓑ	For wires	Bottom through hole	Ø65 Knockout hole (2-9/16)
Ⓒ		Bottom through hole	Ø52 Knockout hole (2-1/16)

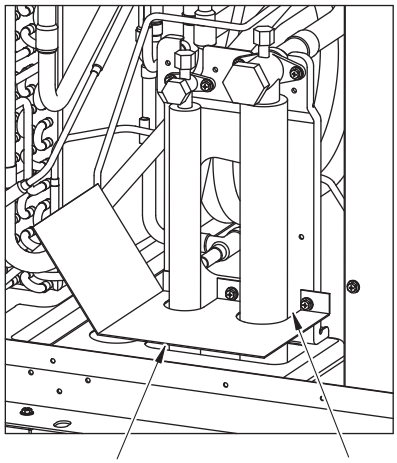
Installation base parallel to the unit's front panel



Installation base perpendicular to the unit's front panel



4-3-5. Refrigerant pipe routing



Example of closure materials (field supply)

Fill the gap at the site

The gaps around the edges of through holes for pipes and wires on the unit allow water or mice to enter the unit and damage its parts. Close these gaps with filler plates.

This unit allows two types of pipe routing:
• Bottom piping
• Front piping

⚠ CAUTION

To prevent small animals, water and snow from entering the unit and damage its parts, close the gap around the edges of through holes for pipes and wires with filler plates.

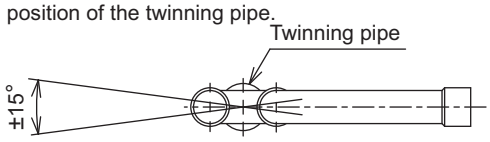
S.D. Y

4-3-6. Twinning on the outdoor unit side

- The tilt angle of the twinning pipe
  The tilt angle of the twinning pipe must be within ±15° with the horizontal plane.
  Tilting the twinning pipe more than specified will cause damage to the unit.

- The length of the straight part of the pipe before the branching
  For the twinning kit, always use the accessory piping parts.
  The length of the straight part of pipe connected in front of the twinning pipe must be 500 mm [19-11/16 in.] or longer.
  (Connect the field piping so that the length of the straight part of pipe connected in front of the twinning pipe can be 500 mm [19-11/16 in.] or longer.)
  If the length is less than 500 mm [19-11/16 in.], it will cause damage to the unit.

Note: See the following drawing for the fitting position of the twinning pipe.

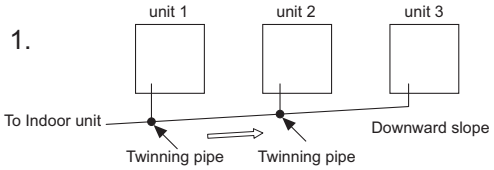


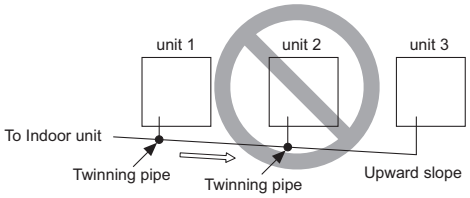
The tilt angle of the twinning pipe should be within ±15°with the horizontal plane.

- Precautions for outdoor unit combinations

<A> Install the piping so that oil will not accumulate in the stopped outdoor unit.

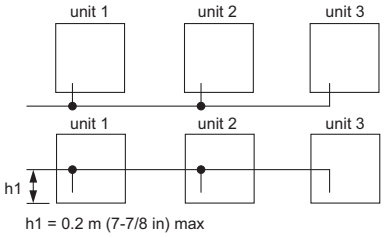
1.

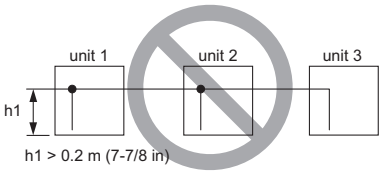




The NG example shows that oil accumulates because the units are installed on a reverse gradient while unit 1 is in operation, and unit 3 is stopped.

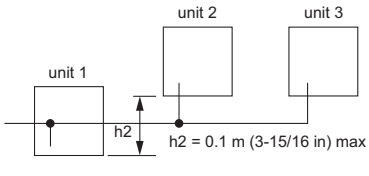
2.

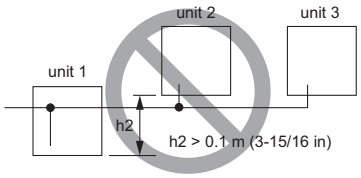




The NG example shows that oil accumulates into units 1 and 2 while unit 3 is in operation, and units 1 and 2 are stopped.
Vertical pipe height (h) should be 0.2 m (7-7/8 in) or below.

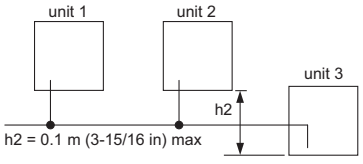
3.

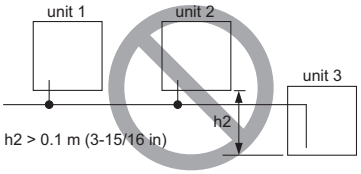




The NG example shows that oil accumulates into unit 1 while unit 3 is in operation, and unit 1 is stopped. Vertical pipe height (h) should be 0.2 m (7-7/8 in) or below.

4.

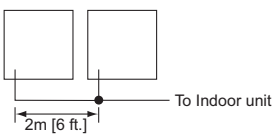




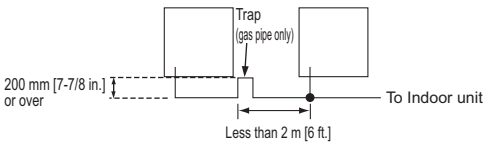
The NG example shows that oil accumulates into unit 3 while unit 1 is in operation, and unit 3 is stopped. Vertical pipe height (h) should be 0.2 m (7-7/8 in) or below.

<B> When the piping on the outdoor unit side (from the twinning pipe) exceeds 2 m [6 ft], ensure a trap (**gas pipe only**) within 2 m [6 ft].
Make sure the height of the trap is 200 mm [7-7/8 in] or more.
If there is no trap, oil can accumulate inside the pipe, causing a shortage of oil and may damage the compressor.

<2 m [6 ft.] or less>



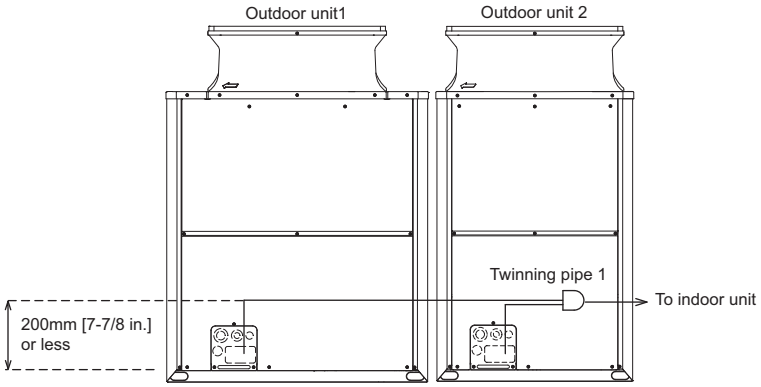
<More than 2 m [6 ft.]>



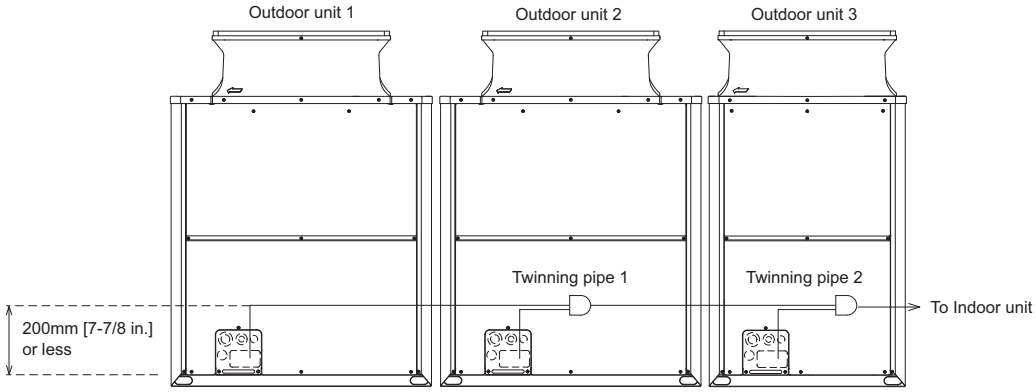
⚠ Caution:

- **Do not install traps other than the ones between outdoor units described on a separate sheet to prevent oil backflow and compressor start-up failure.**
- **Do not install solenoid valves to prevent oil backflow and compressor start-up failure.**
- **Do not install a sight glass because it may show improper refrigerant flow.**
  If a sight glass is installed, inexperienced technicians that use the glass may overcharge the refrigerant.

<PUHY-P600TSKA>
<PUHY-EP650TSKA>



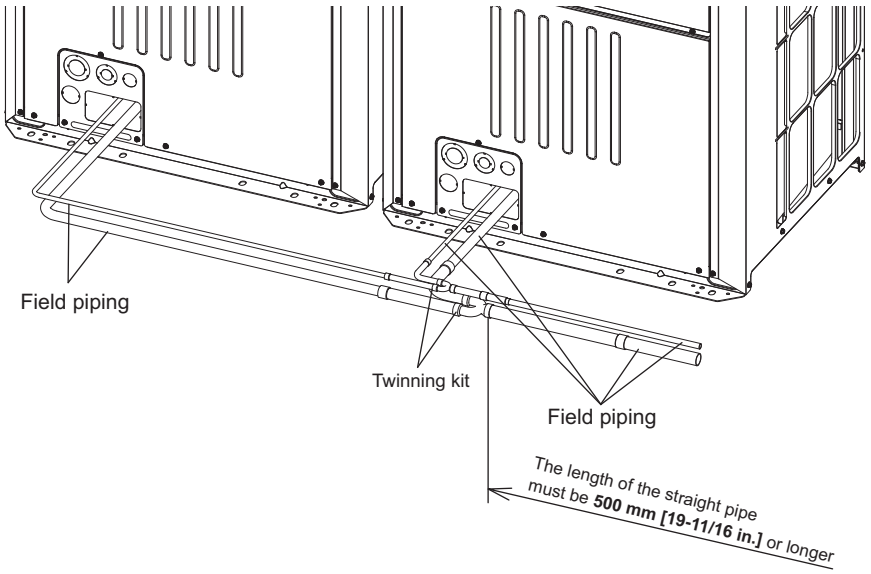
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<PUHY-EP1000TSKA>



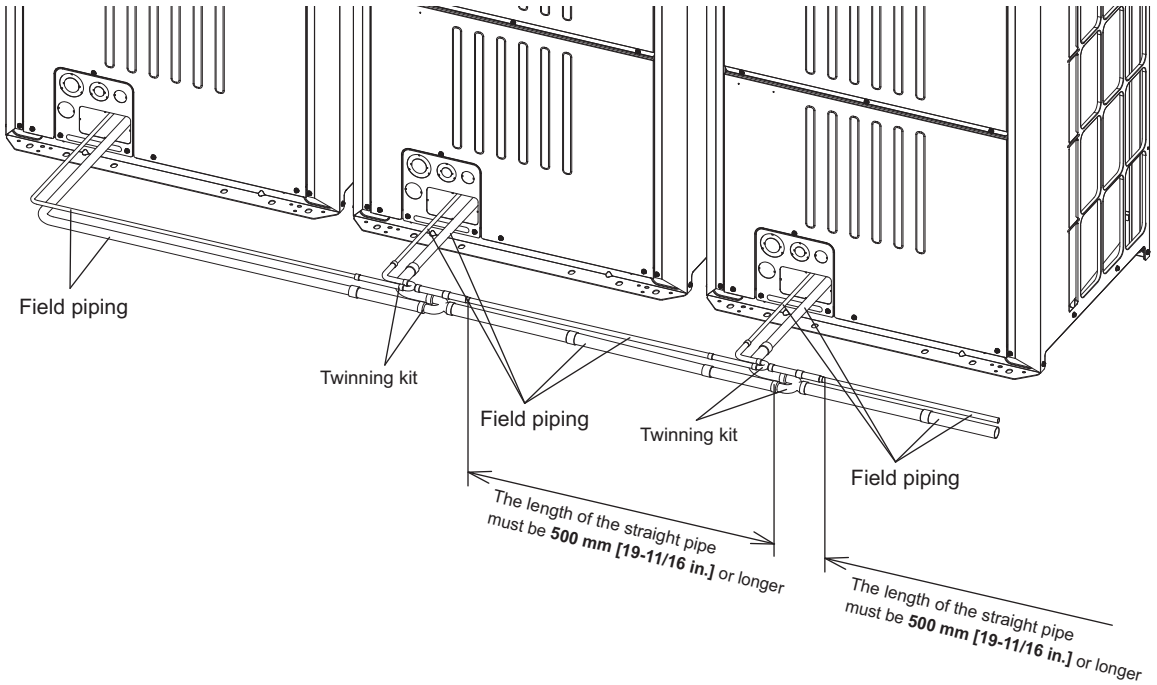
4-3-7. Twinning on the outdoor unit side

See the following drawing for connecting the pipes between the outdoor units.

<In case of 2units combination>



<In case of 3units combination>



⚠ CAUTION

The length of the straight pipe must be 500mm[19-11/16 in.] or longer. If not, it may cause improper operation.

4-4. Weather countermeasure

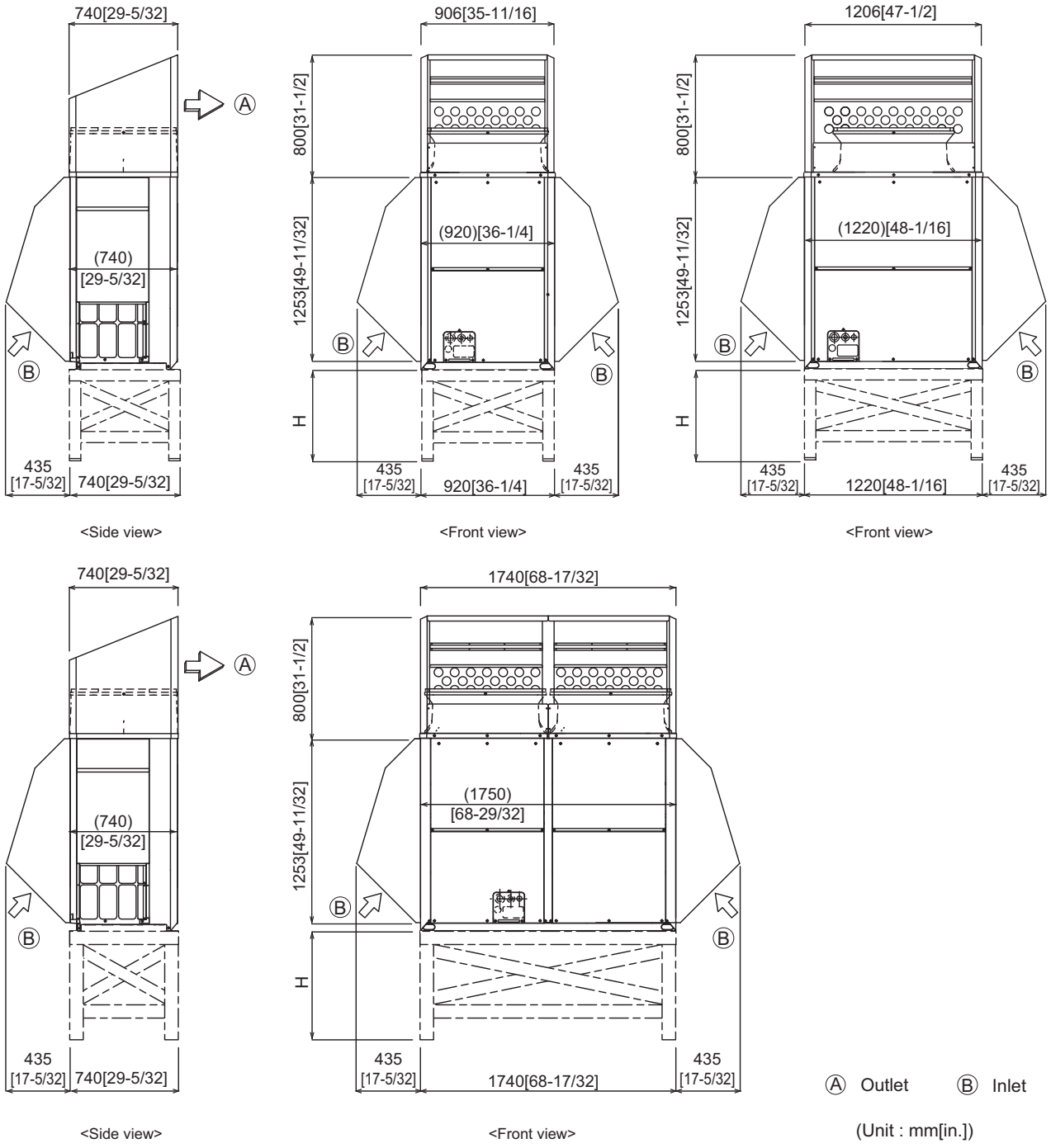
In cold and/or snowy areas, sufficient countermeasures to wind and snow damages should be taken for operating unit in normal and good condition in winter time. Surround the units with snow nets or fences to protect them from snow. Even in the other areas, full consideration is required for installation of unit in order to prevent abnormal operations caused by wind or snow. **When rain and snow directly fall on unit in the case of air-conditioning operations in 10 or less degrees centigrade outdoor air (50 or less degrees fahrenheit outdoor air) , mount inlet and outlet ducts on unit for assuring stable operations.**

Countermeasure to snow and wind

Prevention the Outdoor unit from wind and snow damages in cold or snowy areas, snow hood shown below is recommended and helpful.

*Do not use a snow hood made of stainless steel, which may cause the unit to rust. If the use of a stainless snow hood is the only option, contact the sales office before installing it.

• Snow hood



<Side view> <Front view> <Front view>

<Side view> <Front view>

(Unit : mm[in.])

Note:

1. Height of frame base for snow damage prevention (H) shall be twice as high as expected snowfall. Width of frame base shall not exceed that of the unit. The frame base shall be made of angle steel, etc., and designed so that snow and wind slip through the structure. (If frame base is too wide, snow will be accumulated on it.)
2. Install unit so that wind will not directly lash against openings of inlet and outlet ducts.
3. Build frame base at customer referring to this figure.
   Material : Galvanized steel plate 1.2T [1/16 in. T]
   Painting : Overall painting with polyester powder
   Color : Munsell 5Y8/1 (same as that of unit)
4. To install units side by side, install a filler plate between the fan guard and the outlet-side snow food as shown in Figure A.
   (The filler plate provided accommodates the installation pitch of between 30-80 mm [1-3/16~3-5/32 in.].)
5. When the unit is used in a cold region and the heating operation is continuously performed for a long time when the outside air temperature is below freezing, install a heater to the unit base or take other appropriate measures to prevent water from freezing on the base.

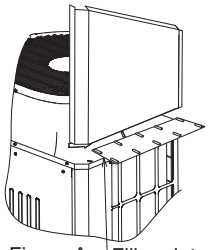
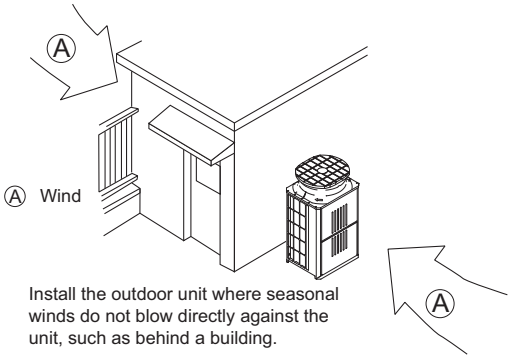


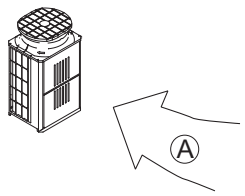
Figure A Filler plate

Countermeasure to wind

Referring to the figure shown below, take appropriate measures which will suit the actual situation of the place for installation.
A unit installed alone is vulnerable to strong winds. Select the installation site carefully to minimize the effect of winds.
To install a unit in a place where the wind always blows from the same direction, install the unit so that the outlet faces away from the direction of the wind.



Install the outdoor unit where seasonal winds do not blow directly against the unit, such as behind a building.



Install the outdoor unit to avoid having seasonal winds against the front of air outlet/inlet on the unit.

4-5. Caution on selecting outdoor units

Consult your dealer when the following issues on Y series are the key concern.
· Warm air may flow out from the indoor unit during heating Thermo-OFF.
· Refrigerant flow sound may occur in the rooms with low background noise such as hotel rooms, hospital rooms, bedrooms, or conference rooms.
To avoid the above issues on Y series, changing board settings on the indoor and outdoor units is required.
Ask AC&R Works for details.

5-1. General precautions

5-1-1. Usage

- The air-conditioning system described in this Data Book is designed for human comfort.
- This product is not designed for preservation of food, animals, plants, precision equipment, or art objects. To prevent quality loss, do not use the product for purposes other than what it is designed for.
- To reduce the risk of water leakage and electric shock, do not use the product for air-conditioning vehicles or vessels.

5-1-2. Installation environment

- Do not install any unit other than the dedicated unit in a place where the voltage changes a lot, large amounts of mineral oil (e.g., cutting oil) are present, cooking oil may splash, or a large quantity of steam can be generated such as a kitchen.
- Do not install the unit in acidic or alkaline environment.
- Installation should not be performed in the locations exposed to chlorine or other corrosive gases. Avoid near a sewer.
- To reduce the risk of fire, do not install the unit in a place where flammable gas may be leaked or inflammable material is present.
- This air conditioning unit has a built-in microcomputer. Take the noise effects into consideration when deciding the installation position. Especially in a place where antenna or electronic device are installed, it is recommended that the air conditioning unit be installed away from them.
- Install the unit on a solid foundation according to the local safety measures against typhoons, wind gusts, and earthquakes to prevent the unit from being damaged, toppling over, and falling.

5-1-3. Backup system

- In a place where air conditioner's malfunctions may exert crucial influence, it is recommended to have two or more systems of single outdoor/heat source units with multiple indoor units.

5-1-4. Unit characteristics

- Heat pump efficiency of outdoor unit depends on outdoor temperature. In the heating mode, performance drops as the outside air temperature drops. In cold climates, performance can be poor. Warm air would continue to be trapped near the ceiling and the floor level would continue to stay cold. In this case, heat pumps require a supplemental heating system or air circulator. Before purchasing them, consult your local distributor for selecting the unit and system.
- When the outdoor temperature is low and the humidity is high, the heat exchanger on the outdoor unit side tends to collect frost, which reduces its heating performance. To remove the frost, Auto-defrost function will be activated and the heating mode will temporarily stop for 3-10 minutes. Heating mode will automatically resume upon completion of defrost process.
- Air conditioner with a heat pump requires time to warm up the whole room after the heating operation begins, because the system circulates warm air in order to warm up the whole room.
- The sound levels were obtained in an anechoic room. The sound levels during actual operation are usually higher than the simulated values due to ambient noise and echoes. Refer to the section on "SOUND LEVELS" for the measurement location.
- Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes even when operating normally. Please consider to avoid location where quietness is required. For BC/HBC controller, it is recommended to unit to be installed in places such as ceilings of corridor, restrooms and plant rooms.
- The total capacity of the connected indoor units can be greater than the capacity of the outdoor/heat source unit. However, when the connected indoor units operate simultaneously, each unit's capacity may become smaller than the rated capacity.
- When the unit is started up for the first time within 12 hours after power on or after power failure, it performs initial startup operation (capacity control operation) to prevent damage to the compressor. The initial startup operation requires 90 minutes maximum to complete, depending on the operation load.

5-1-5. Relevant equipment

- Use an earth leakage breaker (ELB) with medium sensitivity, and an activation speed of 0.1 second or less.
- Consult your local distributor or a qualified technician when installing an earth leakage breaker.
- If the unit is inverter type, select an earth leakage breaker for handling high harmonic waves and surges.
- Leakage current is generated not only through the air conditioning unit but also through the power wires. Therefore, the leakage current of the main power supply is greater than the total leakage current of each unit. Take into consideration the capacity of the earth leakage breaker or leakage alarm when installing one at the main power supply. To measure the leakage current simply on site, use a measurement tool equipped with a filter, and clamp all the four power wires together. The leakage current measured on the ground wire may not accurate because the leakage current from other systems may be included to the measurement value.
- Do not install a phase advancing capacitor on the unit connected to the same power system with an inverter type unit and its equipment.
- If a large current flows due to the product malfunctions or faulty wiring, both the earth leakage breaker on the product side and the upstream overcurrent breaker may trip almost at the same time. Separate the power system or coordinate all the breakers depending on the system's priority level.

5-1-6. Unit installation

- Your local distributor or a qualified technician must read the Installation Manual that is provided with each unit carefully before performing installation work.
- Consult your local distributor or a qualified technician when installing the unit. Improper installation by an unqualified person may result in water leakage, electric shock, or fire.
- Ensure there is enough space around each unit.

5-1-7. Optional accessories

- Only use accessories recommended by Mitsubishi Electric. Consult your local distributor or a qualified technician when installing them. Improper installation by an unqualified person may result in water leakage, electric leakage, system breakdown, or fire.
- Some optional accessories may not be compatible with the air conditioning unit to be used or may not suitable for the installation conditions. Check the compatibility when considering any accessories.
- Note that some optional accessories may affect the air conditioner's external form, appearance, weight, operating sound, and other characteristics.

5-1-8. Operation/Maintenance

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

5-2. Precautions for Indoor unit and BC controller

5-2-1. Operating environment

- The refrigerant (R410A) used for air conditioner is non-toxic and nonflammable. However, if the refrigerant leaks, the oxygen level may drop to harmful levels. If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant should leak.
- If the units operate in the cooling mode at the humidity above 80%, condensation may collect and drip from the indoor units.

5-2-2. Unit characteristics

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

5-2-3. Unit installation

- For simultaneous cooling/heating operation type air conditioners (R2, WR2 series), the G-type BC controller cannot be connected to the 16HP outdoor/heat source unit model or above, and the G- and GA-type BC controllers cannot be connected to the 28HP model or above. The GB- and HB-type BC controllers (sub) cannot be connected to the outdoor/heat source unit directly, and be sure to use them with GA- and HA-type BC controllers (main).
- The insulation for low pressure pipe between the BC controller and outdoor/heat source unit shall be at least 20 mm thick. If the unit is installed on the top floor or in a high-temperature, high-humidity environment, thicker insulation may be necessary.
- Do not have any branching points on the downstream of the refrigerant pipe header.
- When a field-supplied external thermistor is installed or when a device for the demand control is used, abnormal stop of the unit or damage of the electromagnetic contactor may occur. Consult your local distributor for details.
- When indoor units operate a fresh air intake, install a filter in the duct (field-supplied) to remove the dust from the air.
- The 4-way or 2-way Airflow Ceiling Cassette Type units that have an outside air inlet can be connected to the duct, but need a booster fan to be installed at site. Refer to the chapter "Indoor Unit" for the available range for fresh air intake volume.
- Operating fresh air intake on the indoor unit may increase the sound pressure level.

5-3. Precautions for Fresh air intake type indoor unit

5-3-1. Usage

- This unit mainly handles the outside air load, and is not designed to maintain the room temperature. Install other air conditioners for handling the air conditioning load in the room.

5-3-2. Unit characteristics

- This unit cannot perform the drying operation. The unit will continue the fan operation and blow fresh air (air that is not air-conditioned) when the Heating Thermo-OFF or Cooling Thermo-OFF mode is selected.
- The fan may stop tentatively when the unit is connected to the simultaneous cooling/heating operation type outdoor/heat source unit (R2, WR2 series) or during the defrost cycle.
- This unit switches the Thermo ON or OFF depending on the room temperature. The outside air is directly supplied into the room during Thermo OFF. Take caution of the cold supply air due to low outside air temperature and of condensation in the room due to high humidity of the outside air.
- Outside air temperature ranges for the operation must be as follows:
  Cooling: 21ºCD.B./15.5ºCW.B. ~ 43ºCD.B./35ºCW.B.
  Heating: -10ºCD.B.~ 20ºCD.B
  The unit is forced to operate Thermo OFF (fan operation) when the outside air temperature is as follows.
  Cooling: 21ºCD.B or below; Heating: 20ºCD.B or above
- Either a remote controller (sold separately) or a remote sensor (sold separately) must be installed to monitor the room temperature.
- If only this unit is used as an indoor unit, condensation may form at the supply air grill while the unit is operated in the cooling mode. This unit cannot operate dehumidifying.
- Use the unit in the way that the airflow rate will not exceed the 110% of the rated airflow.

5-4. Precautions for Outdoor unit/Heat source unit

5-4-1. Installation environment

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

5-4-2. Circulating water

- Follow the guidelines published by JRAIA (JRA-GL02-1994) to check the water quality of the water in the heat source unit regularly.
- A cooling tower and heat source water circuit should be a closed circuit that water is not exposed to the atmosphere. When a tank is installed to ensure that the circuit has enough water, minimize the contact with outside air so that the oxygen from being dissolved in the water should be 1 mg/L or less.

5-4-3. Unit characteristics

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

5-4-4. Relevant equipment

- Provide grounding in accordance with the local regulations.

5-5. Precautions for Control-related items

5-5-1. Product specification

- To introduce the MELANS system, a consultation with us is required in advance. Especially to introduce the electricity charge apportioning function or energy-save function, further detailed consultation is required. Consult your local distributor for details.
- Billing calculation for AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J/TG-2000A, or the billing calculation unit is unique and based on our original method. (Backup operation is included.) It is not based on the metering method, and do not use it for official business purposes. It is not the method that the amount of electric power consumption (input) by air conditioner is calculated. Note that the electric power consumption by air conditioner is apportioned by using the ratio corresponding to the operation status (output) for each air conditioner (indoor unit) in this method.
- In the apportioned billing function for AE-200E/AE-50E/EW-50E/AG-150A and EB-50GU-J, use separate watthour meters for A-control units, K-control units, and packaged air conditioner for City Multi air conditioners. It is recommended to use an individual watthour meter for the large-capacity indoor unit (with two or more addresses).
- When using the peak cut function on the AE-200E/AE-50E/EW-50E/AG-150A or EB-50GU-J, note that the control is performed once every minute and it takes time to obtain the effect of the control. Take appropriate measures such as lowering the criterion value. Power consumption may exceed the limits if AE-200E/AE-50E/EW-50E/AG-150A or EB-50GU-J malfunctions or stops. Provide a back-up remedy as necessary.
- The controllers cannot operate while the indoor unit is OFF. (No error)
  Turn ON the power to the indoor unit when operating the controllers.
- When using the interlocked control function on the AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J/PAC-YG66DCA or PAC-YG63MCA, do not use it for the control for the fire prevention or security. (This function should never be used in the way that would put people's lives at risk.) Provide any methods or circuit that allow ON/OFF operation using an external switch in case of failure.

5-5-2. Installation environment

- The surge protection for the transmission line may be required in areas where lightning strikes frequently occur.
- A receiver for a wireless remote controller may not work properly due to the effect of general lighting. Leave a space of at least 1 m between the general lighting and receiver.
- When the Auto-elevating panel is used and the operation is made by using a wired remote controller, install the wired remote controller to the place where all air conditioners controlled (at least the bottom part of them) can be seen from the wired remote controller. If not, the descending panel may cause damage or injury, and be sure to use a wireless remote controller designed for use with elevating panel (sold separately).
- Install the wired remote controller (switch box) to the place where the following conditions are met.
  - Where installation surface is flat
  - Where the remote controller can detect an accurate room temperature
    The temperature sensors that detect a room temperature are installed both on the remote controller and indoor unit. When a room temperature is detected using the sensor on the remote controller, the main remote controller is used to detect a room temperature. In this case, follow the instructions below.
    - Install the controller in a place where it is not subject to the heat source.
      (If the remote controller faces direct sunlight or supply air flow direction, the remote controller cannot detect an accurate room temperature.)
    - Install the controller in a place where an average room temperature can be detected.
    - Install the controller in a place where no other wires are present around the temperature sensor.
      (If other wires are present, the remote controller cannot detect an accurate room temperature.)
- To prevent unauthorized access, always use a security device such as a VPN router when connecting AE-200E/AE-50E/EW-50E/AG-150A/EB-50GU-J or TG-2000A to the Internet.

6. Caution for refrigerant leakage

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

6-1. Refrigerant property

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

- **Critical concentration**

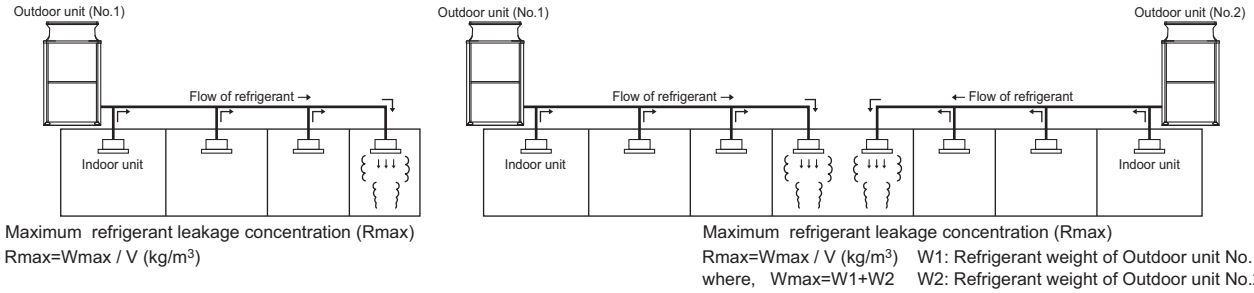
  Critical concentration hereby is the refrigerant concentration in which no human body would be hurt if immediate measures can be taken when refrigerant leakage happens.

  Critical concentration of R410A: 0.44kg/m^3
  (The weight of refrigeration gas per 1 m^3 air conditioning space.);
  * The Critical concentration is subject to ISO5149, EN378-1.

For the CITY MULTI system, the concentration of refrigerant leaked should not have a chance to exceed the critical concentration in any situation.

6-2. Confirm the Critical concentration and take countermeasure

The maximum refrigerant leakage concentration (Rmax) is defined as the result of the possible maximum refrigerant weight (Wmax) leaked into a room divided by its room capacity (V). It is referable to Fig.6-1. The refrigerant of Outdoor unit here includes its original charge and additional charge at the site.
The additional charge is calculated according to "**3-3. Refrigerant charging calculation**" and shall not be over charged at the site.
Procedure 6-2-1~3 tells how to confirm maximum refrigerant leakage concentration (Rmax) and how to take countermeasures against a possible leakage.



Maximum refrigerant leakage concentration (Rmax)
Rmax=Wmax / V (kg/m^3)

Maximum refrigerant leakage concentration (Rmax)
Rmax=Wmax / V (kg/m^3) W1: Refrigerant weight of Outdoor unit No.1
where, Wmax=W1+W2 W2: Refrigerant weight of Outdoor unit No.2

Fig. 6-1 The maximum refrigerant leakage concentration

6-2-1.Find the room capacity (V),
If a room having total opening area more than 0.15% of the floor area at a low position with another room/space, the two rooms/space are considered as one. The total space shall be added up.

6-2-2.Find the possible maximum leakage (Wmax) in the room. If a room has Indoor unit(s) from more than 1 Outdoor unit, add up the refrigerant of the Outdoor units.

6-2-3.Divide (Wmax) by (V) to get the maximum refrigerant leakage concentration (Rmax).

6-2-4.Find if there is any room in which the maximum refrigerant leakage concentration (Rmax) is over 0.44kg/m^3.
If no, then the CITY MULTI is safe against refrigerant leakage.
If yes, following countermeasure is recommended to do at site.
Countermeasure 1: Let-out (making V bigger)
Design an opening of more than 0.15% of the floor area at a low position of the wall to let out the refrigerant whenever leaked.
e.g.make the upper and lower seams of door big enough.
Countermeasure 2: Smaller total charge (making Wmax smaller)
e.g.Avoid connecting more than 1 Outdoor unit to one room.
e.g.Using smaller model size but more Outdoor units.
e.g.Shorten the refrigerant piping as much as possible.
Countermeasure 3: Fresh air in from the ceiling (Ventilation)
As the density of the refrigerant is bigger than that of the air.Fresh air supply from the ceiling is better than air exhausting from the ceiling.
Fresh air supply solution refers to Fig.6-2~4.

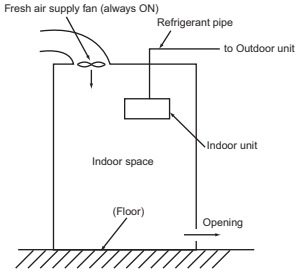


Fig.6-2. Fresh air supply always ON

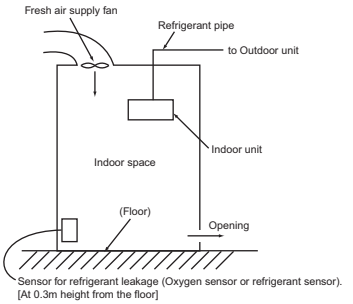


Fig.6-3. Fresh air supply upon sensor action

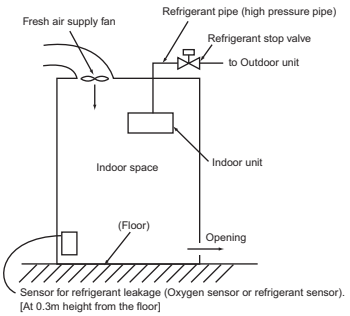


Fig.6-4. Fresh air supply and refrigerant shut-off upon sensor action

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

for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠Warning

■ Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit.
- It may also be in violation of applicable laws.
- MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

■ Our air-conditioning equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
www.MitsubishiElectric.com

MEE15K071

New publication effective Mar. 2016
Specifications subject to change without notice