CITY MULTI™ OUTDOOR UNITS

S SERIES

S SERIES
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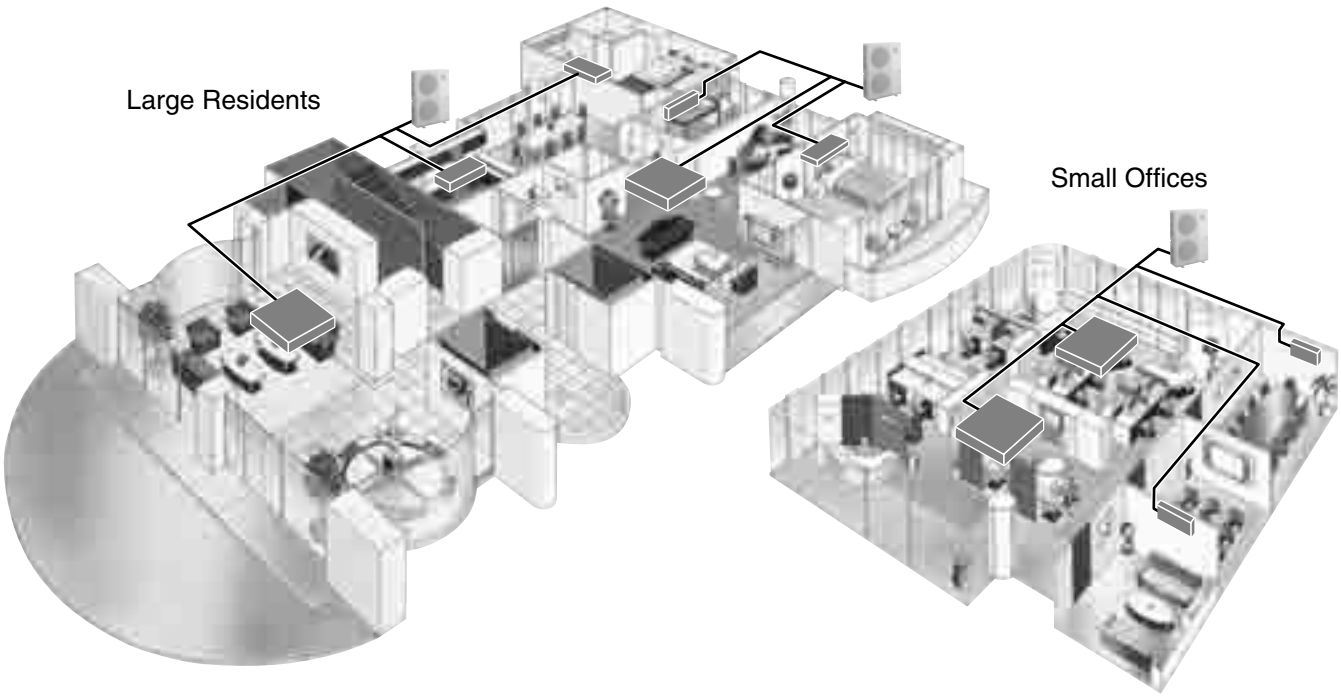


Heat pump: PUMY-P-YHM

3-phase 4-wire 380-400-415V/50Hz	100	125	140
	4HP	5HP	6HP
S Heat pump	●	●	●

Heat pump: PUMY-P-VHM

1-phase 2-wire 220-230-240V/50Hz 220V/60Hz	100	125	140
	4HP	5HP	6HP
S Heat pump	●	●	●

1. SPECIFICATIONS

Model			PUMY-P100YHM	PUMY-P125YHM
Power source			3-phase 4-wire 380-400-415V 50Hz	
Cooling capacity (Nominal)	✻1	kW	11.2	14.0
	✻1	kcal / h	9,600	12,000
	✻1	Btu / h	38,200	47,800
	✻2	kcal / h	-	12,500
	Power input	kW	3.30	4.27
	Current input	A	5.28-5.02-4.84	6.83-6.49-6.26
	COP (kW / kW)		3.39	3.28
Temp. range of cooling	Indoor	W.B.	15 ~ 24˚C (59 ~ 75˚F)	
	Outdoor	D.B.	- 5 ~ 46˚C (23 ~ 115˚F) 10 to 46˚CD.B. (50 to 115˚FD.B.) : in case of connecting PKFY-P20/P25 type indoor unit.	
Heating capacity (Nominal)	✻3	kW	12.5	16.0
	✻3	kcal / h	10,800	13,800
	✻3	Btu / h	42,700	54,600
	Power input	kW	3.63	4.29
	Current input	A	5.81-5.52-5.32	6.87-6.52-6.29
	COP (kW / kW)		3.44	3.73
Temp. range of heating	Indoor temp.	D.B.	15 ~ 27˚C (59 ~ 81˚F)	
	Outdoor temp.	W.B.	-15 ~ 15˚C (5 ~ 59˚F)	
Indoor unit connectable	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		P20 ~ P125 / 1 ~ 6	P20 ~ P140 / 1 ~ 8
Noise level (measured in anechoic room)		dB <A>	49 / 51	50 / 52
Diameter of refrigerant pipe	Liquid (High press.)	mm (in.)	ø9.52 (ø3/8") Flare	ø9.52 (ø3/8") Flare
	Gas (Low press.)	mm (in.)	ø15.88 (ø5/8") Flare	ø15.88 (ø5/8") Flare

External finish			Galvanized steel sheet <MUNSELL 3Y 7.8/1.1>	
External dimension H x W x D		mm	1,350 x 950 x 330	1,350 x 950 x 330
		in.	53-3/16" x 37-7/16" x 13"	53-3/16" x 37-7/16" x 13"
Net weight		kg (lb)	140 (309)	140 (309)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Compressor	Type		Inverter scroll hermetic comp.	Inverter scroll hermetic comp.
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	1.9	2.4
	Case heater	kW	-	-
	Lubricant		MEL56	MEL56
FAN	Air flow rate	m^3 / min	100	100
		L / s	1667	1667
		cfm	3532	3532
	External static press.		0 Pa	0 Pa
	Type x Quantity		Propeller fan x 2	Propeller fan x 2
	Control, Driving mechanism		DC-control, Direct-driven by motor	DC-control, Direct-driven by motor
	Motor output	kW	0.06 x 2	0.06 x 2
HIC circuit (HIC: Heat Inter-Changer)			-	
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection	
	Compressor		Discharge thermo protection, Over-current protection	
	Fan motor		Over-heat protection, Voltage protection	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x Original charge		R410A x 8.5kg (19 lb)	R410A x 8.5kg (19 lb)
	Control		LEV circuit	
Drawing	External		YHM-BK01-B328	
	Wiring		YHM-RG79-V020	
	Refrigerant circle		RC_VBN-050092	
Standard attachment	Document		Installation Manual	
	Accessory		Grounded lead wire x 2	
Optional parts			Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E
Remark			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Note :

✻1 Nominal cooling conditions
Indoor : 27˚CDB/19˚CWB (81˚FDB/66˚FWB)
Outdoor : 35˚CDB (95˚FDB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0 m (0 ft)

✻2 Nominal cooling conditions
27˚CDB/19.5˚CWB (81˚FDB/67˚FWB)
35˚CDB (95˚FDB)
5 m (16-3/8 ft)
0 m (0 ft)

✻3 Nominal heating conditions
20˚CDB (68˚FDB)
7˚CDB/6˚CWB (45˚FDB/43˚FWB)
7.5 m (24-9/16 ft)
0 m (0 ft)

* Nominal conditions ✻1, ✻3 are subject to JIS B8615-1.
* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

kcal/h	= kW x 860
Btu/h	= kW x 3,412
cfm	= m^3/min x 35.31
lb	= kg / 0.4536

*Above specification data is subject to rounding variation.

Ref. : Spec_s_p100_125YHM

1. SPECIFICATIONS

Model			PUMY-P140YHM	
Power source			3-phase 4-wire 380-400-415V 50Hz	
Cooling capacity (Nominal)	✻1	kW	15.5	
	✻1	kcal / h	13,300	
	✻1	Btu / h	52,900	
	✻2	kcal / h	14,000	
Power input		kW	5.32	
Current input		A	8.51-8.09-7.80	
COP (kW / kW)			2.91	
Temp. range of cooling	Indoor	W.B.	15 ~ 24˚C (59 ~ 75˚F)	
	Outdoor	D.B.	- 5 ~ 46˚C (23 ~ 115˚F) 10 to 46˚CD.B. (50 to 115˚FD.B.) : in case of connecting PKFY-P20/P25 type indoor unit.	
Heating capacity (Nominal)	✻3	kW	18.0	
	✻3	kcal / h	15,500	
	✻3	Btu / h	61,400	
Power input		kW	5.32	
Current input		A	8.51-8.09-7.80	
COP (kW / kW)			3.38	
Temp. range of heating	Indoor temp.	D.B.	15 ~ 27˚C (59 ~ 81˚F)	
	Outdoor temp.	W.B.	-15 ~ 15˚C (5 ~ 59˚F)	
Indoor unit connectable	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		P20 ~ P140 / 1 ~ 8	
Noise level (measured in anechoic room)		dB <A>	51 / 53	
Diameter of refrigerant pipe	Liquid (High press.)	mm (in.)	ø9.52 (ø3/8") Flare	
	Gas (Low press.)	mm (in.)	ø15.88 (ø5/8") Flare	

External finish			Galvanized steel sheet <MUNSELL 3Y 7.8/1.1>	
External dimension H x W x D		mm	1,350 x 950 x 330	
		in.	53-3/16" x 37-7/16" x 13"	
Net weight		kg (lb)	140 (309)	
Heat exchanger			Salt-resistant cross fin & copper tube	
Compressor	Type		Inverter scroll hermetic comp.	
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	2.9	
	Case heater	kW	-	
	Lubricant		MEL56	
FAN	Air flow rate	m^3 / min	100	
		L / s	1667	
		cfm	3532	
	External static press.		0 Pa	
	Type x Quantity		Propeller fan x 2	
	Control, Driving mechanism		DC-control, Direct-driven by motor	
	Motor output	kW	0.06 x 2	
HIC circuit (HIC: Heat Inter-Changer)			-	
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection	
	Compressor		Discharge thermo protection, Over-current protection	
	Fan motor		Over-heat protection, Voltage protection	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x Original charge		R410A x 8.5kg (19 lb)	
	Control		LEV circuit	
Drawing	External		YHM-BK01-B328	
	Wiring		YHM-RG79-V020	
	Refrigerant circle		RC_VBN-050092	
Standard attachment	Document		Installation Manual	
	Accessory		Grounded lead wire x 2	
Optional parts			Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E	
Remark			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Note :

✻1 Nominal cooling conditions
Indoor : 27˚CDB/19˚CWB (81˚FDB/66˚FWB)
Outdoor : 35˚CDB (95˚FDB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0 m (0 ft)

✻2 Nominal cooling conditions
27˚CDB/19.5˚CWB (81˚FDB/67˚FWB)
35˚CDB (95˚FDB)
5 m (16-3/8 ft)
0 m (0 ft)

✻3 Nominal heating conditions
20˚CDB (68˚FDB)
7˚CDB/6˚CWB (45˚FDB/43˚FWB)
7.5 m (24-9/16 ft)
0 m (0 ft)

* Nominal conditions ✻1, ✻3 are subject to JIS B8615-1.
* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

kcal/h = kW x 860
Btu/h = kW x 3,412
cfm = m^3/min x 35.31
lb = kg / 0.4536

*Above specification data is subject to rounding variation.

Ref. : Spec_s_p140YHM

1. SPECIFICATIONS

Model			PUMY-P100VHM	PUMY-P125VHM
Power source			1-phase 220-230-240V 50Hz, 1-phase 220V 60Hz	
Cooling capacity (Nominal)	✻1	kW	11.2	14.0
	✻1	kcal / h	9,600	12,000
	✻1	Btu / h	38,200	47,800
	✻2	kcal / h	10,000	12,500
	Power input	kW	3.34	4.32
	Current input	A	15.4-14.8-14.1, 15.4	20.0-19.1-18.3, 20.0
	COP (kW / kW)		3.35	3.24
Temp. range of cooling	Indoor	W.B.	15 ~ 24˚C (59 ~ 75˚F)	
	Outdoor	D.B.	- 5 ~ 46˚C (23 ~ 115˚F) 10 to 46˚CD.B. (50 to 115˚FD.B.) : in case of connecting PKFY-P20 / P25 type indoor unit.	
Heating capacity (Nominal)	✻3	kW	12.5	16.0
	✻3	kcal / h	10,800	13,800
	✻3	Btu / h	42,700	54,600
	Power input	kW	3.66	4.33
	Current input	A	16.9-16.2-15.5, 16.9	20.0-19.1-18.3, 20.0
	COP (kW / kW)		3.42	3.69
Temp. range of heating	Indoor temp.	D.B.	15 ~ 27˚C (59 ~ 81˚F)	
	Outdoor temp.	W.B.	-15 ~ 15˚C (5 ~ 59˚F)	
Indoor unit connectable	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		P20 ~ P125 / 1 ~ 6	P20 ~ P140 / 1 ~ 8
Noise level (measured in anechoic room)		dB <A>	49 / 51	50 / 52
Diameter of refrigerant pipe	Liquid (High press.)	mm (in.)	ø9.52 (ø3/8") Liquid	ø9.52 (ø3/8") Liquid
	Gas (Low press.)	mm (in.)	ø15.88 (ø5/8") Gas	ø15.88 (ø5/8") Gas

External finish			Galvanized steel sheet <MUNSELL 3Y 7.8/1.1>	
External dimension H x W x D		mm	1,350 x 950 x 330	1,350 x 950 x 330
		in.	53-3/16" x 37-7/16" x 13"	53-3/16" x 37-7/16" x 13"
Net weight		kg (lb)	127 (280 lb)	127 (280 lb)
Heat exchanger			Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube
Compressor	Type		Inverter scroll hermetic comp.	Inverter scroll hermetic comp.
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	2.2	2.9
	Case heater	kW	-	-
	Lubricant		MEL56 x 2.3 L	MEL56 x 2.3 L
FAN	Air flow rate	m^3 / min	100	100
		L / s	1667	1667
		cfm	3532	3532
	External static press.		0 Pa	0 Pa
	Type x Quantity		Propeller fan x 2	Propeller fan x 2
	Control, Driving mechanism		DC-control, Direct-driven by motor	DC-control, Direct-driven by motor
	Motor output	kW	0.06 x 2	0.06 x 2
HIC circuit (HIC: Heat Inter-Changer)			-	
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection	
	Compressor		Discharge thermo protection, Over-current protection	
	Fan motor		Over-heat protection, Voltage protection	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x Original charge		R410A x 8.5kg (19 lb)	R410A x 8.5kg (19 lb)
	Control		LEV circuit	
Drawing	External		VHM-BK01-B434	
	Wiring		VHM-RG79-V221	
	Refrigerant circle		RC_VBN-050092	
Standard attachment	Document		Installation Manual	
	Accessory		Grounded lead wire x 2	
Optional parts			Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E	Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E
Remark			In case of connecting All fresh air type indoor unit PEFY-P-VHM-E-F, only one indoor unit can be connected with one PUMY. Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Note :

✻1 Nominal cooling conditions
Indoor : 27˚CDB/19˚CWB (81˚FDB/66˚FWB)
Outdoor : 35˚CDB (95˚FDB)
Pipe length : 7.5 m (24-9/16 ft)
Level difference : 0 m (0 ft)

✻2 Nominal cooling conditions
27˚CDB/19.5˚CWB (81˚FDB/67˚FWB)
35˚CDB (95˚FDB)
5 m (16-3/8 ft)
0 m (0 ft)

✻3 Nominal heating conditions
20˚CDB (68˚FDB)
7˚CDB/6˚CWB (45˚FDB/43˚FWB)
7.5 m (24-9/16 ft)
0 m (0 ft)

* Nominal conditions ✻1, ✻3 are subject to JIS B8615-1.
* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

kcal/h	= kW x 860
Btu/h	= kW x 3,412
cfm	= m^3/min x 35.31
lb	= kg / 0.4536

*Above specification data is subject to rounding variation.

Ref. : Spec_s_p100_125VHM

1. SPECIFICATIONS

Model			PUMY-P140VHM	
Power source			1-phase 220-230-240V 50Hz, 1-phase 220V 60Hz	
Cooling capacity (Nominal)	✻1	kW	15.5	
	✻1	kcal / h	13,300	
	✻1	Btu / h	52,900	
	✻2	kcal / h	14,000	
Power input		kW	5.35	
Current input		A	24.7-23.6-22.7, 24.7	
COP (kW / kW)			2.9	
Temp. range of cooling	Indoor	W.B.	15 ~ 24˚C (59 ~ 75˚F)	
	Outdoor	D.B.	- 5 ~ 46˚C (23 ~ 115˚F) 10 to 46˚CD.B. (50 to 115˚FD.B.) : in case of connecting PKFY-P20/P25 type indoor unit.	
Heating capacity (Nominal)	✻3	kW	18.0	
	✻3	kcal / h	15,500	
	✻3	Btu / h	61,400	
Power input		kW	5.58	
Current input		A	25.8-24.7-23.6, 25.8	
COP (kW / kW)			3.23	
Temp. range of heating	Indoor temp.	D.B.	15 ~ 27˚C (59 ~ 81˚F)	
	Outdoor temp.	W.B.	-15 ~ 15˚C (5 ~ 59˚F)	
Indoor unit connectable	Total capacity		50 ~ 130% of outdoor unit capacity	
	Model / Quantity		P20 ~ P140 / 1 ~ 8	
Noise level (measured in anechoic room)		dB <A>	51 / 53	
Diameter of refrigerant pipe	Liquid (High press.)	mm (in.)	ø9.52 (ø3/8") Liquid	
	Gas (Low press.)	mm (in.)	ø15.88 (ø5/8") Gas	

External finish			Galvanized steel sheet <MUNSELL 3Y 7.8/1.1>	
External dimension H x W x D		mm	1,350 x 950 x 330	
		in.	53-3/16" x 37-7/16" x 13"	
Net weight		kg (lb)	127 (280 lb)	
Heat exchanger			Salt-resistant cross fin & copper tube	
Compressor	Type		Inverter scroll hermetic comp.	
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Motor output	kW	3.3	
	Case heater	kW	-	
	Lubricant		MEL56 x 2.3L	
FAN	Air flow rate	m^3 / min	100	
		L / s	1667	
		cfm	3532	
	External static press.		0 Pa	
	Type x Quantity		Propeller fan x 2	
	Control, Driving mechanism		DC-control, Direct-driven by motor	
	Motor output	kW	0.06 x 2	
HIC circuit (HIC: Heat Inter-Changer)			-	
Protection	High pressure protection		High pressure sensor, High pressure switch 4.15 MPa	
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection	
	Compressor		Discharge thermo protection, Over-current protection	
	Fan motor		Over-heat protection, Voltage protection	
Defrosting method			Auto-defrost mode (Reversed refrigerant circle)	
Refrigerant	Type x Original charge		R410A x 8.5kg (19 lb)	
	Control		LEV circuit	
Drawing	External		VHM-BK01-B434	
	Wiring		VHM-RG79-V221	
	Refrigerant circle		RC_VBN-050092	
Standard attachment	Document		Installation Manual	
	Accessory		Grounded lead wire x 2	
Optional parts			Joint: CMY-Y62-G-E Header:CMY-Y64/68-G-E	
Remark			In case of connecting All fresh air type indoor unit PEFY-P-VHM-E-F, only one indoor unit can be connected with one PUMY. Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.	

Note :

	✻1 Nominal cooling conditions	✻2 Nominal cooling conditions	✻3 Nominal heating conditions
Indoor :	27˚CDB/19˚CWB (81˚FDB/66˚FWB)	27˚CDB/19.5˚CWB (81˚FDB/67˚FWB)	20˚CDB (68˚FDB)
Outdoor :	35˚CDB (95˚FDB)	35˚CDB (95˚FDB)	7˚CDB/6˚CWB (45˚FDB/43˚FWB)
Pipe length :	7.5 m (24-9/16 ft)	5 m (16-3/8 ft)	7.5 m (24-9/16 ft)
Level difference :	0 m (0 ft)	0 m (0 ft)	0 m (0 ft)

* Nominal conditions ✻1, ✻3 are subject to JIS B8615-1.
* Due to continuing improvement, above specifications may be subject to change without notice.

Unit converter

kcal/h	= kW x 860
Btu/h	= kW x 3,412
cfm	= m^3/min x 35.31
lb	= kg / 0.4536

*Above specification data is subject to rounding variation.

Ref. : Spec_s_p140VHM

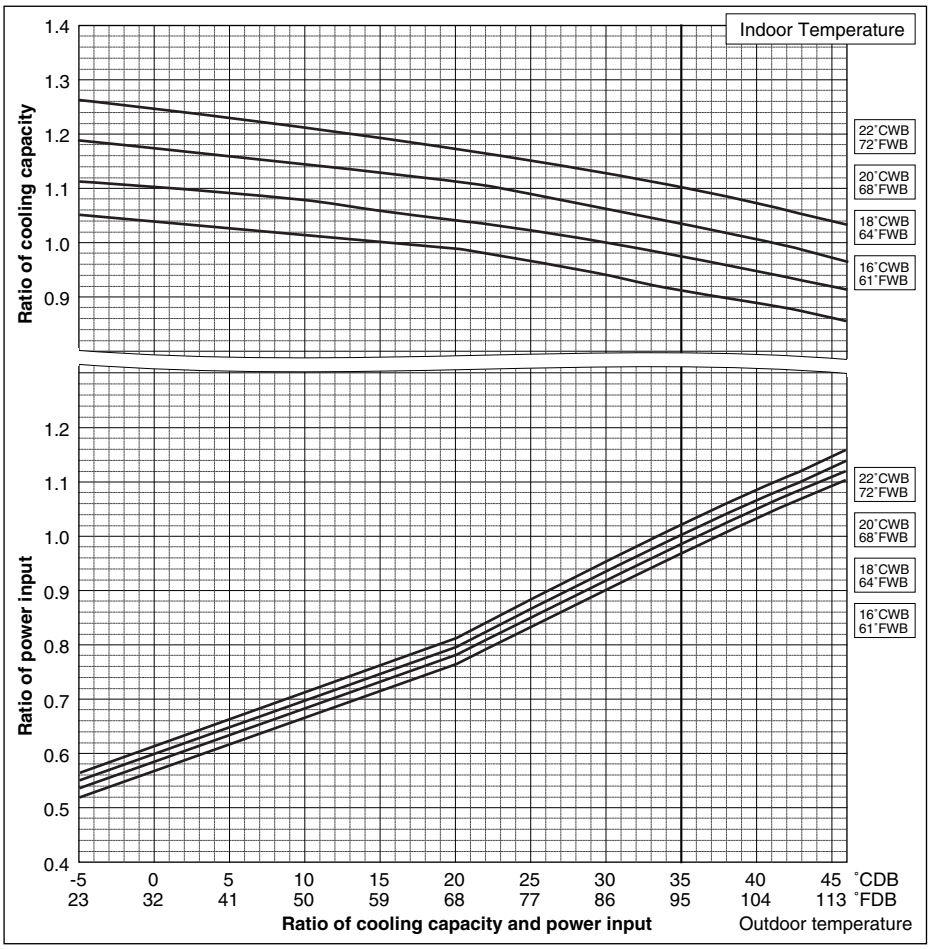
2. CAPACITY TABLES

2-1. Correction by temperature

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

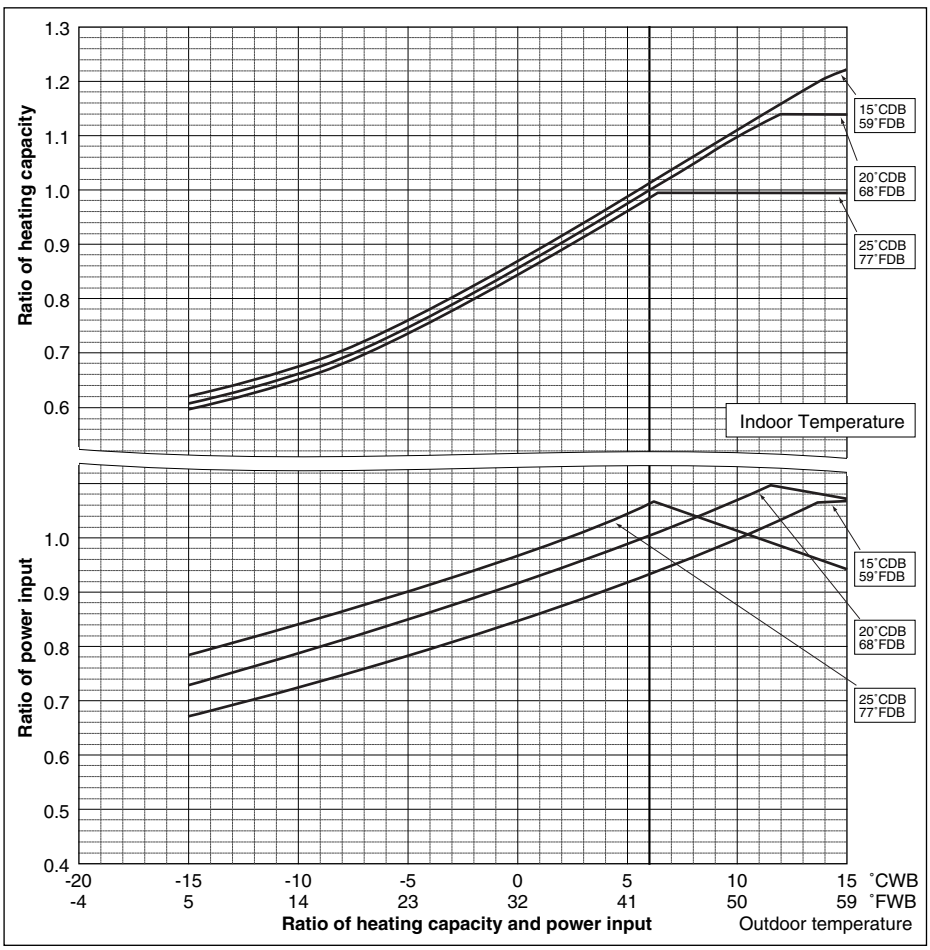
PUMY-		P100YHM	P125YHM
Nominal Cooling Capacity	kW	11.2	14.0
	kcal/h	9,600	12,000
	Btu/h	38,200	47,800
Input	kW	3.30	4.27

PUMY-		P140YHM
Nominal Cooling Capacity	kW	15.5
	kcal/h	13,300
	Btu/h	52,900
Input	kW	5.32



PUMY-		P100YHM	P125YHM
Nominal Heating Capacity	kW	12.5	16.0
	kcal/h	10,800	13,800
	Btu/h	42,700	54,600
Input	kW	3.63	4.29

PUMY-		P140YHM
Nominal Heating Capacity	kW	18.0
	kcal/h	15,500
	Btu/h	61,400
Input	kW	5.32



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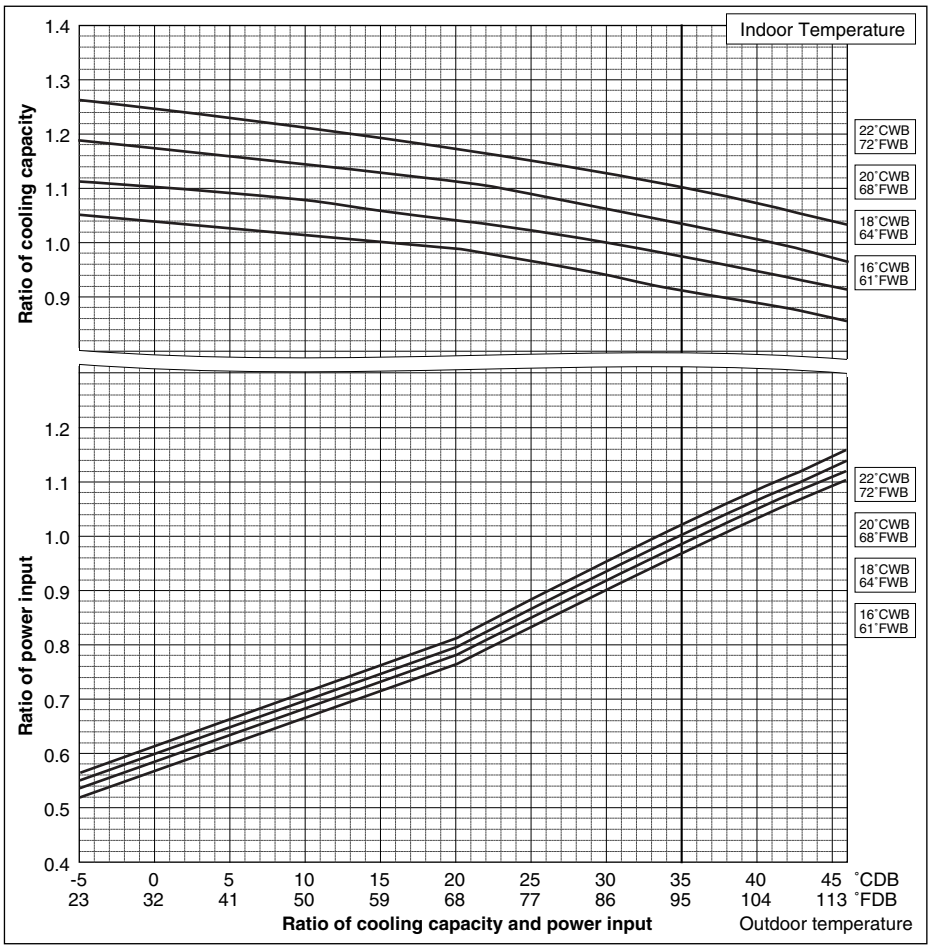
2. CAPACITY TABLES

2-1. Correction by temperature

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

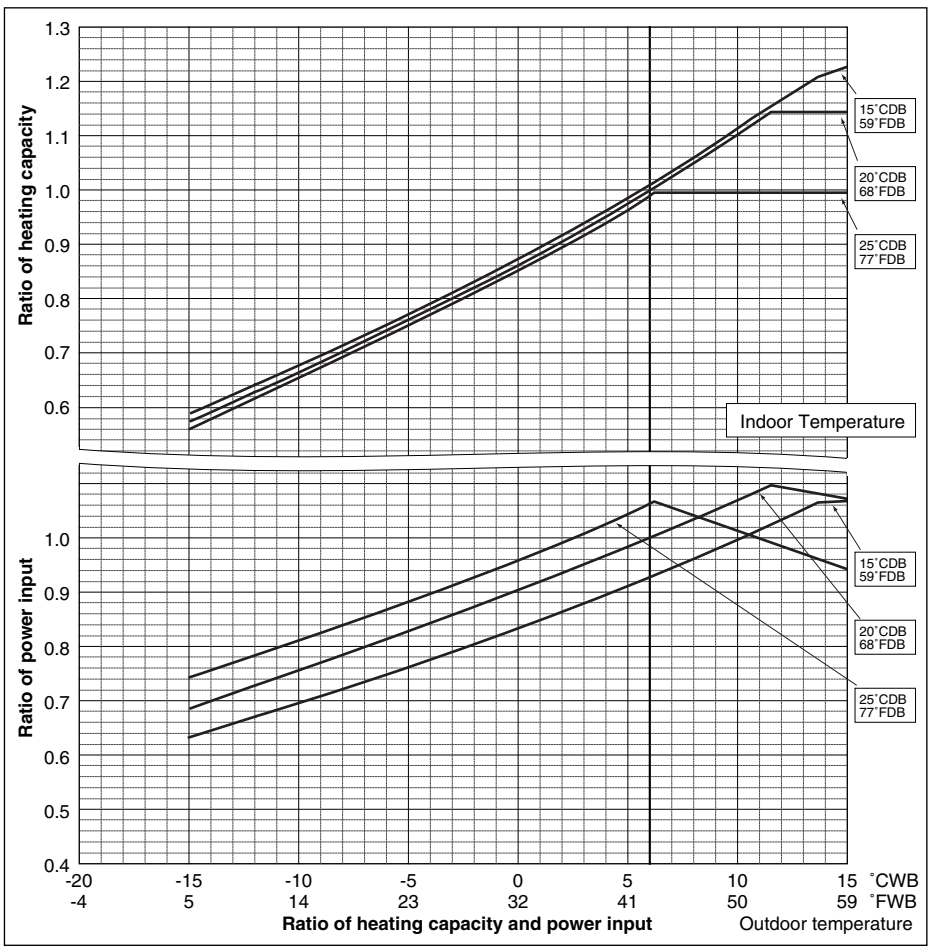
PUMY-		P100VHM	P125VHM
Nominal Cooling Capacity	kW	11.2	14.0
	kcal/h	9,600	12,000
	Btu/h	38,200	47,800
Input	kW	3.34	4.32

PUMY-		P140VHM
Nominal Cooling Capacity	kW	15.5
	kcal/h	13,300
	Btu/h	52,900
Input	kW	5.35



PUMY-		P100VHM	P125VHM
Nominal Heating Capacity	kW	12.5	16.0
	kcal/h	10,800	13,800
	Btu/h	42,700	54,600
Input	kW	3.66	4.33

PUMY-		P140VHM
Nominal Heating Capacity	kW	18.0
	kcal/h	15,500
	Btu/h	61,400
Input	kW	5.58

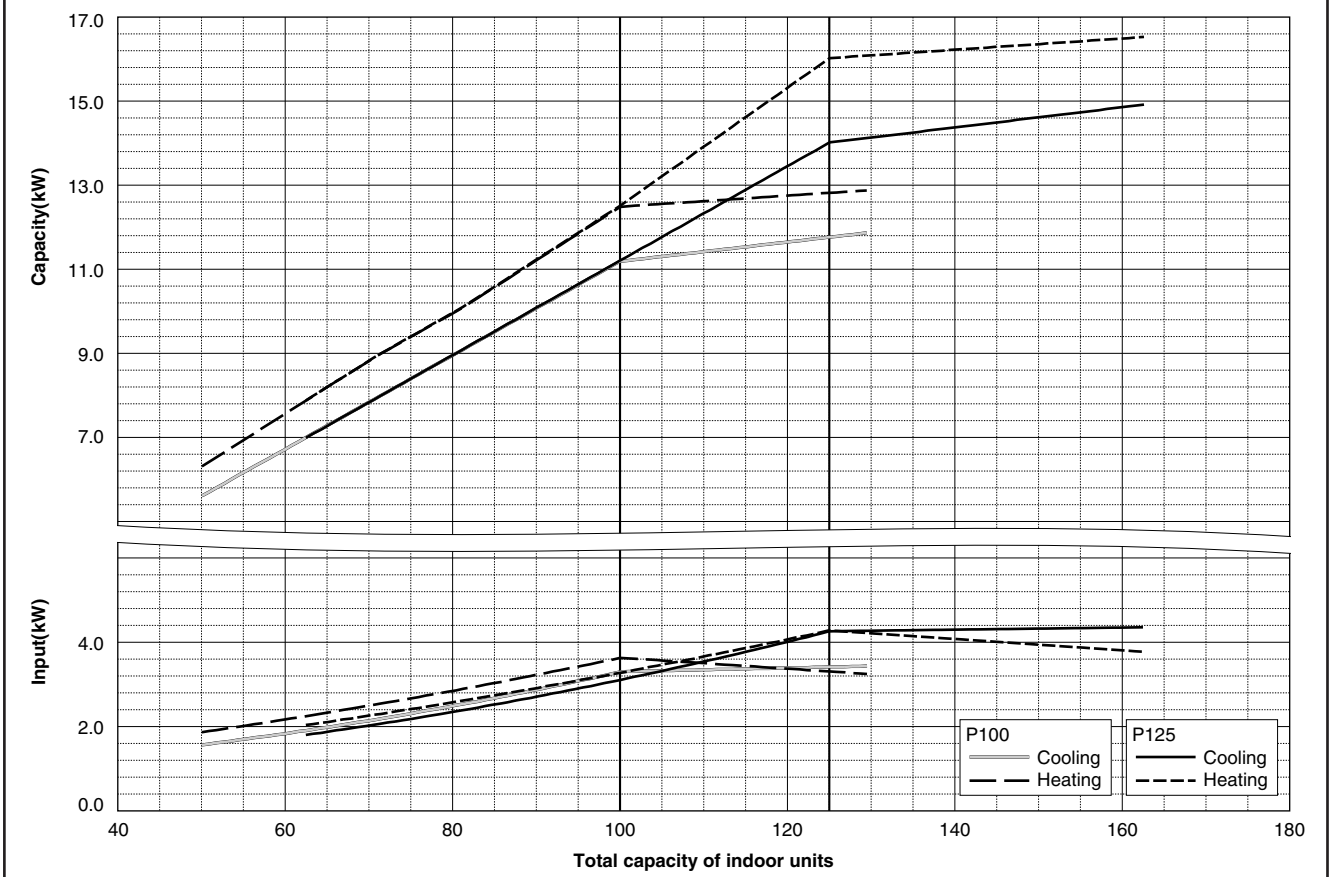


Ref:cbt_p100-140

2-2. Correction by total indoor

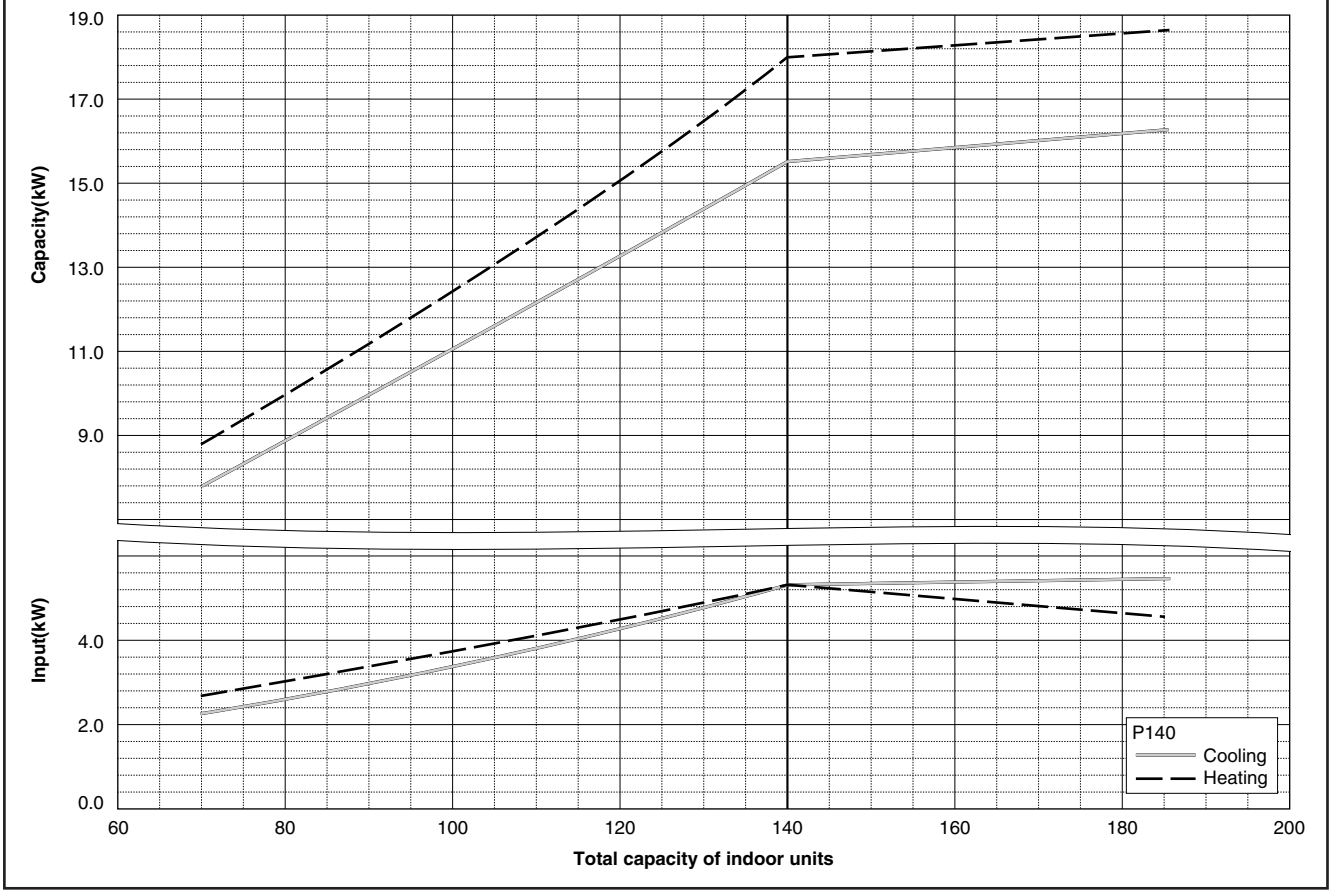
CITY MULTI™ system has different capacity and input at different total capacity of indoor unit connected. Using following tables, the maximum capacity can be observed so as to ensure the system having enough capacity.

PUMY-P100,125YHM



Ref: cbti-pumy100-125yhm

PUMY-P140YHM



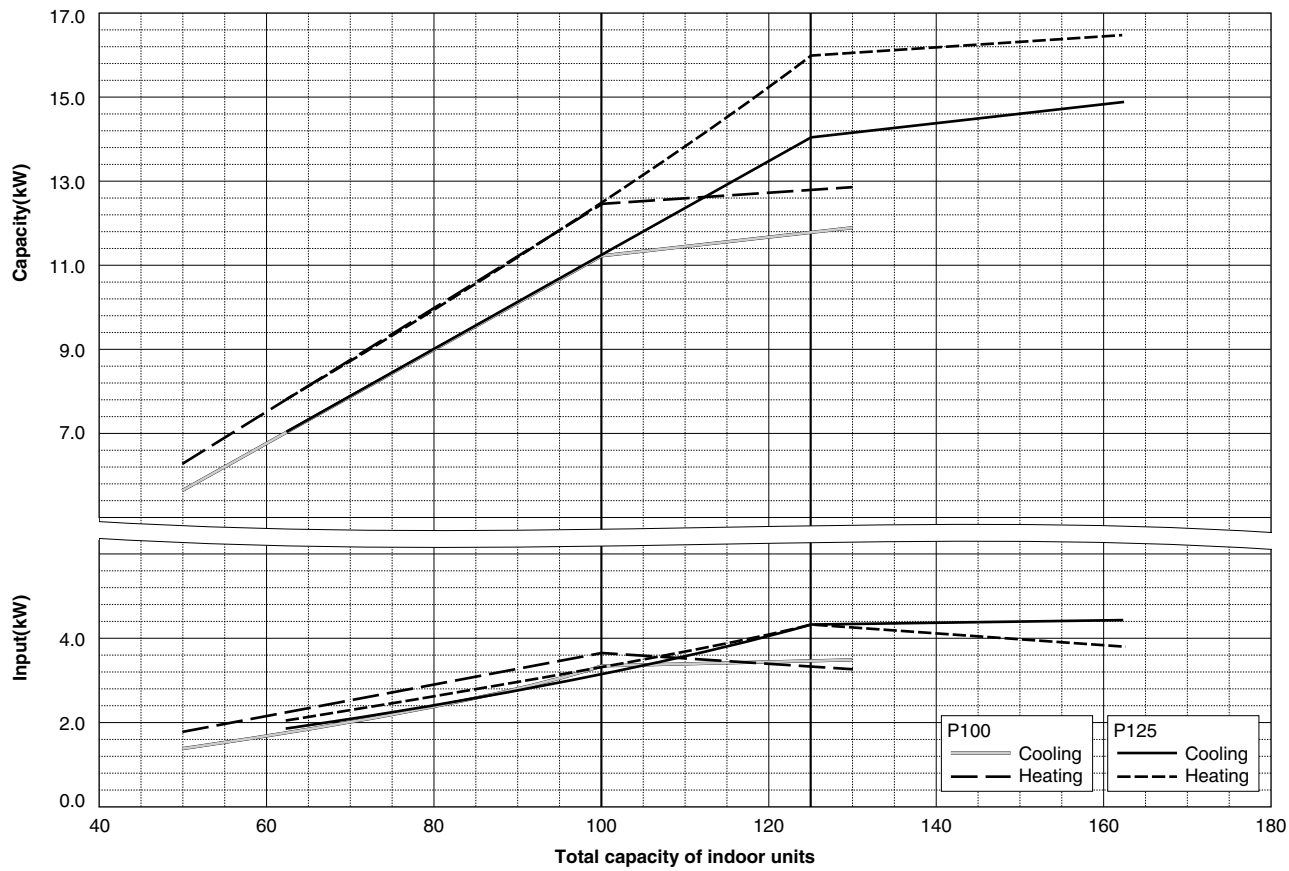
Ref: cbti-pumy140yhm

2. CAPACITY TABLES

2-2. Correction by total indoor

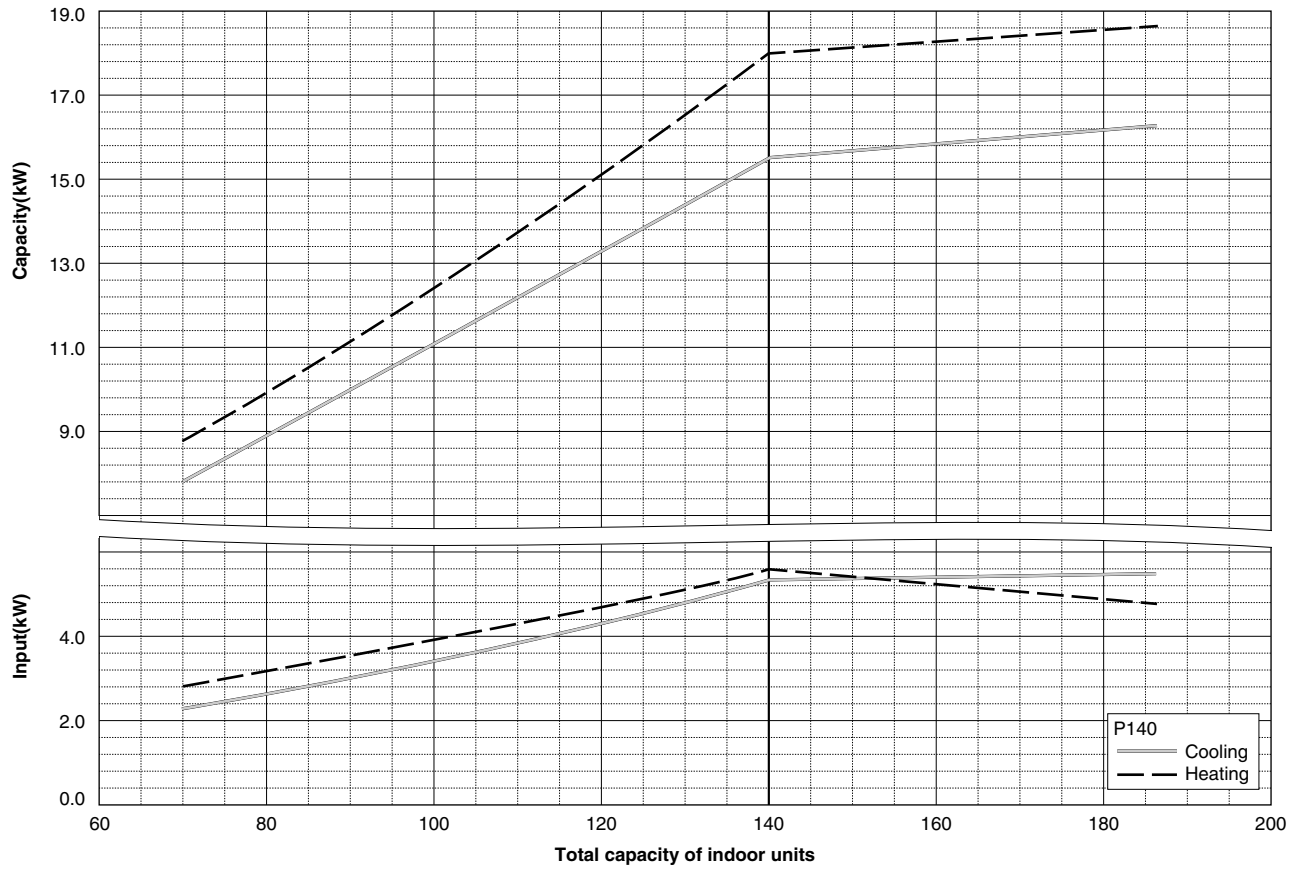
CITY MULTI™ system has different capacity and input at different total capacity of indoor unit connected. Using following tables, the maximum capacity can be observed so as to ensure the system having enough capacity.

PUMY-P100,125VHM



Ref: cbti-pumy100-125vhm

PUMY-P140VHM



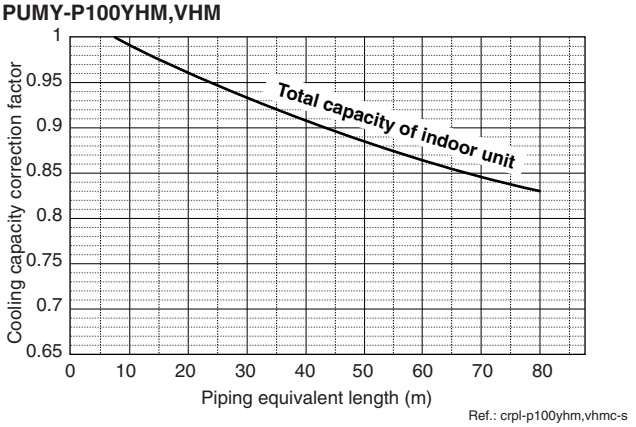
Ref: cbti-pumy140vhm

2-3. Correction by refrigerant piping length

CITY MULTI™ system can extend the piping flexibly within its limitation for the actual situation. Yet, a decrease of cooling/heating capacity could happen correspondently. Using following correction factor according to the equivalent length of the piping shown at 2.3a and 2.3b, the capacity can be observed. 2.3c shows how to obtain the equivalent length of piping.

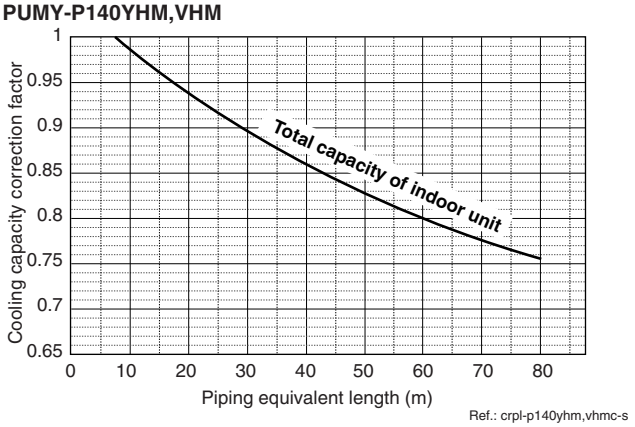
2-3a. Cooling capacity correction

PUMY-P100YHM,VHM



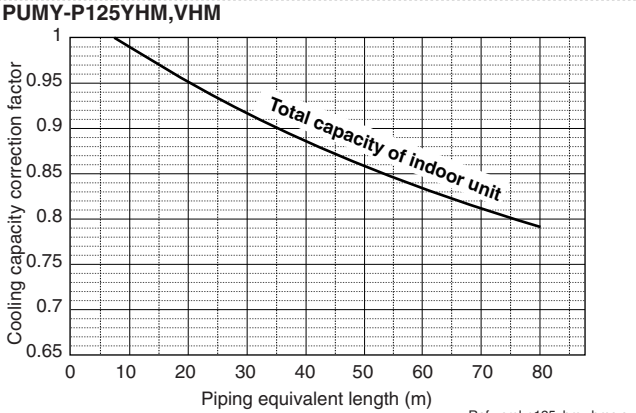
Ref.: crpl-p100yhm,vhmc-s

PUMY-P140YHM,VHM



Ref.: crpl-p140yhm,vhmc-s

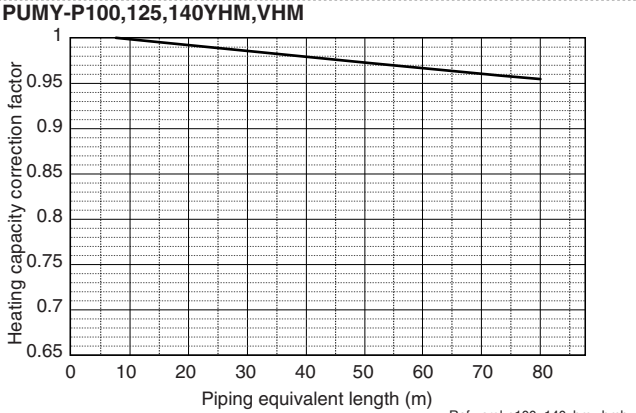
PUMY-P125YHM,VHM



Ref.: crpl-p125yhm,vhmc-s

2-3b. Heating capacity correction

PUMY-P100,125,140YHM,VHM



Ref.: crpl-p100_140yhm,vhmh

2-3c. How to obtain the equivalent length of piping

1 PUMY-P100,125,140YHM,VHM

Equivalent length = (Actual piping length to the farthest indoor unit) + (0.30 x number of bent on the piping) m

2-4. Correction at frosting and defrosting

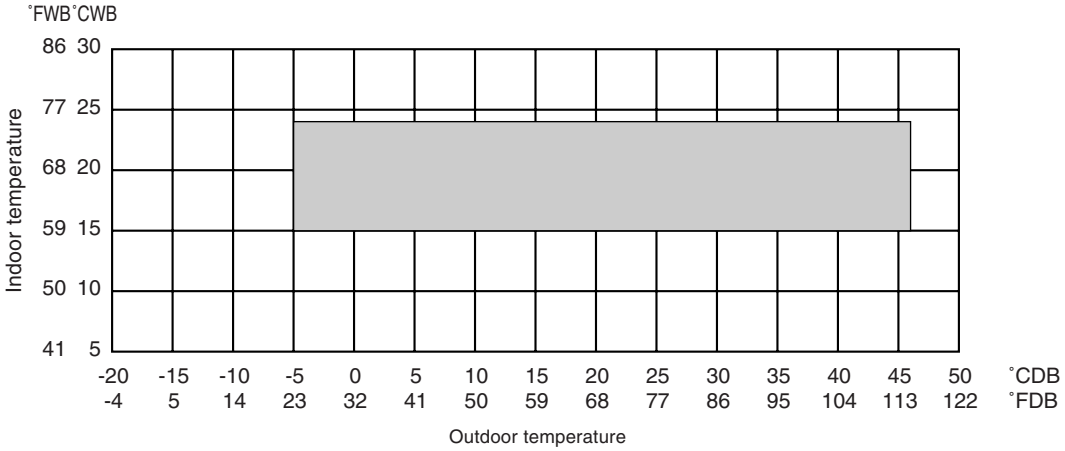
Due to frosting at the outdoor heat exchanger and the automatical defrosting operation, the heating capacity of the outdoor unit should be considered by multiplying the correction factor which shown in the table below.

Table of correction factor at frosting and defrosting

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
PUMY-P100,125,140YHM	1.0	0.98	0.855	0.85	0.845	0.89	0.90	0.95	0.95	0.95	-
PUMY-P100,125,140VHM	1.0	0.98	0.855	0.85	0.845	0.89	0.90	0.95	0.95	0.95	-

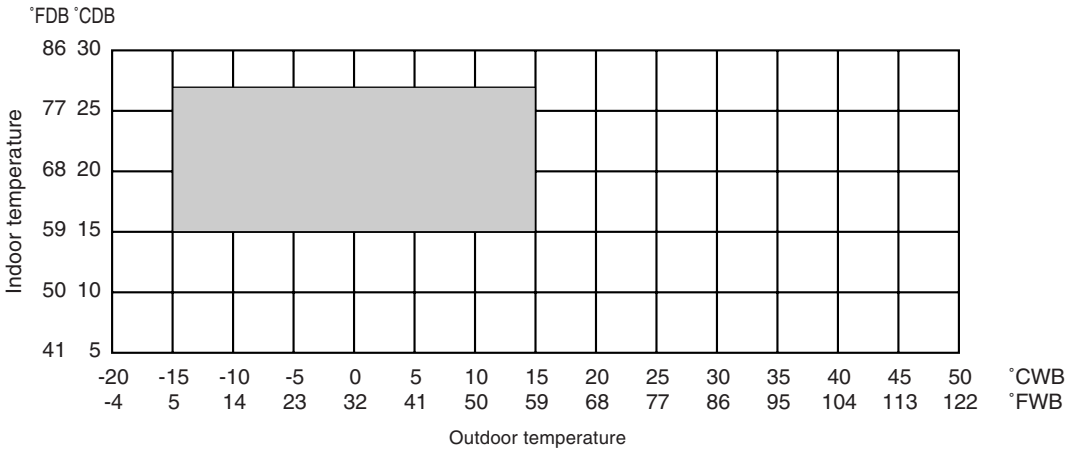
2-5. Temp. range of running

• Cooling



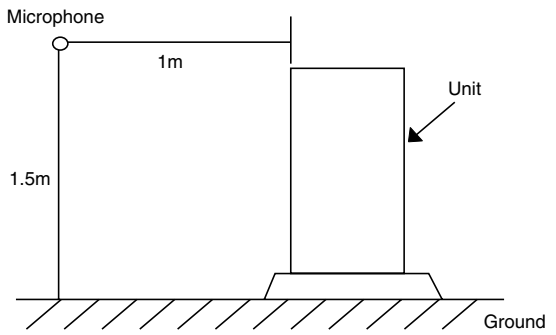
* 10 to 40˚CDB (50 to 115˚FDB): in case of connecting PKFY-P20/P25 type indoor unit.

• Heating



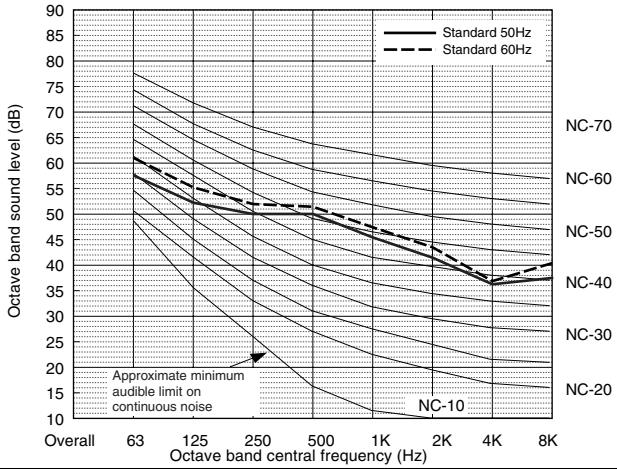
Ref.: tr-yhm,vhm-s

Measurement condition
PUMY-P100,125,140YHM
PUMY-P100,125,140VHM



Sound level of PUMY-P140YHM,VHM

Ref. : P140YHM,VHM-VBN-050093

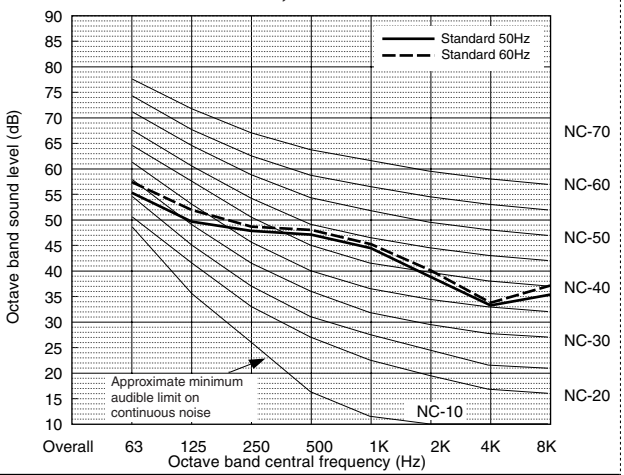


		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
Standard	50Hz	57.2	51.7	49.9	49.8	45.5	41.1	35.9	37.1	51.0
	60Hz	60.9	55.4	52.1	51.4	47.5	43.2	37.1	40.3	53.0
Night mode	50/60Hz	-	-	-	-	-	-	-	-	-

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

Sound level of PUMY-P100YHM,VHM

Ref. : P100YHM,VHM-VBN-050093

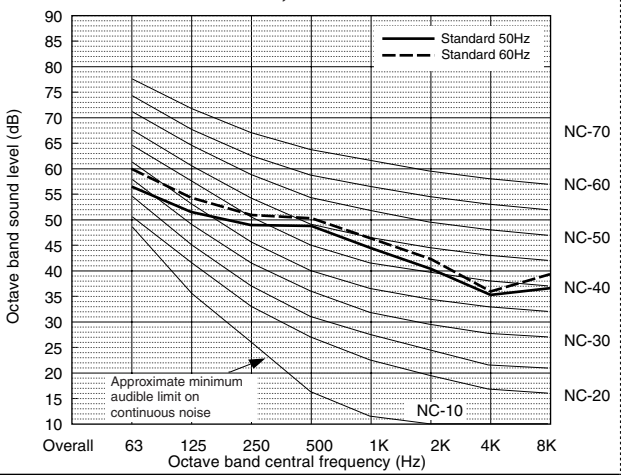


		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
Standard	50Hz	55.2	49.7	47.9	47.8	43.5	39.1	33.9	35.1	49.0
	60Hz	58.9	53.4	50.1	49.4	45.5	41.2	35.1	38.3	51.0
Night mode	50/60Hz	-	-	-	-	-	-	-	-	-

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

Sound level of PUMY-P125YHM,VHM

Ref. : P125YHM,VHM-VBN-050093

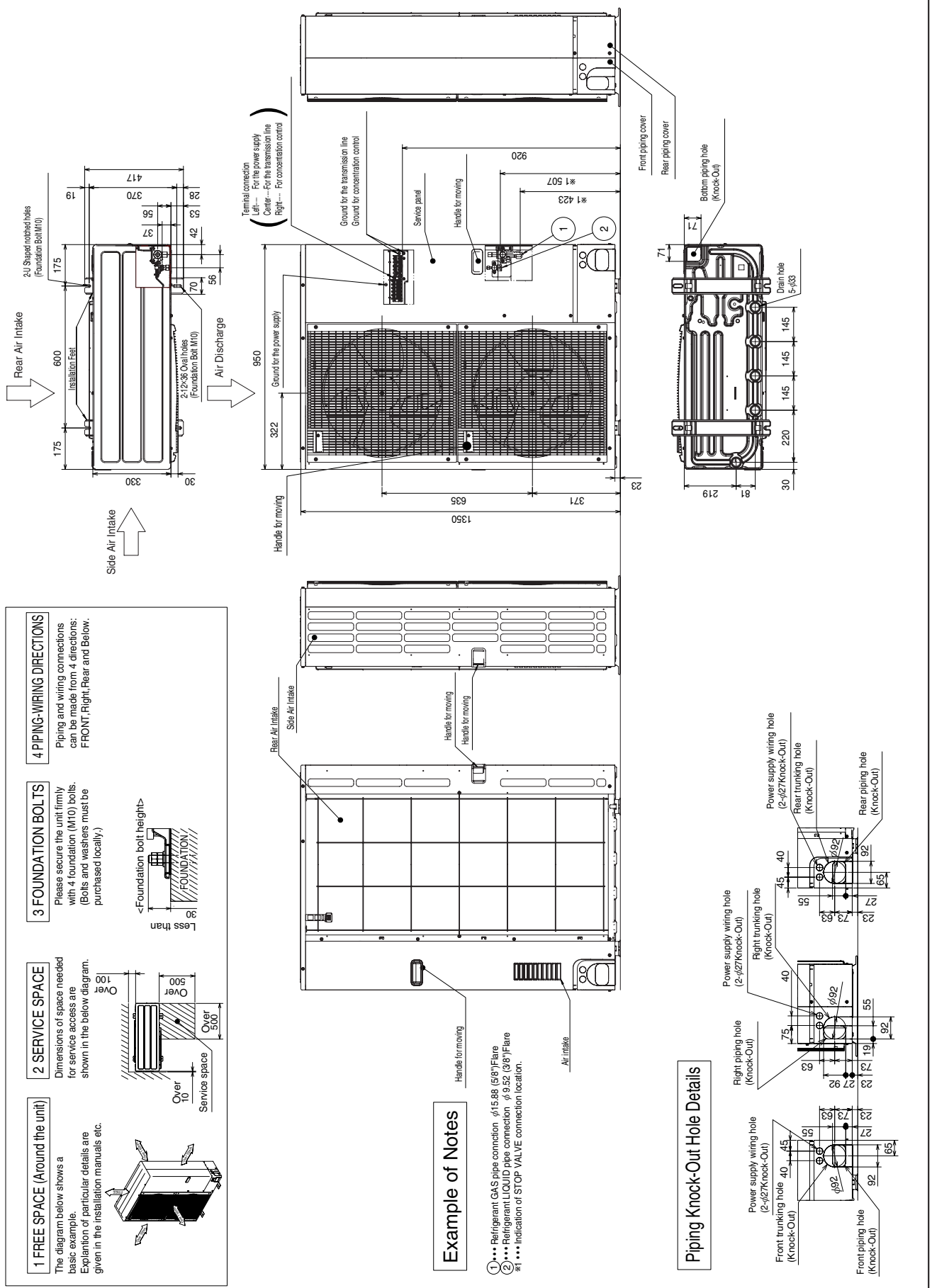


		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz	dB(A)
Standard	50Hz	56.2	50.7	48.9	48.8	44.5	40.1	34.9	36.1	50.0
	60Hz	59.9	54.4	51.1	50.4	46.5	42.2	36.1	39.3	52.0
Night mode	50/60Hz	-	-	-	-	-	-	-	-	-

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

PUMY-P100,125,140YHM

Drw. : YHM-BK01-B328
Unit : mm



1 FREE SPACE (Around the unit)

The diagram below shows a basic example.
Explantion of particular details are given in the installation manuals etc.

2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.

Over 100
Over 500
Over 500
Over 10
Service space

3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally.)

<Foundation bolt height>
Less than 30
FOUNDATION

4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: FRONT,Right,Rear and Below.

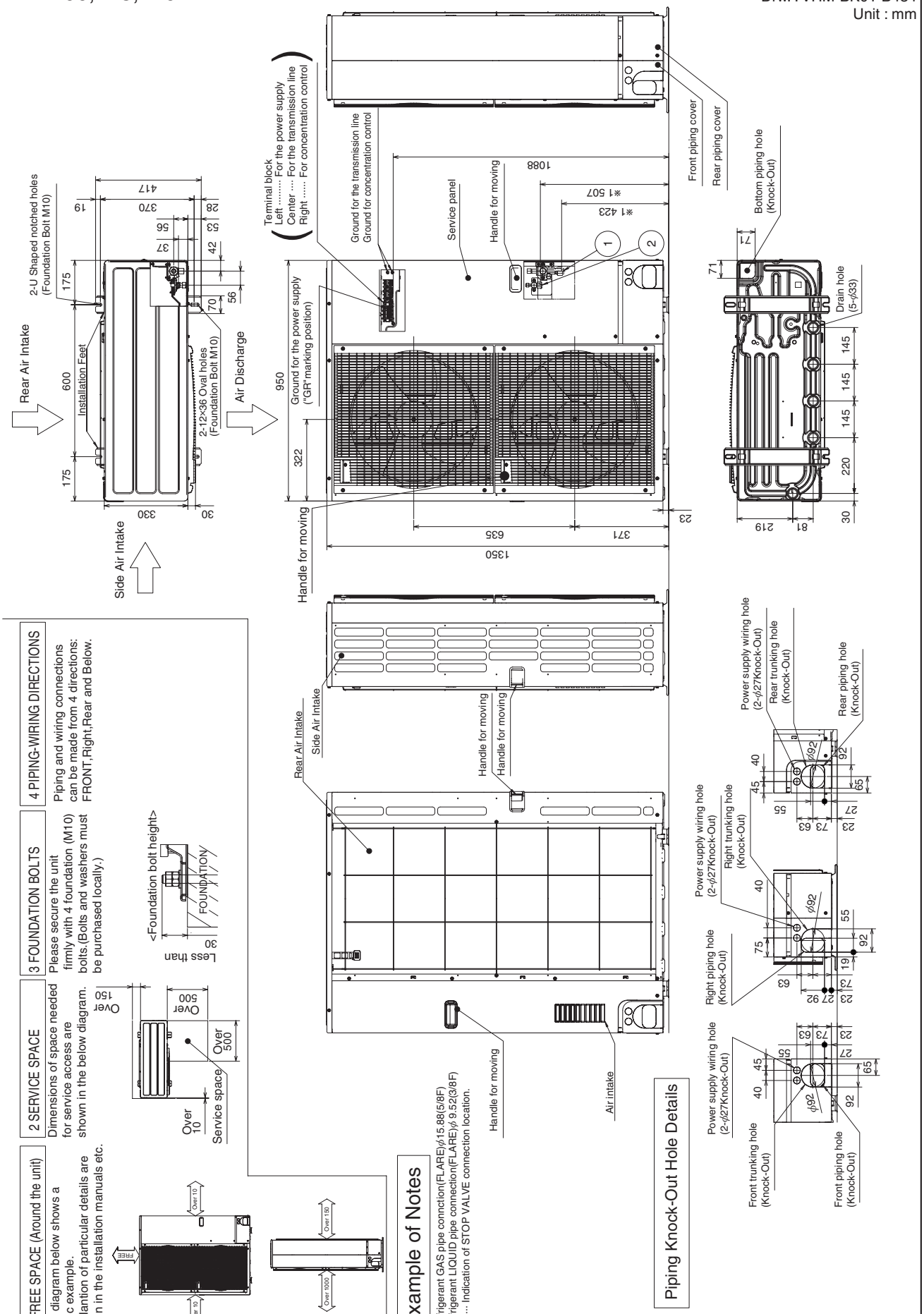
Example of Notes

①••• Refrigerant GAS pipe connction φ15.88 (5/8")Flare
②••• Refrigerant LIQUID pipe connection φ 9.52 (3/8")Flare
※1 ••• Indication of STOP VALVE connection location.

Piping Knock-Out Hole Details

PUMY-P100,125,140VHM

Drw. : VHM-BK01-B434
Unit : mm



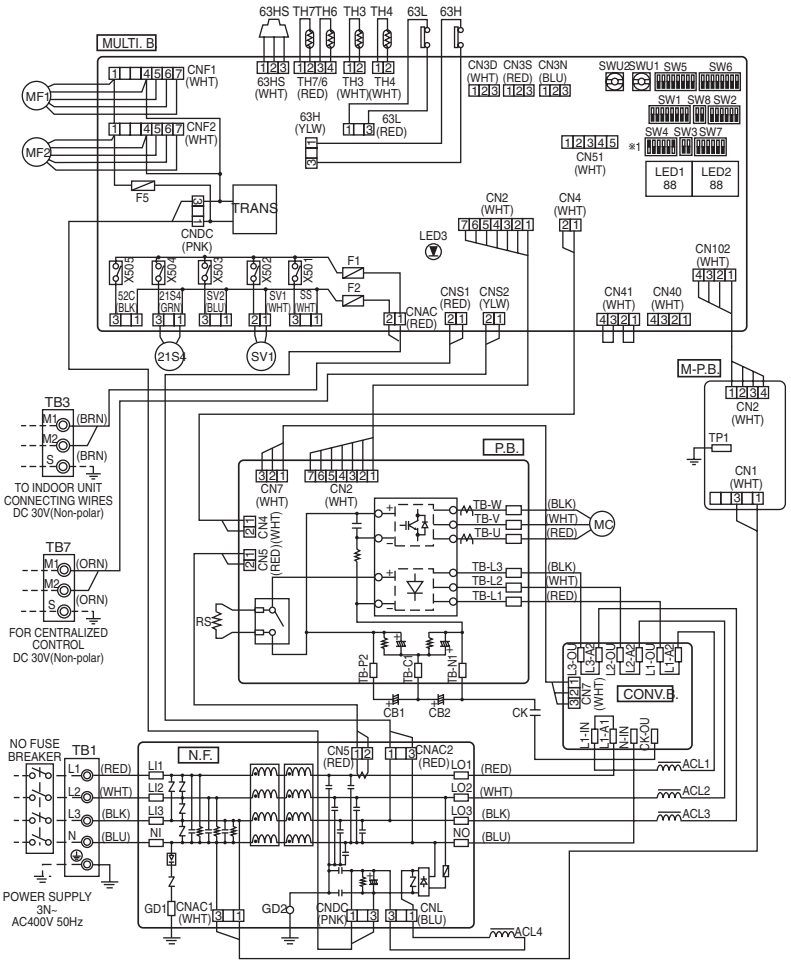
PUMY-P100,125,140YHM

Drw. : YHM-RG79-V020

SYMBOL	NAME
TB1	Terminal Block <Power Supply>
TB3	Terminal Block <Transmission>
TB7	Terminal Block <Contralized Control>
MC	Motor for Compressor
MF1,MF2	Fan Motor
21S4	Solenoid Valve<Four way valve>
SV1	Solenoid Valve<Bypass valve>
TH3	Thermistor<Outdoor Pipe Temperature>
TH4	Thermistor<Discharge Temperature>
TH6	Thermistor<Low Pressure Saturated Temperature>
TH7	Thermistor<Outdoor Temperature>
63HS	High Pressure Sensor<Discharge Pressure>
63H	High Pressure Switch
63L	Low Pressure Switch
CB1,CB2	Main Smoothing Capacitor
CK	Capacitor
RS	Rush Current Protect Resistor
ACL1~ACL4	Reactor
P.B	Power Circuit Board
TB-U/V/W	Connection Terminal<U/V/W-Phase>
TB-L1/L2/L3	Connection Terminal<L1/L2/L3-Power Supply>
TB-P2	Connection Terminal
TB-C1	Connection Terminal
TB-N1	Connection Terminal
CN2	Connection <To Multi Controller Board>
CN4	Connection <To Multi Controller Board>
CN5	Connection <To Noise Filter Circuit Board>
CNDC	Connection <To Multi Controller Board>
MULTI.B.	Multi Controller Board
F1,F2	Fuse<6.3A>
F500	Fuse<3A>
SW1	Switch<Display Selection>
SW2	Switch<Function Selection>
SW3	Switch<Test Run>
SW4	Switch<Model Selection>
SW5	Switch<Function Selection>
SW6	Switch<Function Selection>
SW7	Switch<Function Selection>
SW8	Switch<Function Selection>
SWU1	Switch<Unit Address Selection, 1st digit>
SWU2	Switch<Unit Address Selection, 2nd digit>
TRANS	Transfomer
LED1,2	Digital Indicator<Operation Inspection Display>
LED3	LED<Power Supply to Main Microcomputer>
CNS1	Connector<Multi System>
CNS2	Connector<Centralized Cotrol>
CNAC	Connector<To Noise Filter Circuit Board>
CNDC	Connector<To Noise Filter Circuit>
CN2	Connector<To Power Circuit Board>
CN4	Connector<To Power Circuit Board>
CN40	Connector<Centralized Cotrol Power Supply>
CN41	Connector<For storing Jumper Connector>
TH3	Connector<Thermistor>
TH4	Connector<Thermistor>
TH7/6	Connector<Thermistor>
63HS	Connector<High Pressure Sensor>
63H	Connector<High Pressure Switch>
63L	Connector<Low Pressure Switch>
CNF1,CNF2	Connector<Fan Motor>
21S4	Connector<Four-way Valve>

SYMBOL	NAME
SV1	Connector<Bypass Valve>
SS	Connector<For Option>
CN3D	Connector<For Option>
CN3S	Connector<For Option>
CN3N	Connector<For Option>
CN51	Connector<For Option>
X501~505	Relay
CONV.B.	Converter Circuit Board
L1-A1,L1-IN	Connection Terminal<L1-Power Supply>
L1-A2,L1-OU	Connection Terminal<L1-Power Supply>
L2-A2,L2-OU	Connection Terminal<L2-Power Supply>
L3-A2,L3-OU	Connection Terminal<L3-Power Supply>
N-IN	Connection Terminal
CK-OU	Connection Terminal
CN7	Connector<To Power Circuit Board>

SYMBOL	NAME
N.F.	Noise Filter Circuit Board
LI1/LI2/LI3/NI	Connection Terminal<L1/L2/L3/N-Power Supply>
LO1/LO2/LO3/NO	Connection Terminal<L1/L2/L3/N-Power Supply>
CNAC1	Connector<To Transmission Power Board>
CNAC2	Connector<To Multi Controller Board>
CNCT	Connector<To Power Circuit Board>
CNL	Connector<To Reactor>
FUSE	Fuse<6.3A>
M-P.B.	Transmission Power Board
CN1	Connector<To Noise Filter Circuit Board>
CN2	Connector<To Multi Controller Board>



※1 MODEL SELECT 1:ON 0:OFF

MODELS	SW4					
	1	2	3	4	5	6
PUMY-P100YHM	1	1	0	0	1	0
PUMY-P125YHM	1	1	0	0	0	1
PUMY-P140YHM	1	1	0	0	1	1

Cautions when Servicing

⚠ WARNING: When the main supply is turned off, the voltage [540 V] in the main capacitor will drop to 20 V in approx. 5 minutes (input voltage: 380 V).
When servicing, make sure that LED1, LED2 on the outdoor circuit board goes out, and then wait for at least 5 minute.
Components other than the outdoor board may be faulty: Check and take corrective action, referring to the service manual.
Do not replace the outdoor board without checking.

NOTES:

1.Refer to the wiring diagrams of the indoor units for details on wiring of each indoor unit.

Self-diagnosis function

The indoor and outdoor units can be diagnosed automatically using the self-diagnosis switch (SW1) and LED1, LED2 (LED indication) found on the multi-controller of the outdoor unit.

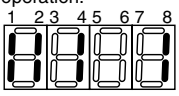
LED indication : Set all contacts of SW1 to OFF.

During normal operation

The LED indicates the drive state of the controller in the outdoor unit.

Bit	1	2	3	4	5	6	7	8
Indication	Compressor operated	52C	21S4	SV1	(SV2)	—	—	Always lit

[Example]
When the compressor and SV1 are turned during cooling operation.

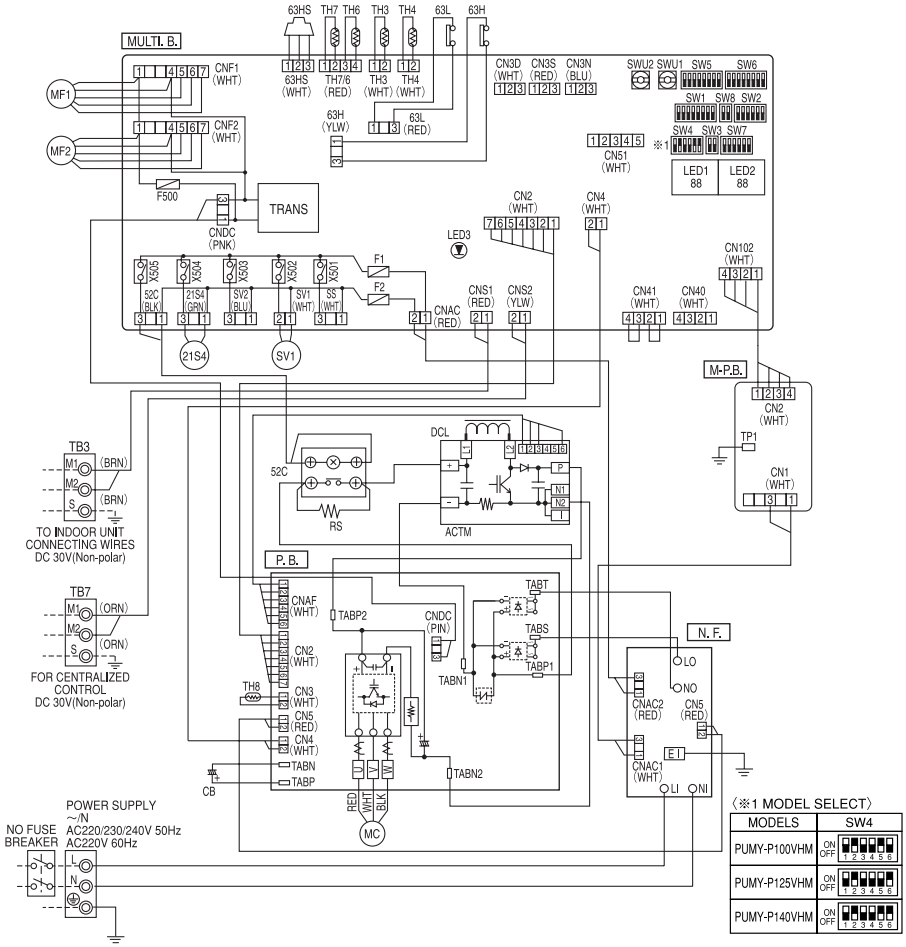


When fault requiring inspection has occurred

The LED alternately indicates the inspection code and the location of the unit in which the fault has occurred.

PUMY-P100,125,140VHM

Drw. : VHM-RG79-V221



SYMBOL	NAME
TB1	Terminal Block 〈Power Supply〉
TB3	Terminal Block 〈Transmission〉
TB7	Terminal Block 〈Contralized Control〉
MC	Motor for Compressor
MF1,MF2	Fan Motor
21S4	Solenoid Valve 〈Four way valve〉
SV1	Solenoid Valve 〈Bypass valve〉
TH3	Thermistor 〈Outdoor Pipe Temperature〉
TH4	Thermistor 〈Discharge Temperature〉
TH6	Thermistor 〈Low Pressure Saturated Temperature〉
TH7	Thermistor 〈Outdoor Temperature〉
63HS	High Pressure Sensor 〈Discharge Pressure〉
63H	High Pressure Switch
63L	Low Pressure Switch
CB	Main Smoothing Capacitor
ACTM	Active filter Module
RS	Rush Current Protect Resistor
DCL	Reactor
P.B.	Power Circuit Board
U/V/W	Connection Terminal 〈U/V/W-Phase〉
TAB-S/T	Terminal 〈L/N-Phase〉
TAB-P/P1/P2	Terminal 〈DCVoltage〉
TAB-N/N1/N2	Terminal 〈DCVoltage〉
CN2～5	Connector
CNDC	Connector
CNAF	Connector

SYMBOL	NAME
IPM	Inverter
LED1	Light Emitting Diodes 〈Inverter Control Status〉
N.F.	Noise Filter Circuit Board
LI/LO	Connection Lead 〈L-Phase〉
NI/NO	Connection Lead 〈N-Phase〉
EI	Connection Terminal 〈Ground〉
CNAC1/2	Connector
CN5	Connector
MULTI.B.	Multi Controller Board
F1,F2	Fuse 〈6.3A〉
F500	Fuse 〈3A〉
SW1	Switch 〈Display Selection〉
SW2	Switch 〈Function Selection〉
SW3	Switch 〈Test Run〉
SW4	Switch 〈Model Selection〉
SW5	Switch 〈Function Selection〉
SW6	Switch 〈Function Selection〉
SW7	Switch 〈Function Selection〉
SW8	Switch 〈Function Selection〉
SWU1	Switch 〈Unit Address Selection, 1st digit〉
SWU2	Switch 〈Unit Address Selection, 2nd digit〉
TRANS	Transfomer
LED1,2	Digital Indicator 〈Operation Inspection Display〉
LED3	LED 〈Power Supply to Main Microcomputer〉
CNS1	Connector 〈Multi System〉
CNS2	Connector 〈Centralized Cotrol〉

SYMBOL	NAME
CNAC	Connector 〈To Noise Filter Circuit Board〉
CNDC	Connector 〈To Noise Filter Circuit〉
CN2	Connector 〈To Power Circuit Board〉
CN4	Connector 〈To Power Circuit Board〉
CN40	Connector 〈Centralized Cotrol Power Supply〉
CN41	Connector 〈For storing Jumper Connector〉
TH3	Connector 〈Thermistor〉
TH4	Connector 〈Thermistor〉
TH7/6	Connector 〈Thermistor〉
63HS	Connector 〈High Pressure Sensor〉
63H	Connector 〈High Pressure Switch〉
63L	Connector 〈Low Pressure Switch〉
CNF1,CNF2	Connector 〈Fan Motor〉
21S4	Connector 〈Four-way Valve〉
SV1	Connector 〈Bypass Valve〉
SS	Connector 〈For Option〉
CN3D	Connector 〈For Option〉
CN3S	Connector 〈For Option〉
CN3N	Connector 〈For Option〉
CN51	Connector 〈For Option〉
X501～505	Relay
M-P.B.	Transmission Power Board
CN1	Connector 〈To Noise Filter Circuit Board〉
CN2	Connector 〈To Multi Controller Board〉

Cautions when Servicing

- ⚠ WARNING: When the main supply is turned off, the voltage [340 V] in the main capacitor will drop to 20 V in approx. 2 minutes (input voltage: 240 V). When servicing, make sure that LED1, LED2 on the outdoor circuit board goes out, and then wait for at least 1 minute.
- Components other than the outdoor board may be faulty: Check and take corrective action, referring to the service manual. Do not replace the outdoor board without checking.

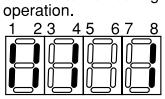
NOTES:

1.Refer to the wiring diagrams of the indoor units for details on wiring of each indoor unit.
Self-diagnosis function
The indoor and outdoor units can be diagnosed automatically using the self-diagnosis switch (SW1) and LED1, LED2 (LED indication) found on the multi-controller of the outdoor unit.
LED indication : Set all contacts of SW1 to OFF.

- During normal operation
- The LED indicates the drive state of the controller in the outdoor unit.

Bit	1	2	3	4	5	6	7	8
Indication	Compressor operated	52C	21S4	SV1	〈SV2〉	–	–	Always lit

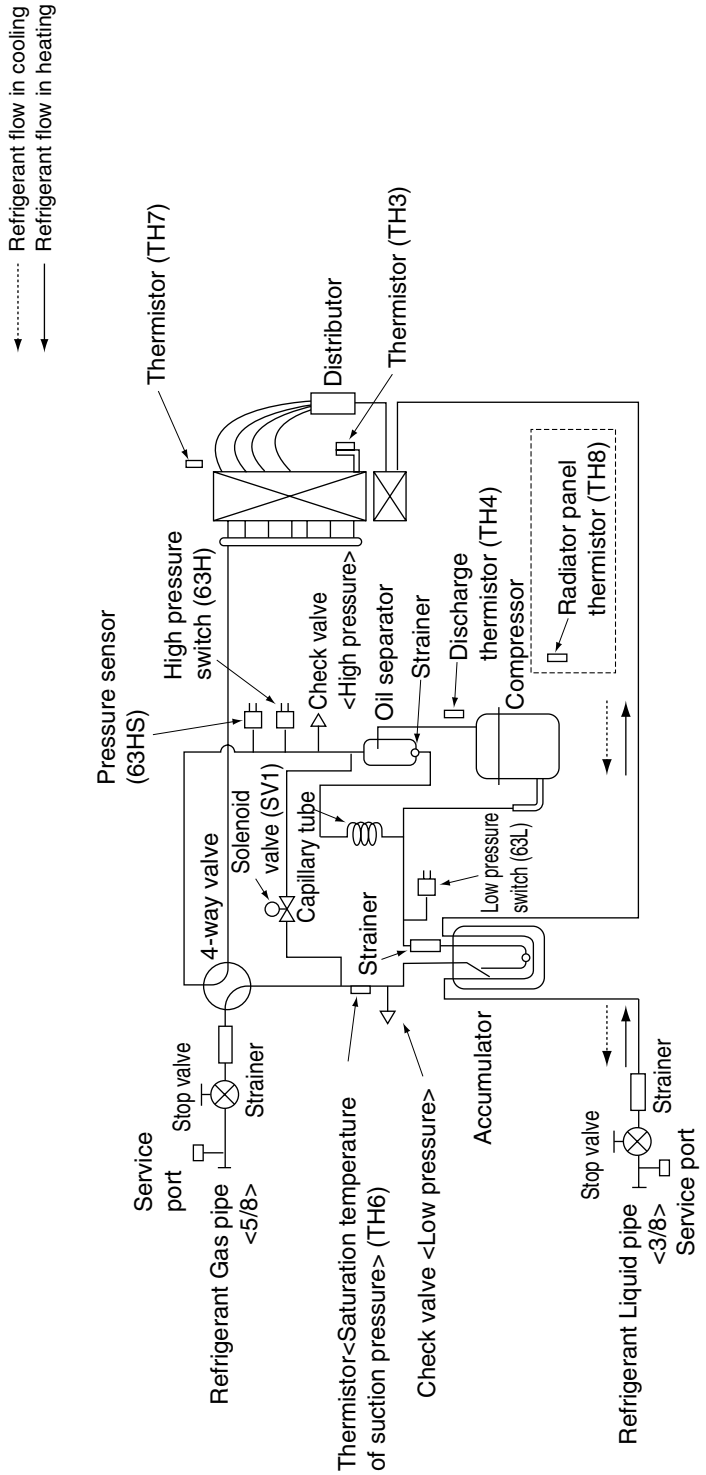
〔Example〕
When the compressor and SV1 are turned during cooling operation.



- When fault requiring inspection has occurred
The LED alternately indicates the inspection code and the location of the unit in which the fault has occurred.

PUMY-P100,125,140YHM
PUMY-P100,125,140VHM

Drw. : RC_VBN-050092



Refrigerant pipng specifications <dimensions of flared connector>

Capacity \ Item		Liquid piping	Gas pipng
Indoor unit	P20, P25, P32, P40, P50	ϕ 6.35 <1/4">Flare	ϕ 12.7 <1/2">Flare
	P63, P80, P100 P125, P140	ϕ 9.52 <3/8">Flare	ϕ 15.88 <5/8">Flare
Outdoor unit	P100, P125, P140	ϕ 9.52 <3/8">Flare	ϕ 15.88 <5/8">Flare