MITSUBISHI ELECTRIC

Changes for the Better

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

September 2008

No. OCS11
REVISED EDITION-A

TECHNICAL DATA BOOK R410A

<Indoor unit> **INVERTER**

[Model names]

PLA-RP·BA(2)
PEAD-RP·EA(2)
PEAD-RP·GA
PKA-RP·GAL
PKA-RP·FAL(2)

Revision :
- PLA-RP•BA2 and PUHZ-HRP •HA2 are added in REVISED EDITION-A.
- Some descriptions have been modified.

• Please void OCS11.

<Outdoor unit>

[Model names]

PUHZ-HRP71/100VHA
PUHZ-HRP100/125YHA
PUHZ-HRP71/100VHA2
PUHZ-HRP100/125YHA2

CONTENTS

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1 REFERENCE SERVICE MANUAL

For information on service, please refer to the service manual as follows.

1-1. INDOOR UNIT

Model name	Service Ref.	Service Manual No.
PLA-RP35/50/60/100/125BA PLA-RP71/100/125BA2	PLA-RP35/50/60/100/125BA(1).UK/BA#2.UK PLA-RP71/100/125BA2.UK	OCH412 OCB412
PKA-RP35/50GAL	PKA-RP35/50GAL(#1)	OC330
PKA-RP60/100FAL PKA-RP50FAL2	PKA-RP60/100FAL(#1) PKA-RP50FAL2(#1)	OC331
PEAD-RP50/60/71/125EA PEAD-RP35/100EA2	PEAD-RP50/60/71/125EA(#1).UK PEAD-RP35/100EA2(#1).UK	HWE0521
PEAD-RP60/71/100GA	PEAD-RP60/71/100GA(#1).UK	HWE0506

1-2. OUTDOOR UNIT

Model name	Service Ref.	Service Manual No.
PUHZ-HRP71/100VHA PUHZ-HRP100/125YHA PUHZ-HRP71/100VHA2 PUHZ-HRP100/125YHA2	PUHZ-HRP71/100VHA PUHZ-HRP100/125YHA PUHZ-HRP71/100VHA2 PUHZ-HRP100/125YHA2	OCH425 OCB425

2 SPECIFICATIONS

2-1. CEILING CASSETTE TYPE

Model name	Indoor unit		PLA-RP71BA2	PLA-RP100BA2
	Outdoor unit		PUHZ-HRP71VHA2	PUHZ-HRP100VHA2
Cooling	Capacity	Btu/h	24,200	34,100
		kW	7.1 (4.9 - 8.1)	10.0 (4.9 - 11.4)
	Total input	kW	1.94	2.44
	EER		3.66	4.10
	Energy label class		A	A
	SHF		0.73	0.74
Heating	Capacity	Btu/h	27,300	38,200
		kW	8.0 (4.5 - 10.2)	11.2 (4.5 - 14.0)
	Total input	kW	1.90	2.54
	COP		4.21	4.41
	Energy label class		A	A
	Booster heater	kW	-	-
Power supply	Phase	ϕ	1	
	Cycle	Hz	50	
	Voltage	V	230	
	Breaker size	A	32	40
Indoor unit	Air flow (Low-Medium2-Medium1-High)	CMM	14 - 16 - 18 - 21	20 - 23 - 26 - 30
		CFM	495 - 565 - 635 - 740	710 - 810 - 920 - 1060
	External pressure	Pa	0	
	Sound level (Low-Medium2-Medium1-High)	dB(A)	28 - 30 - 32 - 34	32 - 34 - 37 - 40
	External finish (Panel)		White Munsell 6.4Y 8.9/0.4	
	Dimension Unit (Panel)	W : mm	840 (950)	
		D : mm	840 (950)	
		H : mm	258 (35)	298 (35)
		W : inch	33-1/16 (37-3/8)	
		D : inch	33-1/16 (37-3/8)	
		H : inch	10-3/16 (1-3/8)	11-3/4 (1-3/8)
	Weight Unit (Panel)	kg	23 (6)	27 (6)
		lbs	51 (13)	60 (13)
	Field drain pipe O.D.	mm	32	
		inch	1-1/4	
Outdoor unit	Air flow	CMM	100	
		CFM	3,530	
	Sound level at cooling	dB(A)	51	
	Sound level at heating	dB(A)	52	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm	950	
		D : mm	330+30	
		H : mm	1350	
		W : inch	37-3/8	
		D : inch	13 + 1-3/16	
		H : inch	53-1/8	
	Weight	kg	120	
		lbs	265	
Refrigerant pipe size	Gas side O.D.	mm	15.88	
		inch	5/8	
	Liquid side O.D.	mm	9.52	
		inch	3/8	
Refrigerant pipe length	Height difference	m	Max. 30	
	Length	m	Max. 75	

NOTE: 1. Rating conditions (ISO T1)
Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)
Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)
Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz
4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit Single phase 230V 50Hz

* If optional air protect guide is installed : D.B.-18°C

Model name	Indoor unit		PLA-RP100BA2	PLA-RP125BA2
	Outdoor unit		PUHZ-HRP100YHA2	PUHZ-HRP125YHA2
Cooling	Capacity	Btu/h	34,100	42,700
		kW	10.0 (4.9 - 11.4)	12.5 (5.5 - 14.0)
	Total input	kW	2.50	3.79
	EER		4.00	3.30
	Energy label class		A	A
	SHF		0.74	0.71
Heating	Capacity	Btu/h	38,200	47,800
		kW	11.2 (4.5 - 14.0)	14.0 (5.0 - 16.0)
	Total input	kW	2.60	3.57
	COP		4.31	3.92
	Energy label class		A	A
	Booster heater	kW	-	-
Power supply	Phase	ϕ	3	
	Cycle	Hz	50	
	Voltage	V	400	
	Breaker size	A	16	
Indoor unit	Air flow (Low-Medium2-Medium1-High)	CMM	20 - 23 - 26 - 30	22 - 25 - 28 - 31
		CFM	710 - 810 - 920 - 1060	780 - 880 - 990 - 1090
	External pressure	Pa	0	0
	Sound level (Low-Medium2-Medium1-High)	dB(A)	32 - 34 - 37 - 40	34 - 36 - 39 - 41
	External finish (Panel)		White Munsell 6.4Y 8.9/0.4	
	Dimension Unit (Panel)	W : mm	840 (950)	
		D : mm	840 (950)	
		H : mm	298 (35)	
		W : inch	33-1/16 (37-3/8)	
		D : inch	33-1/16 (37-3/8)	
		H : inch	11-3/4 (1-3/8)	
	Weight Unit (Panel)	kg	27 (6)	
		lbs	60 (13)	
	Field drain pipe O.D.	mm	32	
		inch	1-1/4	
Outdoor unit	Air flow	CMM	100	
		CFM	3,530	
	Sound level at cooling	dB(A)	51	
	Sound level at heating	dB(A)	52	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm	950	
		D : mm	330+30	
		H : mm	1350	
		W : inch	37-3/8	
		D : inch	13 + 1-3/16	
		H : inch	53-1/8	
	Weight	kg	134	
		lbs	295	
Refrigerant pipe size	Gas side O.D.	mm	15.88	
		inch	5/8	
	Liquid side O.D.	mm	9.52	
		inch	3/8	
Refrigerant pipe length	Height difference	m	Max. 30	
	Length	m	Max. 75	

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz(HRP100, 125Y : 342~457V, 50Hz)

4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit 3 phase 400V 50Hz

* If optional air protect guide is installed : D.B.-18°C

Model name	Indoor unit		PLA-RP100BA	PLA-RP100BA	PLA-RP125BA
	Outdoor unit		PUHZ-HRP100VHA	PUHZ-HRP100YHA	PUHZ-HRP125YHA
Cooling	Capacity	Btu/h	34,100	34,100	42,700
		kW	10.0 (4.9 - 11.4)	10.0 (4.9 - 11.4)	12.5 (5.5 - 14.0)
	Total input	kW	3.02	3.02	3.87
	EER		3.31	3.31	3.23
	Energy label class		A	A	A
	SHF		0.74	0.74	0.71
Heating	Capacity	Btu/h	38,200	38,200	47,800
		kW	11.2 (4.5 - 14.0)	11.2 (4.5 - 14.0)	14.0 (5.0 - 16.0)
	Total input	kW	3.10	3.10	3.88
	COP		3.61	3.61	3.61
	Energy label class		A	A	A
	Booster heater	kW	-	-	-
Power supply	Phase	ϕ	1	3	
	Cycle	Hz	50	50	
	Voltage	V	230	400	
	Breaker size	A	32	16	
Indoor unit	Air flow (Low-Medium2-Medium1-High)	CMM	20 - 23 - 26 - 30		22 - 25 - 28 - 31
		CFM	710 - 810 - 920 - 1060		780 - 880 - 990 - 1090
	External pressure	Pa	0		0
	Sound level (Low-Medium2-Medium1-High)	dB(A)	32 - 34 - 37 - 40		34 - 36 - 39 - 41
	External finish (Panel)		White Munsell 6.4Y 8.9/0.4		
	Dimension Unit (Panel)	W : mm	840 (950)		
		D : mm	840 (950)		
		H : mm	298 (35)		
		W : inch	33-1/16 (37-3/8)		
		D : inch	33-1/16 (37-3/8)		
		H : inch	11-3/4 (1-3/8)		
	Weight	kg	25 (6)		
	Unit (Panel)	lbs	55 (13)		
	Field drain pipe O.D.	mm	32		
		inch	1-1/4		
Outdoor unit	Air flow	CMM	100		
		CFM	3,530		
	Sound level at cooling	dB(A)	52		
	Sound level at heating	dB(A)	53		
	External finish		Ivory Munsell 3Y 7.8/1.1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	1350		
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	53-1/8		
	Weight	kg	120	134	
		lbs	265	295	
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 75		

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz(HRP100, 125Y : 342~457V, 50Hz)

4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit V:Single phase 230V 50Hz, Y:3 phase 400V 50Hz

* If optional air protect guide is installed : D.B.-18°C

2-2. CEILING-CONCEALED TYPE

Model name	Indoor unit		PEAD-RP71EA	PEAD-RP100EA2
	Outdoor unit		PUHZ-HRP71VHA PUHZ-HRP71VHA2	PUHZ-HRP100VHA PUHZ-HRP100VHA2
Cooling	Capacity	Btu/h	24,200	34,100
		kW	7.1 (4.9 - 8.1)	10.0 (4.9 - 11.4)
	Total input	kW	2.15	3.06
	EER		3.30	3.27
	Energy label class		A	A
	SHF		0.83	0.86
Heating	Capacity	Btu/h	27,300	38,200
		kW	8.0 (4.5 - 10.2)	11.2 (4.5 - 14.0)
	Total input	kW	2.34	3.10
	COP		3.42	3.61
	Energy label class		B	A
	Booster heater	kW	-	-
Power supply	Phase	ϕ	1	
	Cycle	Hz	50	
	Voltage	V	230	
	Breaker size	A	32	32 (VHA)/ 40 (VHA2)
Indoor unit	Air flow (Low-High)	CMM	20 - 25	33.5 - 42
		CFM	706 - 883	1183 - 1483
	External pressure	Pa	70	70
	Sound level (Low-High)	dB(A)	37-41	44-50
	External finish (Panel)		Galvanized sheets	
	Dimension Unit (Panel)	W : mm	1175	1415
		D : mm	740	
		H : mm	325	
		W : inch	46-1/8	55-11/16
		D : inch	29-1/8	
		H : inch	12-13/16	
	Weight	kg	44	65
	Unit (Panel)	lbs	97	143
	Unit drain pipe O.D.		R1 (External thread)	
Outdoor unit	Air flow	CMM	100	
		CFM	3,530	
	Sound level at cooling	dB(A)	52 (VHA)/ 51 (VHA2)	
	Sound level at heating	dB(A)	53 (VHA)/ 52 (VHA2)	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm	950	
		D : mm	330+30	
		H : mm	1350	
		W : inch	37-3/8	
		D : inch	13 + 1-3/16	
		H : inch	53-1/8	
	Weight	kg	120	
		lbs	265	
Refrigerant pipe size	Gas side O.D.	mm	15.88	
		inch	5/8	
	Liquid side O.D.	mm	9.52	
		inch	3/8	
Refrigerant pipe length	Height difference	m	Max. 30	
	Length	m	Max. 75	

NOTE: 1. Rating conditions (ISO T1)
Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)
Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)
Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz
4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit Single phase 230V 50Hz

* If optional air protect guide is installed : D.B.-18°C

Model name	Indoor unit		PEAD-RP100EA2	PEAD-RP125EA
	Outdoor unit		PUHZ-HRP100YHA PUHZ-HRP100YHA2	PUHZ-HRP125YHA PUHZ-HRP125YHA2
Cooling	Capacity	Btu/h	34,100	42,700
		kW	10.0 (4.9 - 11.4)	125. (5.5 - 14.0)
	Total input	kW	3.06	3.89
	EER		3.27	3.21
	Energy label class		A	A
	SHF		0.86	0.82
Heating	Capacity	Btu/h	38,200	47,800
		kW	11.2 (4.5 - 14.0)	14.0 (5.0 - 16.0)
	Total input	kW	3.10	3.88
	COP		3.61	3.61
	Energy label class		A	A
	Booster heater	kW	-	-
Power supply	Phase	ϕ	3	
	Cycle	Hz	50	
	Voltage	V	400	
	Breaker size	A	16	
Indoor unit	Air flow (Low-High)	CMM	33.5 - 42	33.5 - 42
		CFM	1183 - 1483	1183 - 1483
	External pressure	Pa	70	70
	Sound level (Low-High)	dB(A)	44 - 50	44 - 50
	External finish (Panel)		Galvanized sheets	
	Dimension Unit (Panel)	W : mm	1415	
		D : mm	740	
		H : mm	325	
		W : inch	55-11/16	
		D : inch	29-1/8	
		H : inch	12-13/16	
	Weight Unit (Panel)	kg	65	
		lbs	143	
	Unit drain pipe O.D.		R1 (External thread)	
Outdoor unit	Air flow	CMM	100	
		CFM	3,530	
	Sound level at cooling	dB(A)	52 (YHA)/ 51 (YHA2)	
	Sound level at heating	dB(A)	53 (YHA)/ 52 (YHA2)	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm	950	
		D : mm	330+30	
		H : mm	1350	
		W : inch	37-3/8	
		D : inch	13 + 1-3/16	
		H : inch	53-1/8	
	Weight	kg	134	
		lbs	295	
Refrigerant pipe size	Gas side O.D.	mm	15.88	
		inch	5/8	
	Liquid side O.D.	mm	9.52	
		inch	3/8	
Refrigerant pipe length	Height difference	m	Max. 30	
	Length	m	Max. 75	

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
   Indoor unit:198~264V, 50Hz Outdoor unit:342~457V, 50Hz
4. Above data are based on the indicated voltage.
   Indoor unit Single phase 230V 50Hz
   Outdoor unit 3 phase 400V 50Hz

* If optional air protect guide is installed : D.B.-18°C

Model name	Indoor unit		PEAD-RP71GA	PEAD-RP100GA	PEAD-RP100GA
	Outdoor unit		PUHZ-HRP71VHA PUHZ-HRP71VHA2	PUHZ-HRP100VHA PUHZ-HRP100VHA2	PUHZ-HRP100YHA PUHZ-HRP100YHA2
Cooling	Capacity	Btu/h	24,200	34,100	34,100
		kW	7.1 (4.9 - 8.1)	10.0 (4.9 - 11.4)	10.0 (4.9 - 11.4)
	Total input	kW	2.15	3.08	3.08
	EER		3.30	3.25	3.25
	Energy label class		A	A	A
	SHF		0.83	0.86	0.86
Heating	Capacity	Btu/h	27,300	38,200	38,200
		kW	8.0 (4.5 - 10.2)	11.2 (4.5 - 14.0)	11.2 (4.5 - 14.0)
	Total input	kW	2.34	3.28	3.28
	COP		3.42	3.41	3.41
	Energy label class		B	B	B
	Booster heater	kW	-	-	-
Power supply	Phase	ϕ	1		3
	Cycle	Hz	50		50
	Voltage	V	230		400
	Breaker size	A	32	32 (VHA)/ 40 (VHA2)	16
Indoor unit	Air flow (Low-High)	CMM	20-25	26.5-33	
		CFM	706-883	935-1165	
	External pressure	Pa	10/50/70	10/50/70	
	Sound level (Low-High)	dB(A)	35-38/37-41/37-43	40-43/42-45/42-46	
	External finish (Panel)		Galvanized sheets		
	Dimension Unit (Panel)	W : mm	1171	1411	
		D : mm	740		
		H : mm	275		
		W : inch	46-1/8	55-9/16	
		D : inch	29-1/8		
		H : inch	10-13/16		
	Weight Unit (Panel)	kg	42	50	
		lbs	93	111	
	Unit drain pipe O.D.	mm	R1 (External thread)		
		inch	1-1/4		
Outdoor unit	Air flow	CMM	100		
		CFM	3,530		
	Sound level at cooling	dB(A)	52 (VHA, YHA)/ 51 (VHA2, YHA2)		
	Sound level at heating	dB(A)	53 (VHA, YHA)/ 52 (VHA2, YHA2)		
	External finish		Ivory Munsell 3Y 7.8/1.1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	1350		
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	53-1/8		
	Weight	kg	120		134
		lbs	265		295
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 75		

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz(HRP100Y : 342~457V, 50Hz)

4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit V:Single phase 230V 50Hz, Y:3 phase 400V 50Hz

* If optional air protect guide is installed : D.B.-18°C

Model name	Indoor unit		PKA-RP100FAL	PKA-RP100FAL
	Outdoor unit		PUHZ-HRP100VHA PUHZ-HRP100VHA2	PUHZ-HRP100YHA PUHZ-HRP100YHA2
Cooling	Capacity	Btu/h	34,100	34,100
		kW	10.0 (4.9 - 11.4)	10.0 (4.9 - 11.4)
	Total input	kW	2.93	2.93
	EER		3.41	3.41
	Energy label class		A	A
	SHF		0.77	0.77
Heating	Capacity	Btu/h	38,200	38,200
		kW	11.2 (4.5 - 14.0)	11.2 (4.5 - 14.0)
	Total input	kW	3.10	3.10
	COP		3.61	3.61
	Energy label class		A	A
	Booster heater	kW	-	-
Power supply	Phase	ϕ	1	3
	Cycle	Hz	50	50
	Voltage	V	230	400
	Breaker size	A	32 (VHA)/ 40 (VHA2)	16
Indoor unit	Air flow (Low-High)	CMM	22 - 28	
		CFM	780 - 990	
	External pressure	Pa	0	
	Sound level (Low-High)	dB(A)	41 - 46	
	External finish (Panel)		White Munsell 3.4Y 7.7/0.8	
	Dimension	W : mm	1680	
	Unit (Panel)	D : mm	235	
		H : mm	340	
		W : inch	66-1/8	
		D : inch	9-1/4	
		H : inch	13-3/8	
	Weight	kg	28	
	Unit (Panel)	lbs	62	
	Field drain pipe I.D.	mm	20	
		inch	13/16	
Outdoor unit	Air flow	CMM	100	
		CFM	3,530	
	Sound level at cooling	dB(A)	52 (VHA, YHA)/ 51 (VHA2, YHA2)	
	Sound level at heating	dB(A)	53 (VHA, YHA)/ 52 (VHA2, YHA2)	
	External finish		Ivory Munsell 3Y 7.8/1.1	
	Dimension	W : mm	950	
		D : mm	330+30	
		H : mm	1350	
		W : inch	37-3/8	
		D : inch	13 + 1-3/16	
		H : inch	53-1/8	
	Weight	kg	120	134
		lbs	265	295
Refrigerant pipe size	Gas side O.D.	mm	15.88	
		inch	5/8	
	Liquid side O.D.	mm	9.52	
		inch	3/8	
Refrigerant pipe length	Height difference	m	Max. 30	
	Length	m	Max. 75	

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 32°C, W.B. 23°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -25°C, W.B. -25°C

3. Guaranteed voltage
198~264V, 50Hz(HRP100Y : 342~457V, 50Hz)

4. Above data are based on the indicated voltage.
Indoor unit Single phase 230V 50Hz
Outdoor unit V:Single phase 230V 50Hz, Y:3 phase 400V 50Hz

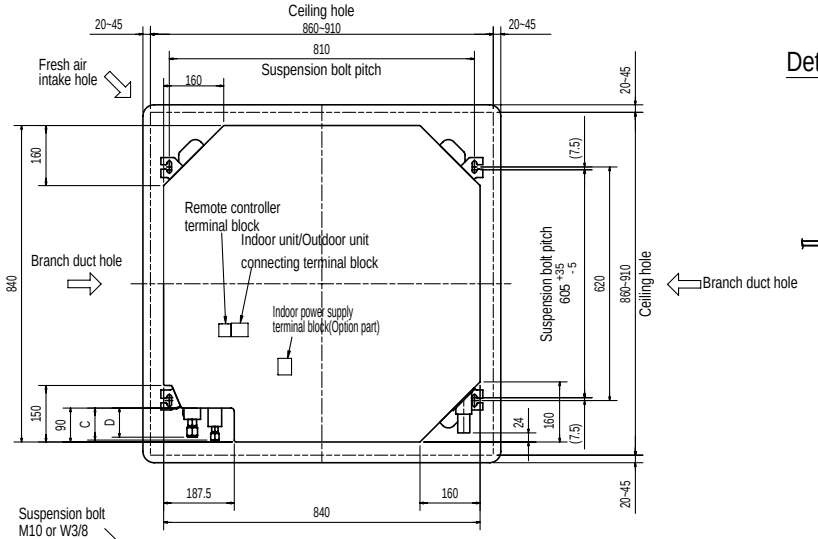
* If optional air protect guide is installed : D.B.-18°C

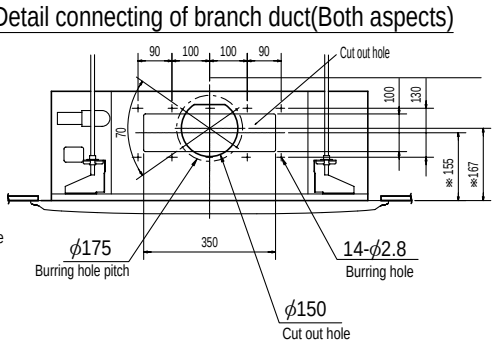
3 OUTLINES AND DIMENSIONS

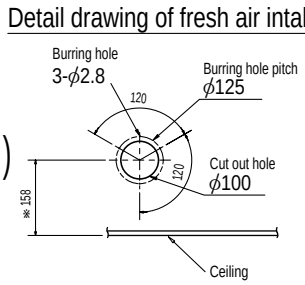
INDOOR UNIT

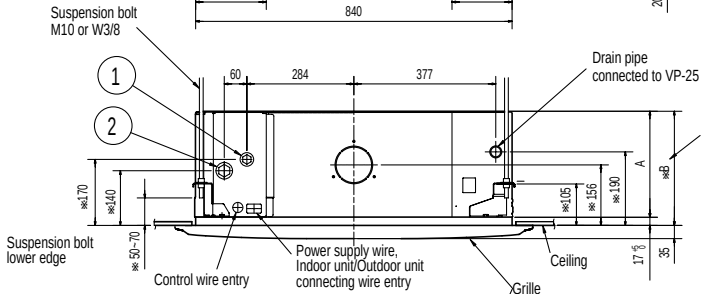
Unit : mm

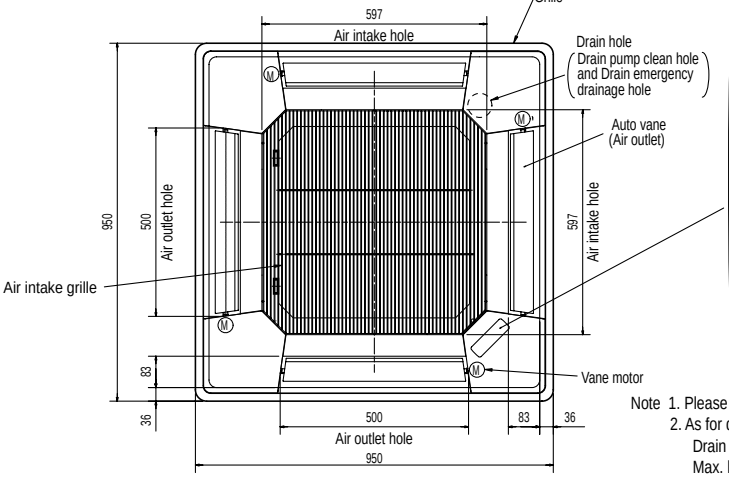
PLA-RP35BA PLA-RP50BA PLA-RP60BA PLA-RP100BA PLA-RP125BA
PLA-RP71BA2 PLA-RP100BA2 PLA-RP125BA2

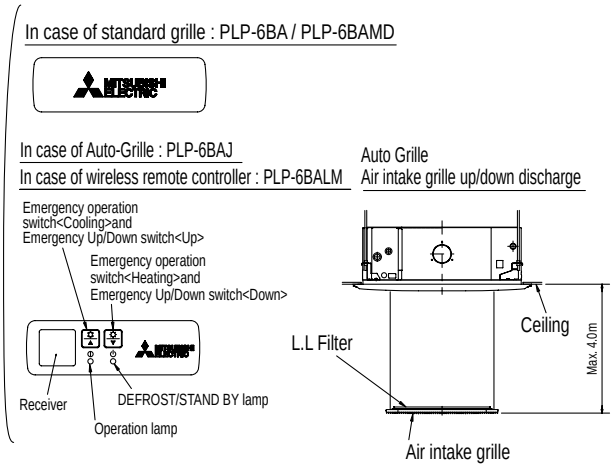


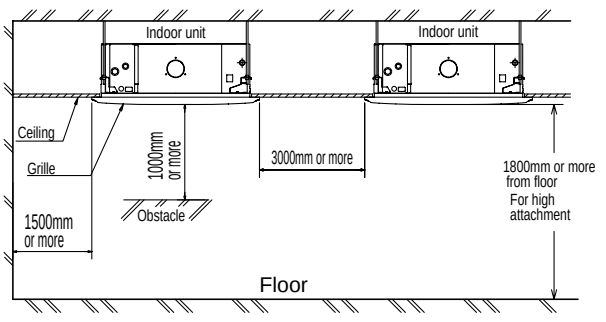












Note 1. Please choose the Grille from a standard grille or Auto-Grille.
2. As for drain pipe, please use VP-25(O.D. ϕ32 PVC TUBE).
Drain pump is included.
Max. lifting height is 850mm from the ceiling.
3. As for suspension bolt, please use M10 or W3/8. (Procured at local site)
4. Electrical box may be removed for the service purpose.
Make sure to slack the electrical wire little bit for control/ power wires connection.
5. The height of the indoor unit is able to be adjusted with the grille attached.
6. For the installation of the optional high efficiency filter or optional multi-functional casement.
1) Requires E or more space between transom and ceiling for the installation.
2) Add 135 mm to the dimensions ※ marked on the figure.
3) The optional high efficiency filter becomes optional multi-functional casement and concomitant use.
7. When installing the branch ducts, be sure to insulate adequately.
Otherwise condensation and dripping may occur. (It becomes the cause of dew drops/water dew.)
8. As for necessary installation/service space, please refer to the left figure.

Models	①	②	A	B	C	D	E
PLA-RP35/50BA	Refrigerant pipe ···ϕ6.35 Flared connection ···1/4 inch	Refrigerant pipe ···ϕ12.7 Flared connection ···1/2 inch	241	258	80	74	400
PLA-RP60BA	Refrigerant pipe ϕ6.35 / ϕ9.52 Flared connection 1/4 inch / 3/8 inch (compatible)	Refrigerant pipe ···ϕ15.88 Flared connection ···5/8 inch			87		
PLA-RP71BA PLA-RP71BA2	Refrigerant pipe ···ϕ9.52 Flared connection ···3/8 inch				85	77	
PLA-RP100,125,140BA PLA-RP100,125BA2			281	298			440

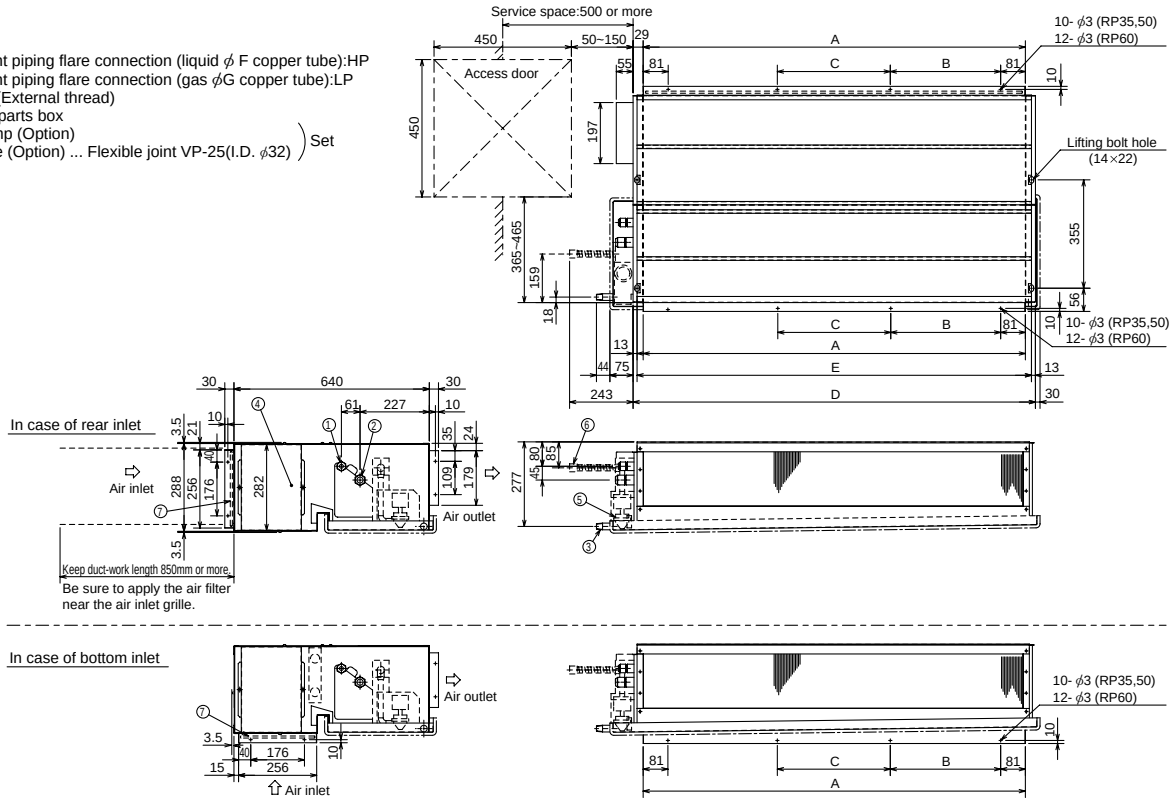
PEAD-RP35EA2
PEAD-RP50EA
PEAD-RP60EA

Unit : mm

Model	A	B	C	D	E	F	G
RP35,50	772	305	–	830	804	R410A Outdoor unit : 6.35 ※ R407C Outdoor unit : 9.52	R410A Outdoor unit : 12.7 ※ R407C Outdoor unit : 15.88
RP60	1012	280	290	1070	1044	Outdoor unit (SUZ) : 6.35 R407C Outdoor unit : 9.52 ※	15.88

※ Initial setting

① Refrigerant piping flare connection (liquid ϕ F copper tube):HP
② Refrigerant piping flare connection (gas ϕG copper tube):LP
③ Drain R1(External thread)
④ Electrical parts box
⑤ Drain Pump (Option)
⑥ Drain Pipe (Option) ... Flexible joint VP-25(I.D. ϕ32)) Set
⑦ Filter

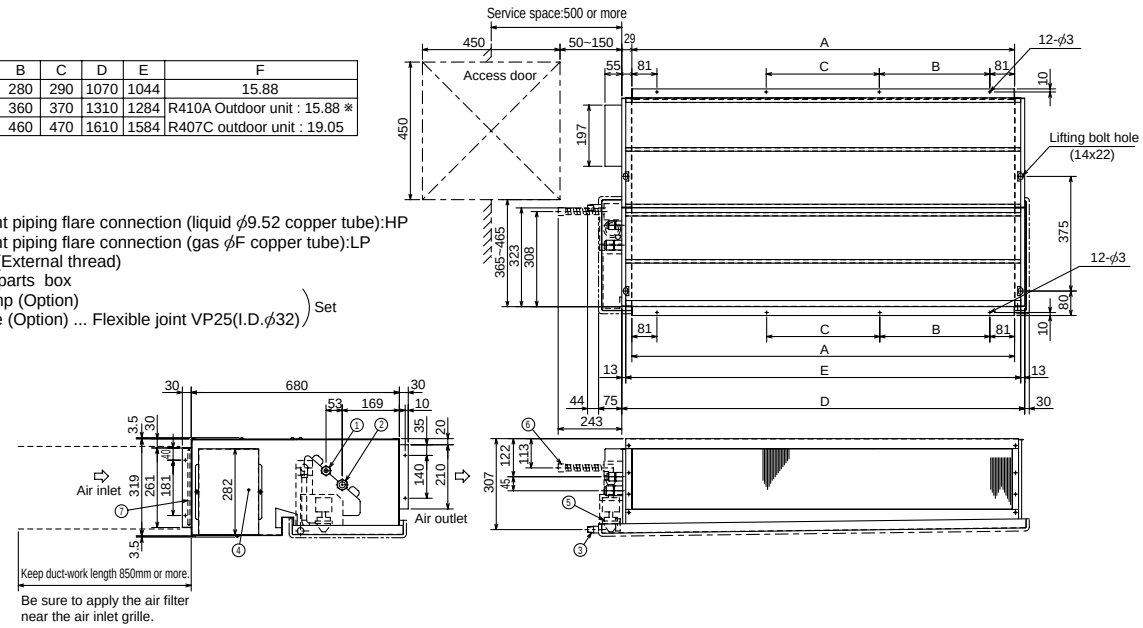


PEAD-RP71EA
PEAD-RP100EA2
PEAD-RP125EA

Model	A	B	C	D	E	F
RP71	1012	280	290	1070	1044	15.88
RP100,125	1252	360	370	1310	1284	R410A Outdoor unit : 15.88 ※
RP140	1552	460	470	1610	1584	R407C outdoor unit : 19.05

※ Initial setting

① Refrigerant piping flare connection (liquid ϕ9.52 copper tube):HP
② Refrigerant piping flare connection (gas ϕF copper tube):LP
③ Drain R1 (External thread)
④ Electrical parts box
⑤ Drain Pump (Option)
⑥ Drain Pipe (Option) ... Flexible joint VP25(I.D.ϕ32)) Set
⑦ Filter

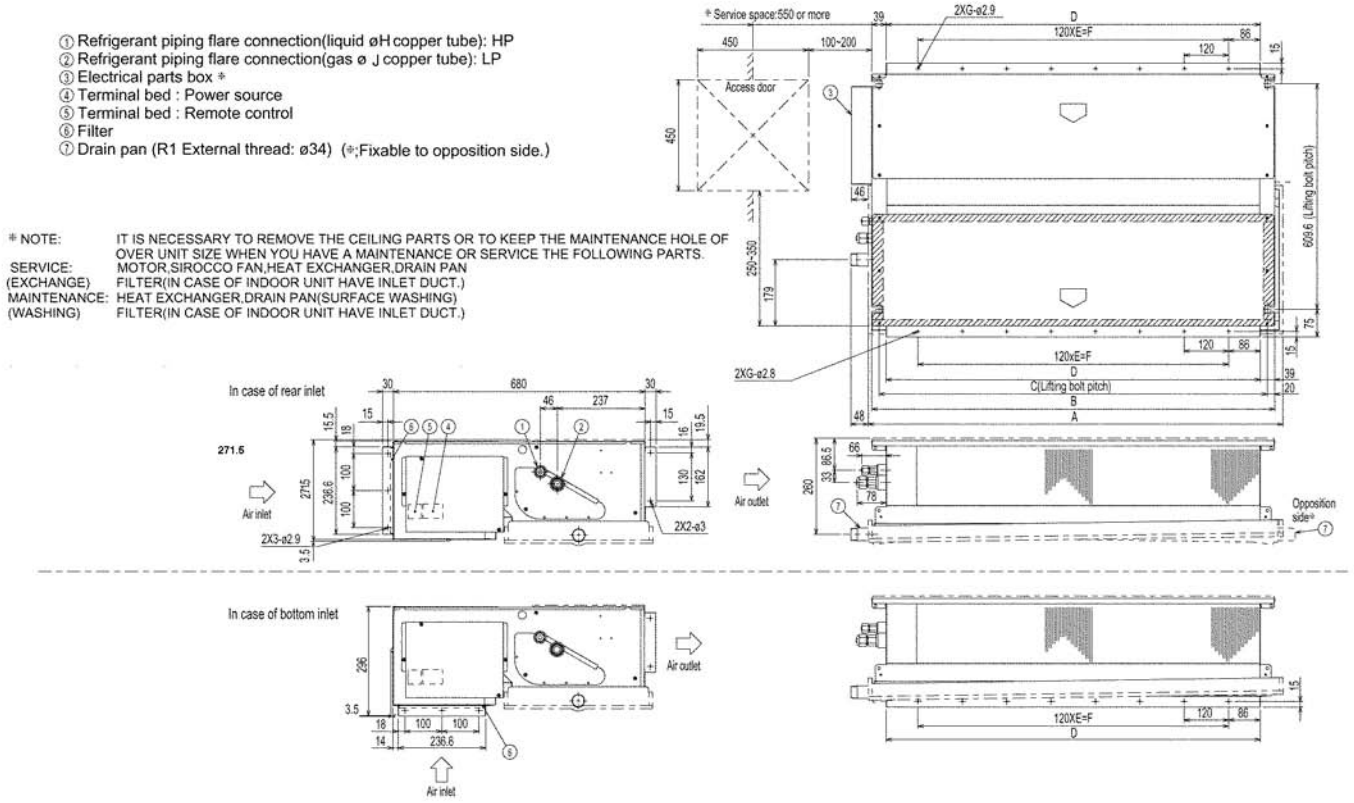


PEAD-RP60GA
PEAD-RP71GA
PEAD-RP100GA

Unit : mm

① Refrigerant piping flare connection(liquid øH copper tube): HP
② Refrigerant piping flare connection(gas ø ⌋ copper tube): LP
③ Electrical parts box ✻
④ Terminal bed : Power source
⑤ Terminal bed : Remote control
⑥ Filter
⑦ Drain pan (R1 External thread: ø34) (✻;Fixable to opposition side.)

✻ NOTE: IT IS NECESSARY TO REMOVE THE CEILING PARTS OR TO KEEP THE MAINTENANCE HOLE OF OVER UNIT SIZE WHEN YOU HAVE A MAINTENANCE OR SERVICE THE FOLLOWING PARTS.
SERVICE: MOTOR,SIROCCO FAN,HEAT EXCHANGER,DRAIN PAN
(EXCHANGE) FILTER(IN CASE OF INDOOR UNIT HAVE INLET DUCT.)
MAINTENANCE: HEAT EXCHANGER,DRAIN PAN(SURFACE WASHING)
(WASHING) FILTER(IN CASE OF INDOOR UNIT HAVE INLET DUCT.)

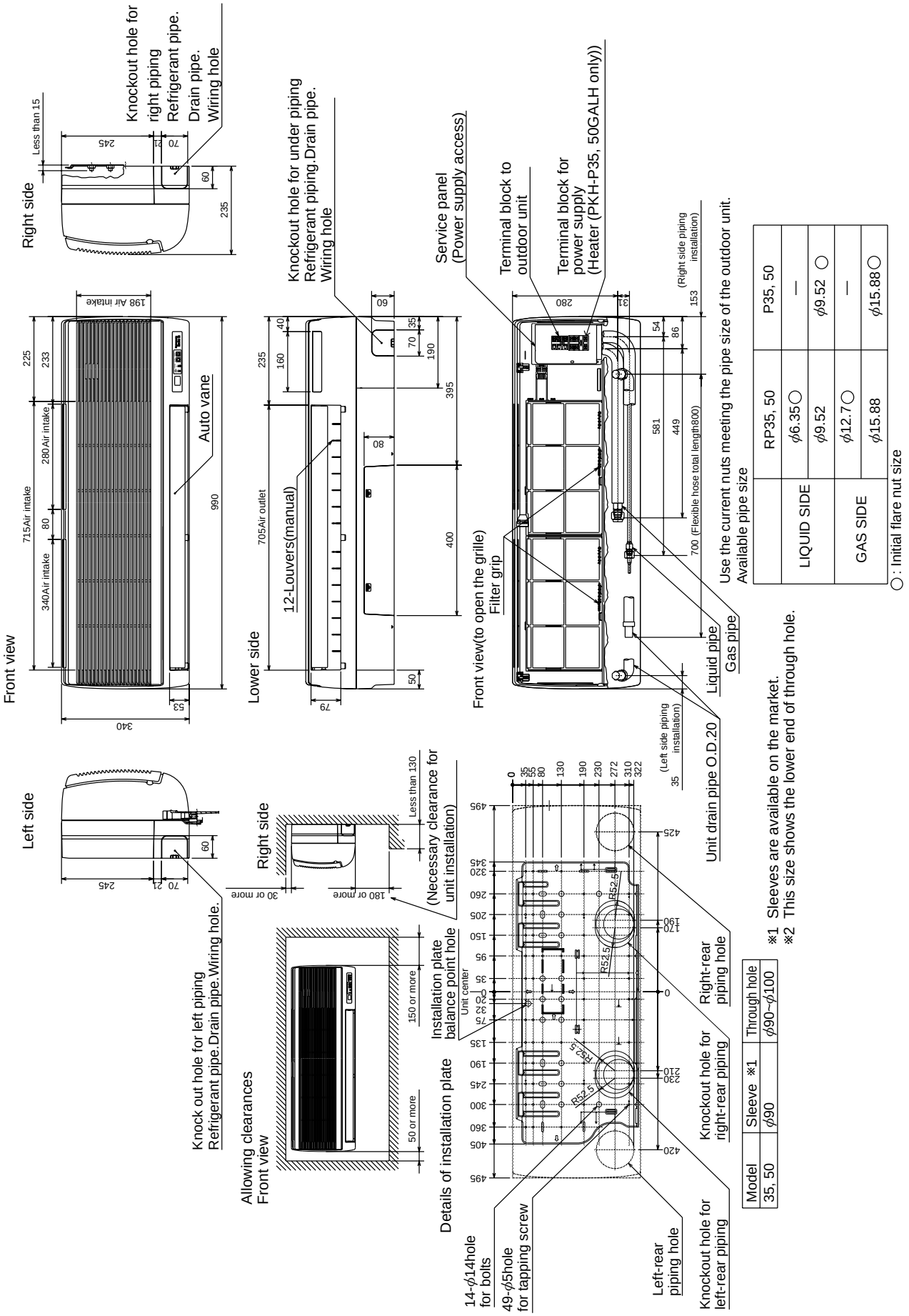


Model	A	B	C	D	E	F	G	H	J
RP60	1125	1090	1050	1012	7	840	8	Outdoor unit(SUZ) : 6.35 Other outdoor unit : 9.52 *	15.88
RP71	1125	1090	1050	1012	7	840	8	9.52	15.88
RP100	1365	1330	1290	1252	9	1080	10	9.52	R410A Outdoor unit : 15.88 * R407C Outdoor unit : 19.05

* Initial setting

PKA-RP35GAL PKA-RP50GAL

Unit : mm



		RP35, 50	P35, 50
LIQUID SIDE		φ6.35○	—
		φ9.52	φ9.52 ○
GAS SIDE		φ12.7○	—
		φ15.88	φ15.88○

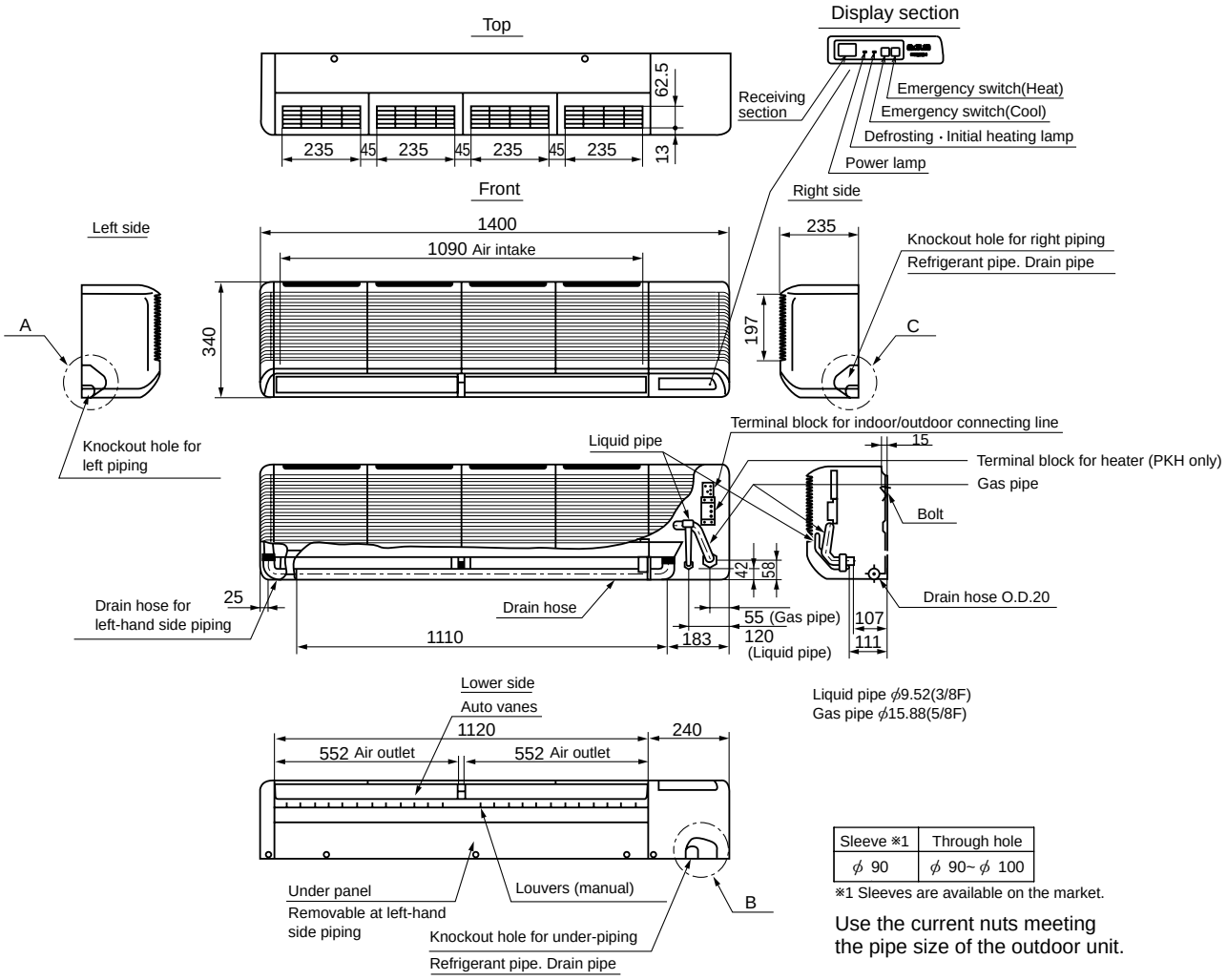
○ : Initial flare nut size

Model	Sleeve ※1	Through hole
35, 50	φ90	φ90~φ100

※1 Sleeves are available on the market.
※2 This size shows the lower end of through hole.

PKA-RP50FAL2
PKA-RP60FAL

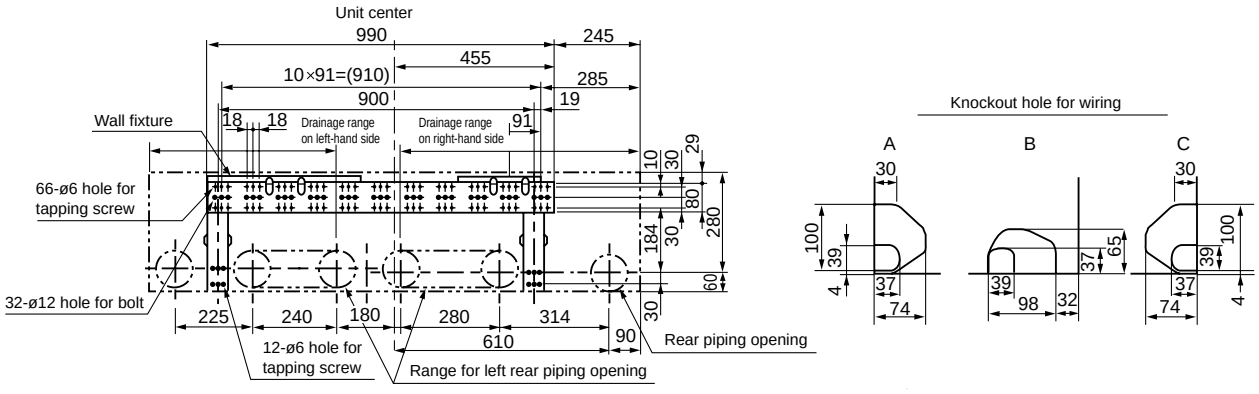
Unit : mm



Sleeve ※1	Through hole
ϕ 90	ϕ 90~ϕ 100

※1 Sleeves are available on the market.

Use the current nuts meeting the pipe size of the outdoor unit.



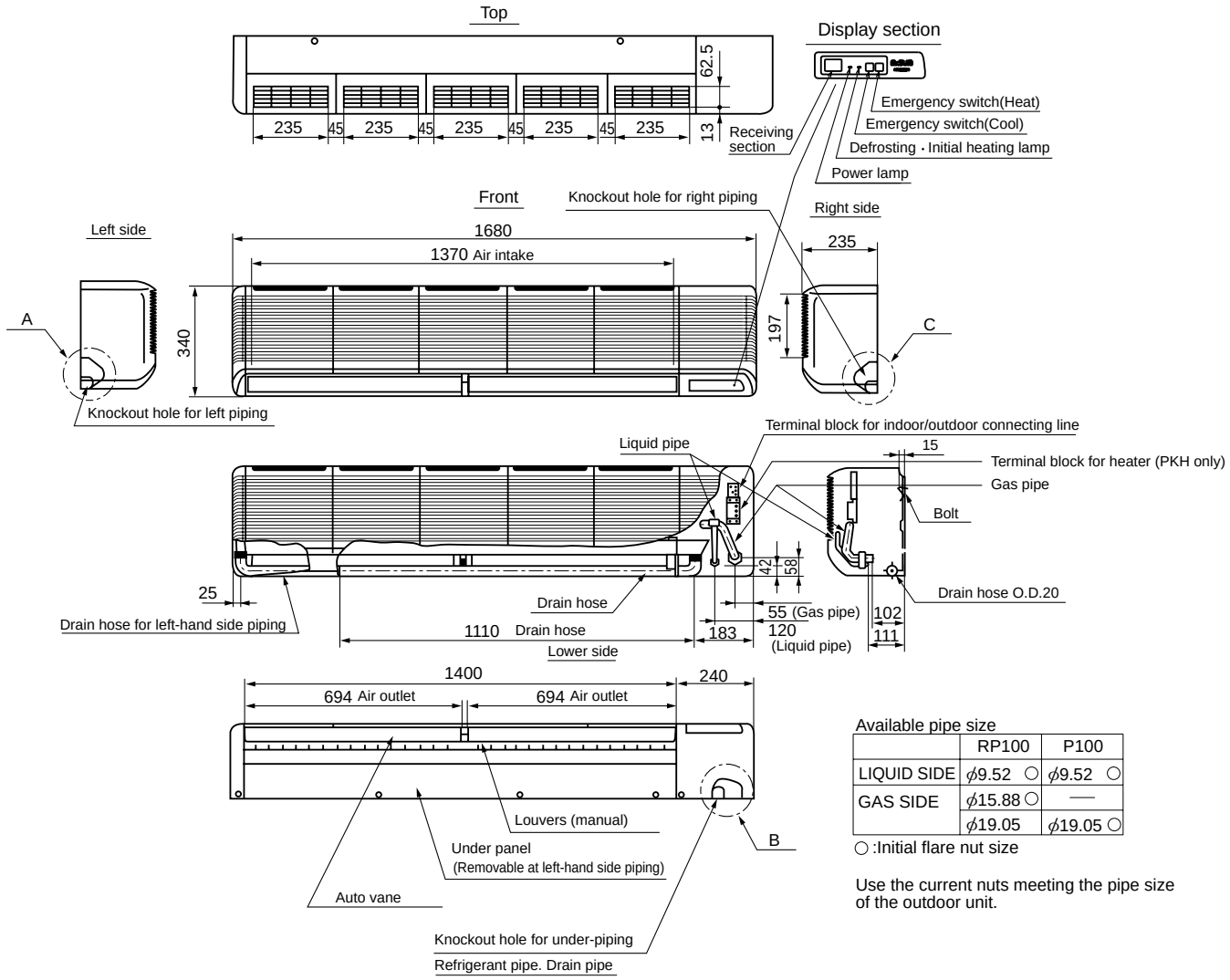
Available pipe size

	RP50	RP60,71 / P60,71
LIQUID SIDE	ϕ 6.35 ◯	——
	ϕ 9.52	ϕ 9.52 ◯
GAS SIDE	ϕ 12.7 ◯	——
	ϕ 15.88	ϕ 15.88 ◯
	——	——

◯ : Initial flare nut size

PKA-RP100FAL

Unit : mm

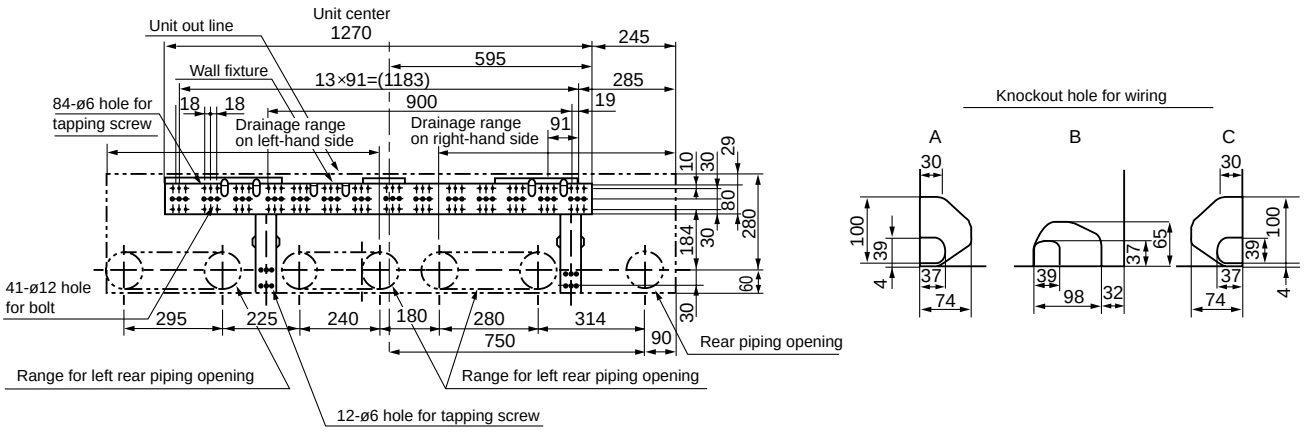


Available pipe size

	RP100	P100
LIQUID SIDE	ϕ9.52 ○	ϕ9.52 ○
GAS SIDE	ϕ15.88 ○	—
	ϕ19.05	ϕ19.05 ○

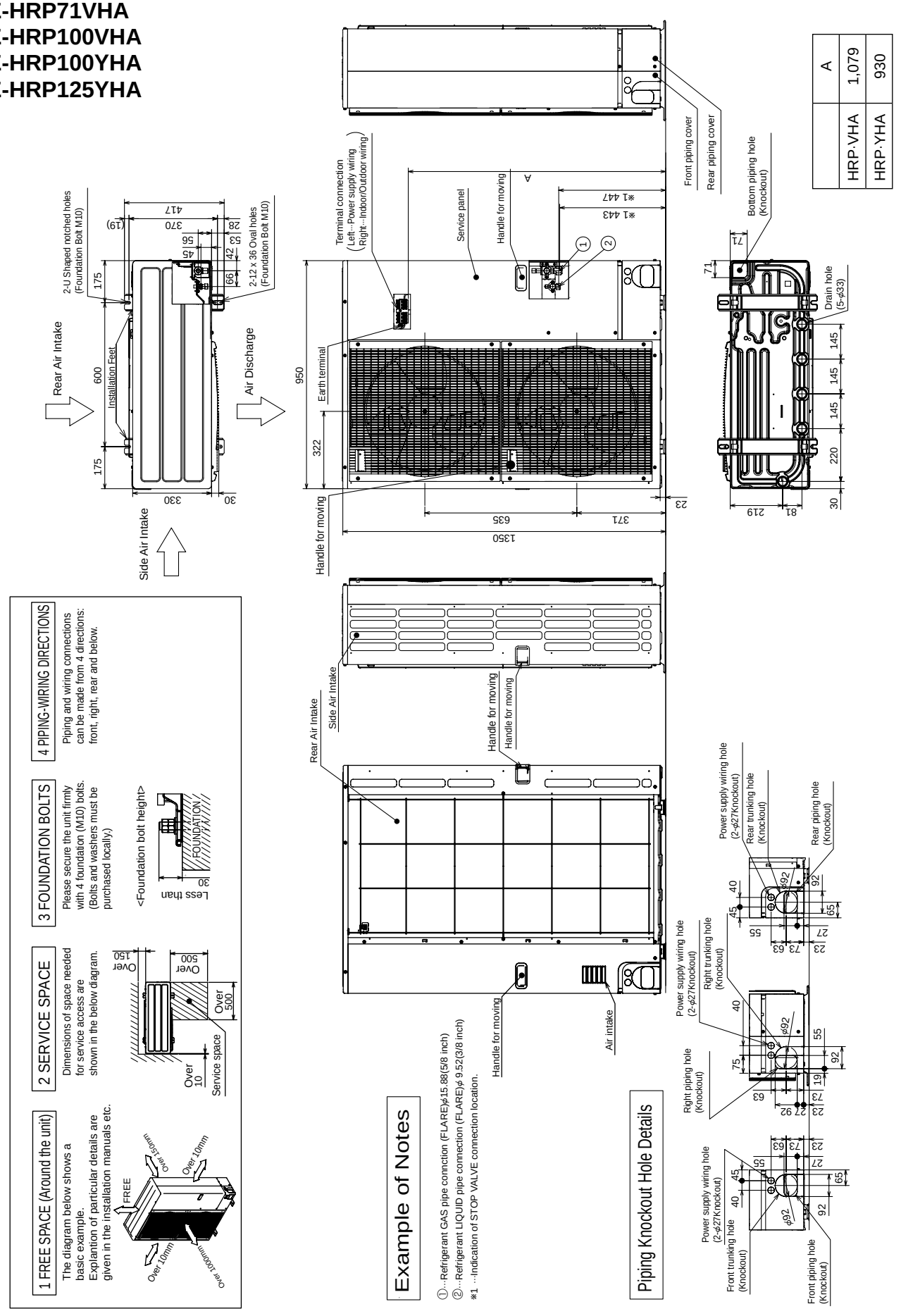
○ :Initial flare nut size

Use the current nuts meeting the pipe size of the outdoor unit.



OUTDOOR UNIT
PUHZ-HRP71VHA
PUHZ-HRP100VHA
PUHZ-HRP100YHA
PUHZ-HRP125YHA

Unit : mm

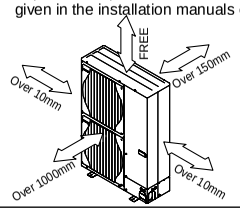


	A
HRP-VHA	1,079
HRP-YHA	930

PUHZ-HRP71VHA2
PUHZ-HRP100VHA2
PUHZ-HRP100YHA2
PUHZ-HRP125YHA2

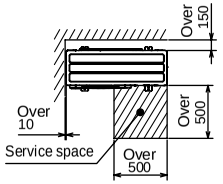
1 FREE SPACE (Around the unit)

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



2 SERVICE SPACE

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



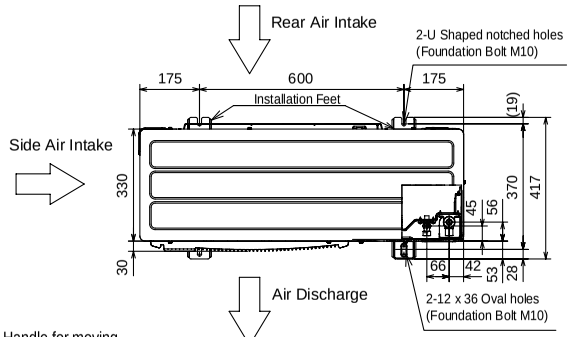
3 FOUNDATION BOLTS

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

<Foundation bolt height>

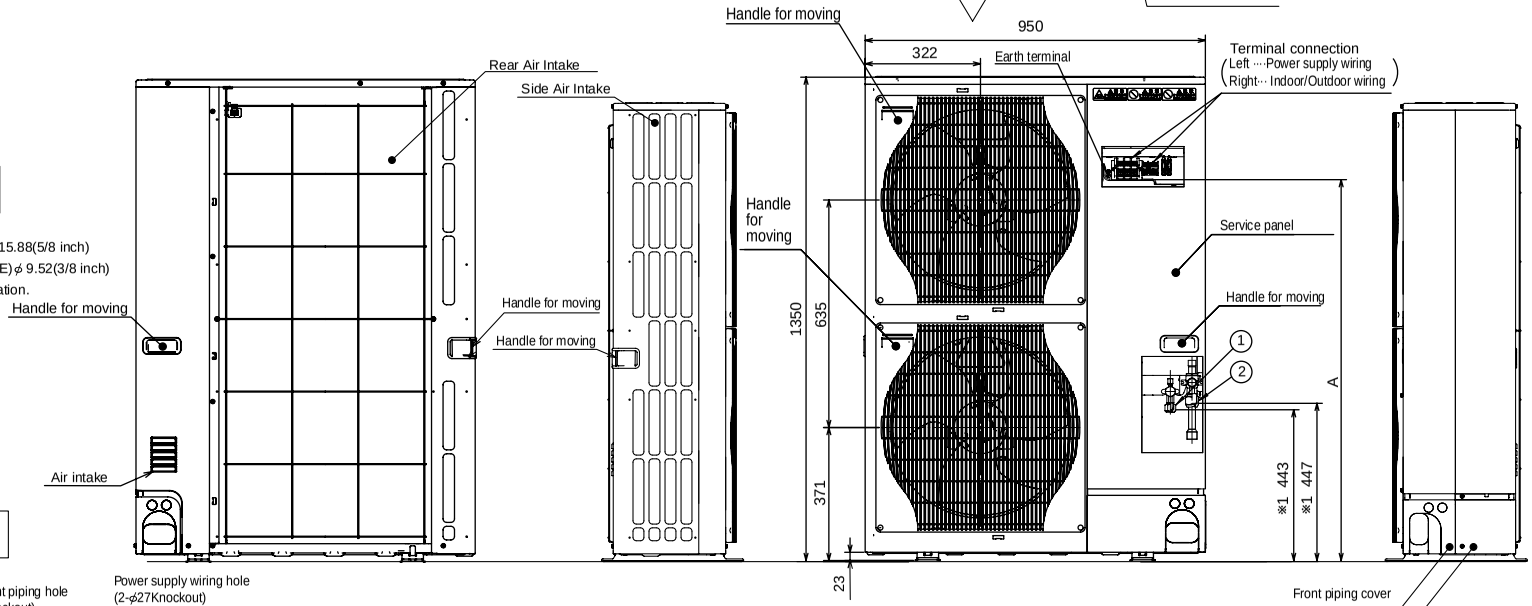
4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: front, right, rear and below.

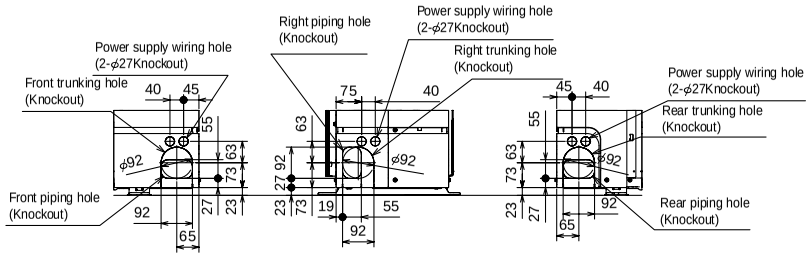


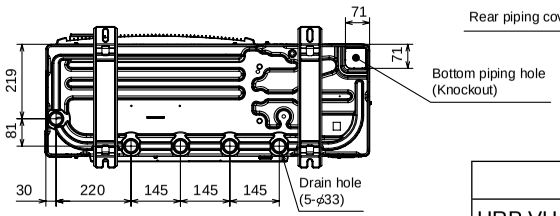
Example of Notes

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



Piping Knockout Hole Details





	A
HRP·VHA2	1,079
HRP·YHA2	930

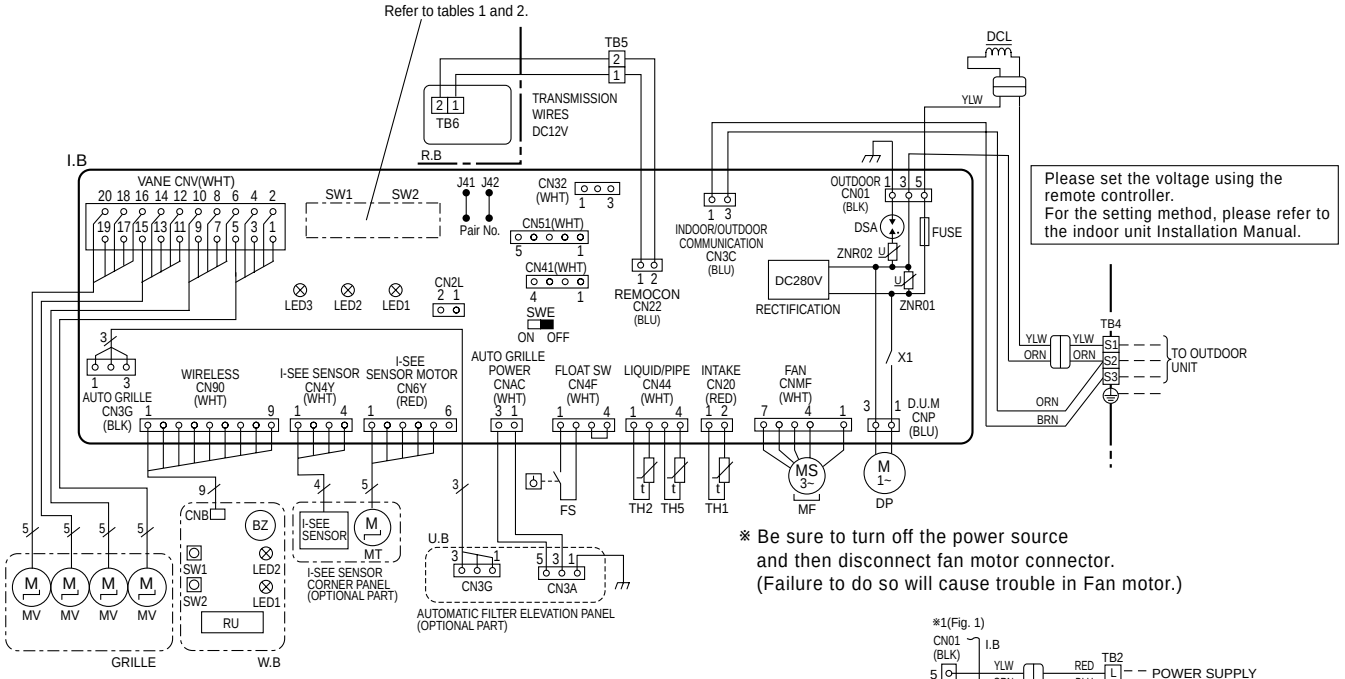
Unit : mm

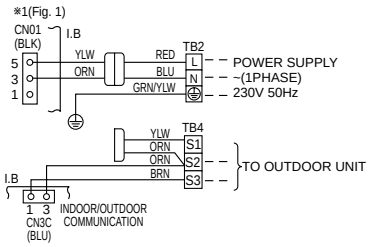
4 WIRING DIAGRAM

4-1. INDOOR UNIT
PLA-RP35BA PLA-RP50BA PLA-RP60BA PLA-RP100BA PLA-RP125BA

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR	OPTIONAL PART	
CN2L	CONNECTOR (LOSSNAY)	MV	VANE MOTOR	W.B	PCB FOR WIRELESS REMOTE CONTROLLER
CN32	CONNECTOR (REMOTE SWITCH)	TB2	TERMINAL BLOCK (Indoor unit Power (option))	BZ	BUZZER
CN41	CONNECTOR (HA TERMINAL-A)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)	LED1	LED (OPERATION INDICATION : GREEN)
CN51	CONNECTOR (CENTRALLY CONTROL)	TB5,TB6	TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE)	LED2	LED (PREPARATION FOR HEATING : ORANGE)
DSA	SURGE ABSORBER			RU	RECEIVING UNIT
FUSE	FUSE (T6.3AL250V)	TH1	ROOM TEMP. THERMISTOR (0℃ / 15kΩ, 25℃ / 5. 4kΩ DETECT)	SW1	EMERGENCY OPERATION (HEAT / DOWN)
LED1	POWER SUPPLY (I.B)			SW2	EMERGENCY OPERATION (COOL / UP)
LED2	POWER SUPPLY (R.B)	TH2	PIPE TEMP. THERMISTOR/LIQUID (0℃ / 15kΩ, 25℃ / 5. 4kΩ DETECT)		
LED3	TRANSMISSION (INDOOR-OUTDOOR)				
SW1	SWITCH (MODEL SELECTION) ※See table 1	TH5	COND. / EVA. TEMP. THERMISTOR (0℃ / 15kΩ, 25℃ / 5. 4kΩ DETECT)		
SW2	SWITCH (CAPACITY CORD) ※See table 2				
SWE	CONNECTOR (EMERGENCY OPERATION)				
X1	RELAY (DRAIN PUMP)				
ZNR01,02	VARISTOR				
DCL	REACTOR				
DP	DRAIN-UP MACHINE				
FS	DRAIN FLOAT SWITCH				





<Table 1>SW1(MODEL SELECTION)

SW1
Manufacture/Service
1 2 3 4 5 ON OFF

<Table 2>SW2(CAPACITY CODE)

SW2			
MODELS	Manufacture/Service	MODELS	Manufacture/Service
PLA-RP35BA	1 2 3 4 5 ON OFF	PLA-RP100BA	1 2 3 4 5 ON OFF
PLA-RP50BA	1 2 3 4 5 ON OFF	PLA-RP125BA	1 2 3 4 5 ON OFF
PLA-RP60BA	1 2 3 4 5 ON OFF	PLA-RP140BA	1 2 3 4 5 ON OFF
PLA-RP71BA	1 2 3 4 5 ON OFF		

Notes:
1. Symbols used in wiring diagram above are, ▭▭▭ : Connector, ▭▭▭ : Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring diagram for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.
   ※1: When supplying power separately to indoor and outdoor units, refer to Fig 1.
   ※2: For power supply system of this unit, refer to the caution label located near this diagram.

PLA-RP71BA2 PLA-RP100BA2 PLA-RP125BA2

[LEGEND]

SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD
CN2L	CONNECTOR (LOSSNAY)
CN32	CONNECTOR (REMOTE SWITCH)
CN41	CONNECTOR (HA TERMINAL-A)
CN51	CONNECTOR (CENTRALLY CONTROL)
DSA	SURGE ABSORBER
FUSE	FUSE (T6.3AL250V)
LED1	POWER SUPPLY (I.B)
LED2	POWER SUPPLY (R.B)
LED3	TRANSMISSION (INDOOR-OUTDOOR)
SW1	SWITCH (MODEL SELECTION) ※See table 1
SW2	SWITCH (CAPACITY CODE) ※See table 2
SWE	CONNECTOR (EMERGENCY OPERATION)
X1	RELAY (DRAIN PUMP)
ZNR01,02	VARISTOR
DCL	REACTOR
DP	DRAIN-UP MACHINE
FS	DRAIN FLOAT SWITCH

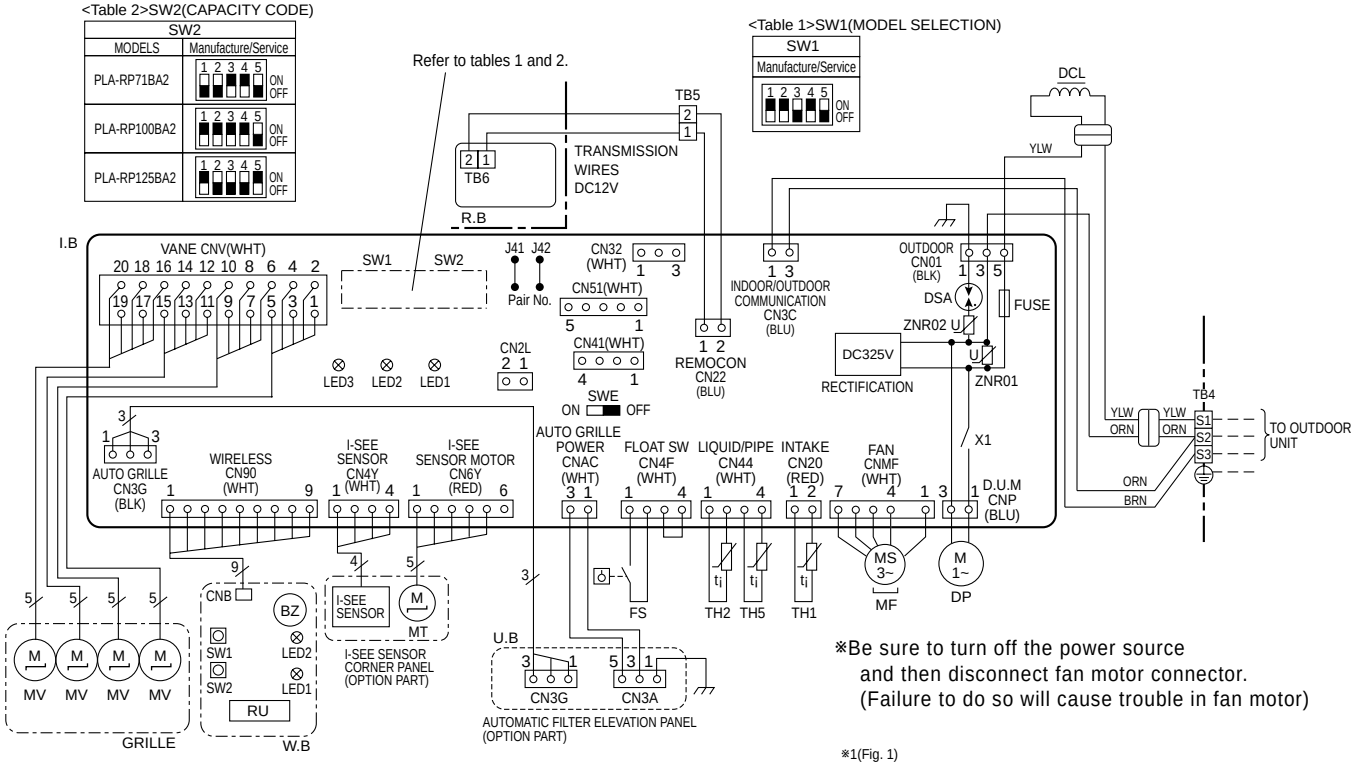
SYMBOL	NAME
MF	FAN MOTOR
MV	VANE MOTOR
TB2	TERMINAL BLOCK (Indoor unit Power (option))
TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
TB5,TB6	TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE)
TH1	ROOM TEMP. THERMISTOR (0℃ / 15kΩ, 25℃ / 5.4kΩ DETECT)
TH2	PIPE TEMP. THERMISTOR/LIQUID (0℃ / 15kΩ, 25℃ / 5.4kΩ DETECT)
TH5	COND. / EVA. TEMP. THERMISTOR (0℃ / 15kΩ, 25℃ / 5.4kΩ DETECT)
OPTION PART	
W.B	PCB FOR WIRELESS REMOTE CONTROLLER
BZ	BUZZER
LED1	LED (OPERATION INDICATION : GREEN)
LED2	LED (PREPARATION FOR HEATING : ORANGE)
RU	RECEIVING UNIT
SW1	EMERGENCY OPERATION (HEAT / DOWN)
SW2	EMERGENCY OPERATION (COOL / UP)

<Table 2>SW2(CAPACITY CODE)

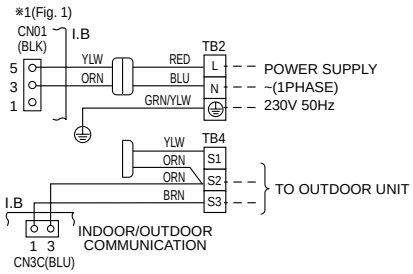
SW2	
MODELS	Manufacture/Service
PLA-RP71BA2	1 2 3 4 5 ON OFF
PLA-RP100BA2	1 2 3 4 5 ON OFF
PLA-RP125BA2	1 2 3 4 5 ON OFF

<Table 1>SW1(MODEL SELECTION)

SW1
Manufacture/Service
1 2 3 4 5 ON OFF



※Be sure to turn off the power source and then disconnect fan motor connector. (Failure to do so will cause trouble in fan motor)



Notes:

1. Symbols used in wiring diagram above are, ⊡⊡⊡ :Connector, ⊡⊡⊡ : Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match the terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires.(specification of 230V), adopting superimposed system of power and signal.
   ※1:When work to supply power separately to indoor and outdoor units was applied, refer to Fig 1.
   ※2:For power supply system of this unit, refer to the caution label located near this diagram.

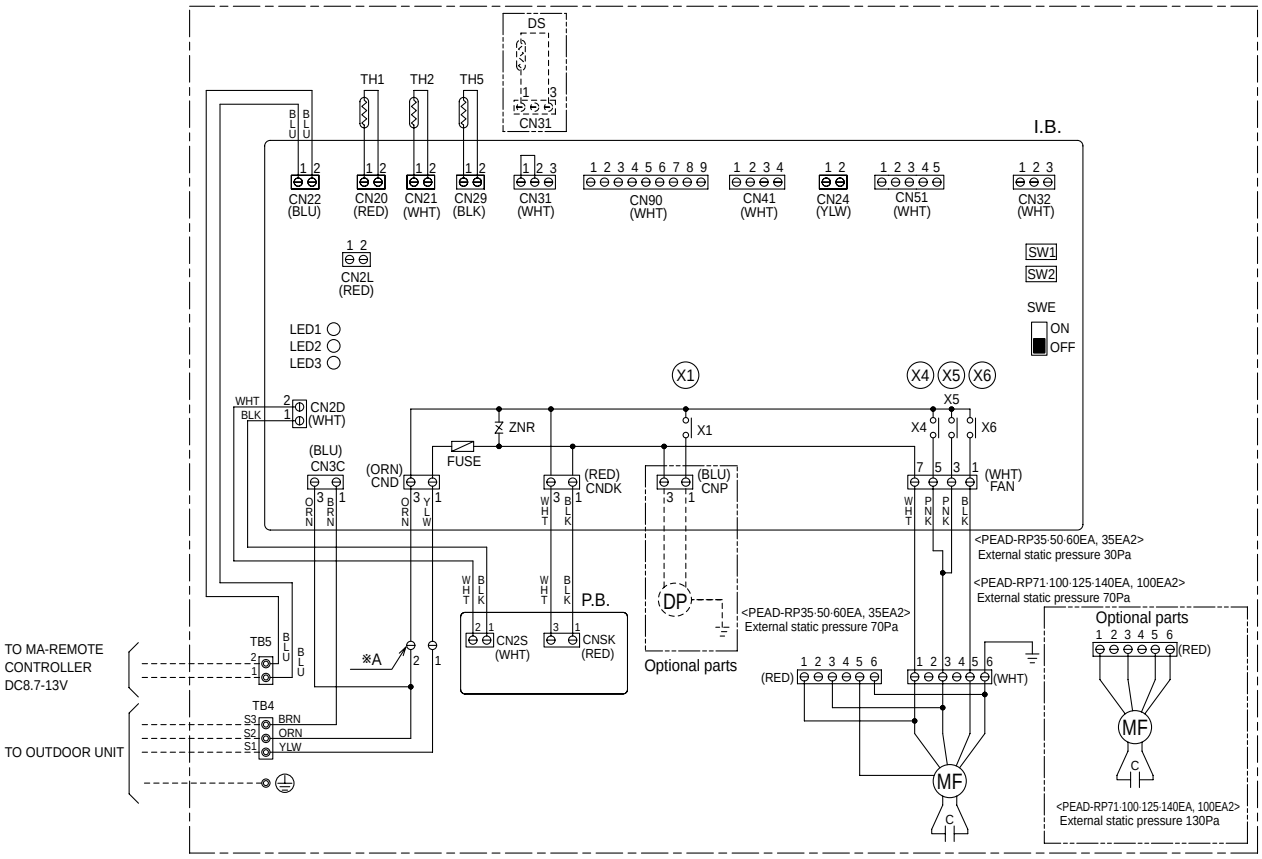
Please set the voltage using the remote controller.
For the setting method, please refer to the indoor unit Installation Manual.

PEAD-RP35EA2 PEAD-RP50EA PEAD-RP60EA PEAD-RP71EA
PEAD-RP100EA2 PEAD-RP125EA

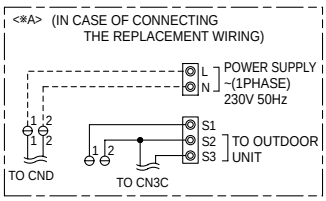
[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B.	INDOOR CONTROLLER BOARD	SW2	SWITCH(CAPACITY CORD)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
FUSE	FUSE(T6.3AL250V)	SWE	SWITCH(EMERGENCY OPERATION)		
ZNR	VARISTOR	X1	RELAY(DRAIN PUMP)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER)
CN2L	CONNECTOR(LOSSNAY)	X4	RELAY(FAN MOTOR)	TH1	INTAKE AIR TEMP. THERMISTOR (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
CN24	CONNECTOR(HEATER)	X5	RELAY(FAN MOTOR)		
CN32	CONNECTOR(REMOTE SWITCH)	X6	RELAY(FAN MOTOR)	TH2	PIPE TEMP. THERMISTOR/LIQUID (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
CN41	CONNECTOR(HA TERMINAL-A)	P.B.	INDOOR POWER BOARD		
CN51	CONNECTOR(CENTRALLY CONTROL)	DRAIN PUMP	(OPTIONAL PARTS)	TH5	COND./EVA. TEMP. THERMISTOR (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
CN90	CONNECTOR(WIRELESS)	DP	DRAIN PUMP		
LED1	POWER SUPPLY(I.B.)	DS	DRAIN SENSOR		
LED2	POWER SUPPLY(REMOTE CONTROLLER)	C	CAPACITOR(FAN MOTOR)		
LED3	TRANSMISSION(INDOOR·OUTDOOR)	MF	FAN MOTOR		
SW1	SWITCH(MODEL SELECTION)				

INSIDE SECTION OF CONTROL BOX



MODELS	SW1 Model selection switch	SW2 Capacity cord switch
35EA(2)		1 2 3 4 5 ON OFF
50EA		1 2 3 4 5 ON OFF
60EA		1 2 3 4 5 ON OFF
71EA	1 2 3 4 5 ON OFF	1 2 3 4 5 ON OFF
100EA(2)		1 2 3 4 5 ON OFF
125EA		1 2 3 4 5 ON OFF
140EA		1 2 3 4 5 ON OFF

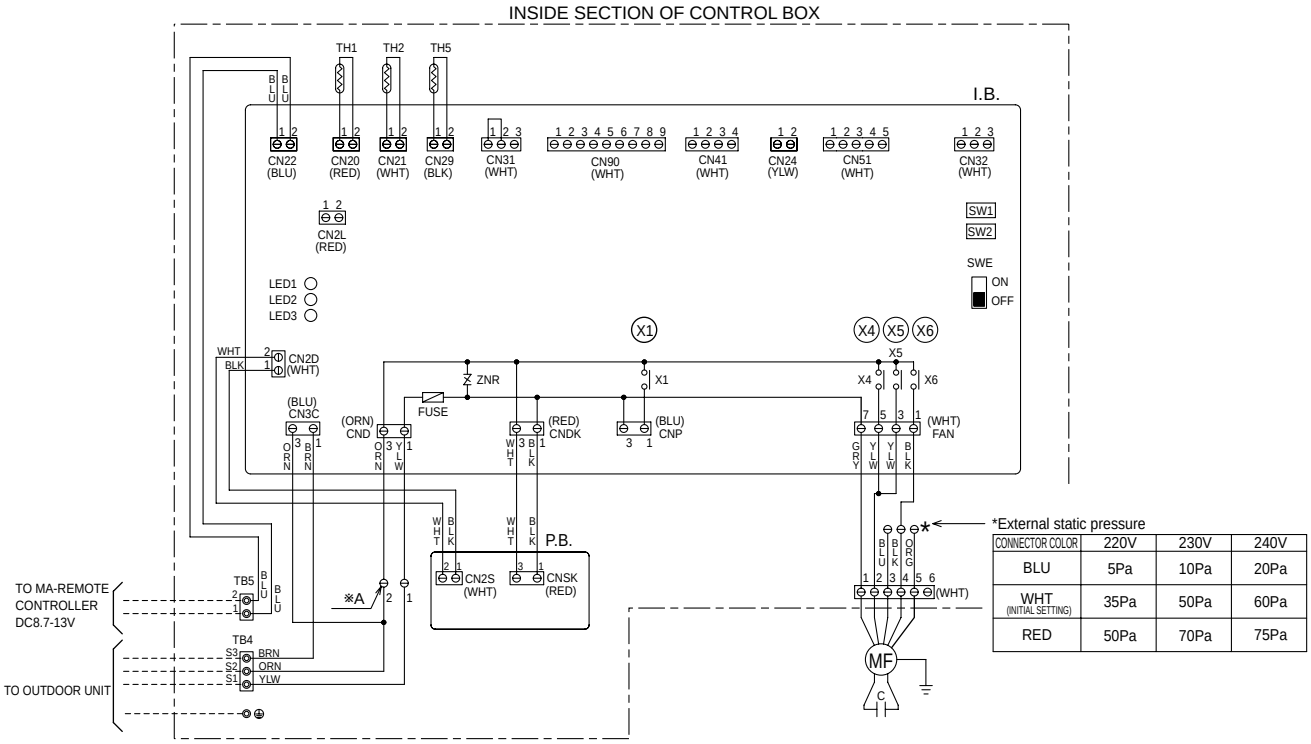


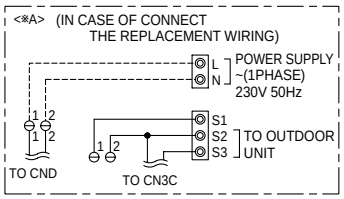
Notes:
1. Symbols used in wiring diagram above are, ⊖⊖⊖: Connector, ⊚⊚⊚: Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring diagram for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.
   ※1: When supplying power separately to indoor and outdoor units, refer to ※A.
   ※2: For power supply system of this unit, refer to the caution label located near this diagram.

PEAD-RP60GA PEAD-RP71GA PEAD-RP100GA

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B.	INDOOR CONTROLLER BOARD	SW1	SWITCH(MODEL SELECTION)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER)
FUSE	FUSE(T6.3AL250V)	SW2	SWITCH(CAPACITY CORD)	TH1	INTAKE AIR TEMP.THERMISTOR (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
ZNR	VARISTOR	SWE	SWITCH(EMERGENCY OPERATION)		
CN2L	CONNECTOR(LOSSNAY)	X1	RELAY(DRAIN PUMP)	TH2	PIPE TEMP. THERMISTOR/LIQUID (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
CN24	CONNECTOR(HEATER)	X4	RELAY(FAN MOTOR)		
CN32	CONNECTOR(REMOTE SWITCH)	X5	RELAY(FAN MOTOR)	TH5	COND./EVA. TEMP. THERMISTOR (0℃ /15kΩ, 25℃/5.4kΩ DETECT)
CN41	CONNECTOR(HA TERMINAL-A)	X6	RELAY(FAN MOTOR)		
CN51	CONNECTOR(CENTRALLY CONTROL)	P.B.	INDOOR POWER BOARD		
CN90	CONNECTOR(WIRELESS)	C	CAPACITOR(FAN MOTOR)		
LED1	POWER SUPPLY(I.B.)	MF	FAN MOTOR		
LED2	POWER SUPPLY(REMOTE CONTROLLER)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)		
LED3	TRANSMISSION(INDOOR·OUTDOOR)				





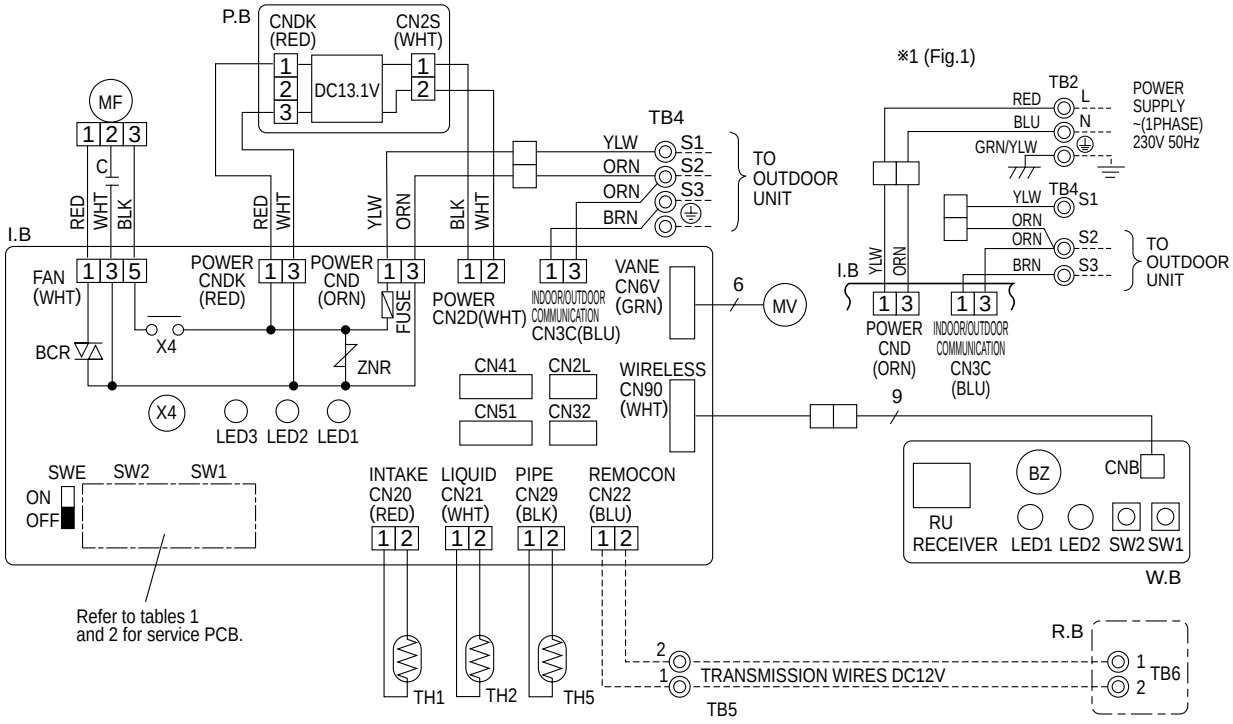
MODELS	SW1 Model selection switch	SW2 Capacity cord switch
60GA		1 2 3 4 5 ON OFF
71GA	1 2 3 4 5 ON OFF	1 2 3 4 5 ON OFF
100GA		1 2 3 4 5 ON OFF

Notes:
1. Symbols used in wiring diagram above are, ⊖⊖⊖: Connector, ◎◎◎: Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring diagram for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.
   ※1: When supplying power separately to indoor and outdoor units, refer to ※A.
   ※2: For power supply system of this unit, refer to the caution label located near this diagram.

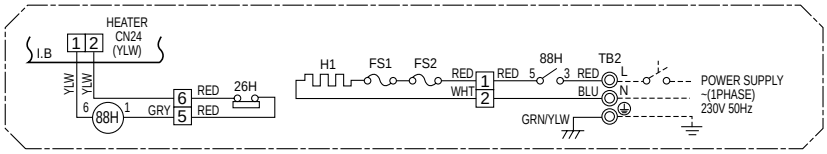
PKA-RP35GAL PKA-RP50GAL

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	C	CAPACITOR <FAN MOTOR>	W.B	WIRELESS REMOTE CONTROLLER BOARD
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR	RU	RECEIVING UNIT
FUSE	FUSE (T6.3AL250V)	MV	VANE MOTOR	BZ	BUZZER
ZNR	VARISTOR	TB2	TERMINAL BLOCK (HEATER) ※PKH-P.GALH models only or option for PKA-RP.GAL models.	LED1	LED <RUN INDICATOR>
CN2L	CONNECTOR <LOSSNAY>			LED2	LED <HOT ADJUST>
CN32	CONNECTOR <REMOTE SWITCH>	TB4	TERMINAL BLOCK <INDOOR/ OUTDOOR CONNECTING LINE>	SW1	SWITCH (HEATING ON/ OFF>
CN41	CONNECTOR <HA TERMINAL-A>			SW2	SWITCH (COOLING ON/ OFF>
CN51	CONNECTOR <CENTRALLY CONTROL>	TB5,TB6	TERMINAL BLOCK <REMOTE CONTROLLER TRANSMISSION LINE> <OPTION>	R.B	WIRED REMOTE CONTROLLER BOARD
SW1	SWITCH <MODEL SELECTION>※See Table 1.			HEATER	
SW2	SWITCH <CAPACITY CODE>※See Table 2.	TH1	ROOM TEMP.THERMISTOR <0℃/ 15kΩ, 25℃/ 5.4kΩ DETECT>	FS1	THERMAL FUSE <104℃10A>
SWE	SWITCH <EMERGENCY OPERATION>			FS2	THERMAL FUSE <84℃10A>
X4	RELAY <FAN MOTOR>	TH2	PIPE TEMP.THERMISTOR/ LIQUID <0℃/ 15kΩ, 25℃/ 5.4kΩ DETECT>	H1	HEATER
BCR	FAN CONTROL ELEMENT			26H	HEATER THERMAL SWITCH
LED1	POWER SUPPLY <I.B>	TH5	COND./ EVA.TEMP.THERMISTOR <0℃/ 15kΩ, 25℃/ 5.4kΩ DETECT>	88H	HEATER CONTACTOR
LED2	POWER SUPPLY <R.B>				
LED3	TRANSMISSION <INDOOR-OUTDOOR>				



PKH-P35,50GALH models only



Please set the voltage using the remote controller.
For the setting method, please refer to the indoor unit Installation Manual.

SW1	
Service board	
1 2 3 4 5 ON OFF	

SW2			
MODELS	Service board	MODELS	Service board
PKA-RP35GAL PKH-P35GALH	1 2 3 4 5 ON OFF	PKA-RP50GAL PKH-P50GALH	1 2 3 4 5 ON OFF

Notes:
1. Symbols used in wiring diagram above are, □□□: Connector, ◎: Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring diagram for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.
   ※1: When supplying power separately to indoor and outdoor units, refer to Fig 1.
   ※2: For power supply system of this unit, refer to the caution label located near this diagram.

PKA-RP50FAL2 PKA-RP60FAL PKA-RP100FAL

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	C	CAPACITOR(FAN MOTOR)	W.B	WIRELESS REMOTE CONTROLLER BOARD
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR	RU	RECEIVING UNIT
FUSE	FUSE(T6.3AL250V)	MV	VANE MOTOR	BZ	BUZZER
ZNR	VARISTOR	TB2	TERMINAL BLOCK (HEATER) ※PKH-P.FALH models only or option for PKA-RP.FAL models.	LED1	LED(RUN INDICATOR)
CN2L	CONNECTOR(LOSSNAY)			LED2	LED(HOT ADJUST)
CN32	CONNECTOR(REMOTE SWITCH)	TB4	TERMINAL BLOCK(INDOOR/OUTDOOR CONNECTING LINE)	SW1	SWITCH(HEATING ON/OFF)
CN41	CONNECTOR(HA TERMINAL-A)			SW2	SWITCH(COOLING ON/OFF)
CN51	CONNECTOR(CENTRALLY CONTROL)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)(OPTION)	R.B	WIRED REMOTE CONTROLLER BOARD(OPTION)
SW1	SWITCH (MODEL SELECTION) ※ See Table 1.			TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)
SW2	SWITCH (CAPACITY CODE) ※ See Table 2.	TH1	ROOM TEMP.THERMISTOR (0℃/15kΩ, 25℃/5.4kΩ DETECT)	HEATER	
SWE	SWITCH(EMERGENCY OPERATION)			FS1,2	THERMAL FUSE(117℃ 10A:60,71FALH/ 117℃ 16A:100FALH)
X4	RELAY(FAN MOTOR)	TH2	PIPE TEMP.THERMISTOR/LIQUID (0℃/15kΩ, 25℃/5.4kΩ DETECT)	H1	HEATER
BCR	FAN CONTROL ELEMENT			26H	HEATER THERMAL SWITCH
LED1	POWER SUPPLY(I.B)	TH5	COND./EVA.TEMP.THERMISTOR (0℃/15kΩ, 25℃/5.4kΩ DETECT)	88H	HEATER CONTACTOR
LED2	POWER SUPPLY(R.B)				
LED3	TRANSMISSION(INDOOR-OUTDOOR)				

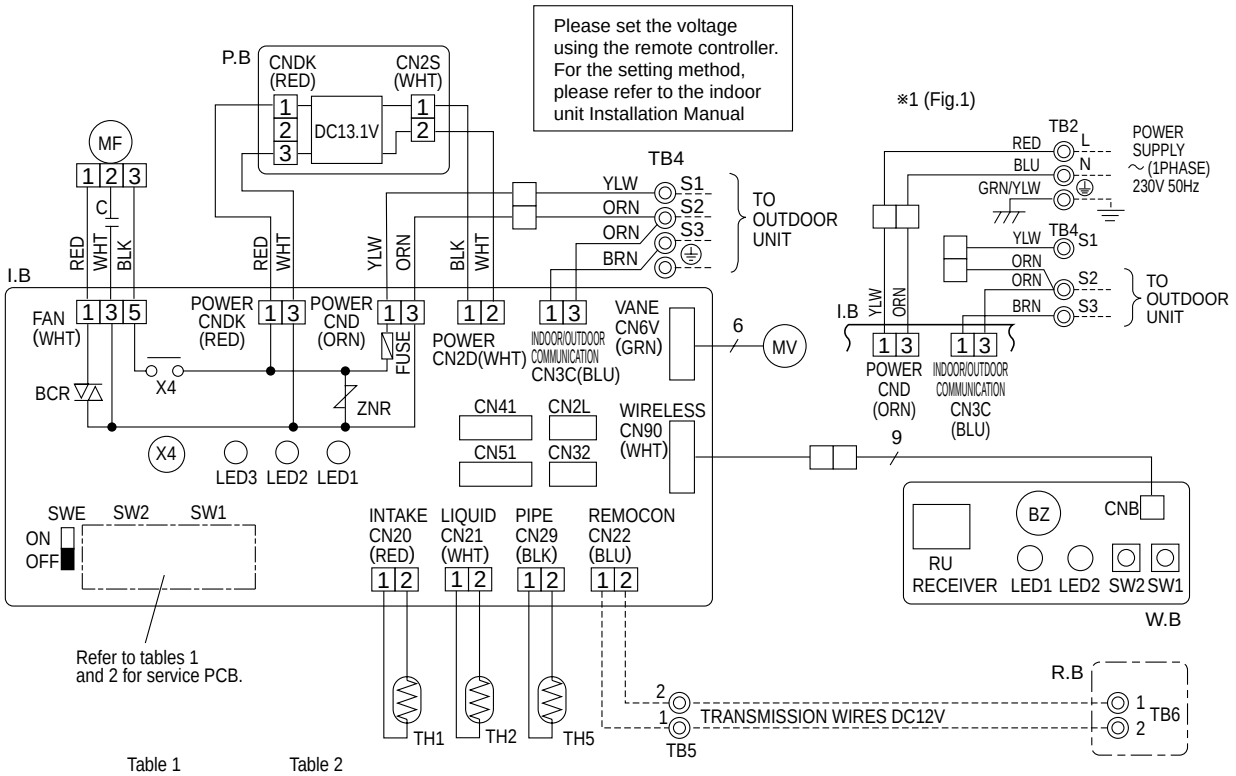


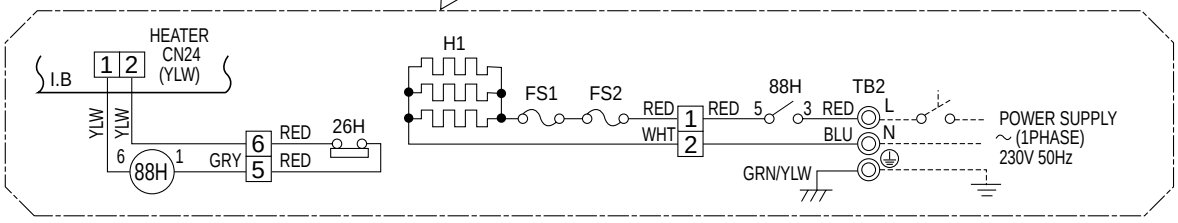
Table 1

SW1
Service board
1 2 3 4 5 ON OFF

Table 2

SW2					
MODELS	Service board	MODELS	Service board	MODELS	Service board
PKA-RP50FAL2 PKA-RP60FAL PKH-P60FALH	1 2 3 4 5 ON OFF	PKA-RP71FAL PKH-P71FALH	1 2 3 4 5 ON OFF	PKA-RP100FAL PKH-P100FALH	1 2 3 4 5 ON OFF

PKH-P60～P100FALH models only

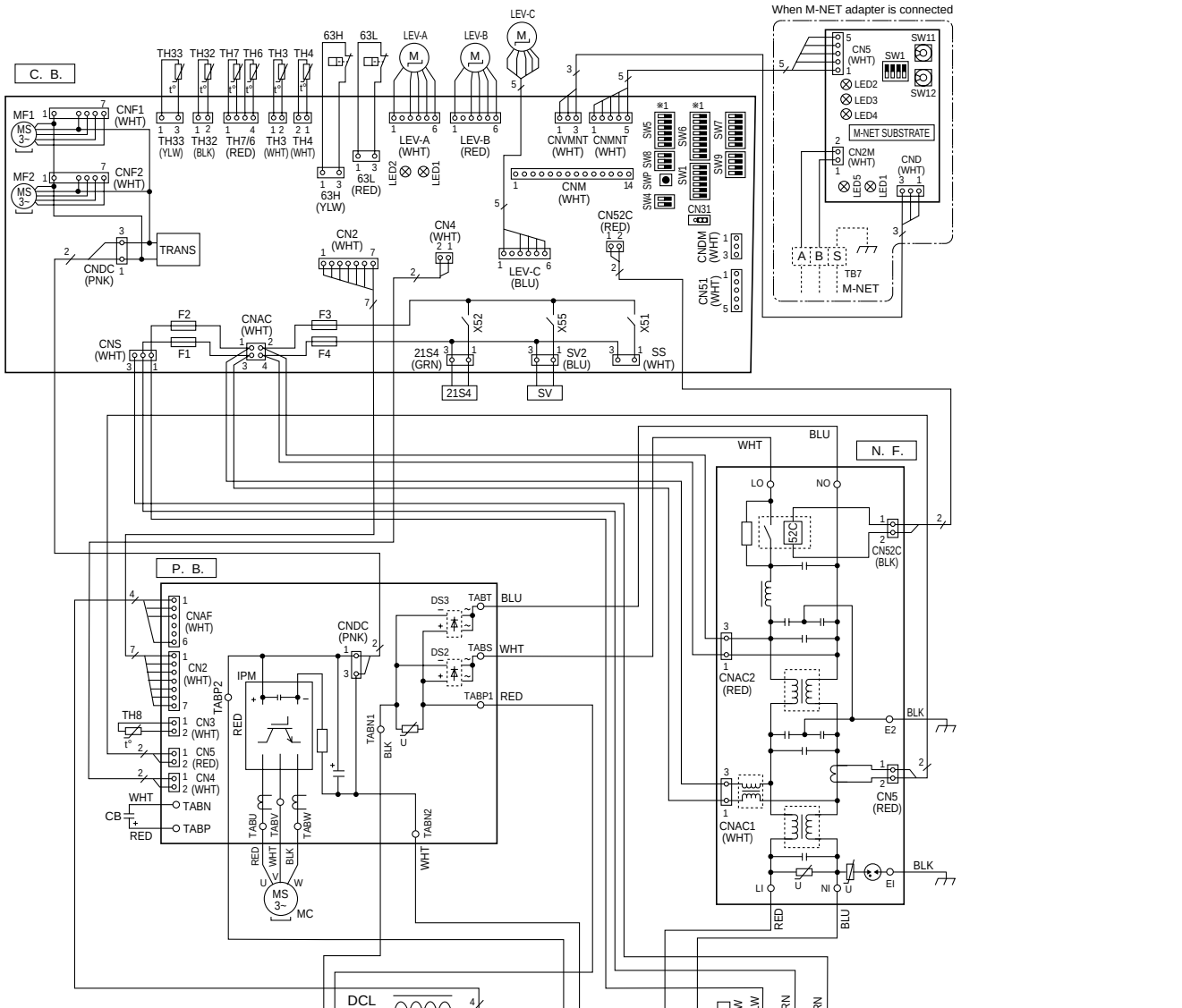


Notes:
1. Symbols used in wiring diagram above are, □□□: Connector, ◎: Terminal (block).
2. Indoor and outdoor connecting wires have polarities, make sure to match terminal numbers (S1, S2, S3) for correct wirings.
3. Since the outdoor side electric wiring may change, be sure to check the outdoor unit electric wiring diagram for servicing.
4. This diagram shows the wiring of indoor and outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.
   ※1: When supplying power separately to indoor and outdoor units, refer to Fig 1.
   ※2: For power supply system of this unit, refer to the caution label located near this diagram.

4-2. OUTDOOR UNIT
PUHZ-HRP71VHA PUHZ-HRP100VHA

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
TB1	Terminal Block<Power Supply, Indoor/Outdoor>	P.B.	Power Circuit Board	SW6	Switch<Model Select>
MC	Motor for Compressor	TABU/V/W	Connection Terminal<U/V/W-Phase>	SW7	Switch<Function Setup>
MF1, MF2	Fan Motor	TABS/T	Connection Terminal <L/N-Phase>	SW8	Switch<Function Setup>
21S4	Solenoid Valve (Four-Way Valve)	TABP1/P2/P	Connection Terminal<DC Voltage>	SW9	Switch
63H	High Pressure Switch	TABN1/N2/N	Connection Terminal<DC Voltage>	SWP	Switch<Pump Down>
63L	Low Pressure Switch	DS2, DS3	Diode Bridge	CN31	Connector<Emergency Operation>
SV	Solenoid Valve (Bypass Valve)	IPM	Power Module	SS	Connector<Connection for Option>
TH3,TH32,TH33	Thermistor<Outdoor Pipe>	N.F.	Noise Filter Circuit Board	CNM	Connector<A-Control Service Inspection Kit>
TH4	Thermistor<Discharge>	LI / LO	Connection Terminal<L-Phase>	CNMNT	Connector<Connected to Optional M-NET Adapter Board>
TH6	Thermistor<Outdoor 2-Phase Pipe>	NI / NO	Connection Terminal<N-Phase>	CNVMNT	Connector<Connected to Optional M-NET Adapter Board>
TH7	Thermistor<Outdoor>	EI, E2	Connection Terminal<Ground>	CNDM	Connector< Connected for Option (Contact Input)>
TH8	Thermistor<Heatsink>	52C	52C Relay	LED1,LED2	LED<Operation Inspection Indicators>
LEV-A, LEV-B,LEV-C	Electronic Expansion Valve	C.B.	Controller Circuit Board	F1~F4	Fuse< T6.3AL250V>
DCL	Reactor	SW1	Switch<Forced Defrost, Defect History Record Reset, Refrigerant Address>	X51,X52,X55	Relay
ACTM	Active Filter Module	SW4	Switch<Test Operation>		
CB	Main Smoothing Capacitor	SW5	Switch<Function Switch>		
CY1,CY2	Capacitor				



M-NET ADAPTER

SYMBOL	NAME
TB7	Terminal Block<M-net connection>
CN5	Connector<Transmission>
CND	Connector<Power Supply>
CN2M	Connector<M-NET communication>
SW1	Switch<Status of communication>
SW11	Switch<Address setting : 1st digit>
SW12	Switch<Address setting : 2nd digit>
LED1	LED<Power Supply : DC5V>
LED2	LED<Connection to Outdoor Unit>
LED3	LED<Transmission : Sending>
LED4	LED<Transmission : Recelving>
LED5	LED<Power Supply : DC12V>

※1MODEL SELECT

MODEL	SW6	SW5-6 ※2
71V	ON OFF 1 2 3 4 5 6 7 8	ON OFF 1 2 3 4 5 6
100V	ON OFF 1 2 3 4 5 6 7 8	ON OFF 1 2 3 4 5 6

※2. SW5 -1 to 5 : Function Switch

PUHZ-HRP100YHA PUHZ-HRP125YHA

[LEGEND]

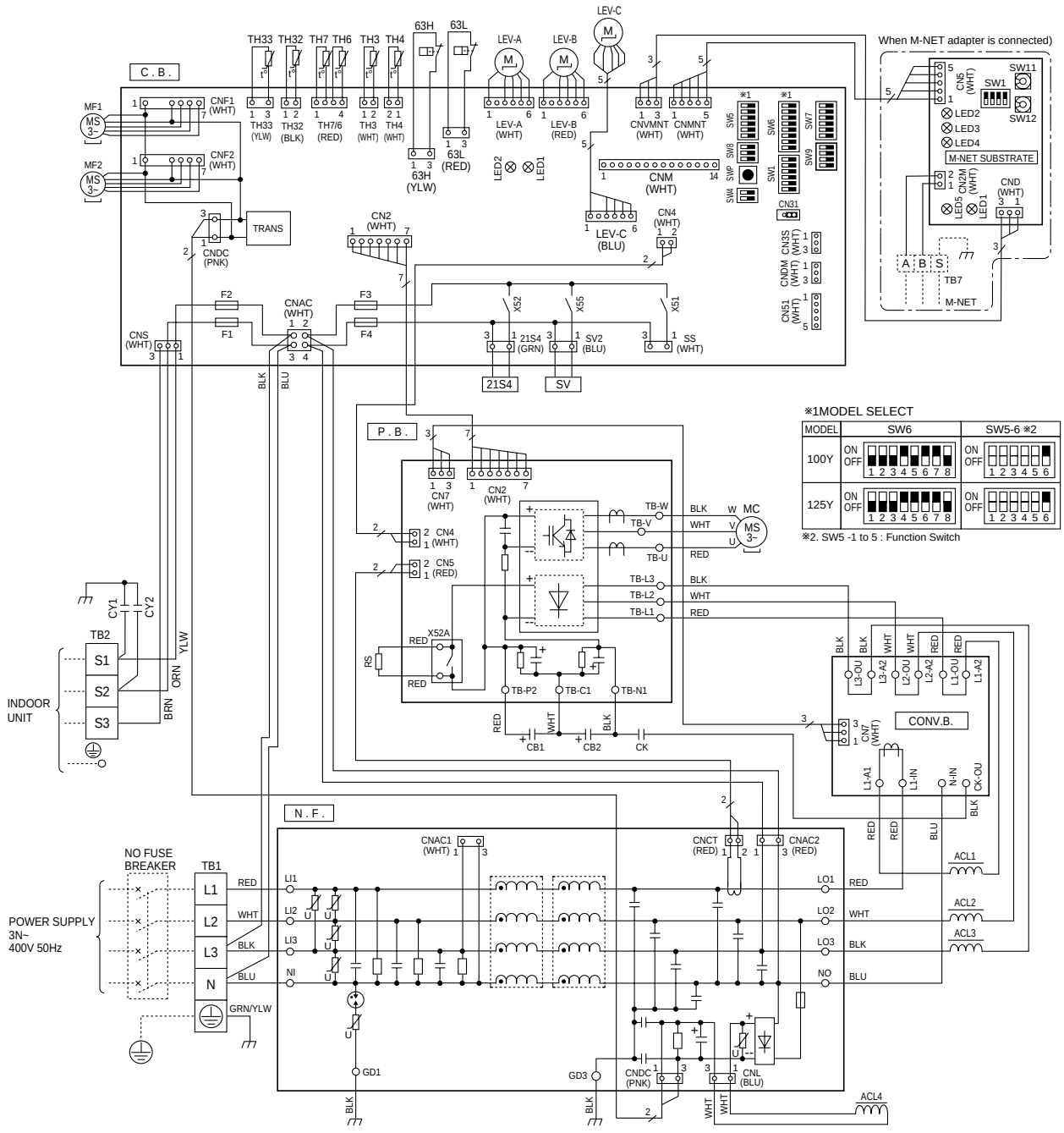
SYMBOL	NAME
TB1	Terminal Block<Power Supply>
TB2	Terminal Block<Indoor/Outdoor >
MC	Motor for Compressor
MF1, MF2	Fan Motor
21S4	Solenoid Valve (Four-Way Valve)
63H	High Pressure Switch
63L	Low Pressure Switch
SV	Solenoid Valve (Bypass Valve)
TH3,TH32,TH33	Thermistor<Outdoor Pipe>
TH4	Thermistor<Discharge>
TH6	Thermistor<Outdoor 2-Phase Pipe>
TH7	Thermistor<Outdoor>
LEV-A, LEV-B, LEV-C	Electronic Expansion Valve
ACL1~ACL4	Reactor
CB1, CB2	Main Smoothing Capacitor
CK	Capacitor
CY1, CY2	Capacitor
RS	Rush Current Protect Resistor

SYMBOL	NAME
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
X52A	52C Relay
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>
GD1, GD3	Connection Terminal<Ground>
CONV.B.	Converter Circuit Board
L1-A1/IN	Connection Terminal<L1-Power Supply>
L1-A2/OU	Connection Terminal<L1-Power Supply>
L2-A2/OU	Connection Terminal<L2-Power Supply>
L3-A2/OU	Connection Terminal<L3-Power Supply>
N-IN	Connection Terminal
CK-OU	Connection Terminal

SYMBOL	NAME
C.B.	Controller Circuit Board
SW1	Switch<Forced Defrost, Defect History Record Reset, Refrigerant Adress>
SW4	Switch<Test Operation>
SW5	Switch<Function Switch>
SW6	Switch<Model Select>
SW7	Switch<Function Setup>
SW8	Switch<Function Setup>
SW9	Switch
SWP	Switch<Pump Down>
CN31	Connector<Emergency Operation>
LED1, LED2	LED<Operatiion Inspection Indicators>
F1~F4	Fuse<T6.3AL250V>
CNM	Connector<A-Control Service Inspection Kit>
CNMNT	Connector <Connect to Optional M-NET Adapter Board>
CNVMNT	Connector <Connect to Optional M-NET Adapter Board>
CNDM	Connector < Connection for Option(Contact Input)>
CN3S	Connector< Connection for Option>
CN51	Connector< Connection for Option>
SS	Connector< Connection for Option>
X51,X52,X55	Relay

M-NET ADAPTER

TB7	Terminal Block<M-NET connection >	SW12	Switch<Address setting. 2nd digit >
CN5	Connector<Transmission>	LED1	LED<Power Supply: DC5V>
CND	Connector<Power Supply>	LED2	LED<Connection to Outdoor Unit>
CN2M	Connector<M-NET communication>	LED3	LED<Transmission: Sending>
SW1	Switch<Status of communication>	LED4	LED<Transmission: Receiving>
SW11	Switch<Address setting: 1st digit>	LED5	LED<Power Supply: DC12V>



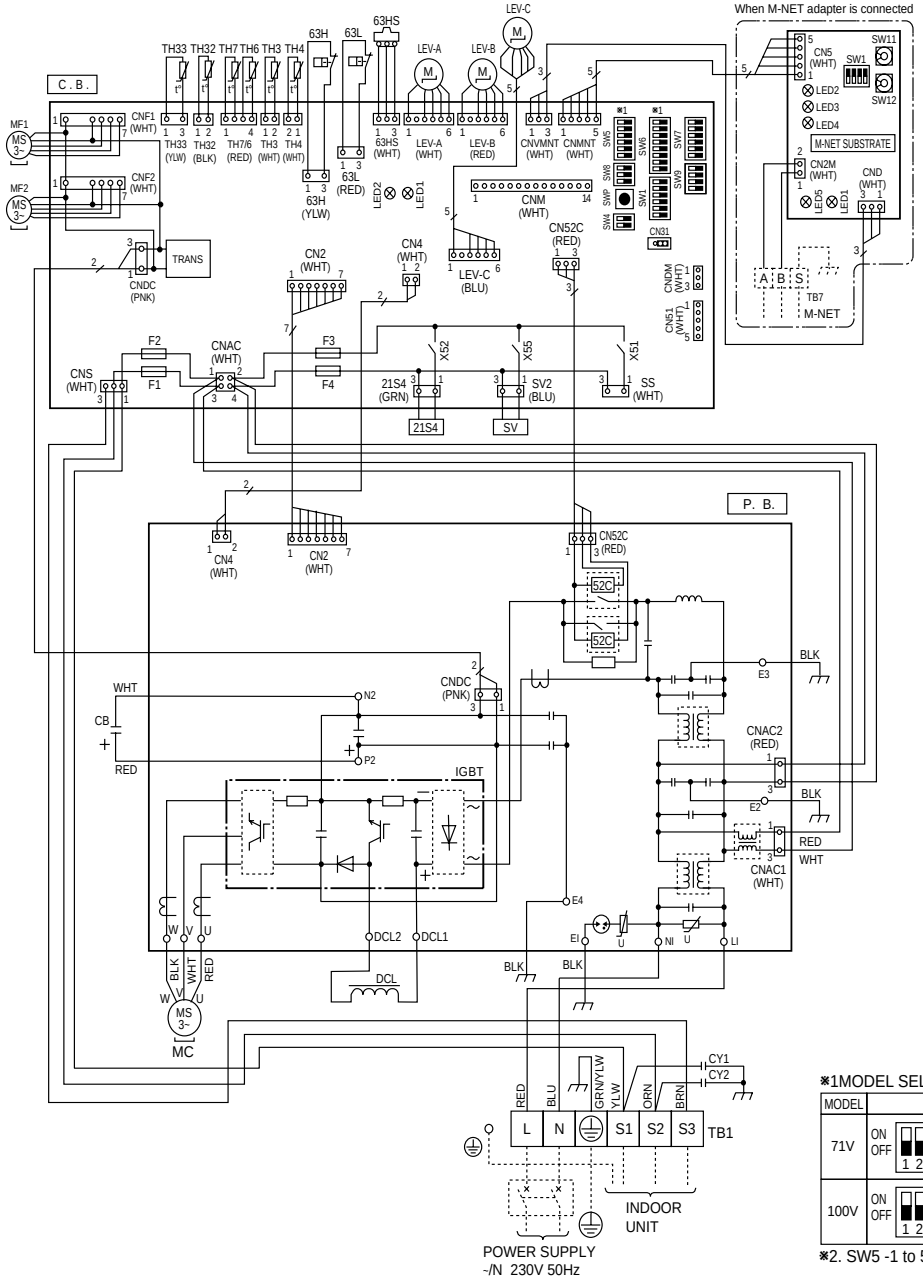
PUHZ-HRP71VHA2 PUHZ-HRP100VHA2

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
TB1	Terminal Block<Power Supply, Indoor/Outdoor>	P.B.	Power Circuit Board	SS	Connector<Connection for Option>
MC	Motor for Compressor	U/V/W	Connection Terminal<U/V/W-Phase>	CNM	Connector<A-Control Service Inspection Kit>
MF1, MF2	Fan Motor	LI	Connection Terminal <L-Phase>	CNDM	Connector < Connected for Option (Contact Input)>
21S4	Solenoid Valve (Four-Way Valve)	NI	Connection Terminal<N-Phase>	LED1,LED2	LED<Operation Inspection Indicators>
SV	Solenoid Valve (Bypass Valve)	DCL1, DCL2	Recator	F1~F4	Fuse< T6.3AL250V>
63H	High Pressure Switch	IGBT	Power Module	X51,X52,X55	Relay
63L	Low Pressure Switch	E1,E2,E3,E4	Connection Terminal (Ground)		
63HS	High Pressure Sensor	C.B.	Controller Circuit Board		
TH3	Thermistor<Liquid>	SW1	Switch<Forced Defrost, Defect History Record Reset, Refrigerant Address>		
TH4	Thermistor<Discharge>	SW4	Switch<Test Operation>		
TH6	Thermistor<2-Phase>	SW5	Switch<Function Switch>		
TH7	Thermistor<Ambient>	SW6	Switch<Model Select>		
TH32	Thermistor<Suction>	SW7	Switch<Function Setup>		
TH33	Thermistor<Ref. check>	SW8	Switch<Function Setup>		
LEV-A, LEV-B,LEV-C	Electronic Expansion Valve	SW9	Switch		
DCL	Reactor	SWP	Switch<Pump Down>		
CB	Main Smoothing Capacitor	CN31	Connector<Emergency Operation>		
CY1,CY2	Capacitor				

M-NET ADAPTER

SYMBOL	NAME
TB7	Terminal Block<M-NET connection>
CN5	Connector<Transmission>
CND	Connector<Power Supply>
CN2M	Connector<M-NET communication>
SW1	Switch<Status of communication>
SW11	Switch<Address setting : 1st digit>
SW12	Switch<Address setting : 2nd digit>
LED1	LED<Power Supply : DC5V>
LED2	LED<Connection to Outdoor Unit>
LED3	LED<Transmission : Sending>
LED4	LED<Transmission : Receiving>
LED5	LED<Power Supply : DC12V>



※1MODEL SELECT

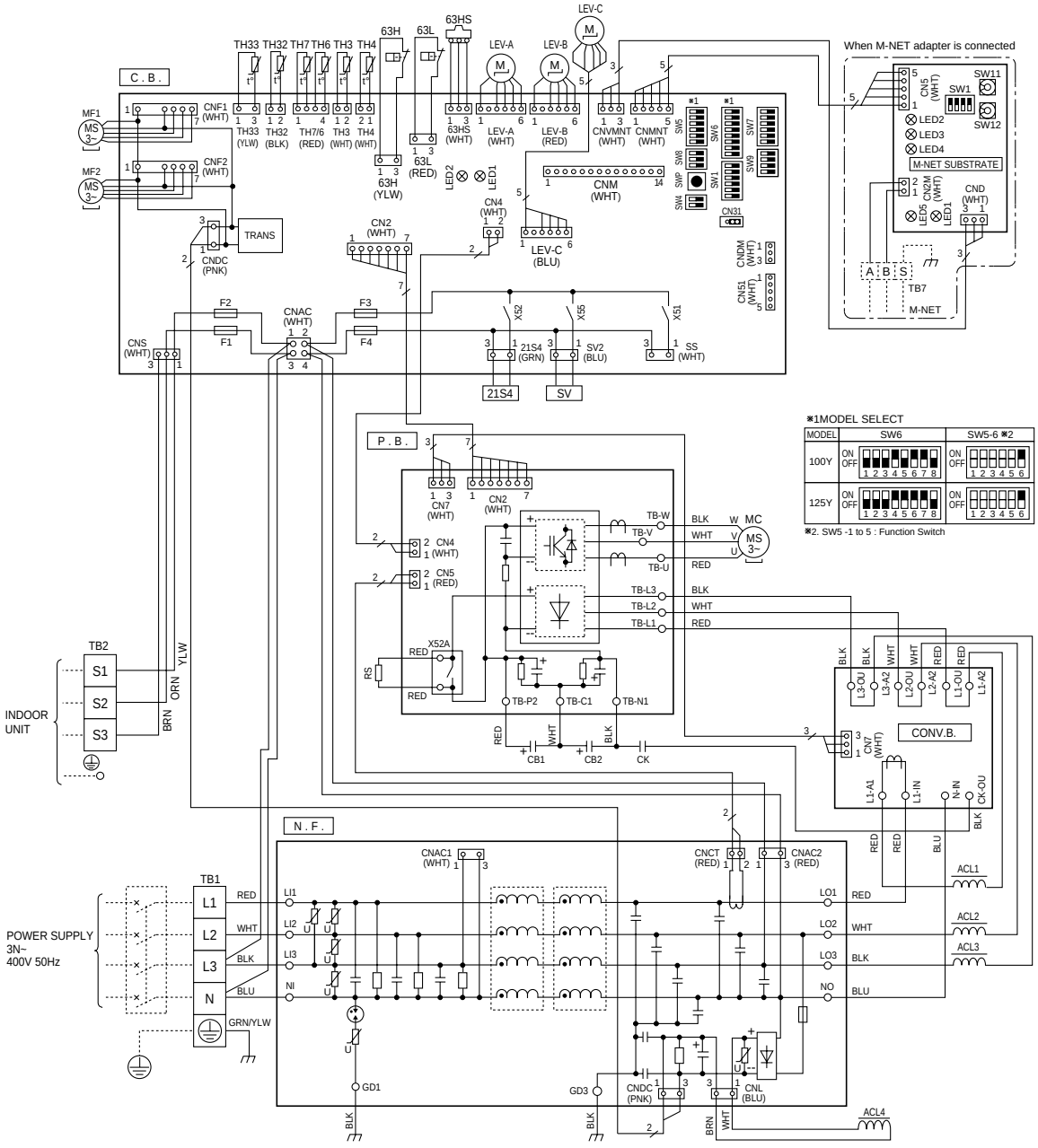
MODEL	SW6	SW5-6 ※2
71V	ON OFF 1 2 3 4 5 6 7 8	ON OFF 1 2 3 4 5 6
100V	ON OFF 1 2 3 4 5 6 7 8	ON OFF 1 2 3 4 5 6

※2. SW5 -1 to 5 : Function Switch

PUHZ-HRP100YHA2 PUHZ-HRP125YHA2

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
TB1	Terminal Block<Power Supply>	P.B.	Power Circuit Board	C.B.	Controller Circuit Board
TB2	Terminal Block<Indoor/Outdoor >	TB-U/V/W	Connection Terminal<U/V/W-Phase>	SW1	Switch<Forced Defrost, Defect History Record Reset, Refrigerant Adress>
MC	Motor for Compressor	TB-L1/L2/L3	Connection Terminal<L1/L2/L3-Power Supply>	SW4	Switch<Test Operation>
MF1, MF2	Fan Motor	TB-P2	Connection Terminal	SW5	Switch<Function Switch>
21S4	Solenoid Valve (Four-Way Valve)	TB-C1	Connection Terminal	SW6	Switch<Model Select>
SV	Solenoid Valve (Bypass Valve)	TB-N1	Connection Terminal	SW7	Switch<Function Setup>
63H	High Pressure Switch	X52A	52C Relay	SW8	Switch<Function Setup>
63L	Low Pressure Switch	N.F.	Noise Filter Circuit Board	SW9	Switch
63HS	High Pressure Sensor	LI1/LI2/LI3/NI	Connection Terminal<L1/L2/L3/N-Power Supply>	SWP	Switch<Pump Down>
TH3	Thermistor<Liquid>	LO1/LO2/LO3/NO	Connection Terminal<L1/L2/L3/N-Power Supply>	CN31	Connector<Emergency Operation>
TH4	Thermistor<Discharge>	GD1, GD3	Connection Terminal<Ground>	SS	Connector< Connection for Option>
TH6	Thermistor<Outdoor 2-Phase Pipe>	CONV.B.	Converter Circuit Board	LED1, LED2	LED<Operatiion Inspection Indicators>
TH7	Thermistor<Outdoor>	L1-A1/IN	Connection Terminal<L1-Power Supply>	CNM	Connector<A-Control Service Inspection Kit>
TH32	Thermistor<Suction>	L1-A2/OU	Connection Terminal<L1-Power Supply>	CNDM	Connector < Connection for Option(Contact Input)>
TH33	Thermistor<Ref. chech>	L2-A2/OU	Connection Terminal<L2-Power Supply>	F1~F4	Fuse<T6.3AL250V>
LEV-A, LEV-B, LEV-C	Electronic Expansion Valve	L3-A2/OU	Connection Terminal<L3-Power Supply>	X51,X52,X55	Relay
ACL1~ACL4	Reactor	N-IN	Connection Terminal		
RS	Rush Current Protect Resistor	CK-OU	Connection Terminal		
CB1, CB2	Main Smoothing Capacitor				
CK	Capacitor				



M-NET ADAPTER

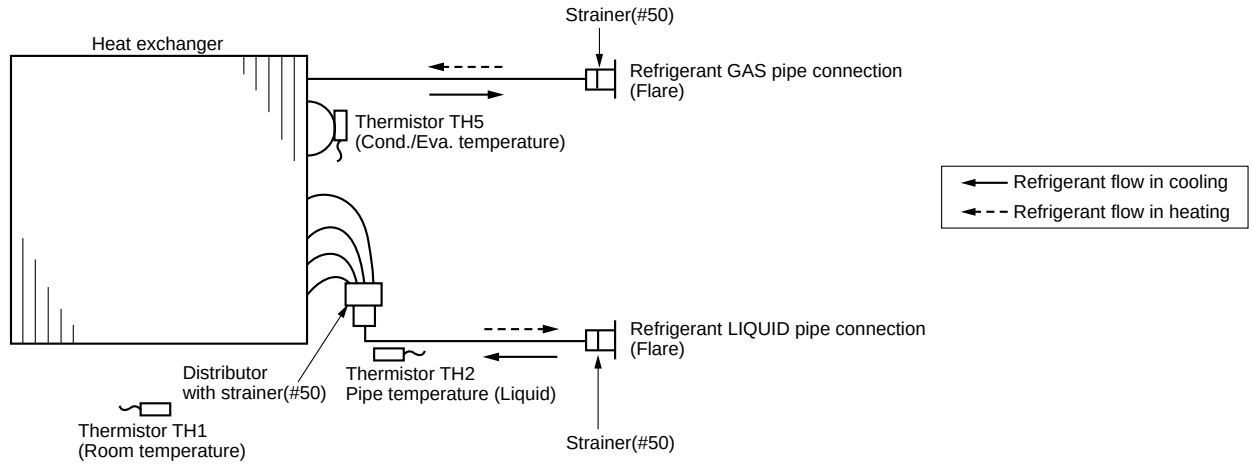
TB7	Terminal Block<M-NET connection >	SW12	Switch<Address setting. 2nd digit >
CN5	Connector<Transmission>	LED1	LED<Power Supply: DC5V>
CND	Connector<Power Supply>	LED2	LED<Connection to Outdoor Unit>
CN2M	Connector<M-NET communication>	LED3	LED<Transmission: Sending>
SW1	Switch<Status of communication>	LED4	LED<Transmission: Receiving>
SW11	Switch<Address setting: 1st digit>	LED5	LED<Power Supply: DC12V>

5 REFRIGERANT SYSTEM DIAGRAM

5-1. INDOOR UNIT

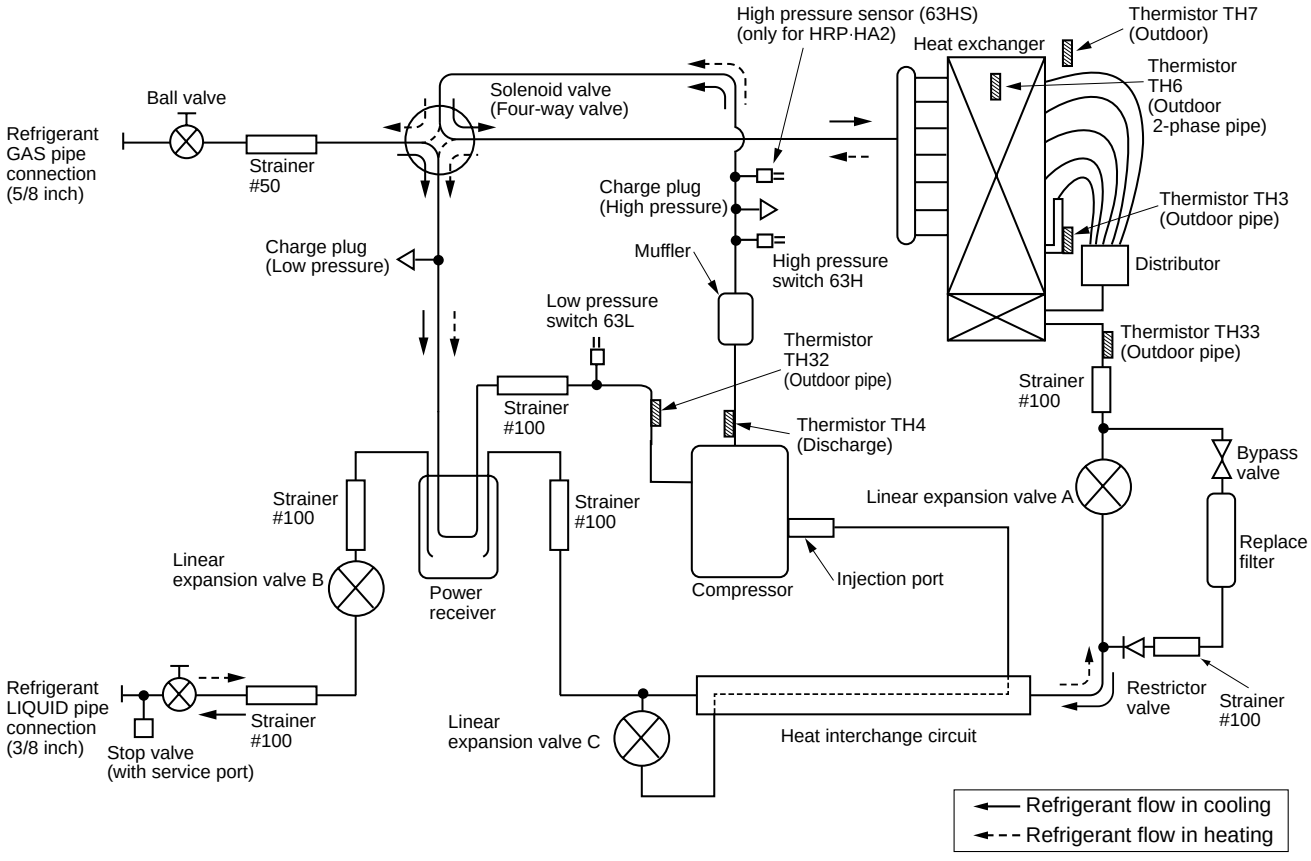
unit : mm

PLA-RP·BA(2) PKA-RP·GAL PKA-RP·FAL(2) PEAD-RP·EA(2) PEAD-RP·GA



5-2. OUTDOOR UNIT

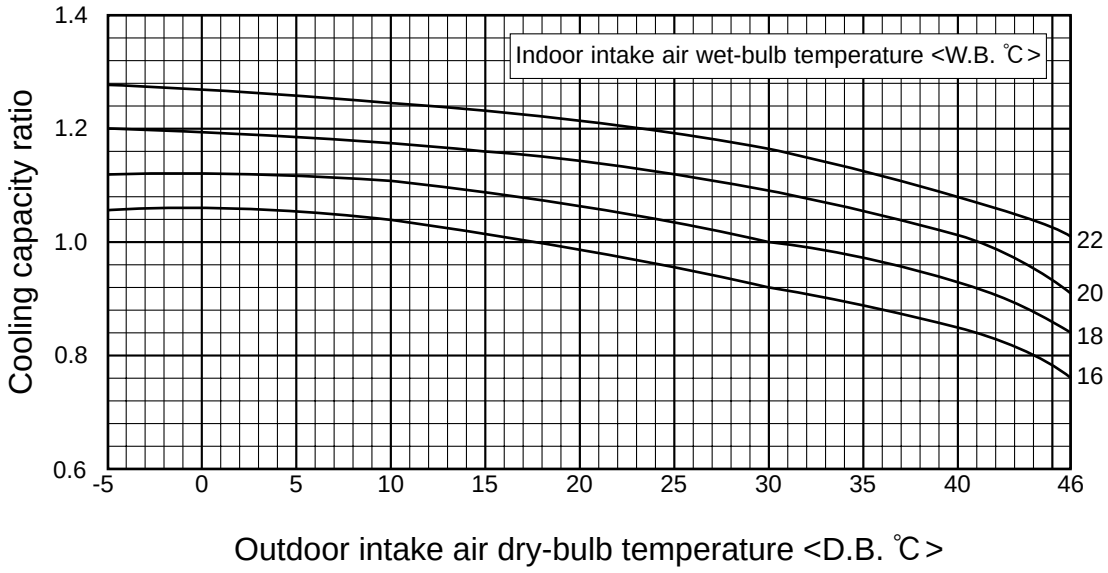
PUHZ-HRP71VHA PUHZ-HRP100VHA PUHZ-HRP100YHA PUHZ-HRP125YHA
PUHZ-HRP71VHA2 PUHZ-HRP100VHA2 PUHZ-HRP100YHA2 PUHZ-HRP125YHA2



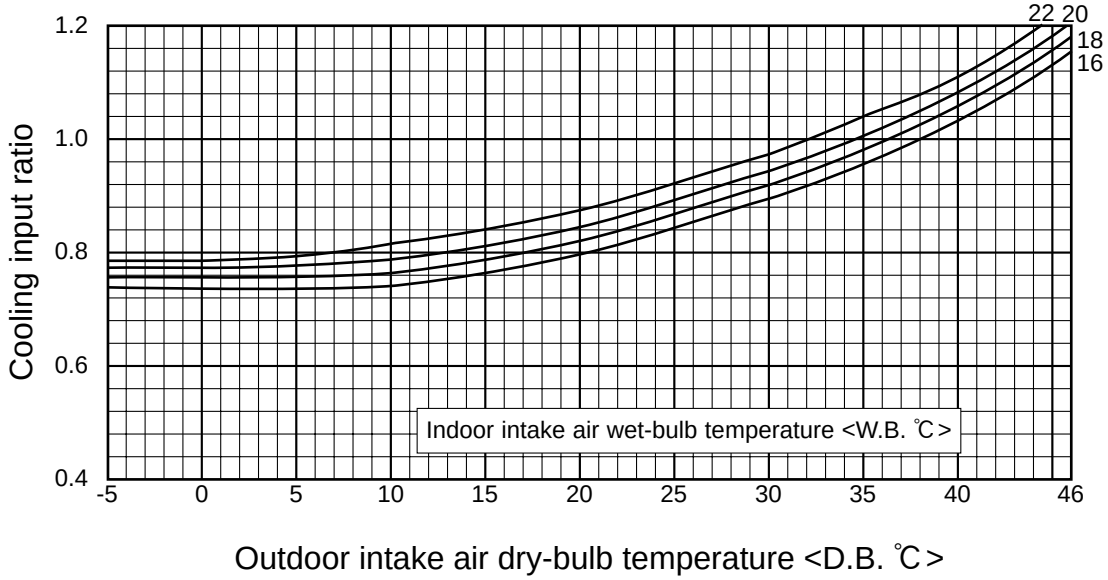
6 PERFORMANCE CURVES

FOR THE COMBINATION OF OUTDOOR UNIT PUHZ-HRP·VHA(2), PUHZ-HRP·YHA(2)

Rated cooling capacity

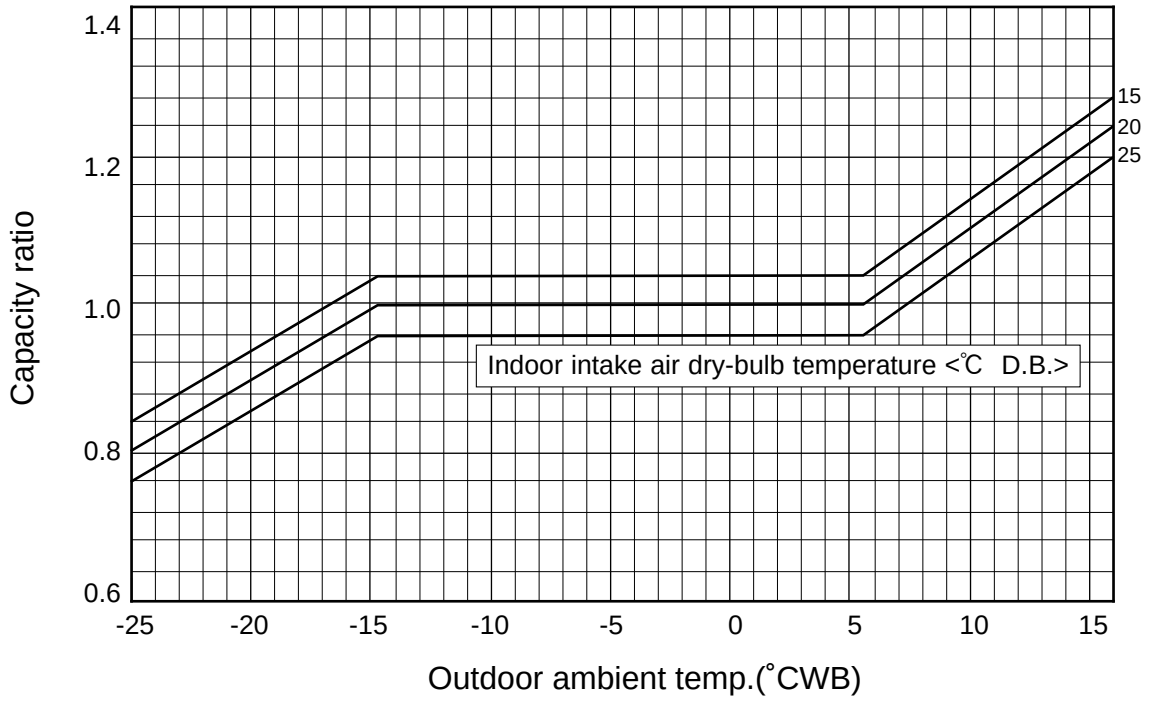


Rated cooling input

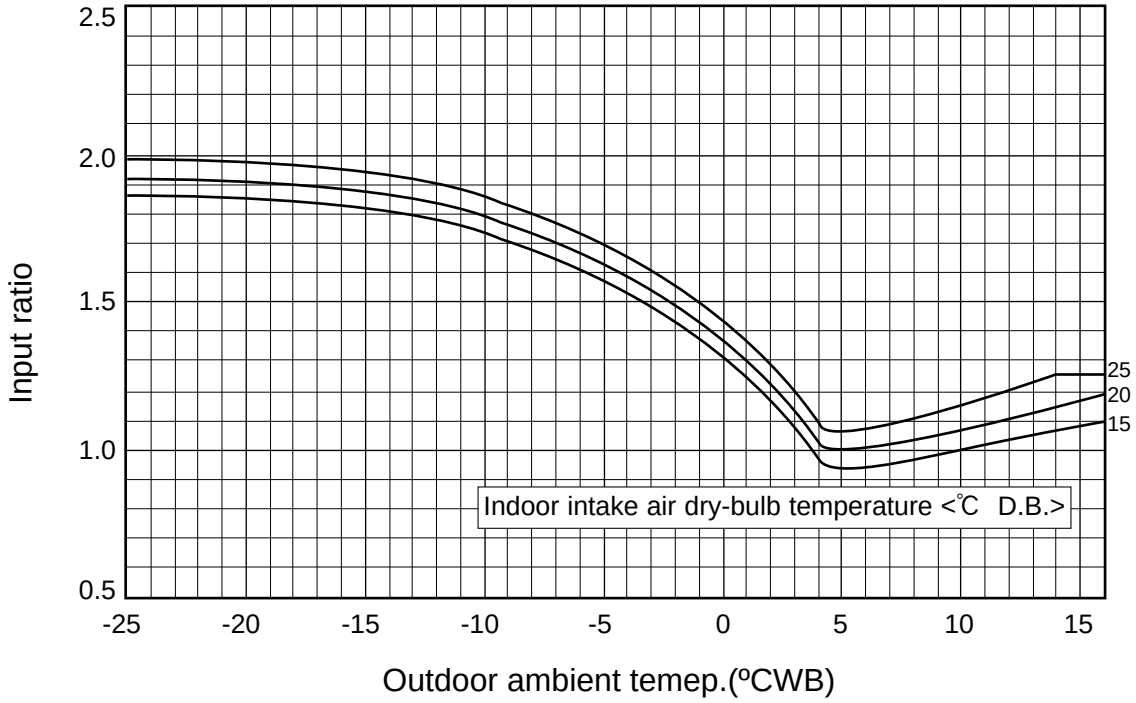


Note : This diagrams show the case where the operation frequency of a compressor is fixed.

Rated heating capacity



Rated heating input



7 CORRECTION FACTORS

PUHZ-HRP71, 100VHA(2) PUHZ-HRP100, 125YHA(2)

Cooling capacity correction factors

Outdoor unit	Refrigerant piping length (one way)									
	5m	10m	20m	30m	40m	50m	55m	60m	70m	80m
PUHZ-HRP71VHA(2)	1.00	0.988	0.966	0.946	0.929	0.913	0.905	0.897	0.876	0.870
PUHZ-HRP100VHA(2) **PUHZ-HRP100YHA(2)**	1.00	0.985	0.957	0.931	0.908	0.886	0.876	0.865	0.846	0.829
PUHZ-HRP125YHA(2)	1.00	0.981	0.946	0.914	0.885	0.858	0.845	0.834	0.812	0.792

Heating capacity correction factors

Outdoor unit	Refrigerant piping length (one way)									
	5m	10m	20m	30m	40m	50m	55m	60m	70m	80m
PUHZ-HRP71VHA(2)	1.00	0.997	0.991	0.985	0.979	0.973	0.970	0.967	0.961	0.955
PUHZ-HRP100VHA(2) **PUHZ-HRP100YHA(2)**	1.00	0.997	0.991	0.985	0.979	0.973	0.970	0.967	0.961	0.955
PUHZ-HRP125YHA(2)	1.00	0.997	0.991	0.985	0.979	0.973	0.970	0.967	0.961	0.955

8 APPLICABLE EXTENSION PIPE FOR EACH MODEL

8-1. PIPE LENGTH

8-1-1. 1:1 SYSTEM

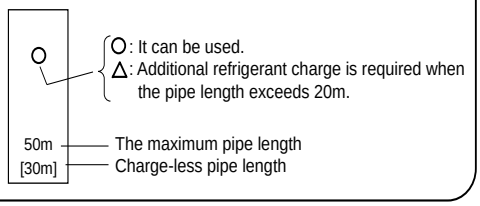
Pipe length

<Table 1> Maximum pipe length

Liquid pipe (mm)	OD	ϕ9.52			ϕ12.7	
	Thickness	t0.8			t0.8	
Gas pipe (mm)	OD	ϕ12.7	ϕ15.88	ϕ19.05	ϕ15.88	ϕ19.05
	Thickness	t0.8	t1.0	t1.0	t1.0	t1.0
HRP71~125			Standard size 50m ※ [30m]	○ 50m [30m]	△ 50m [20m]	△ 50m [20m]

※ The maximum length is 75m in case of new pipes.

<Marks in the table>



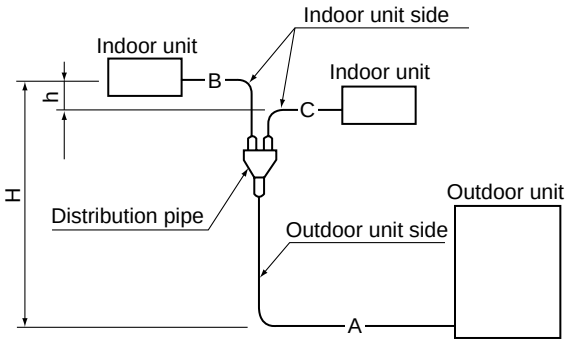
8-1-2. TWIN SYSTEM

(1) TWIN SYSTEM

<Table 2> Maximum pipe length

			HRP71(RP35×2)	HRP100(RP50×2)			HRP125(RP60×2)		
Main pipe (mm) [A]	Liquid pipe		ϕ6.35	ϕ9.52	ϕ9.52	ϕ9.52	ϕ12.7	ϕ9.52	ϕ9.52	ϕ12.7
	Gas pipe		ϕ12.7	ϕ15.88	ϕ15.88	ϕ19.05	ϕ19.05	ϕ15.88	ϕ19.05	ϕ19.05
Branch pipe (mm) [B, C]	Liquid pipe	ϕ6.35		Standard size 50m [30m]	Standard size 50m ※ [30m]	○ 50m [30m]	△ 50m [20m]			
	Gas pipe	ϕ12.7								
	Liquid pipe	ϕ9.52		○ 50m [30m]	○ 50m [30m]	○ 50m [30m]	△ 50m [20m]	Standard size 50m ※ [30m]	○ 50m [30m]	△ 50m [20m]
	Gas pipe	ϕ15.88								
	Liquid pipe	ϕ9.52								
	Gas pipe	ϕ19.05								

※ The maximum length is 75m in case of new pipes.



<TWIN SYSTEM>
Total length A + B + C
Max. 75 m

Height difference
H(Indoor unit-Outdoor unit) Max. 30m
h(Indoor unit-Indoor unit) Max. 1m

Distance between indoor and indoor units
Pipe length |B-C|
Max. 8m
Number of bends (one way)
Max. 15 (Max. 8 points between main pipe A and each branch pipe(B, C))

8-2. ADJUSTING THE AMOUNT OF REFRIGERANT

• Check additional refrigerant charging amount referring to table 5, 6 when liquid pipe is one size larger than standard diameter.

<Table 5> Required additional charge when the liquid pipe is one size larger than the standard diameter (1:1 SYSTEM)

Outdoor unit	Liquid pipe O.D.	Refrigerant amount to be added (Exceeding 20m)
PUHZ-HRP71-125	ϕ12.7	100 g per 1 m

<Table 6> Required additional charge when the liquid pipe is one size larger than the standard diameter (TWIN SYSTEM)

Outdoor unit	When the extension pipe length (main piping + branch piping) exceed 20 m
PUHZ-HRP71-125	Additional refrigerant amount $\triangle$W(g) = (100 × L1) + (60 × L2) + (30 × L3) - 2000

If the calculation produces a negative number ($\triangle W \leqq 0$), additional charging is not necessary.
L1: ϕ12.7 liquid pipe length (m)
L2: ϕ9.52 liquid pipe length (m)
L3: ϕ6.35 liquid pipe length (m)

<Table 7> Additional refrigerant charging amount for pipe of standard diameter

Type	Outdoor unit	Permitted pipe length	Amount of unit filling refrigerant (kg)	Additional refrigerant charging amount for pipe length exceeding 30 m (kg)				
				31 – 40m	41 – 50m	51 – 60m	61 – 70m	71 – 75m
1 : 1 system	PUHZ-HRP71-125	75m or less	5.5kg	0.6kg	1.2kg	1.8kg	2.4kg	

Type	Outdoor unit	Permitted pipe length	Amount of unit filling refrigerant (kg)	Additional refrigerant charging amount for pipe length exceeding 30 m (kg)				
				31 – 40m	41 – 50m	51 – 60m	61 – 70m	71 – 75m
Twin system	PUHZ-HRP71-125	75m or less	5.5kg	0.6kg	1.2kg	1.8kg	2.4kg	

8-3. CAPACITY CORRECTION CURVES

Cooling and heating capacity is lowered according to pipe length. Capacity can be obtained by referring to the capacity curves below. When the diameter of gas pipe is one size smaller than standard diameter, cooling capacity is lowered comparing to the standard diameter. The lowered capacity can be obtained by referring to capacity curves for gas pipe which is one size smaller than standard size.

Corrected pipe length (m) = actual pipe length (m) + number of bends x 0.3 (m)

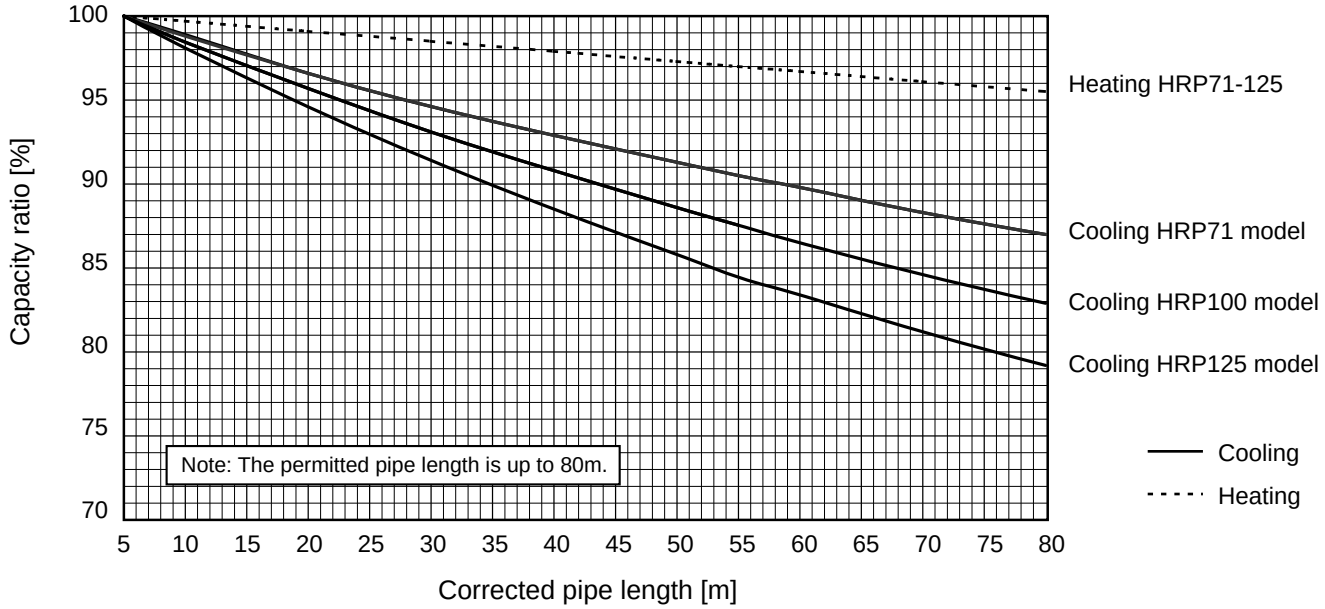
[Sample calculation]
Indoor unit RP60 × 2 units (Twin system)
Outdoor unit HRP125 × 1

• Condition **Using existing pipes.**
• Outdoor unit side
Liquid pipe ϕ12.7 / Gas pipe ϕ19.05
pipe length (A) 20m

• Indoor unit side
Liquid pipe ϕ9.52 / Gas pipe ϕ15.88
pipe length (B) 20m + (C) 15m

1) Farthest piping length **20m + 15m = 35m**
Number of bends : 10
2) Corrected piping length **35m + 0.3 × 10 = 38m**
3) Capacity correction **Outdoor unit side's gas pipe ϕ19.05**
Standard ϕ15.88 → 1 size up
Refer to ①Capacity curves <Standard size>
4) Capacity **Cooling capacity = Standard cooling capacity × 0.89**
Heating capacity = Standard heating capacity × 0.98

① Capacity curves for PUHZ-HRP · HA(2) model <Standard size>



② When gas pipe is one size larger than standard size for PUHZ-HRP71-125.

① Capacity can be obtained by referring to capacity curves of standard size.

9 AIR FLOW DATA

9-1. OUTLET AIR SPEED AND COVERAGE RANGE

		PLA-RP36BA	PLA-RP50BA	PLA-RP60BA	PLA-RP71BA2	PLA-RP100BA PLA-RP100BA2	PLA-RP125BA PLA-RP125BA2
Air flow	m^3/min.	15	18	18	21	30	31
Air speed	m/sec.	2.6	3.2	3.2	3.7	5.3	5.4
Coverage range	m	4.1	4.8	4.8	5.6	8	8.2

		PKA-RP35GAL	PKA-RP50GAL
Air flow	m^3/min.	12	12
Air speed	m/sec.	5.3	5.3
Coverage range	m(ft)	10(32.8)	10(32.8)

		PKA-RP50FAL2 PKA-RP60FAL	PKA-RP100FAL
Air flow	m^3/min.	20	28
Air speed	m/sec.	4.9	5.4
Coverage range	m(ft)	12.4(40.7)	15.3(50.2)

※ The air coverage range is the distance to which the 0.25 m/sec air can reach, when air is blown out horizontally from the unit at the High notch position.
The coverage range should be used only as a general guideline since it varies according to the size of the room and the furniture inside the room.

9-2. PLA-RP·BA(2)

9-2-1 FRESH AIR INTAKE AND BRANCH DUCT

1. Branch duct hole and fresh air intake hole (Fig. 1)

At the time of installation, use the duct holes (cut out) located at the positions shown in Fig.1, as and when required.
• A fresh air intake hole for the optional multi function casement can also be made.

Note:
The figure marked with * in the drawing represent the dimensions of the main unit excluding those of the optional multi function casement.
When installing the optional multi function casement, add 135 mm to the dimensions marked on the figure.
When installing the branch ducts, be sure to insulate adequately.
Otherwise condensation and dripping may occur.

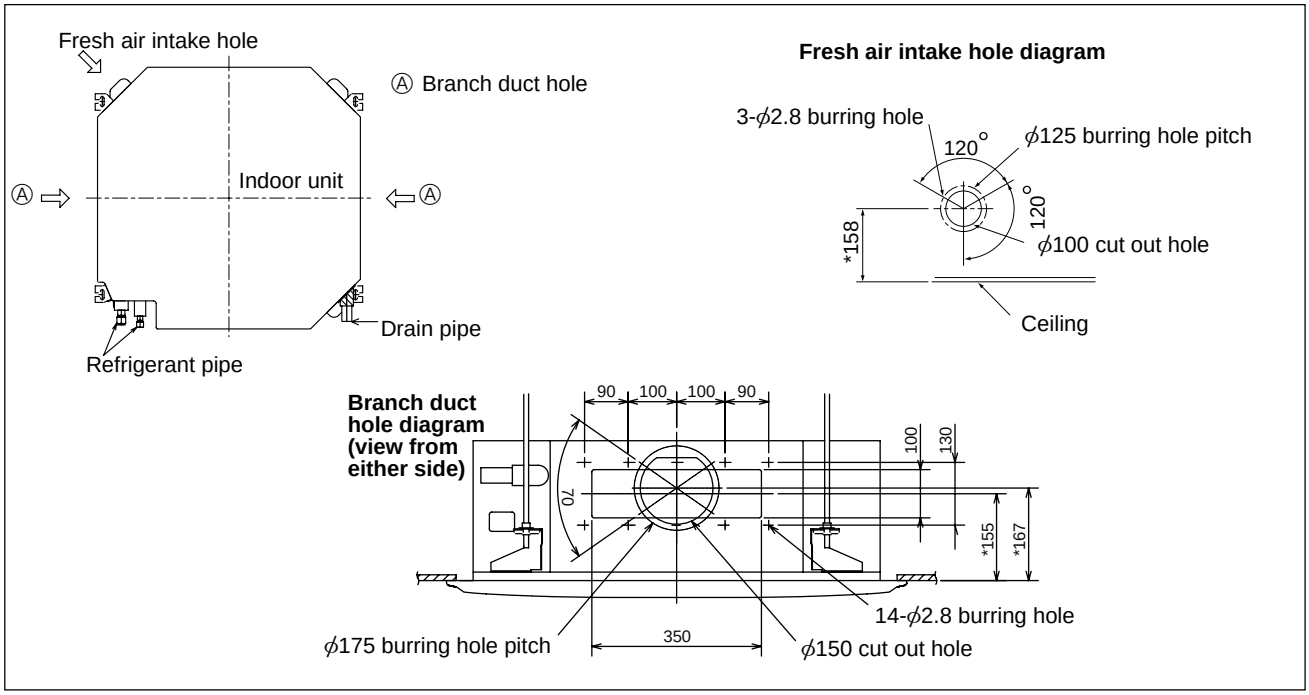
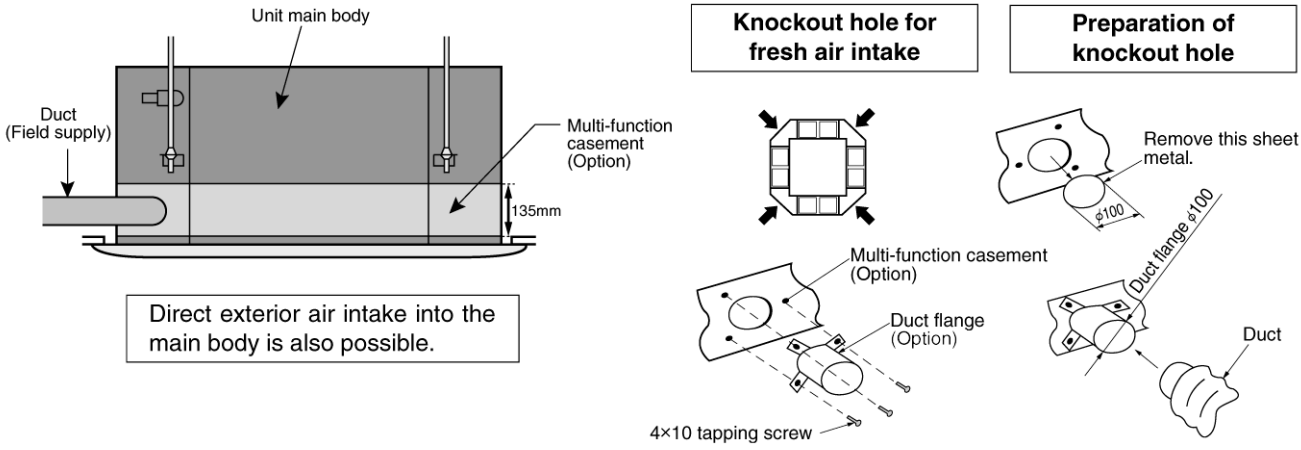


Fig. 1

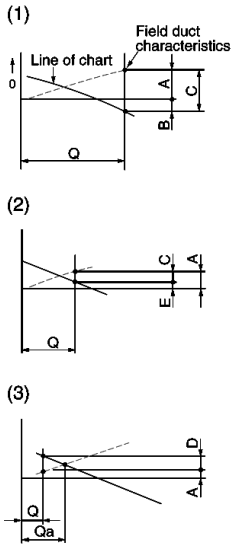
2. Fresh air intake (Installation at site)

- By mounting the optional multi-function casement to the indoor unit main body, and mounting the duct and duct flange (option) onto it further, fresh exterior air intake can be accomplished.
  (The mounting of the multi-function casement increases the height of the ceiling plenum by 135mm.)



3. Fresh air intake volume & static pressure characteristics

How to read the chart



Q .... Design fresh air intake volume (m³/min)

A ..... Static pressure loss [Pa] of fresh air intake duct at air flow rate of Q

B ..... Required boost pressure [Pa] of air conditioner inlet at air flow rate of Q

C ..... Required static pressure [Pa] of booster fan at air flow rate of Q

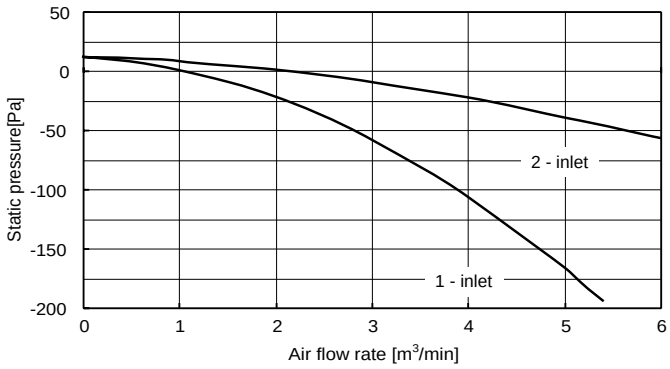
D ..... Required compensation [Pa] for static prssure loss of fresh air intake duct to make air flow rate Q

E ..... Static pressure [Pa] of indoor unit at air flow rate of Q

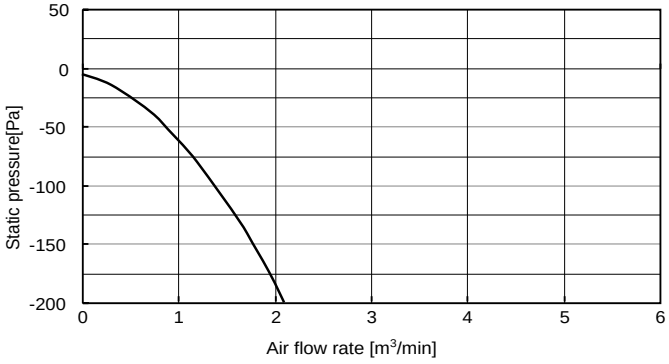
Qa .. Estimated fresh air intake [m³/min] without compensation of D

PLA-RP35~60BA PLA-RP71BA2

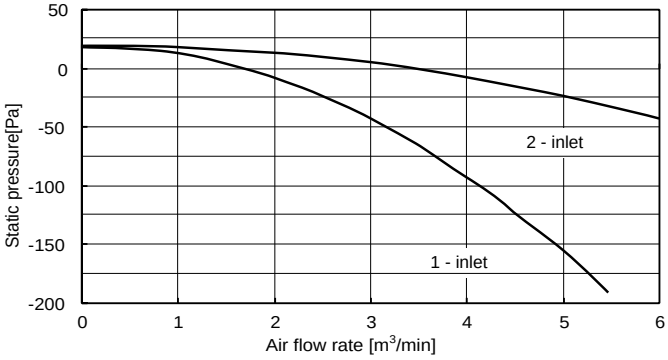
① At using multi-function casement, standard filter



② Direct intake to unit

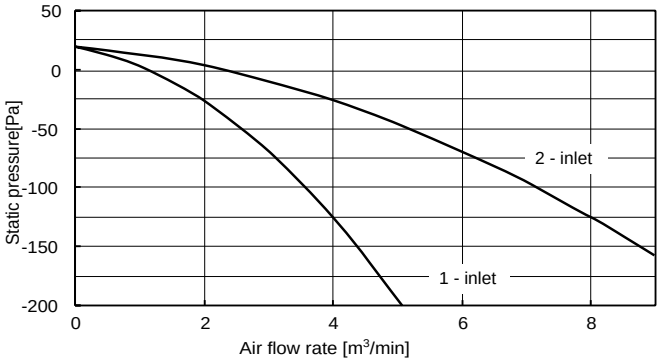


③ At using multi-function casement, high efficiency filter

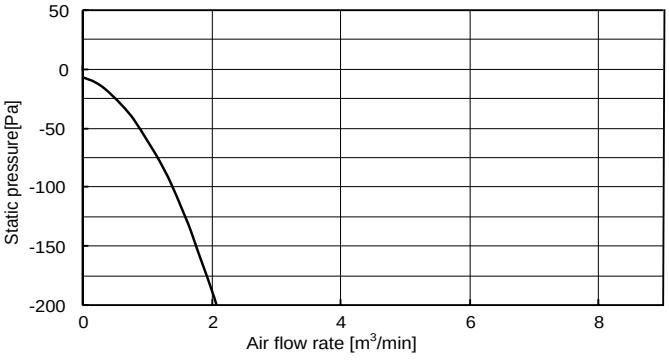


PLA-RP100, 125BA(2)

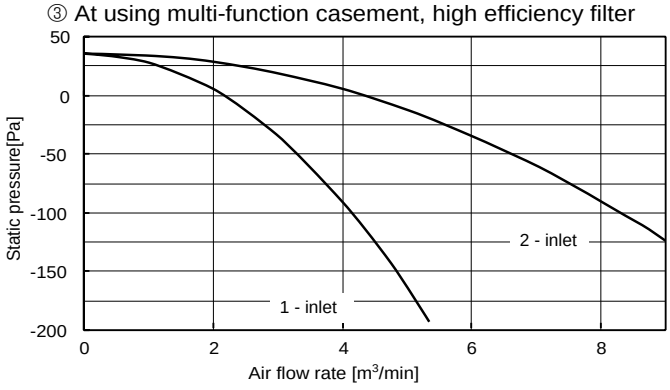
① At using multi-function casement, standard filter



② Direct intake to unit



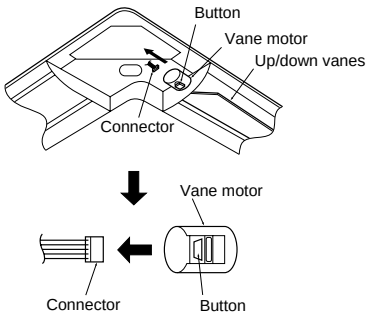
③ At using multi-function casement, high efficiency filter

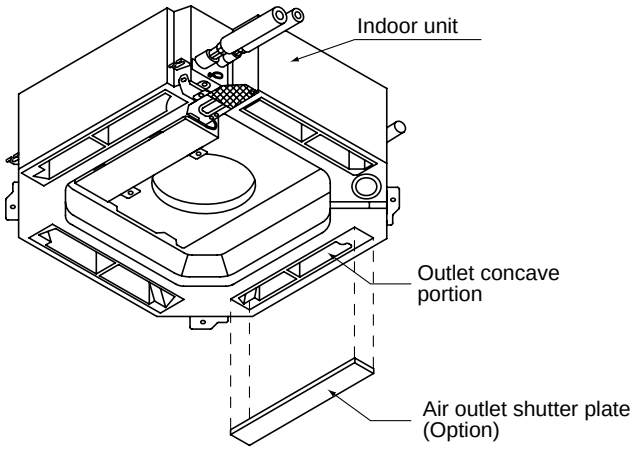


4. Change of outlet numbers

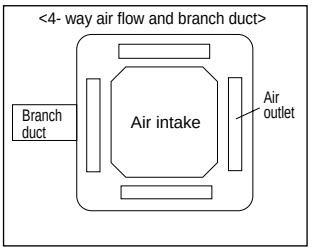
The optional air outlet is necessary.
To change the air outlet number to 3-, or 2-way outlet, the outlet number should be closed with the operational air outlet shutter.

When the air outlets are closed, close the vane by removing the vane connector.

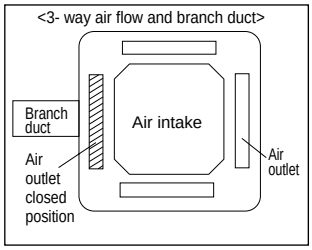




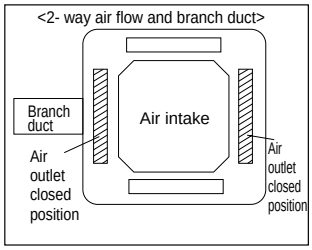
5. Branch duct and change of outlet numbers



※ Branch duct should be connected to one of the branch duct holes on the main unit.



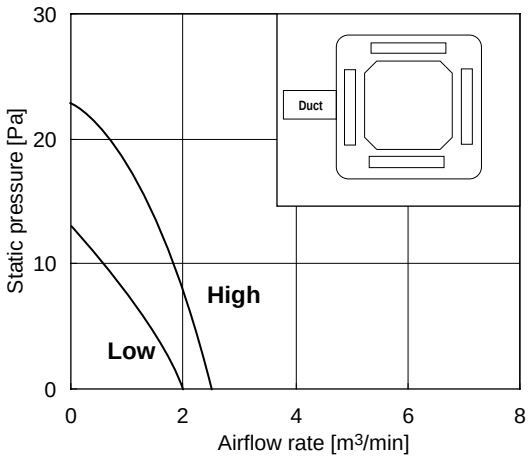
※ Close the outlet on the side of branch duct and air flows in 3 directions.



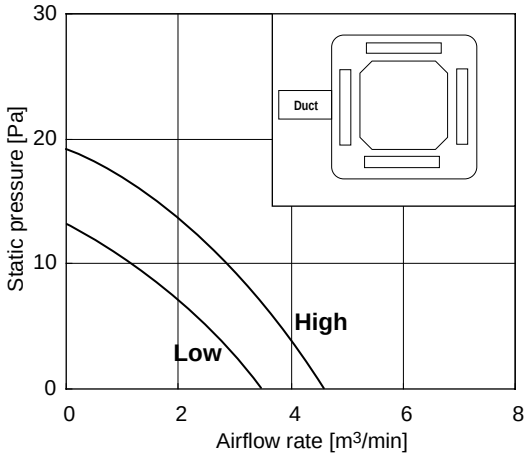
※ The outlet on the side of branch duct and one of the other outlets are closed.
Air flows in 2 directions.

PLA-RP71BA2

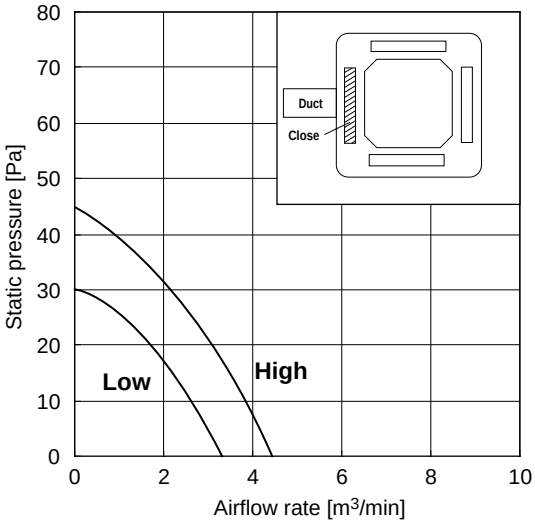
●4-way airflow (horizontal vane) Round duct



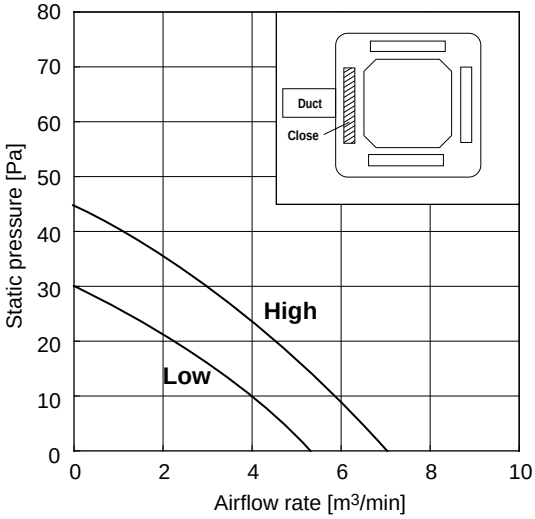
●4-way airflow (horizontal vane) Rectangular duct



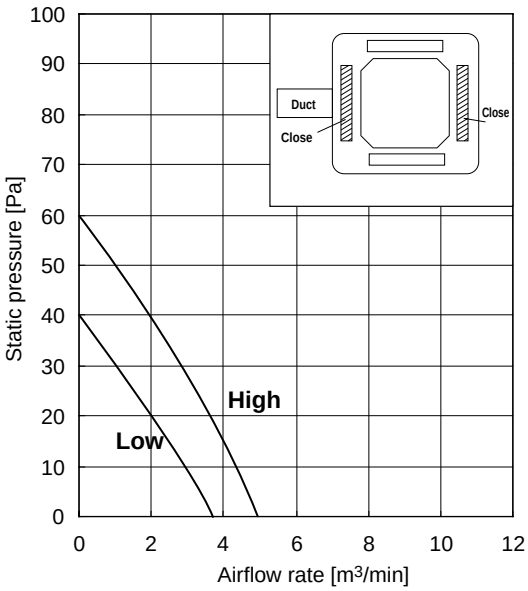
●3-way airflow (horizontal vane) Round duct



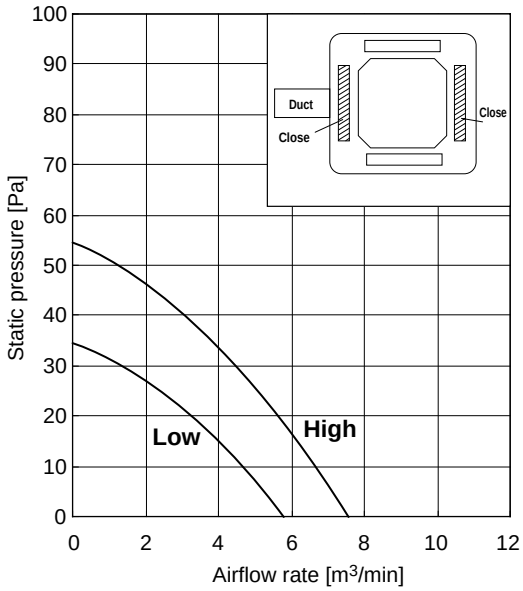
●3-way airflow (horizontal vane) Rectangular duct



●2-way airflow (horizontal vane) Round duct



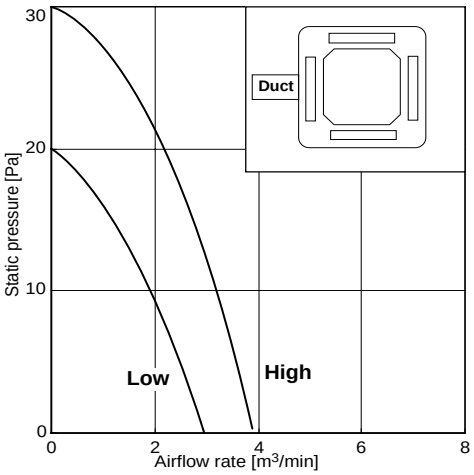
●2-way airflow (horizontal vane) Rectangular duct



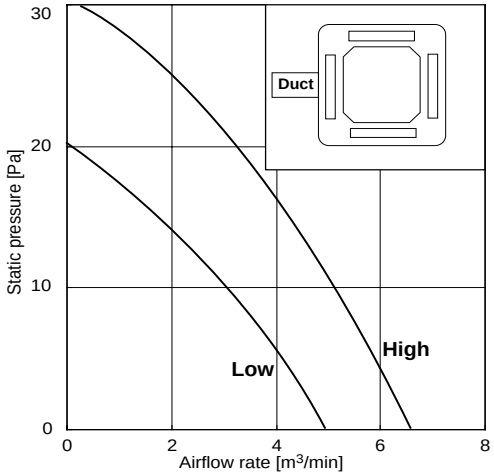
- Use 1 of the 2 duct holes on the indoor unit.
- Airflow rate of PLA-RP35~60BA can be calculated from the airflow rate based on the characteristic of the duct for PLA-RP71BA2.
- Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way airflow.

PLA-RP125BA(2)

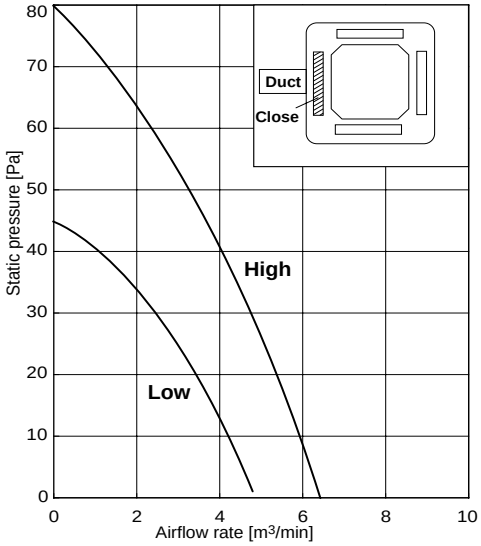
●4-way airflow (horizontal vane) Round duct



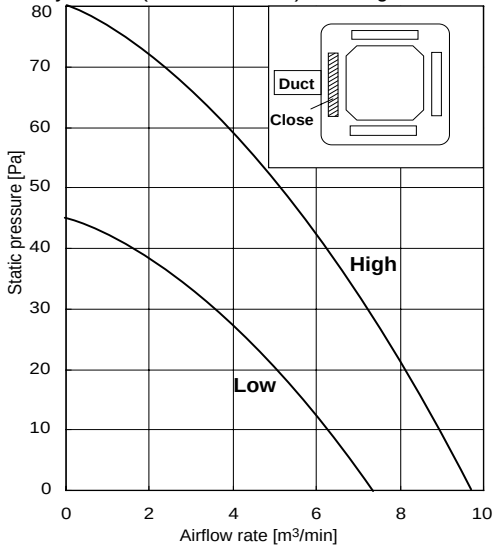
●4-way airflow (horizontal vane) Rectangular duct



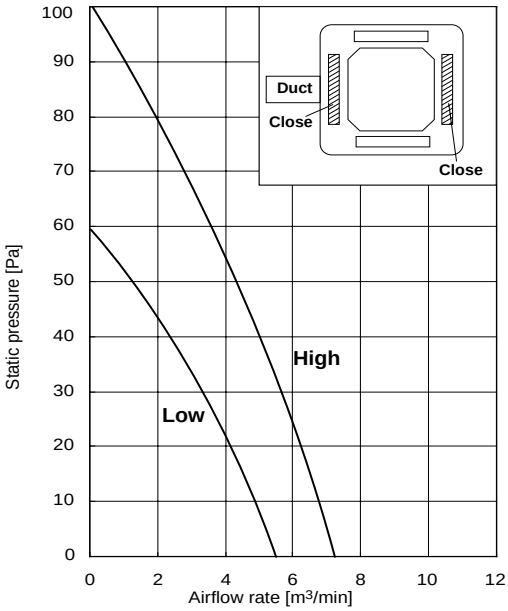
●3-way airflow (horizontal vane) Round duct



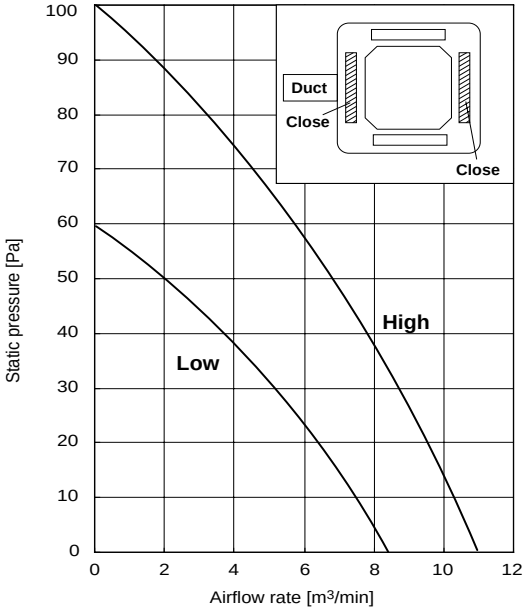
●3-way airflow (horizontal vane) Rectangular duct



●2-way airflow (horizontal vane) Round duct



●2-way airflow (horizontal vane) Rectangular duct

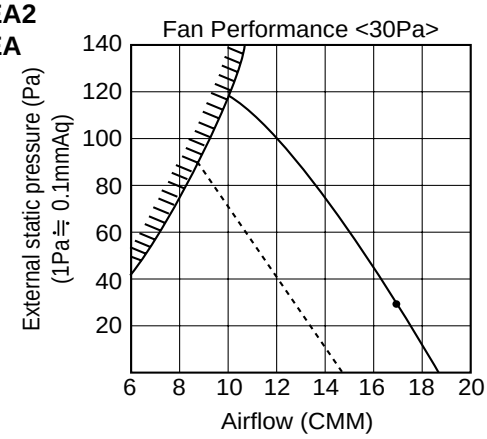


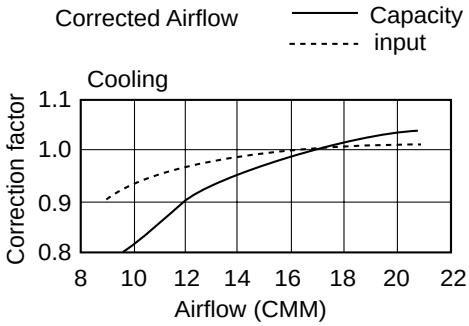
- Use 1 of the 2 duct holes on the indoor unit.
- Airflow rate of PLA-RP100BA(2) can be calculated from the airflow rate based on the characteristic of the duct for PLA-RP125BA(2).
- Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way airflow.

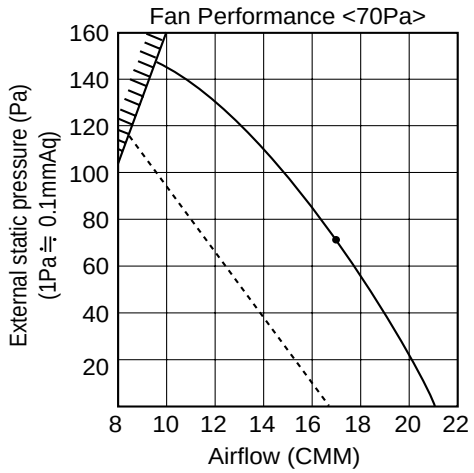
9-3. PEAD-RP·EA,EA2,GA

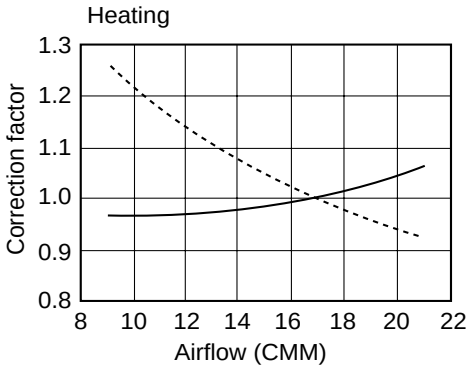
9-3-1. FAN PERFORMANCE AND CORRECTED AIR FLOW

PEAD-RP35EA2
PEAD-RP50EA

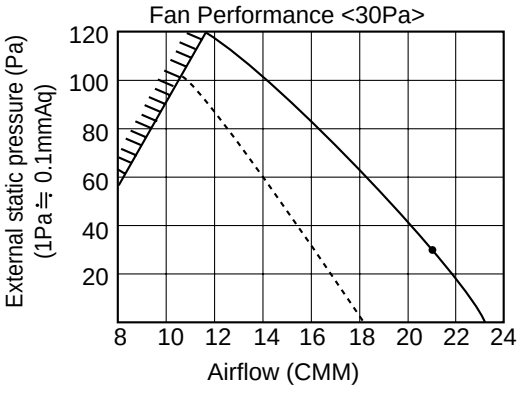


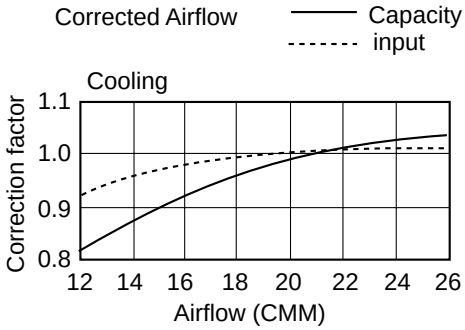


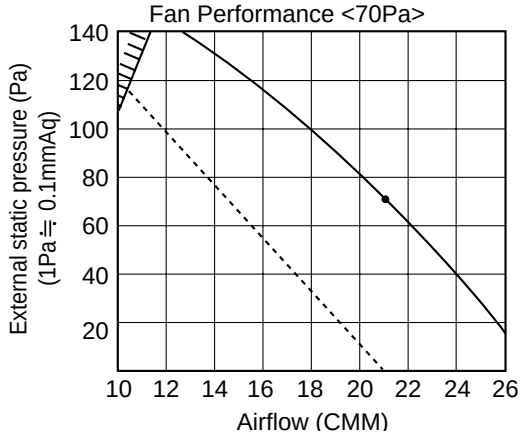


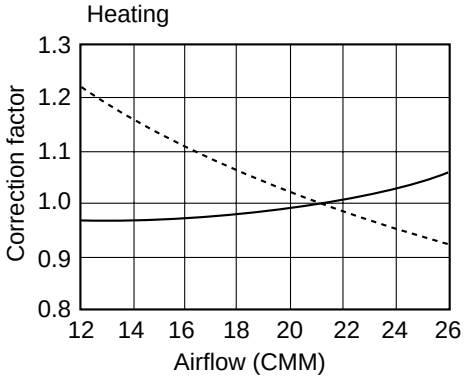


PEAD-RP60EA



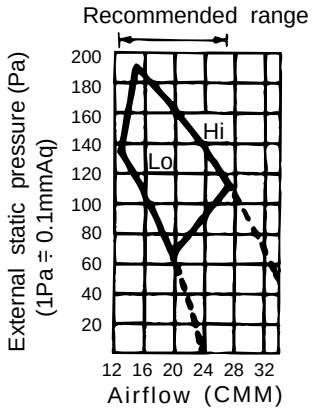




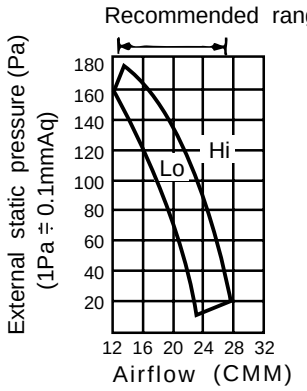


PEAD-RP71EA

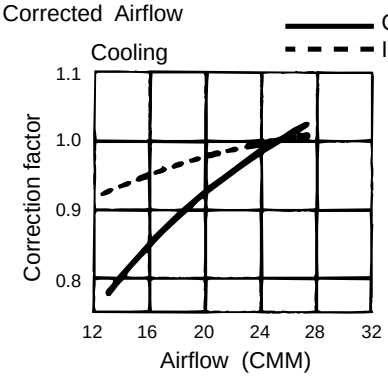
Fan performance <130Pa>

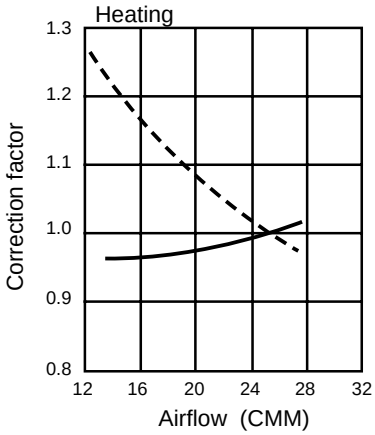


Fan performance <70Pa>



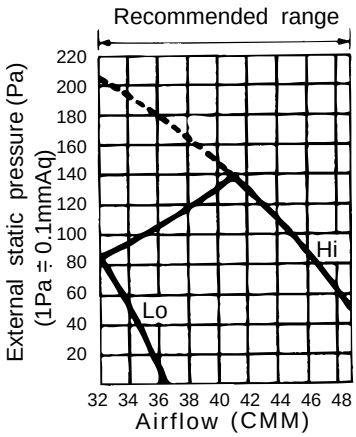
Corrected Airflow



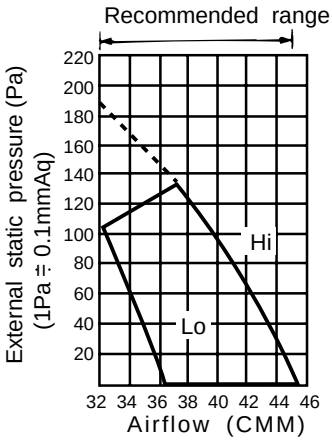


PEAD-RP100EA2
PEAD-RP125EA

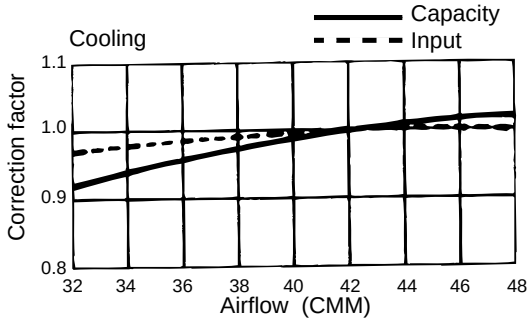
Fan performance <130Pa>

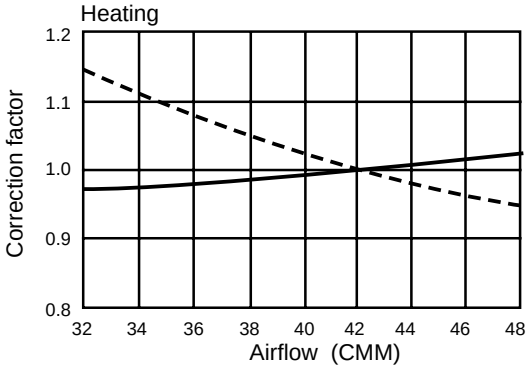


Fan performance <70Pa>



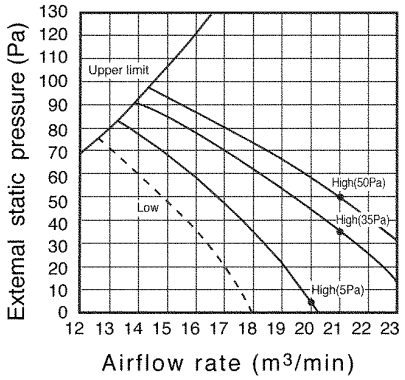
Corrected Air Flow



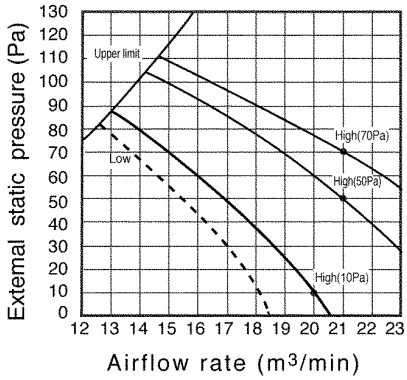


PEAD-RP60GA

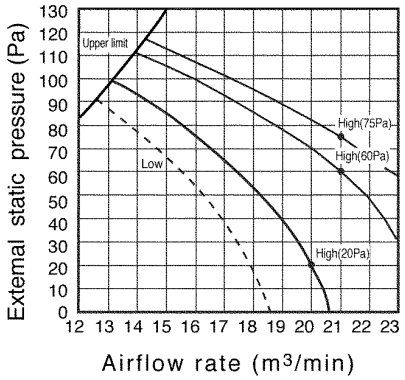
Fan performance <220V>



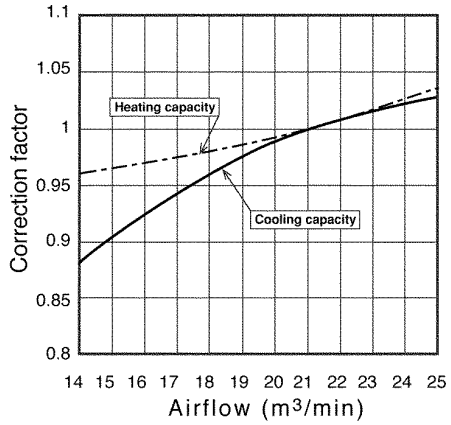
Fan performance <230V>



Fan performance <240V>

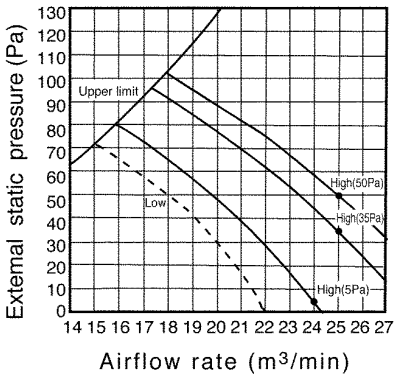


Corrected air flow

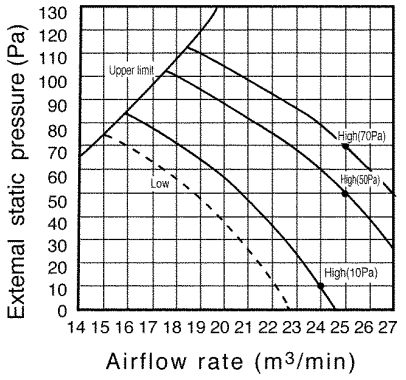


PEAD-RP71GA

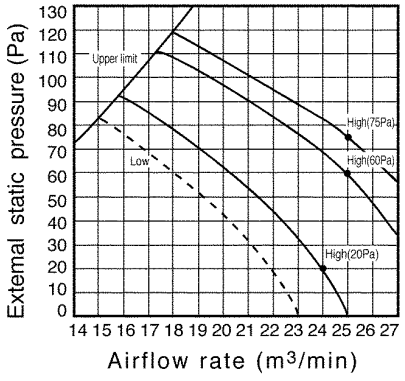
Fan performance <220V>



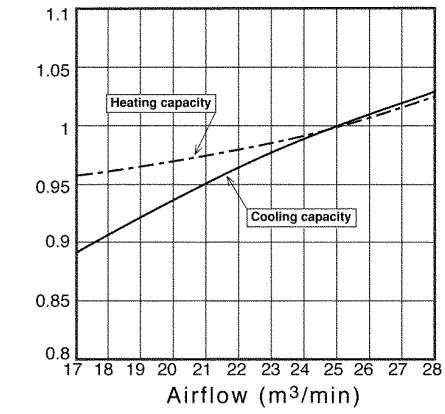
Fan performance <230V>



Fan performance <240V>

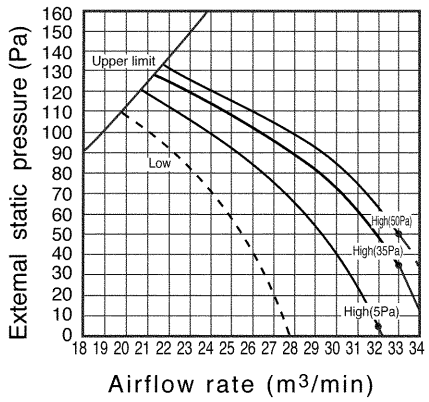


Corrected air flow

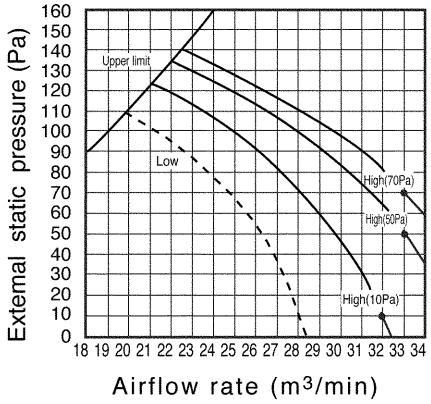


PEAD-RP100GA

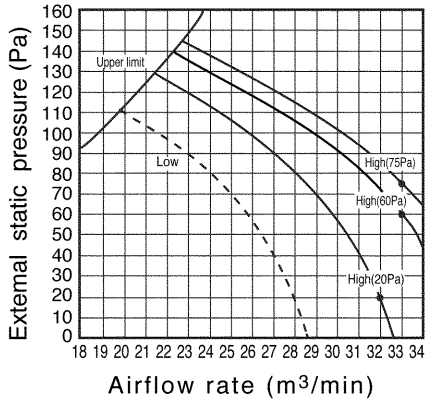
Fan performance <220V>



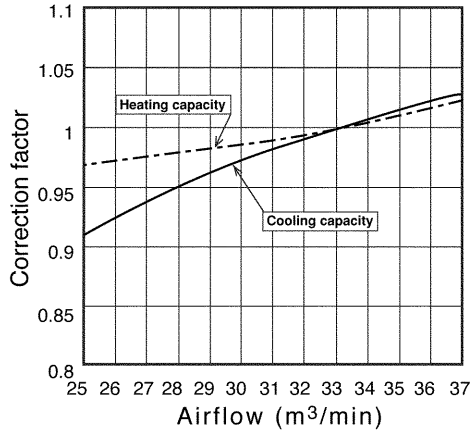
Fan performance <230V>



Fan performance <240V>



Corrected air flow

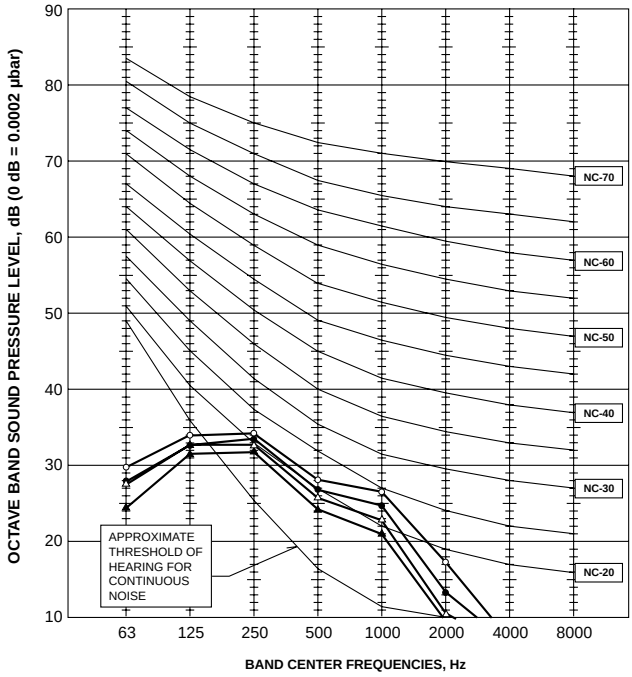


10 NOISE CRITERION CURVES

10-1. INDOOR UNIT

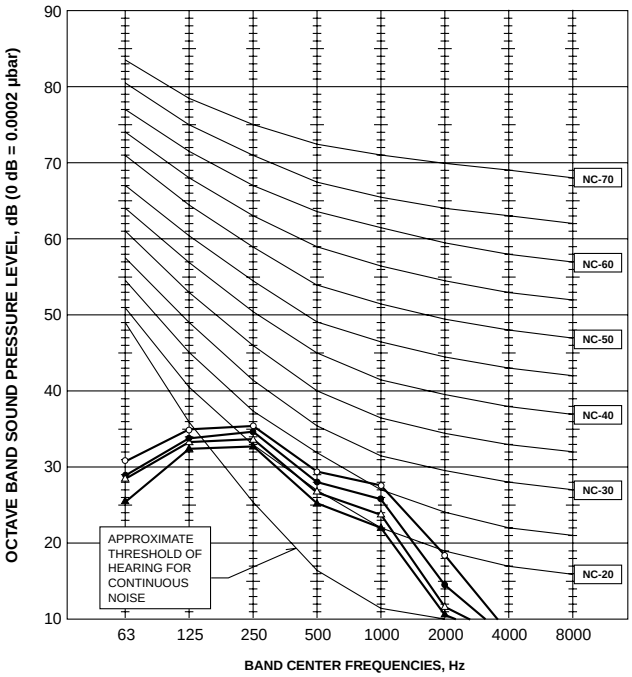
PLA-RP35BA

NOTCH	SPL(dB)	LINE
High	31	
Medium1	29	
Medium2	28	
Low	27	



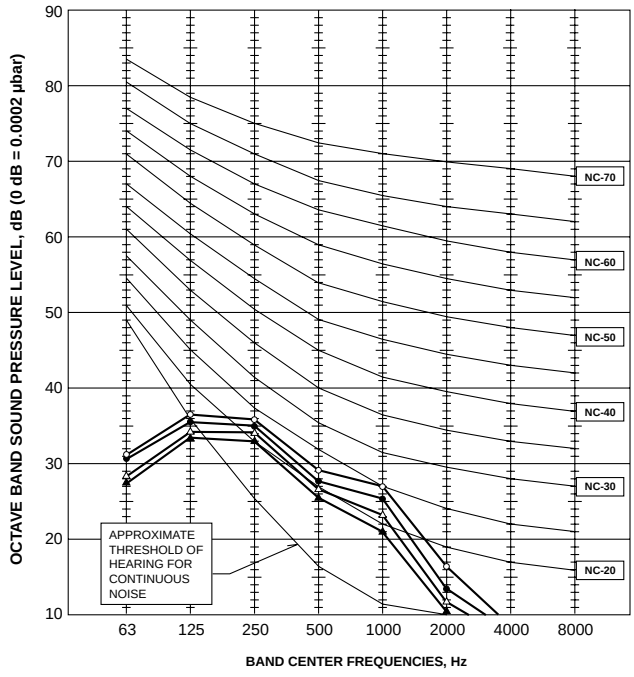
PLA-RP50BA

NOTCH	SPL(dB)	LINE
High	32	
Medium1	31	
Medium2	29	
Low	28	



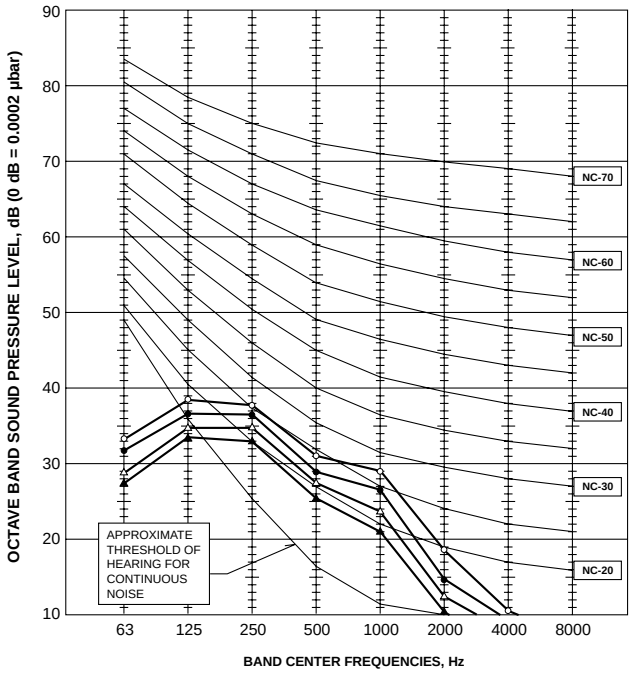
PLA-RP60BA

NOTCH	SPL(dB)	LINE
High	32	
Medium1	31	
Medium2	29	
Low	28	



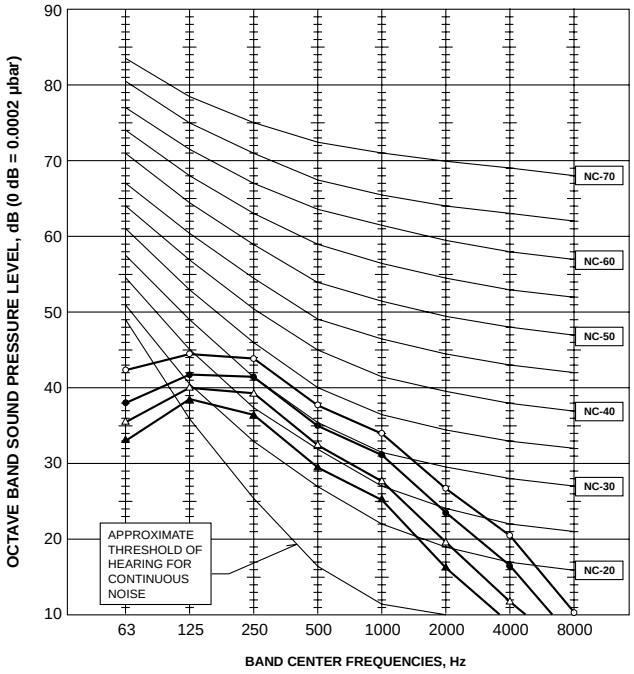
PLA-RP71BA2

NOTCH	SPL(dB)	LINE
High	34	
Medium1	32	
Medium2	30	
Low	28	



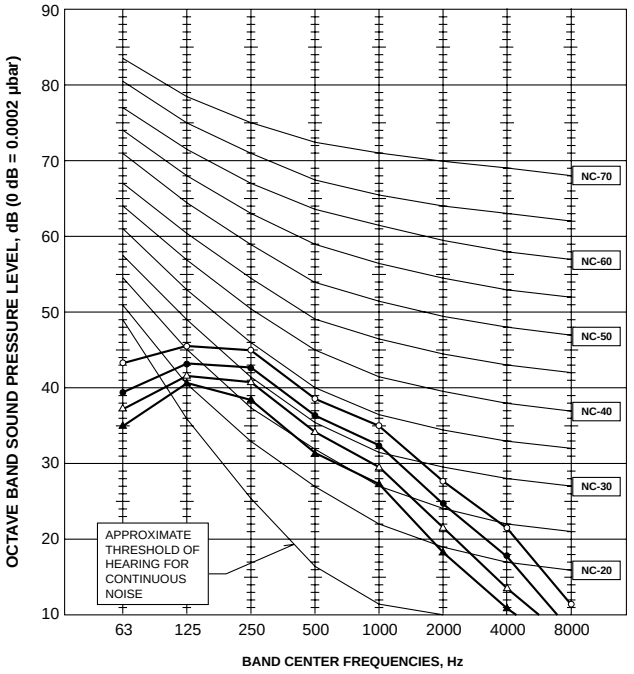
PLA-RP100BA
PLA-RP100BA2

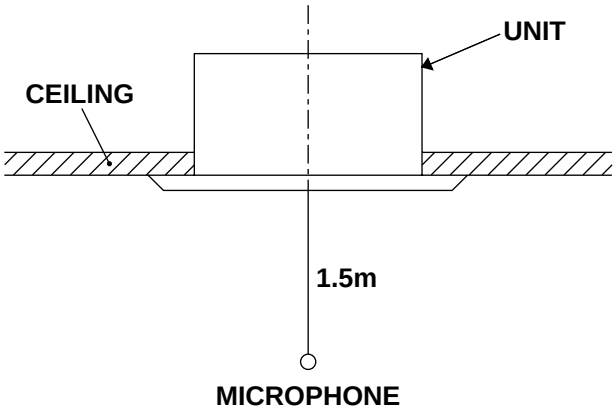
NOTCH	SPL(dB)	LINE
High	40	
Medium1	37	
Medium2	34	
Low	32	



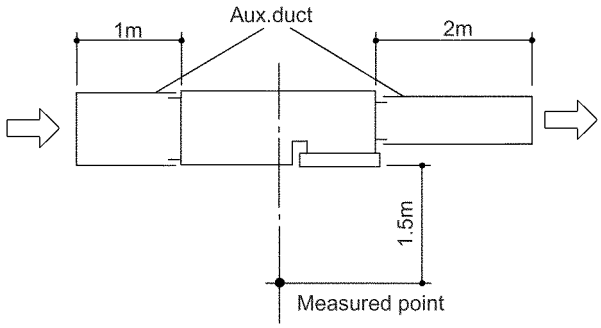
PLA-RP125BA
PLA-RP125BA2

NOTCH	SPL(dB)	LINE
High	41	
Medium1	39	
Medium2	36	
Low	34	





Ceiling concealed

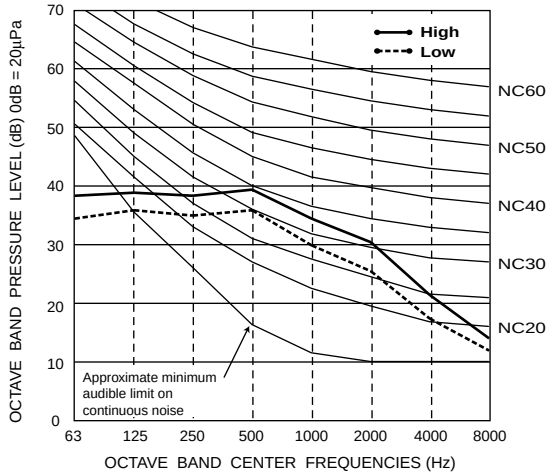


Noise level at anechoic room (Low-High) Unit : dB(A)

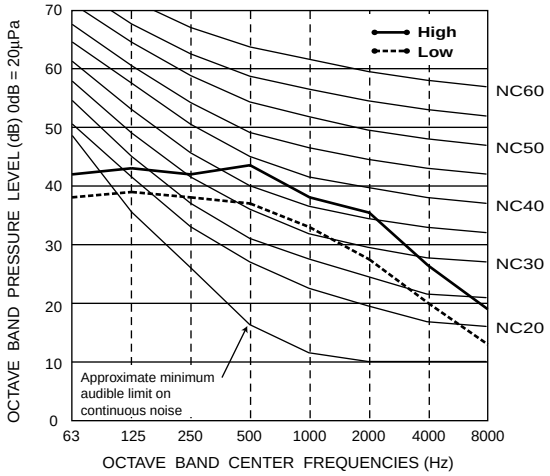
Model	External static pressure		
	30Pa	70Pa	130Pa
PEAD-RP35EA2	36-40	38-44	-
PEAD-RP50EA	36-40	38-44	-
PEAD-RP60EA	37-41	39-46	-
PEAD-RP71EA	-	37-41	40-45 ❊
PEAD-RP100EA2	-	44-50	46-52❊
PEAD-RP125EA	-	44-50	46-52 ❊

❊ Optional motor

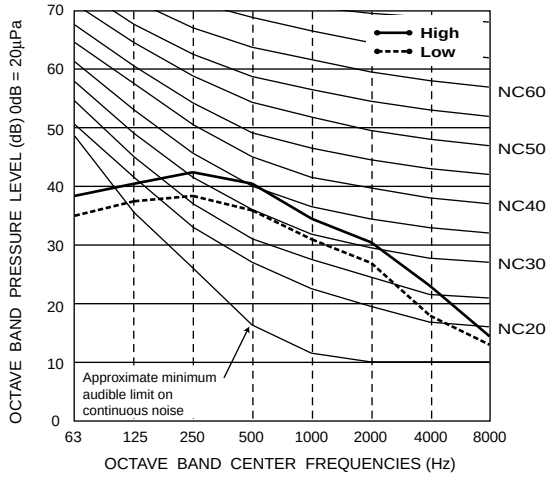
PEAD-RP35EA2
PEAD-RP50EA **(External static pressure 30Pa)**



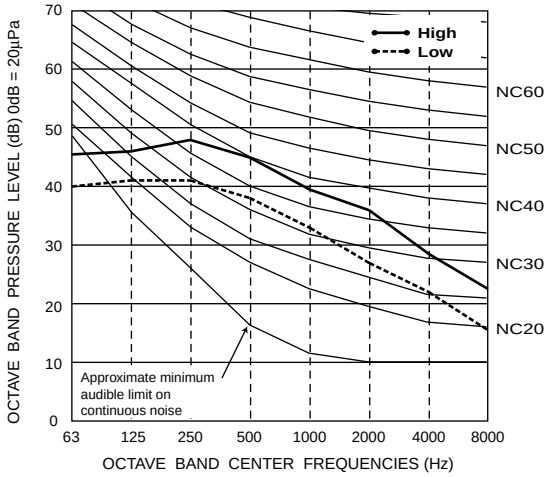
PEAD-RP35EA2
PEAD-RP50EA **(External static pressure 70Pa)**

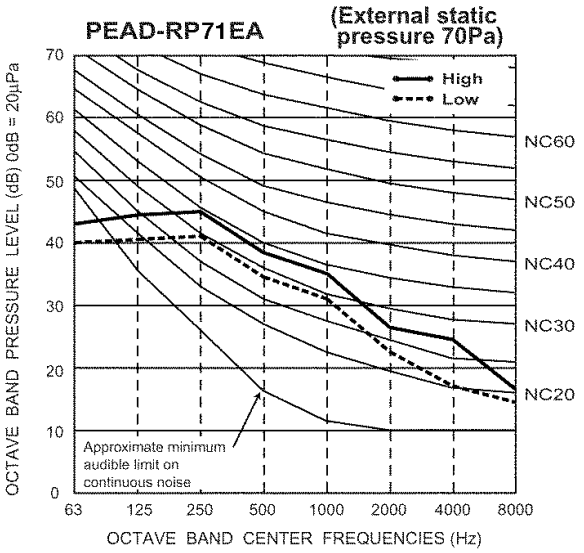


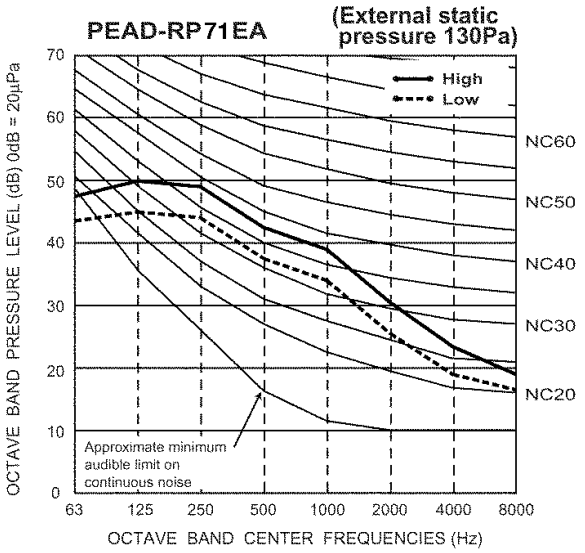
PEAD-RP60EA **(External static pressure 30Pa)**

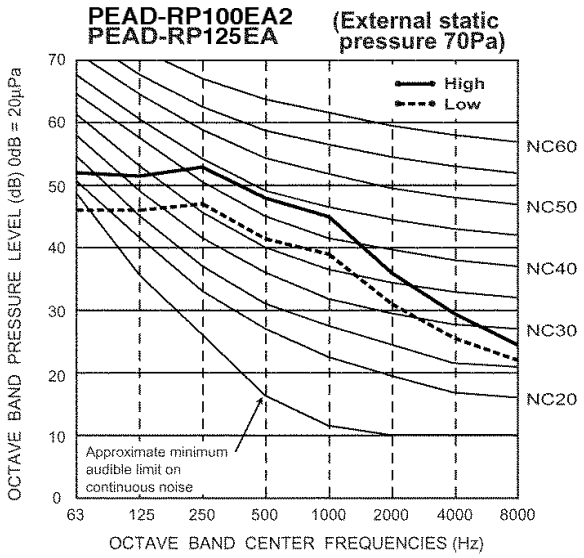


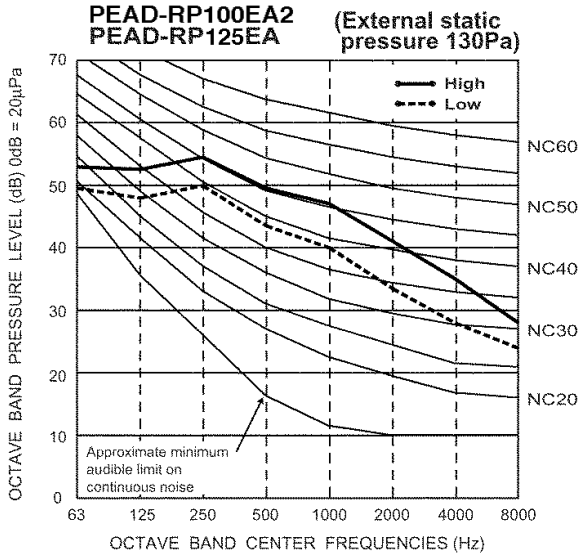
PEAD-RP60EA **(External static pressure 70Pa)**




PEAD-RP71EA
(External static pressure 70Pa)
High
Low
NC60
NC50
NC40
NC30
NC20
Approximate minimum audible limit on continuous noise
OCTAVE BAND PRESSURE LEVEL (dB) 0dB = 20μPa
OCTAVE BAND CENTER FREQUENCIES (Hz)
0
10
20
30
40
50
60
70
63
125
250
500
1000
2000
4000
8000

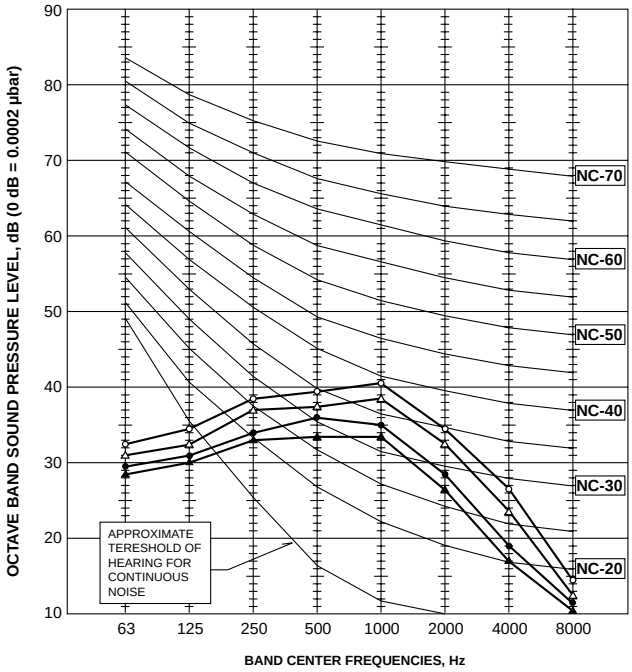

PEAD-RP71EA
(External static pressure 130Pa)
High
Low
NC60
NC50
NC40
NC30
NC20
Approximate minimum audible limit on continuous noise
OCTAVE BAND PRESSURE LEVEL (dB) 0dB = 20μPa
OCTAVE BAND CENTER FREQUENCIES (Hz)
0
10
20
30
40
50
60
70
63
125
250
500
1000
2000
4000
8000


PEAD-RP100EA2
PEAD-RP125EA
(External static pressure 70Pa)
High
Low
NC60
NC50
NC40
NC30
NC20
Approximate minimum audible limit on continuous noise
OCTAVE BAND PRESSURE LEVEL (dB) 0dB = 20μPa
OCTAVE BAND CENTER FREQUENCIES (Hz)
0
10
20
30
40
50
60
70
63
125
250
500
1000
2000
4000
8000


PEAD-RP100EA2
PEAD-RP125EA
(External static pressure 130Pa)
High
Low
NC60
NC50
NC40
NC30
NC20
Approximate minimum audible limit on continuous noise
OCTAVE BAND PRESSURE LEVEL (dB) 0dB = 20μPa
OCTAVE BAND CENTER FREQUENCIES (Hz)
0
10
20
30
40
50
60
70
63
125
250
500
1000
2000
4000
8000

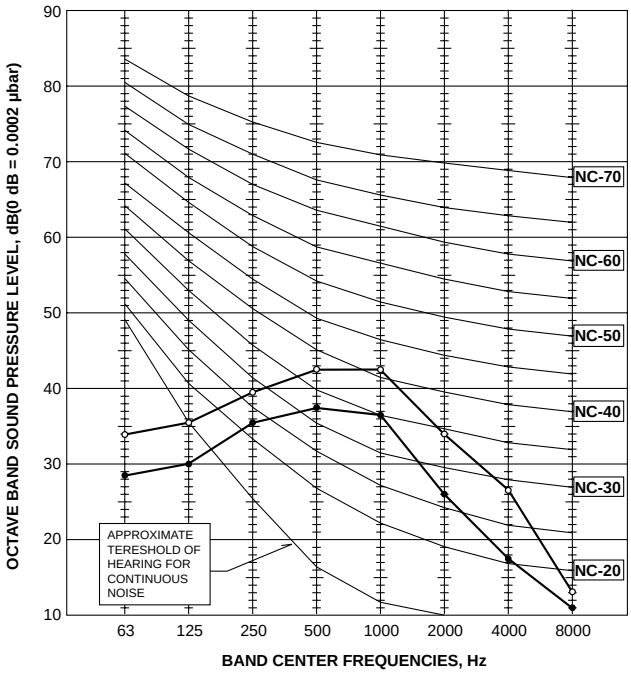
PKA-RP35GAL
PKA-RP50GAL

NOTCH	SPL(dB)	LINE
High	43	
Medium1	41	
Medium2	38	
Low	36	



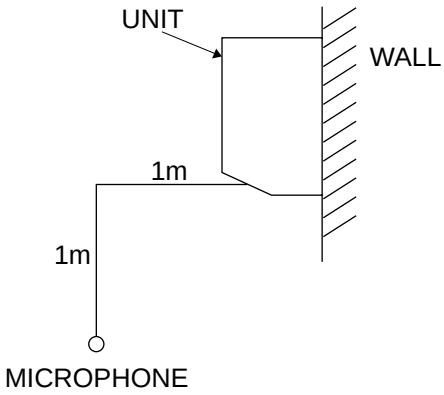
PKA-RP50FAL2
PKA-RP60FAL

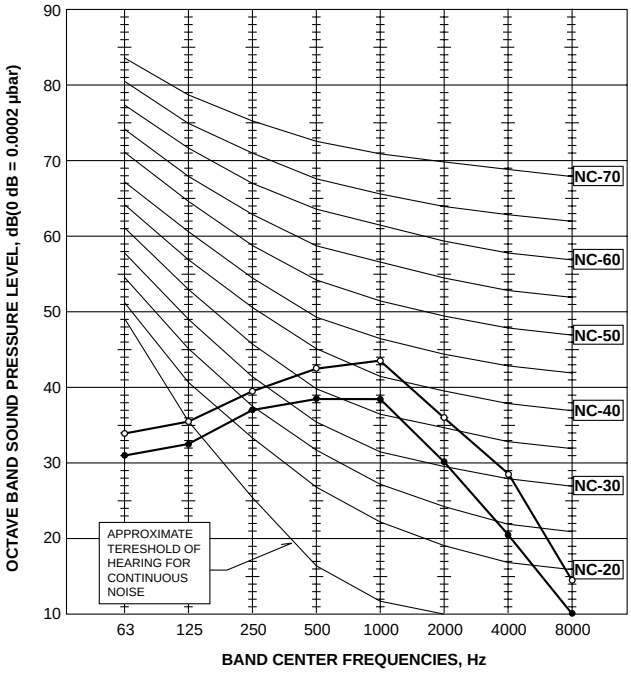
NOTCH	SPL(dB)	LINE
High	45	
Low	39	



PKA-RP100FAL

NOTCH	SPL(dB)	LINE
High	46	
Low	41	

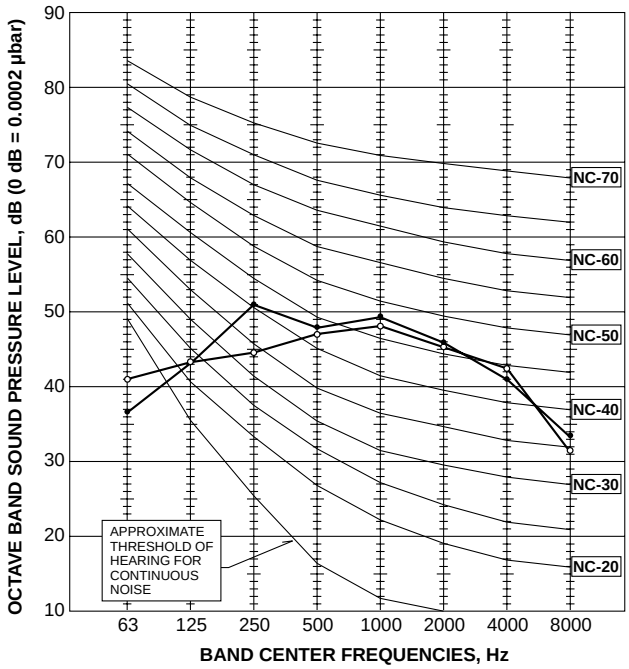




10-2. OUTDOOR UNIT

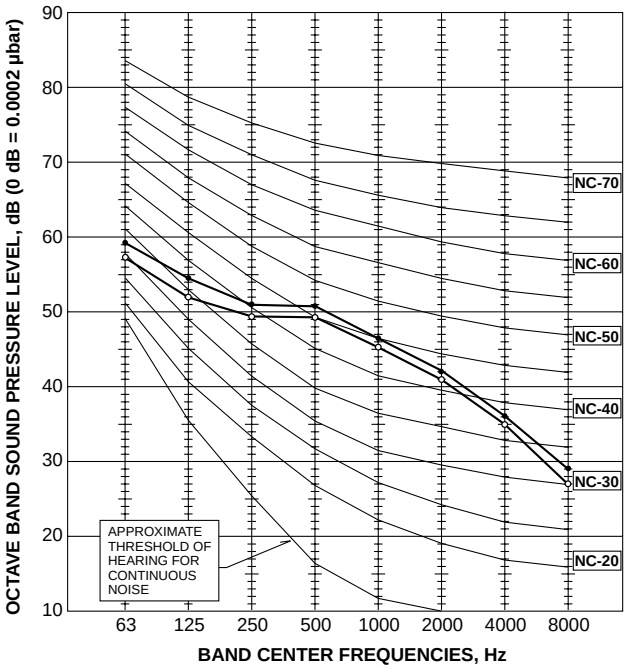
PUHZ-HRP71VHA
PUHZ-HRP100VHA
PUHZ-HRP100YHA
PUHZ-HRP125YHA

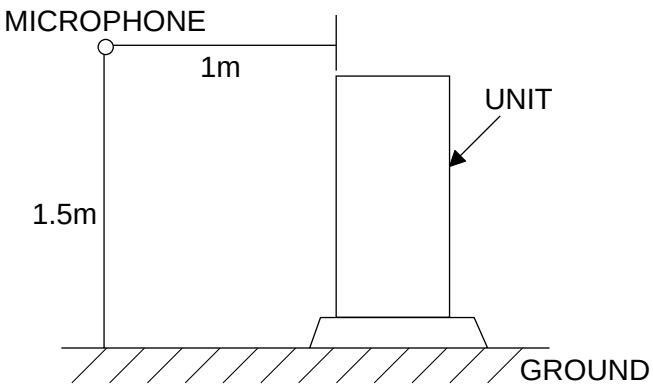
MODE	SPL(dB)	LINE
COOLING	52	○—○
HEATING	53	●—●



PUHZ-HRP71VHA2
PUHZ-HRP100VHA2
PUHZ-HRP100YHA2
PUHZ-HRP125YHA2

MODE	SPL(dB)	LINE
COOLING	51	○—○
HEATING	52	●—●





11 OPTIONAL PARTS

11-1. INDOOR UNIT

Part Name		Model Name	Applicable model
Remote sensor		PAC-SE41TS-E	All models
Remote operation adapter		PAC-SF40RM-E	
Multiple remote controller adapter		PAC-SA88HA-E (1 pc.)	
		PAC-725AD (10 pcs.)	
Remote on/off adapter		PAC-SE55RA-E	
Power supply terminal kit	L/N/Earth	PAC-SG96HR-E	PEAD-RP•EA(2) PKA-RP•GAL/FAL(2)
		PAC-SH52HR-E	PLA-RP•BA(2)
	L/N	PAC-SG97HR-E	PEAD-RP•GA
Decoration panel		PLP-6BA	PLA-RP•BA(2)
Decoration panel with Wireless remote controller		PLP-6BALM	
Decoration panel with Wired remote controller		PLP-6BAMD	
Automatic filter elevation panel		PLP-6BAJ	
i-see sensor corner panel		PAC-SA1ME-E	
Wireless signal receiver		PAR-SA9FA-E	
Space panel		PAC-SH48AS-E	
Air outlet shutter plate		PAC-SH51SP-E	
Multi-function casement		PAC-SH53TM-E	
Flange for fresh air intake		PAC-SH65OF-E	
High-efficiency filter element (PAC-SH53TM-E is needed.)		PAC-SH59KF-E	
Wired remote controller kit		PAR-21MAAT-E	PKA-RP•GAL
(with terminal bed)			PKA-RP•FAL(2)
Drain lift up mechanism		PAC-SE90DM-E	PKA-RP•FAL(2)
Motor		PAC-SK003MT-F	PEAD-RP125EA
(for high external static pressure)			PEAD-RP100EA2
Drain lift up mechanism		PAC-KE03DM-F	PEAD-RP•EA,EA2
Insulation kit		PAC-SK010DK	PEAD-RP•GA

11-2. OUTDOOR UNIT

Part Name		Model Name	Applicable model
M-NET adapter		PAC-SF80MA-E	PUHZ-HRP71-125
A-control service tool		PAC-SK52ST	PUHZ-HRP71-125
Drain socket		PAC-SG61DS-E	PUHZ-HRP71-125
Air outlet guide (HRP71/100/125 needs 2 pieces)		PAC-SG59SG-E	PUHZ-HRP71-125
Air protect guide (HRP71/100/125 needs 2 pieces)		PAC-SG57AG-E	PUHZ-HRP71-125
Drain pan		PAC-SG64DP-E	PUHZ-HRP71-125
Filter dryer	(ϕ9.52)	PAC-SG82DR-E	PUHZ-HRP71-125
Distribution pipe	(Twin)	MSDD-50SR-E	PUHZ-HRP71-125
Joint pipe (Unit → Extension pipe)	(ϕ15.88 → ϕ19.05)	PAC-SG75RJ-E	PUHZ-HRP71-125
Interface (cased)		PAC-IF011B-E	PUHZ-HRP71-125

Mr.SLIM™

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