

*Changes for the Better*

AIR-COOLED SPLIT-TYPE  
PACKAGED AIR CONDITIONERS

**2005**

## **TECHNICAL & SERVICE MANUAL**

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<Indoor unit>

**HEAT PUMP**

Models

**PEH-RP200MYA**

**PEH-RP250MYA**

For use with the R410A or R407C

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## CAUTIONS RELATED TO NEW REFRIGERANT

Cautions for units utilizing refrigerant R410A or R407C

**Use new refrigerant pipes.**

In case of using the existing pipes for R22, be careful with the followings.

- Change flare nut to the one provided with this product.  
Use a newly flared pipe.
- Avoid using thin pipes.

**Keep the inner and outer surfaces of the pipes clean and free of such contaminants as sulfur, oxides, dust, dirt, shaving particles, oil, and water.**

**In addition, use pipes with specified thickness.**

These types of contaminants inside the refrigerant pipes may cause the refrigerant oil to deteriorate.

**Store the pipes to be installed indoors, and keep both ends of the pipes sealed until immediately before brazing. (Keep elbows and other joints wrapped in plastic.)**

Infiltration of dust, dirt, or water into the refrigerant system may cause the refrigerating machine oil to deteriorate or cause the unit to malfunction.

**Use a small amount of ester oil, ether oil, or alkylbenzene to coat flares and flanges.**

Infiltration of a large amount of mineral oil may cause the refrigerating machine oil to deteriorate.

**Charge liquid refrigerant (as opposed to gaseous refrigerant) into the system.**

If gaseous refrigerant is charged into the system, the composition of the refrigerant in the cylinder will change and may result in performance loss.

**Do not use refrigerant other than R410A or R407C.**

If other refrigerant (R22 etc.) is used, chlorine in refrigerant can cause deterioration of refrigerant oil etc.

**Use a vacuum pump with a reverse-flow check valve.**

If a vacuum pump that is not equipped with a reverse-flow check valve is used, the vacuum pump oil may flow into the refrigerant cycle and cause the refrigerating machine oil to deteriorate.

**Prepare a set of tools for exclusive use with R407C and another set for exclusive use with R410A.**

The following tools are necessary to use R410A or R407C refrigerant.

Tools for R410A or R407C	
Gauge manifold	Flare tool
Charge hose	Size adjustment gauge
Gas leak detector	Vacuum pump adaptor
Torque wrench	Electronic refrigerant charging scale

**Exercise special care when handling the tools for use with R407C.**

Infiltration of dust, dirt, or water into the refrigerant system may cause the refrigerating machine oil to deteriorate.

**Do not use a charging cylinder.**

If a charging cylinder is used, the composition of the refrigerant will change, and the unit may experience power loss.

**Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.**

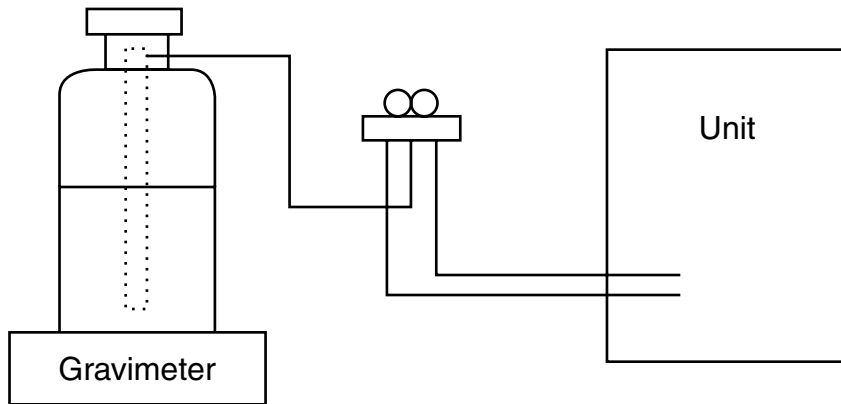
**[1] Cautions for service**

- (1) Perform service after collecting the refrigerant left in unit completely.
- (2) Do not release refrigerant in the air.
- (3) After completing service, charge the cycle with specified amount of refrigerant.
- (4) When performing service, install a filter drier simultaneously.  
Be sure to use a filter drier for new refrigerant.

**[2] Additional refrigerant charge**

**When charging directly from cylinder**

- Check that cylinder for R410A or R407C on the market is syphon type.
- Charging should be performed with the cylinder of syphon stood vertically. (Refrigerant is charged from liquid phase.)

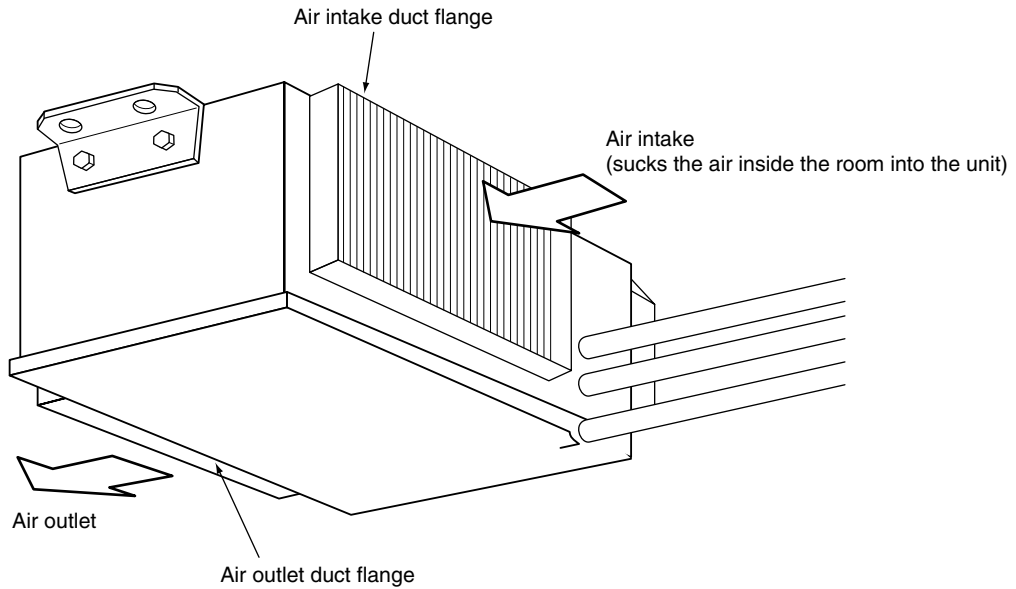


### [3] Service tools

Use the below service tools as exclusive tools for R410A refrigerant.

No.		Specifications
①	Gauge manifold	·Only for R410A or R407C
		·Use the existing fitting specifications. (UNF1/2)
		·Use high-tension side pressure of 5.3MPa-G or over.
②	Charge hose	·Only for R410A or R407C
		·Use pressure performance of 5.09MPa-G or over.
③	Electronic scale	—
④	Gas leak detector	·Use the detector for R134a, R407C or R410A.
⑤	Adaptor for reverse flow check	·Attach on vacuum pump.
⑥	Refrigerant charge base	—
⑦	Refrigerant cylinder	·Only for R410A or R407C Top of cylinder:R410A(Pink), R407C(Gray) Cylinder with syphon
⑧	Refrigerant recovery equipment	—

● Indoor Unit  
PEH-RP200MYA  
PEH-RP250MYA

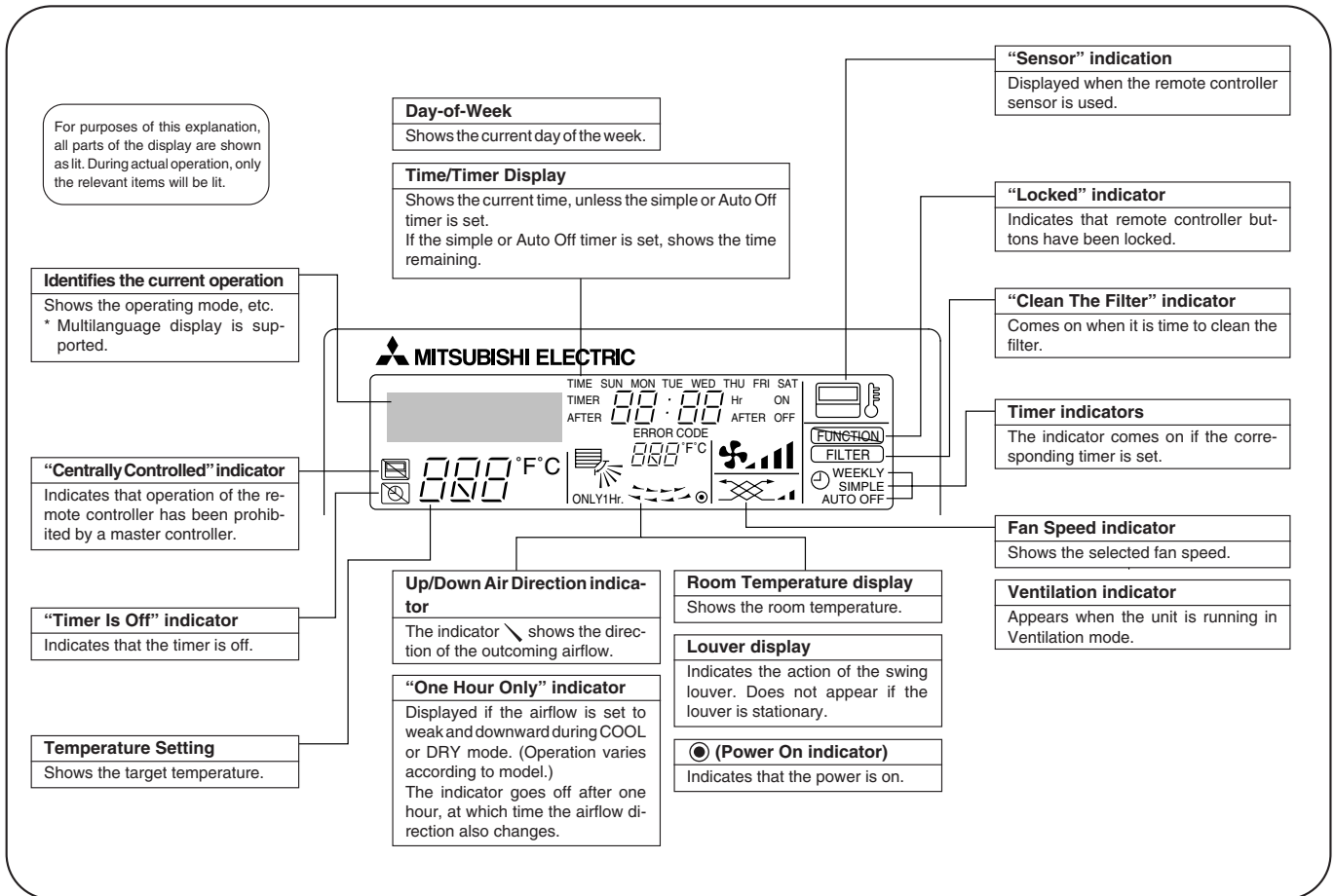


● Operation buttons

A detailed diagram of the indoor unit's control panel, labeled 'PAR-21MAA'. The panel features a central display screen with the 'MITSUBISHI ELECTRIC' logo above it. Below the screen are several rows of buttons and indicators. The diagram includes callout boxes on the left and right sides, each with a line pointing to a specific button on the panel. On the left side, the callouts are: 'Set Temperature buttons' (with 'Down' and 'Up' sub-callouts), 'Timer Menu button (Monitor/Set button)', 'Mode button (Return button)', 'Set Time buttons' (with 'Back' and 'Ahead' sub-callouts), and 'Timer On/Off button (Set Day button)'. On the right side, the callouts are: 'ON/OFF button', 'Fan Speed button', 'Filter button (<Enter> button)', 'Test Run button', 'Check button (Clear button)', 'Airflow Up/Down button', 'Louver button (▽ Operation button)' (with a note '▽ To preceding operation number.'), and 'Ventilation button (△ Operation button)' (with a note '△ To next operation number.'). At the bottom left, there is a small inset diagram showing a hand opening the control panel door, with the text 'Opening the door.'.

**Note:**  
If you press a button for a feature that is not installed at the indoor unit, the remote controller will display the "Not Available" message.  
If you are using the remote controller to drive multiple indoor units, this message will appear only if the feature is not present at the parent unit.

## ● Display



### Caution

- Only the ● (Power on indicator) lights when the unit is stopped and power supplied to the unit.
- When the central control remote control unit, which is sold separately, is used the ON-OFF button, operation switch button and ⚙️ TEMP. adjustment button do not operate.
- If you press a button for a feature that is not installed at the indoor unit, the remote controller will display the "Not Available" message.
- When power is turned ON for the first time, it is normal that "PLEASE WAIT" is displayed on the screen (For max. 3minutes). Please wait until this "PLEASE WAIT" disappear then start the operation.

# 3

# SPECIFICATIONS

Specifications of air-source heat pump type packaged air conditioner (Ceiling concealed type indoor unit)						
Model name		PEH-RP200MYA		Quantity	Symbol	
Service Ref.			PEH-RP200MYA			
			Cooling	Heating		
Capacity		kcal/h		16,300	19,300	
		kW		19.0 (10.0~22.4)	22.4 (10.0~25.0)	
Air condition	Indoor side	Dry bulb temperature/wet bulb temperature		27 °C/19 °C	20 °C/-	
	Outdoor side	Dry bulb temperature/wet bulb temperature		35 °C/24 °C	7 °C/6 °C	
Service Ref.			PEH-RP200MYA			
Power source			3N~ 380/400/415V 50Hz			
Electrical characteristics		Power consumption	kW	0.65/0.65/0.65	0.65/0.65/0.65	
		Operating current	A	1.12/1.12/1.12	1.12/1.12/1.12	
Remote controller temperature setting range			°C	19 ~ 30	17 ~ 28	
Airflow direction control			-			
Fan		Type × Quantity		Sirrocco fan × 2		
		Airflow rate		m <sup>3</sup> /min		60
		External static pressure		Pa		50/60/70 (150/155/160)
		Motor output		kW		0.75
External finish			Galvanizing			
External dimension		Unit (H × W × D)	mm	428 × 1380 × 650		
		Panel (H × W × D)	mm	-		
Indoor unit	Heat exchanger type			Cross fin		
	Air filter			Saran net		
	Insulation material			Polyethylene foam		
	Refrigerant piping size Liquid/Gas			φmm	9.52/25.4	
	Drain piping size			φmm	25.4 (R1)	
	Noise level			dB(A)	48/49/49 (at 50/60/70 Pa)	
	Net weight			kg	70	
	External wiring		Minimum wire thickness		1.6 mm	
			Circuit breaker		15 A	
	Composing parts		Operation control device (provided)		Remote controller: PAR-21MAA	
			Decoration panel (Option)		-	
	Other mountable major options			-		
	Accessories			Installation manual, Operation manual, Remote controller		
	Special note, Non-standard specifications, etc.			-		
	Outdoor unit	Service Ref.			PUHZ-RP200YHA	
	Notes:	<ol style="list-style-type: none"> <li>The cooling and heating capacities are the maximum capacities that were obtained by operating in the above air conditions and with a refrigerant pipe of about 5m.</li> <li>The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information.</li> <li>The operating noise is the data that was obtained by measuring it 1.5 m from the unit's bottom in an anechoic room. (Noise meter A-scale value)</li> <li>The figure of Electrical characteristic, Airflow rate, Noise level, indicates, at 50/60/70 Pa setting.</li> <li>Refer to the service manual of outdoor unit for the outdoor unit's specifications.</li> </ol>				

**Specifications of air-source heat pump type packaged air conditioner  
(Ceiling concealed type indoor unit)**

Model name	<b>PEH-RP250MYA</b>		Quantity		Symbol		
Service Ref.			<b>PEH-RP250MYA</b>				
			Cooling		Heating		
Capacity			kcal/h	18,900	23,200		
			kW	22.0 (12.5~28.0)	27.0 (15.7~31.5)		
Air condition	Indoor side	Dry bulb temperature/wet bulb temperature		27 °C/19 °C	20 °C/-		
	Outdoor side	Dry bulb temperature/wet bulb temperature		35 °C/24 °C	7 °C/ 6 °C		
Service Ref.			<b>PEH-RP250MYA</b>				
Power source			3N~ 380/400/415V 50 Hz				
Electrical characteristics	Power consumption		kW	0.94/0.94/0.94	0.94/0.94/0.94		
	Operating current		A	1.64/1.64/1.64	1.64/1.64/1.64		
Remote controller temperature setting range			°C	19 ~ 30	17 ~ 28		
Airflow direction control			-				
Fan	Type × Quantity		Sirrocco fan × 2				
	Airflow rate		m <sup>3</sup> /min	80			
	External static pressure		Pa	50/60/70 (150/155/160)			
	Motor output		kW	1.23			
External finish			Galvanizing				
External dimension	Unit (H × W × D)		mm	428 × 1,580 × 650			
	Panel (H × W × D)		mm	-			
Indoor unit	Heat exchanger type			Cross fin			
	Air filter			Saran net			
	Insulation material			Polyethylene foam			
	Refrigerant piping size Liquid/Gas			φmm	12.7/28.58		
	Drain piping size			φmm	25.4 (R1)		
	Noise level			dB(A)	52/53/53 (at 50/60/70 Pa)		
	Net weight			kg	80		
	External wiring	Minimum wire thickness		1.6 mm			
		Circuit breaker		15 A			
	Composing parts	Operation control device (provided)		Remote controller: PAR-21MAA			
		Decoration panel (Option)		-			
	Other mountable major options			-			
	Accessories			Installation manual, Operation manual, Remote controller			
	Special note, Non-standard specifications, etc.			-			
	Outdoor unit	Service Ref.			<b>PUHZ-RP250YHA</b>		
	Notes:	<ol style="list-style-type: none"> <li>The cooling and heating capacities are the maximum capacities that were obtained by operating in the above air conditions and with a refrigerant pipe of about 5m.</li> <li>The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical information.</li> <li>The operating noise is the data that was obtained by measuring it 1.5 m from the unit's bottom in an anechoic room. (Noise meter A-scale value)</li> <li>The figure of Electrical characteristic, Airflow rate, Noise level, indicates, at 50/60/70 Pa setting.</li> <li>Refer to the service manual of outdoor unit for the outdoor unit's specifications.</li> </ol>					

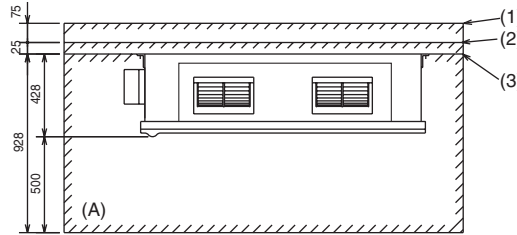
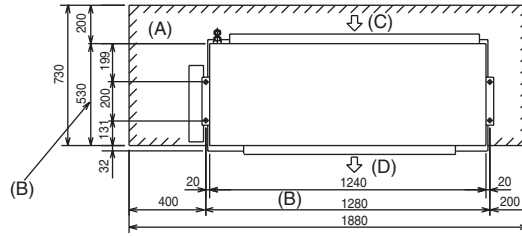


# 4

# OUTLINE AND DIMENSIONS

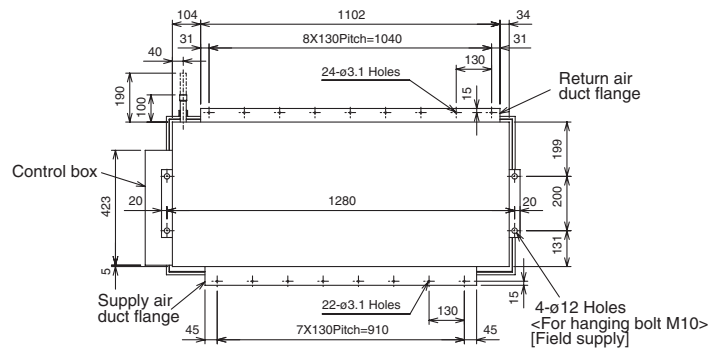
## (1) Indoor Unit

• Model PEH-RP200MYA

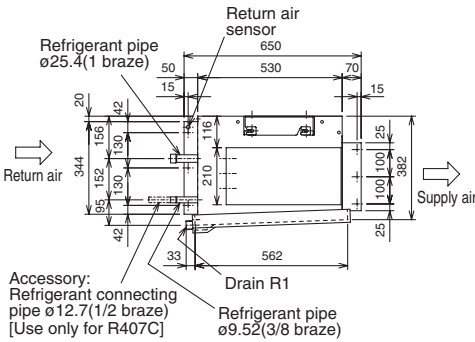


- (1) When connecting air inlet
- (2) When installing the suspension fixtures prior to installation of the indoor unit without inlet duct
- (3) When hanging the indoor unit directly without inlet duct

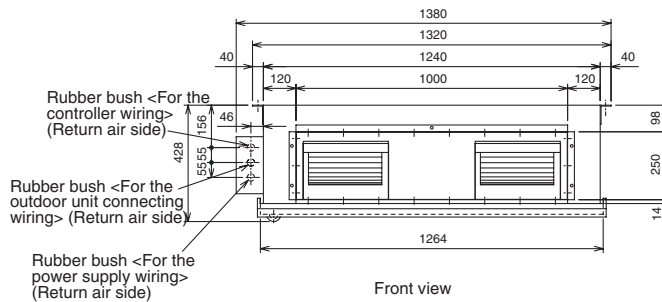
- (A) Service space
- (B) Suspension bolt pitch
- (C) Air inlet
- (D) Air outlet



Top view



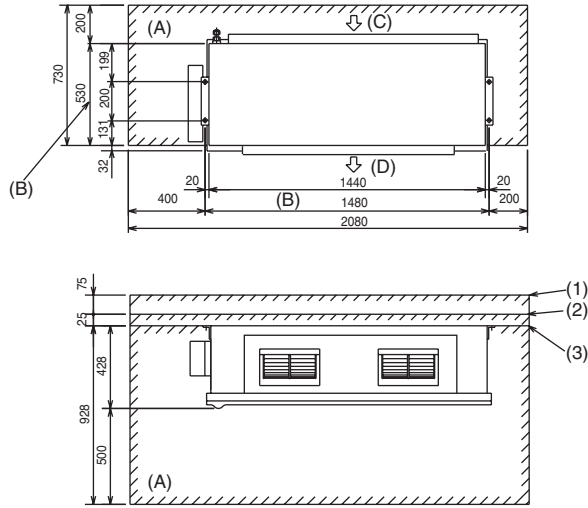
Left side view



Front view

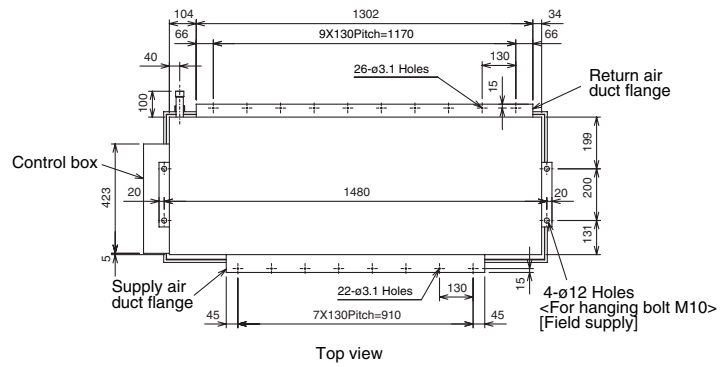
Note: When connecting duct to the return air duct flange, remove the air filter attached to the unit body, and mount an air filter onto the return air duct side separately.

• Model PEH-RP250MYA

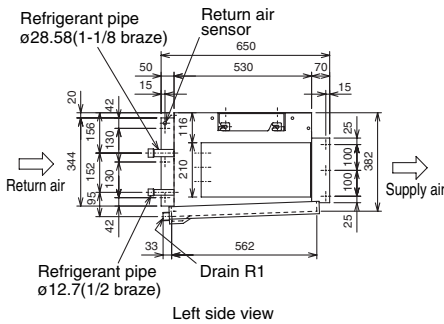


- (1) When connecting air inlet
- (2) When installing the suspension fixtures prior to installation of the indoor unit without inlet duct
- (3) When hanging the indoor unit directly without inlet duct

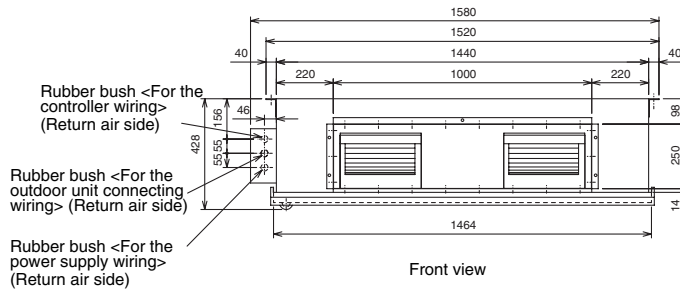
- (A) Service space
- (B) Suspension bolt pitch
- (C) Air inlet
- (D) Air outlet



Top view



Left side view

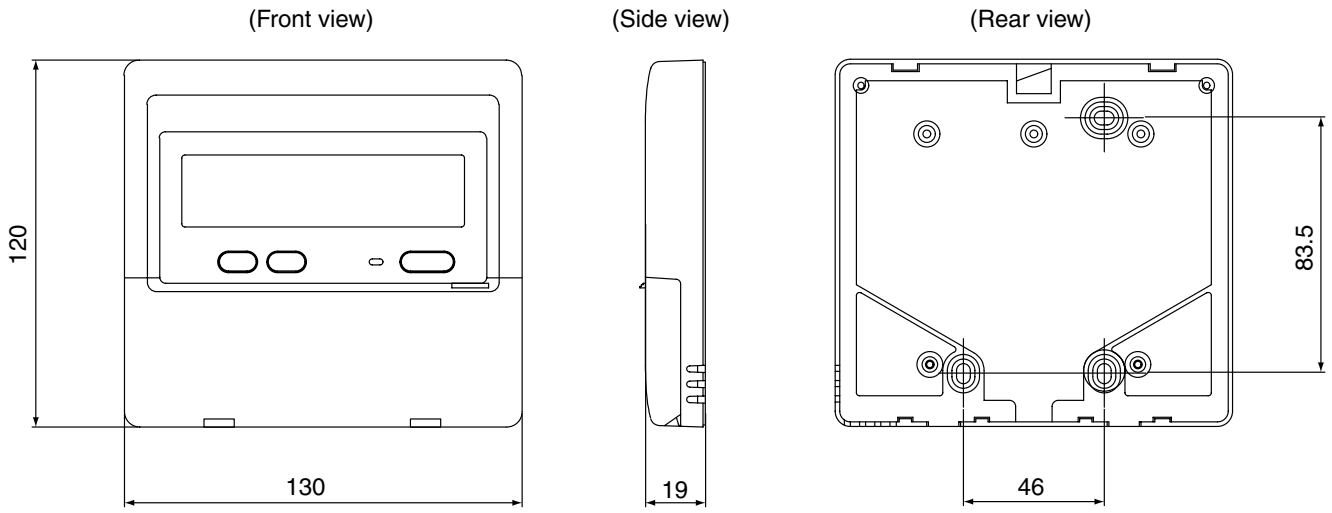


Front view

Note: When connecting duct to the return air duct flange, remove the air filter attached to the unit body, and mount an air filter onto the return air duct side separately.

**(2) Remote Controller**

- Model PAR-21MAA

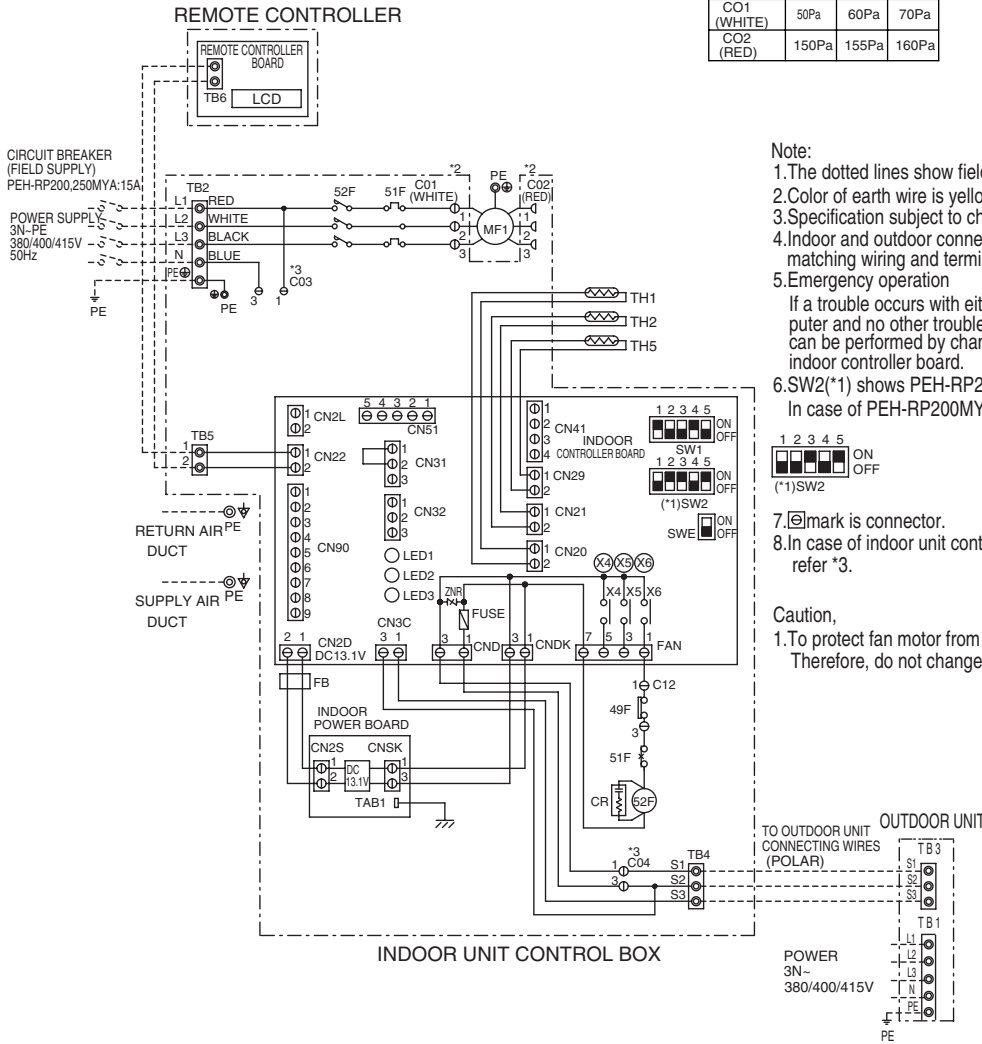


(1) Indoor Unit

• Models PEH-RP200MYA/RP250MYA

\*2(EXTERNAL STATIC PRESSURE)

CONNECTOR	380V	400V	415V
CO1 (WHITE)	50Pa	60Pa	70Pa
CO2 (RED)	150Pa	155Pa	160Pa

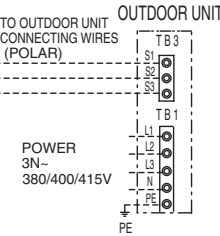


Note:

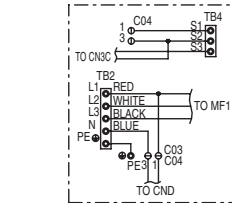
- The dotted lines show field wiring.
- Color of earth wire is yellow and green twisting.
- Specification subject to change without notice.
- Indoor and outdoor connecting wires are made with polarities, make sure matching wiring and terminal.
- Emergency operation  
If a trouble occurs with either the remote controller or the indoor microcomputer and no other trouble exists, emergency operation for cooling or heating can be performed by changing the setting of switch (SWE) "ON" on the indoor controller board.
- SW2(\*1) shows PEH-RP250MYA setting.  
In case of PEH-RP200MYA setting is shown as below.

Caution,

- To protect fan motor from abnormal current, over current relays is installed. Therefore, do not change factory set value of over current relays.



\*3 INDOOR UNIT CONTROLLER BOARD POWER SUPPLIED FROM INDOOR UNIT (FOR INDOOR-OUTDOOR CONNECTION WIRING S2,S3)



REPLACE CONNECTORS TO EACH OTHER

INDOOR UNIT

SYMBOL	NAME	
MF1	FAN MOTOR (INDOOR)	
51F	OVER CURRENT RELAY (INDOOR FAN MOTOR)	
52F	MAGNETIC CONTACTOR (INDOOR FAN MOTOR)	
49F	INTERNAL THERMOSTAT (INDOOR FAN MOTOR)	
TB2,4,5	TERMINAL BLOCK	
TH1	THERMISTOR	ROOM TEMP
TH2		LIQUID PIPE TEMP
TH5		COND/EVA TEMP
CR	SURGE KILLER	
FB	FERRITE CORE	
INDOOR CONTROLLER BOARD	FUSE	FUSE (T6.3AL250V)
	ZNR	VARIATOR
	X4-6	AUXILIARY RELAY
	SW1	SWITCH(MODEL SELECTION)
	SW2	SWITCH(CAPACITY CORD)
	SWE	SWITCH(EMERGENCY OPERATION)
	LED1	LED (POWER SUPPLY)
LED2	LED (POWER SUPPLY<REMOTE CONTROLLER>)	
LED3	LED (TRANSMISSION<INDOOR-OUTDOOR>)	

OUTDOOR UNIT

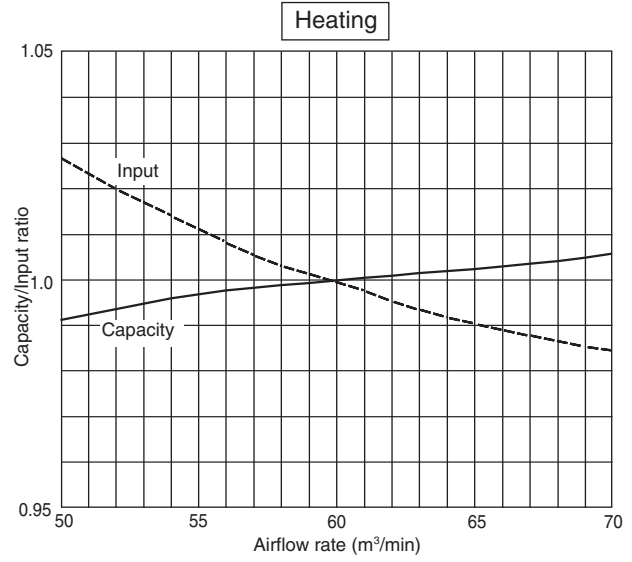
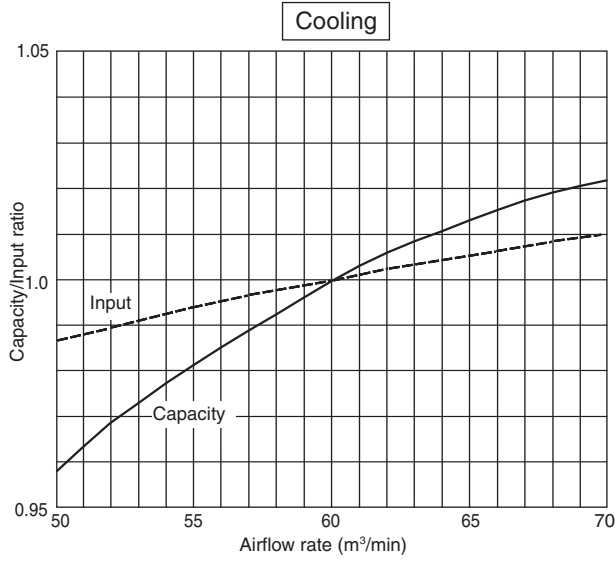
SYMBOL	NAME
TB3	TERMINAL BLOCK

REMOTE CONTROLLER

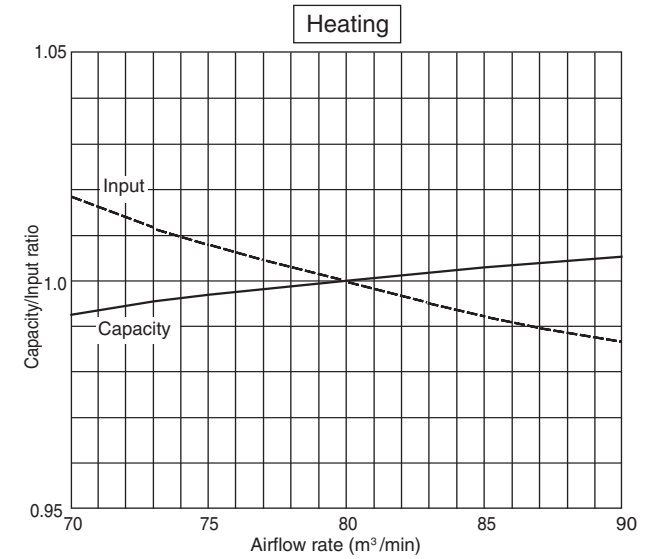
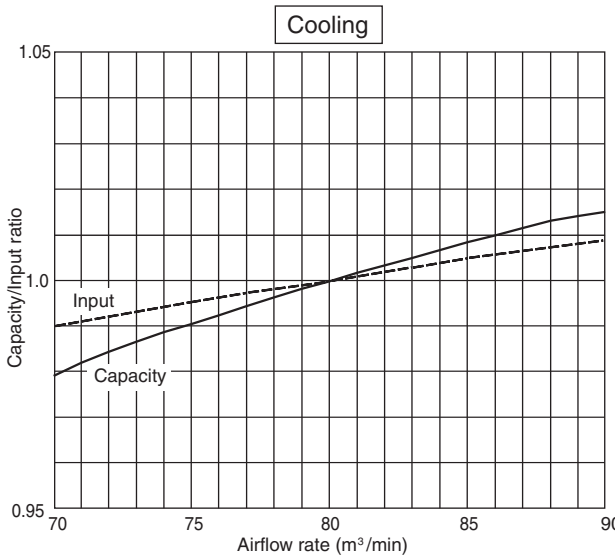
SYMBOL	NAME
TB6	TERMINAL BLOCK

[1] Capacity/Input Ratio against Changes in Room Airflow Rate

• Model PEH-RP200MYA

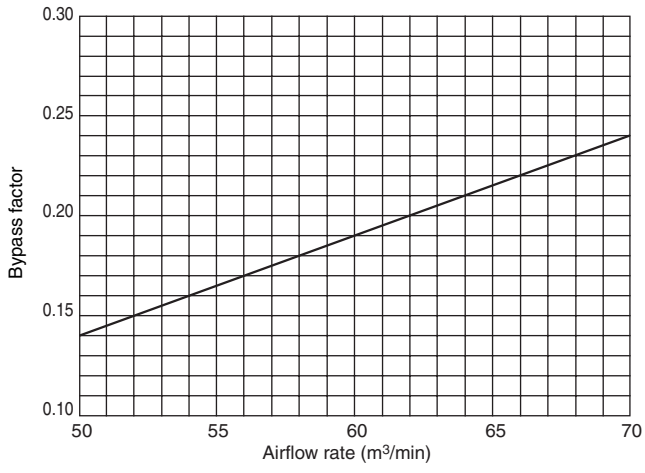


• Model PEH-RP250MYA

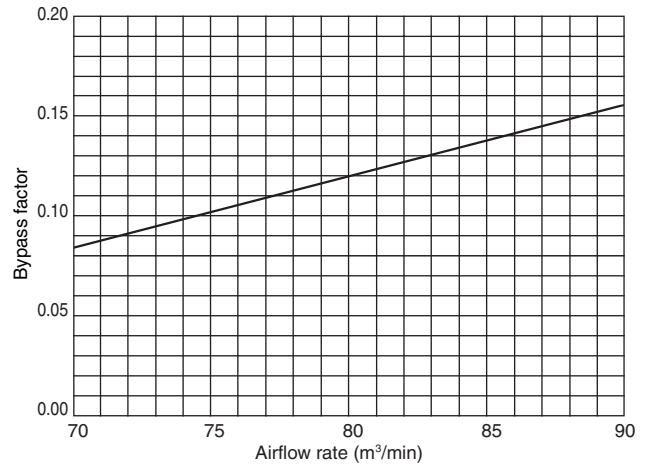


## [2] Bypass Factor Curves

PEH-RP200MYA



PEH-RP250MYA



### [3] Capacity table

#### COOLING CAPACITY (1)

PEH-RP200MYA/PUHZ-RP200YHA

(Indoor unit Airflow rate 60m<sup>3</sup>/min)

Indoor intake air DB°C	Indoor intake air WB°C	Outdoor intake air DB°C											
		20				25				30			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	18810	12227	0.65	5.82	18240	11856	0.65	6.15	17670	11486	0.65	6.52
	18	20140	10674	0.53	5.93	19570	10372	0.53	6.26	18905	10020	0.53	6.70
	20	21660	8881	0.41	6.12	21185	8686	0.41	6.41	20615	8452	0.41	6.84
22	16	18810	13731	0.73	5.82	18240	13315	0.73	6.15	17670	12899	0.73	6.52
	18	20140	12285	0.61	5.93	19570	11938	0.61	6.26	18905	11532	0.61	6.70
	20	21660	10613	0.49	6.12	21185	10381	0.49	6.41	20615	10101	0.49	6.84
24	16	18810	15236	0.81	5.82	18240	14774	0.81	6.15	17670	14313	0.81	6.52
	18	20140	13897	0.69	5.93	19570	13503	0.69	6.26	18905	13044	0.69	6.70
	20	21660	12346	0.57	6.12	21185	12075	0.57	6.41	20615	11751	0.57	6.84
	22	23085	10388	0.45	6.26	22610	10175	0.45	6.62	22040	9918	0.45	7.06
26	16	18810	16741	0.89	5.82	18240	16234	0.89	6.15	17670	15726	0.89	6.52
	18	20140	15508	0.77	5.93	19570	15069	0.77	6.26	18905	14557	0.77	6.70
	20	21660	14079	0.65	6.12	21185	13770	0.65	6.41	20615	13400	0.65	6.84
	22	23085	12235	0.53	6.26	22610	11983	0.53	6.62	22040	11681	0.53	7.06
27	16	18810	17493	0.93	5.82	18240	16963	0.93	6.15	17670	16433	0.93	6.52
	18	20140	16313	0.81	5.93	19570	15852	0.81	6.26	18905	15313	0.81	6.70
	20	21660	14945	0.69	6.12	21185	14618	0.69	6.41	20615	14224	0.69	6.84
	22	23085	13158	0.57	6.26	22610	12888	0.57	6.62	22040	12563	0.57	7.06
28	16	18810	18246	0.97	5.82	18240	17693	0.97	6.15	17670	17140	0.97	6.52
	18	20140	17119	0.85	5.93	19570	16635	0.85	6.26	18905	16069	0.85	6.70
	20	21660	15812	0.73	6.12	21185	15465	0.73	6.41	20615	15049	0.73	6.84
	22	23085	14082	0.61	6.26	22610	13792	0.61	6.62	22040	13444	0.61	7.06
30	16	18810	18810	1.00	5.82	18240	18240	1.00	6.15	17670	17670	1.00	6.52
	18	20140	18730	0.93	5.93	19570	18200	0.93	6.26	18905	17582	0.93	6.70
	20	21660	17545	0.81	6.12	21185	17160	0.81	6.41	20615	16698	0.81	6.84
	22	23085	15929	0.69	6.26	22610	15601	0.69	6.62	22040	15208	0.69	7.06
32	16	18810	18810	1.00	5.82	18240	18240	1.00	6.15	17670	17670	1.00	6.52
	18	20140	20140	1.00	5.93	19570	19570	1.00	6.26	18905	18905	1.00	6.70
	20	21660	19277	0.89	6.12	21185	18855	0.89	6.41	20615	18347	0.89	6.84
	22	23085	17775	0.77	6.26	22610	17410	0.77	6.62	22040	16971	0.77	7.06
34	16	18810	18810	1.00	5.82	18240	18240	1.00	6.15	17670	17670	1.00	6.52
	18	20140	20140	1.00	5.93	19570	19570	1.00	6.26	18905	18905	1.00	6.70
	20	21660	21010	0.97	6.12	21185	20549	0.97	6.41	20615	19997	0.97	6.84
	22	23085	19622	0.85	6.26	22610	19219	0.85	6.62	22040	18734	0.85	7.06

NOTE: CA : Capacity (W)                      SHC : Sensible heat capacity (W)  
P.C. : Power consumption (kW)          SHF : Sensible heat factor

**COOLING CAPACITY (2)**

**PEH-RP200MYA/PUHZ-RP200YHA**

(Indoor unit Airflow rate 60m<sup>3</sup>/min)

Indoor intake air DB°C	Indoor intake air WB°C	Outdoor intake air DB°C											
		35				40				45			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	16910	10992	0.65	6.99	16150	10498	0.65	7.50	15390	10004	0.65	8.12
	18	18240	9667	0.53	7.17	17670	9365	0.53	7.72	16530	8761	0.53	8.30
	20	19760	8102	0.41	7.35	19000	7790	0.41	7.86	17860	7323	0.41	8.44
22	16	16910	12344	0.73	6.99	16150	11790	0.73	7.50	15390	11235	0.73	8.12
	18	18240	11126	0.61	7.17	17670	10779	0.61	7.72	16530	10083	0.61	8.30
	20	19760	9682	0.49	7.35	19000	9310	0.49	7.86	17860	8751	0.49	8.44
24	16	16910	13697	0.81	6.99	16150	13082	0.81	7.50	15390	12466	0.81	8.12
	18	18240	12586	0.69	7.17	17670	12192	0.69	7.72	16530	11406	0.69	8.30
	20	19760	11263	0.57	7.35	19000	10830	0.57	7.86	17860	10180	0.57	8.44
	22	21280	9576	0.45	7.50	20520	9234	0.45	8.08	19380	8721	0.45	8.59
26	16	16910	15050	0.89	6.99	16150	14374	0.89	7.50	15390	13697	0.89	8.12
	18	18240	14045	0.77	7.17	17670	13606	0.77	7.72	16530	12728	0.77	8.30
	20	19760	12844	0.65	7.35	19000	12350	0.65	7.86	17860	11609	0.65	8.44
	22	21280	11278	0.53	7.50	20520	10876	0.53	8.08	19380	10271	0.53	8.59
27	16	16910	15726	0.93	6.99	16150	15020	0.93	7.50	15390	14313	0.93	8.12
	18	18240	14774	0.81	7.17	17670	14313	0.81	7.72	16530	13389	0.81	8.30
	20	19760	13634	0.69	7.35	19000	13110	0.69	7.86	17860	12323	0.69	8.44
	22	21280	12130	0.57	7.50	20520	11696	0.57	8.08	19380	11047	0.57	8.59
28	16	16910	16403	0.97	6.99	16150	15666	0.97	7.50	15390	14928	0.97	8.12
	18	18240	15504	0.85	7.17	17670	15020	0.85	7.72	16530	14051	0.85	8.30
	20	19760	14425	0.73	7.35	19000	13870	0.73	7.86	17860	13038	0.73	8.44
	22	21280	12981	0.61	7.50	20520	12517	0.61	8.08	19380	11822	0.61	8.59
30	16	16910	16910	1.00	6.99	16150	16150	1.00	7.50	15390	15390	1.00	8.12
	18	18240	16963	0.93	7.17	17670	16433	0.93	7.72	16530	15373	0.93	8.30
	20	19760	16006	0.81	7.35	19000	15390	0.81	7.86	17860	14467	0.81	8.44
	22	21280	14683	0.69	7.50	20520	14159	0.69	8.08	19380	13372	0.69	8.59
32	16	16910	16910	1.00	6.99	16150	16150	1.00	7.50	15390	15390	1.00	8.12
	18	18240	18240	1.00	7.17	17670	17670	1.00	7.72	16530	16530	1.00	8.30
	20	19760	17586	0.89	7.35	19000	16910	0.89	7.86	17860	15895	0.89	8.44
	22	21280	16386	0.77	7.50	20520	15800	0.77	8.08	19380	14923	0.77	8.59
34	16	16910	16910	1.00	6.99	16150	16150	1.00	7.50	15390	15390	1.00	8.12
	18	18240	18240	1.00	7.17	17670	17670	1.00	7.72	16530	16530	1.00	8.30
	20	19760	19167	0.97	7.35	19000	18430	0.97	7.86	17860	17324	0.97	8.44
	22	21280	18088	0.85	7.50	20520	17442	0.85	8.08	19380	16473	0.85	8.59

NOTE: CA : Capacity (W)                      SHC : Sensible heat capacity (W)  
P.C. : Power consumption (kW)        SHF : Sensible heat factor



**COOLING CAPACITY (3)**

**PEH-RP250MYA/PUHZ-RP250YHA**

(Indoor unit Airflow rate 80m<sup>3</sup>/min)

Indoor intake air DB°C	Indoor intake air WB°C	Outdoor intake air DB°C											
		20				25				30			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	21780	15682	0.72	6.74	21120	15206	0.72	7.12	20460	14731	0.72	7.54
	18	23320	13992	0.60	6.87	22660	13596	0.60	7.25	21890	13134	0.60	7.76
	20	25080	12038	0.48	7.08	24530	11774	0.48	7.42	23870	11458	0.48	7.92
22	16	21780	17424	0.80	6.74	21120	16896	0.80	7.12	20460	16368	0.80	7.54
	18	23320	15858	0.68	6.87	22660	15409	0.68	7.25	21890	14885	0.68	7.76
	20	25080	14045	0.56	7.08	24530	13737	0.56	7.42	23870	13367	0.56	7.92
24	16	21780	19166	0.88	6.74	21120	18586	0.88	7.12	20460	18005	0.88	7.54
	18	23320	17723	0.76	6.87	22660	17222	0.76	7.25	21890	16636	0.76	7.76
	20	25080	16051	0.64	7.08	24530	15699	0.64	7.42	23870	15277	0.64	7.92
	22	26730	13900	0.52	7.25	26180	13614	0.52	7.67	25520	13270	0.52	8.18
26	16	21780	20909	0.96	6.74	21120	20275	0.96	7.12	20460	19642	0.96	7.54
	18	23320	19589	0.84	6.87	22660	19034	0.84	7.25	21890	18388	0.84	7.76
	20	25080	18058	0.72	7.08	24530	17662	0.72	7.42	23870	17186	0.72	7.92
	22	26730	16038	0.60	7.25	26180	15708	0.60	7.67	25520	15312	0.60	8.18
27	16	21780	21780	1.00	6.74	21120	21120	1.00	7.12	20460	20460	1.00	7.54
	18	23320	20522	0.88	6.87	22660	19941	0.88	7.25	21890	19263	0.88	7.76
	20	25080	19061	0.76	7.08	24530	18643	0.76	7.42	23870	18141	0.76	7.92
	22	26730	17107	0.64	7.25	26180	16755	0.64	7.67	25520	16333	0.64	8.18
28	16	21780	21780	1.00	6.74	21120	21120	1.00	7.12	20460	20460	1.00	7.54
	18	23320	21454	0.92	6.87	22660	20847	0.92	7.25	21890	20139	0.92	7.76
	20	25080	20064	0.80	7.08	24530	19624	0.80	7.42	23870	19096	0.80	7.92
	22	26730	18176	0.68	7.25	26180	17802	0.68	7.67	25520	17354	0.68	8.18
30	16	21780	21780	1.00	6.74	21120	21120	1.00	7.12	20460	20460	1.00	7.54
	18	23320	23320	1.00	6.87	22660	22660	1.00	7.25	21890	21890	1.00	7.76
	20	25080	22070	0.88	7.08	24530	21586	0.88	7.42	23870	21006	0.88	7.92
	22	26730	20315	0.76	7.25	26180	19897	0.76	7.67	25520	19395	0.76	8.18
32	16	21780	21780	1.00	6.74	21120	21120	1.00	7.12	20460	20460	1.00	7.54
	18	23320	23320	1.00	6.87	22660	22660	1.00	7.25	21890	21890	1.00	7.76
	20	25080	24077	0.96	7.08	24530	23549	0.96	7.42	23870	22915	0.96	7.92
	22	26730	22453	0.84	7.25	26180	21991	0.84	7.67	25520	21437	0.84	8.18
34	16	21780	21780	1.00	6.74	21120	21120	1.00	7.12	20460	20460	1.00	7.54
	18	23320	23320	1.00	6.87	22660	22660	1.00	7.25	21890	21890	1.00	7.76
	20	25080	25080	1.00	7.08	24530	24530	1.00	7.42	23870	23870	1.00	7.92
	22	26730	24592	0.92	7.25	26180	24086	0.92	7.67	25520	23478	0.92	8.18

NOTE: CA : Capacity (W)                      SHC : Sensible heat capacity (W)  
P.C. : Power consumption (kW)        SHF : Sensible heat factor

**COOLING CAPACITY (4)**

**PEH-RP250MYA/PUHZ-RP250YHA**

(Indoor unit Airflow rate 80m<sup>3</sup>/min)

Indoor intake air DB°C	Indoor intake air WB°C	Outdoor intake air DB°C											
		35				40				45			
		CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.	CA	SHC(W)	SHF	P.C.
20	16	19580	14098	0.72	8.09	18700	13464	0.72	8.68	17820	12830	0.72	9.40
	18	21120	12672	0.60	8.30	20460	12276	0.60	8.94	19140	11484	0.60	9.61
	20	22880	10982	0.48	8.51	22000	10560	0.48	9.10	20680	9926	0.48	9.78
22	16	19580	15664	0.80	8.09	18700	14960	0.80	8.68	17820	14256	0.80	9.40
	18	21120	14362	0.68	8.30	20460	13913	0.68	8.94	19140	13015	0.68	9.61
	20	22880	12813	0.56	8.51	22000	12320	0.56	9.10	20680	11581	0.56	9.78
24	16	19580	17230	0.88	8.09	18700	16456	0.88	8.68	17820	15682	0.88	9.40
	18	21120	16051	0.76	8.30	20460	15550	0.76	8.94	19140	14546	0.76	9.61
	20	22880	14643	0.64	8.51	22000	14080	0.64	9.10	20680	13235	0.64	9.78
	22	24640	12813	0.52	8.68	23760	12355	0.52	9.36	22440	11669	0.52	9.95
26	16	19580	18797	0.96	8.09	18700	17952	0.96	8.68	17820	17107	0.96	9.40
	18	21120	17741	0.84	8.30	20460	17186	0.84	8.94	19140	16078	0.84	9.61
	20	22880	16474	0.72	8.51	22000	15840	0.72	9.10	20680	14890	0.72	9.78
	22	24640	14784	0.60	8.68	23760	14256	0.60	9.36	22440	13464	0.60	9.95
27	16	19580	19580	1.00	8.09	18700	18700	1.00	8.68	17820	17820	1.00	9.40
	18	21120	18586	0.88	8.30	20460	18005	0.88	8.94	19140	16843	0.88	9.61
	20	22880	17389	0.76	8.51	22000	16720	0.76	9.10	20680	15717	0.76	9.78
	22	24640	15770	0.64	8.68	23760	15206	0.64	9.36	22440	14362	0.64	9.95
28	16	19580	19580	1.00	8.09	18700	18700	1.00	8.68	17820	17820	1.00	9.40
	18	21120	19430	0.92	8.30	20460	18823	0.92	8.94	19140	17609	0.92	9.61
	20	22880	18304	0.80	8.51	22000	17600	0.80	9.10	20680	16544	0.80	9.78
	22	24640	16755	0.68	8.68	23760	16157	0.68	9.36	22440	15259	0.68	9.95
30	16	19580	19580	1.00	8.09	18700	18700	1.00	8.68	17820	17820	1.00	9.40
	18	21120	21120	1.00	8.30	20460	20460	1.00	8.94	19140	19140	1.00	9.61
	20	22880	20134	0.88	8.51	22000	19360	0.88	9.10	20680	18198	0.88	9.78
	22	24640	18726	0.76	8.68	23760	18058	0.76	9.36	22440	17054	0.76	9.95
32	16	19580	19580	1.00	8.09	18700	18700	1.00	8.68	17820	17820	1.00	9.40
	18	21120	21120	1.00	8.30	20460	20460	1.00	8.94	19140	19140	1.00	9.61
	20	22880	21965	0.96	8.51	22000	21120	0.96	9.10	20680	19853	0.96	9.78
	22	24640	20698	0.84	8.68	23760	19958	0.84	9.36	22440	18850	0.84	9.95
34	16	19580	19580	1.00	8.09	18700	18700	1.00	8.68	17820	17820	1.00	9.40
	18	21120	21120	1.00	8.30	20460	20460	1.00	8.94	19140	19140	1.00	9.61
	20	22880	22880	1.00	8.51	22000	22000	1.00	9.10	20680	20680	1.00	9.78
	22	24640	22669	0.92	8.68	23760	21859	0.92	9.36	22440	20645	0.92	9.95

NOTE: CA : Capacity (W)                      SHC : Sensible heat capacity (W)  
P.C. : Power consumption (kW)        SHF : Sensible heat factor

**COOLING CAPACITY (5)****PEH-RP200MYA/PUH-P200MYA** (Indoor unit Airflow rate 60m<sup>3</sup>/min)

Outdoor temp. (°C)	Indoor inlet air temperature (DB/WB°C)									
	23/16		25/18		27/19		28/20		30/22	
	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	18100	13700	19300	13500	20000	14400	20800	14400	21900	14200
25	17500	13400	18700	13300	19500	13700	20300	14200	21500	13900
30	16900	13100	18100	13000	18900	13500	19700	14000	20900	13700
35	16200	12800	17400	12700	18000	13100	19000	13700	20200	13500
40	15300	12500	16600	12400	17400	13000	18200	13500	19500	13300
43	14800	12400	16000	12300	16900	12900	17700	13400	19000	13200

**COOLING CAPACITY (6)****PEH-RP250MYA/PUH-P250MYA** (Indoor unit Airflow rate 80m<sup>3</sup>/min)

Outdoor temp. (°C)	Indoor inlet air temperature (DB/WB°C)									
	23/16		25/18		27/19		28/20		30/22	
	CA	SHC	CA	SHC	CA	SHC	CA	SHC	CA	SHC
20	22500	18100	24000	17900	24900	18500	25800	19200	27300	18800
25	21800	17800	23300	17600	24300	18300	25200	18900	26700	18600
30	21000	17500	22500	17300	23500	17900	24500	18600	26000	18300
35	20100	17100	21600	16800	22400	17400	23600	18300	25200	18100
40	19100	16800	20600	16600	21600	17400	22700	18100	24200	17900
43	18400	16600	20000	16500	21000	17300	22000	18000	23600	17800

**HEATING CAPACITY  
PUHZ-RP200YHA/PUHZ-RP250YHA**

Service Ref.	Indoor intake air DB°C	Outdoor intake air WB°C					
		-10		-5		0	
		CA	P.C.	CA	P.C.	CA	P.C.
PEH-RP200MYA (Airflow Rate 60m <sup>3</sup> /min)	15	14224	4.12	15456	4.54	17248	5.24
	20	13664	4.47	14784	4.89	16352	5.65
	25	13216	4.75	14336	5.30	15680	6.14
PEH-RP250MYA (Airflow Rate 80m <sup>3</sup> /min)	15	17145	4.96	18630	5.47	20790	6.31
	20	16470	5.38	17820	5.89	19710	6.81
	25	15930	5.72	17280	6.39	18900	7.40

Service Ref.	Indoor intake air DB°C	Outdoor intake air WB°C					
		5		10		15	
		CA	P.C.	CA	P.C.	CA	P.C.
PEH-RP200MYA (Airflow Rate 60m <sup>3</sup> /min)	15	22624	6.28	25536	6.98	28448	7.54
	20	21840	6.77	24640	7.54	27440	8.10
	25	20608	7.19	23744	8.06	26432	8.69
PEH-RP250MYA (Airflow Rate 80m <sup>3</sup> /min)	15	27270	7.57	30780	8.41	34290	9.08
	20	26325	8.16	29700	9.08	33075	9.76
	25	24840	8.66	28620	9.71	31860	10.47

NOTE: CA : Capacity (W) P.C. : Power consumption (kW)

**[4] CORRECTION FACTORS**

**Cooling capacity correction factors**

Service Ref.	Refrigerent piping length (one way)							
	5m	10m	15m	20m	25m	30m	35m	40m
PEH-RP200MYA	1.00	0.985	0.971	0.958	0.943	0.931	0.919	0.908
PEH-RP250MYA	1.00	0.985	0.971	0.958	0.943	0.931	0.919	0.908

Service Ref.	Refrigerent piping length (one way)							
	45m	50m	55m	60m	65m	70m	75m	80m
PEH-RP200MYA	0.898	0.887	0.876	0.865	0.855	0.847	0.838	0.829
PEH-RP250MYA	0.898	0.887	0.876	0.865	0.855	0.847	0.838	0.829

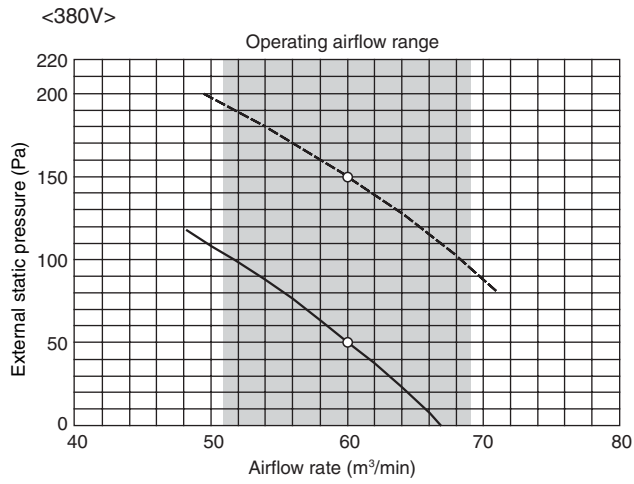
**Heating capacity correction factors**

Service Ref.	Refrigerent piping length (one way)							
	5m	10m	15m	20m	25m	30m	35m	40m
PEH-RP200MYA	1.00	0.997	0.994	0.991	0.988	0.985	0.982	0.979
PEH-RP250MYA	1.00	0.997	0.994	0.991	0.988	0.985	0.982	0.979

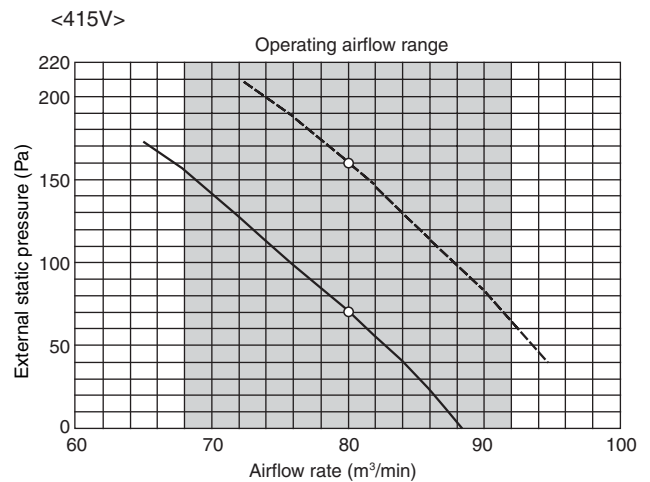
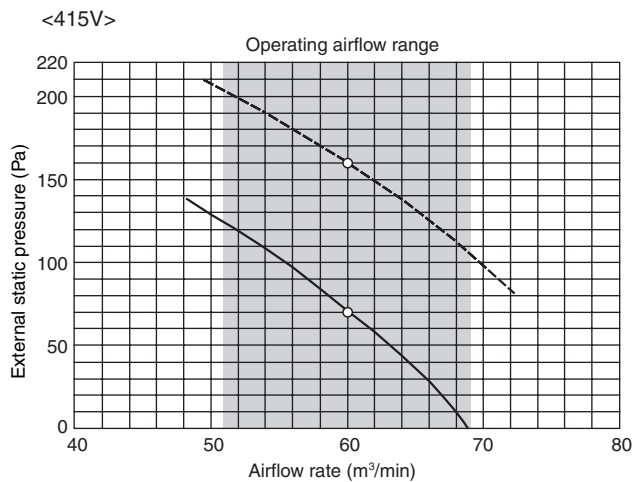
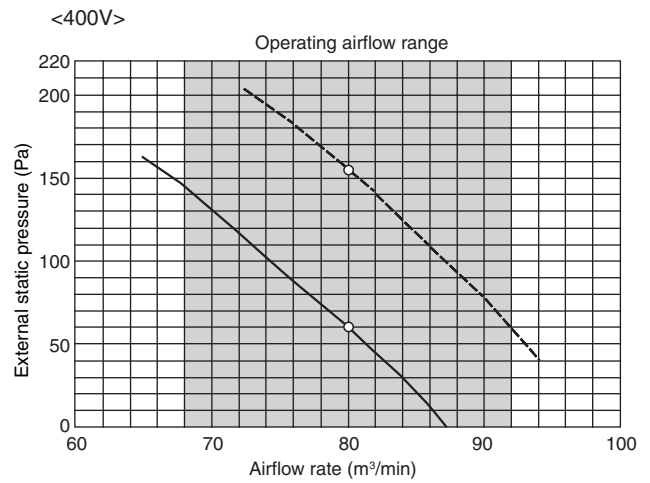
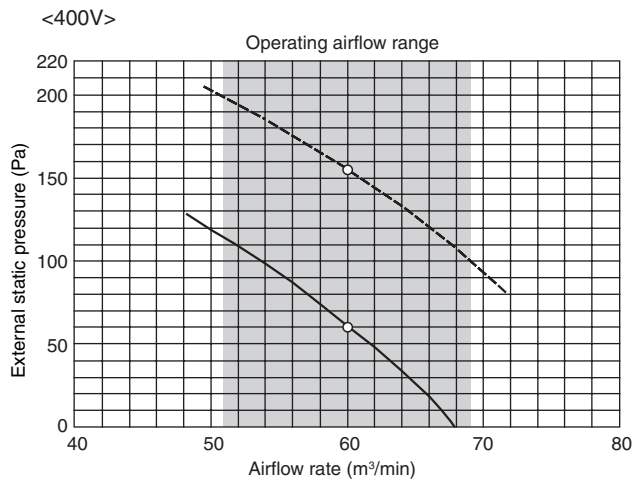
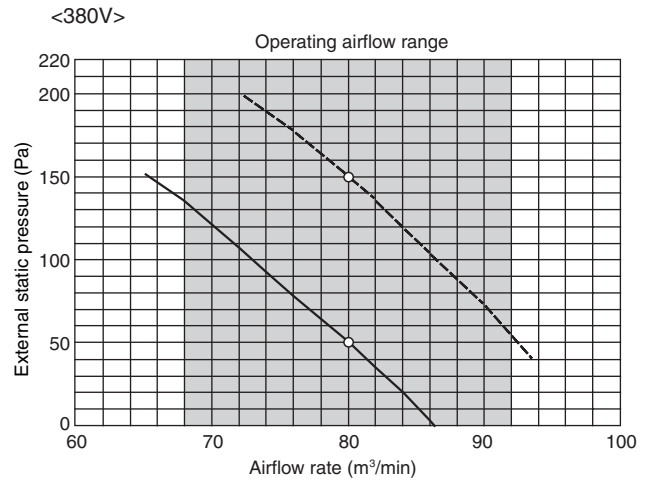
Service Ref.	Refrigerent piping length (one way)							
	45m	50m	55m	60m	65m	70m	75m	80m
PEH-RP200MYA	0.976	0.973	0.970	0.967	0.964	0.961	0.958	0.955
PEH-RP250MYA	0.976	0.973	0.970	0.967	0.964	0.961	0.958	0.955

## [5] Airflow Characteristic Curves

PEH-RP200MYA

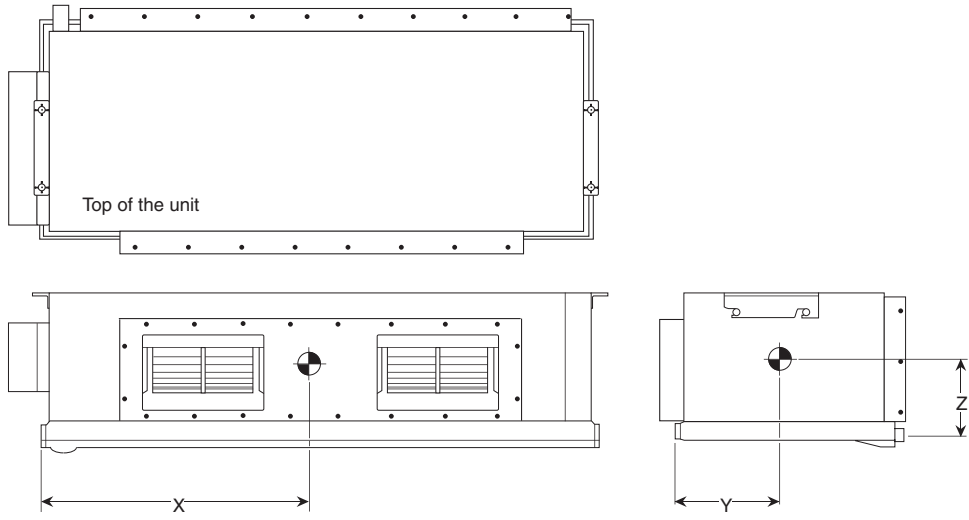


PEH-RP250MYA



## [6] Center of Gravity (Indoor unit)

• Models PEH-RP200MYA/RP250MYA



unit : (mm)

Item / Model name	Center of gravity		
	X	Y	Z
PEH-RP200MYA	630	230	240
PEH-RP250MYA	730	235	240

## [7] Standard Operation Data

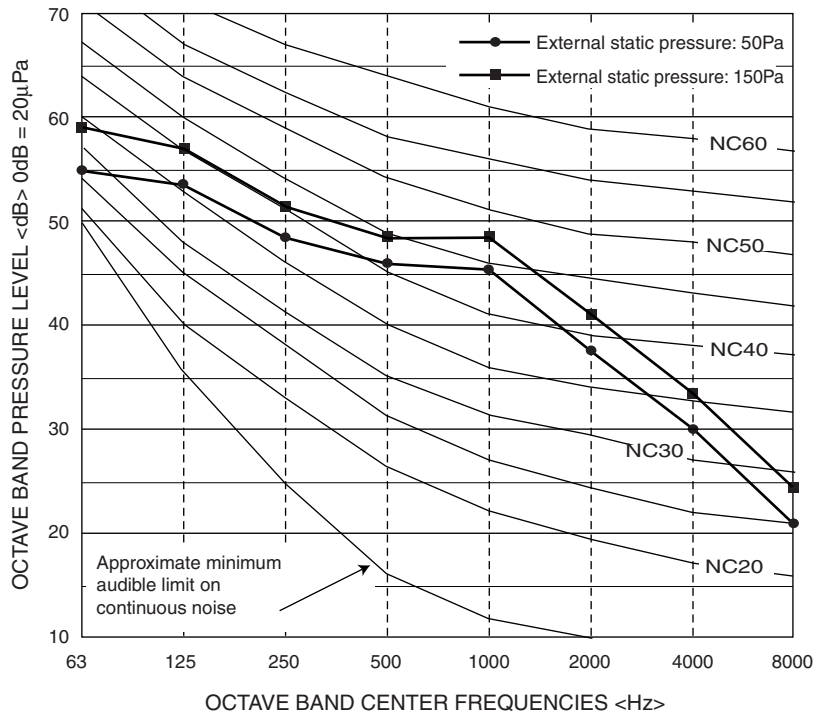
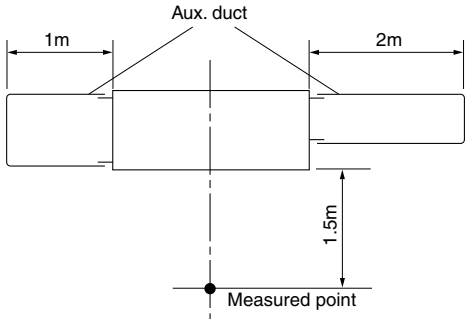
Service Ref.			PEH-RP200MYA		PEH-RP250MYA			
Mode			Cooling	Heating	Cooling	Heating		
Electrical circuit	Indoor unit Service Ref.		PEH-RP200MYA		PEH-RP250MYA			
	Phase, Hz		3, 50		3, 50			
	Volts	V	400		400			
	Input	kW	0.65		0.94			
	Current	A	1.12		1.64			
	Outdoor unit Service Ref.		PUHZ-RP200YHA		PUHZ-RP250YHA			
	Phase, Hz		3, 50		3, 50			
	Volts	V	400		400			
Current	A	10.63	10.15	12.01	11.98			
Refrigerant circuit	Discharge pressure		MPa (kgf/cm <sup>2</sup> )	2.81 (28.7)	2.59 (26.4)	2.86 (29.2)	2.27 (23.2)	
	Suction pressure		MPa (kgf/cm <sup>2</sup> )	0.92 (9.4)	0.69 (7.0)	0.96 (9.8)	0.63 (6.4)	
	Discharge temreature		°C	73.0	71.3	70.2	67.1	
	Condensing temreature		°C	47.1	41.4	47.8	38.7	
	Suction temreature		°C	12.2	4.7	14.6	3.0	
	Ref. pipe length		m	5	5	5	5	
Indoor side	Intake air temreature		D.B.	°C	27	20	27	20
			W.B.	°C	19	15	19	15
	Discharge air temreature		D.B.	°C	14.7	38.8	15.3	37.0
Outdoor side	Intake air temreature		D.B.	°C	35	7	35	7
			W.B.	°C	24	6	24	6
SHF			0.75	–	0.82	–		
BF			0.18	–	0.15	–		

The unit of pressure has been changed to MPa based on international SI system.  
The conversion factor is : 1(MPa)=10.2(kgf/cm<sup>2</sup>)

## [8] NC Curve (Indoor unit)

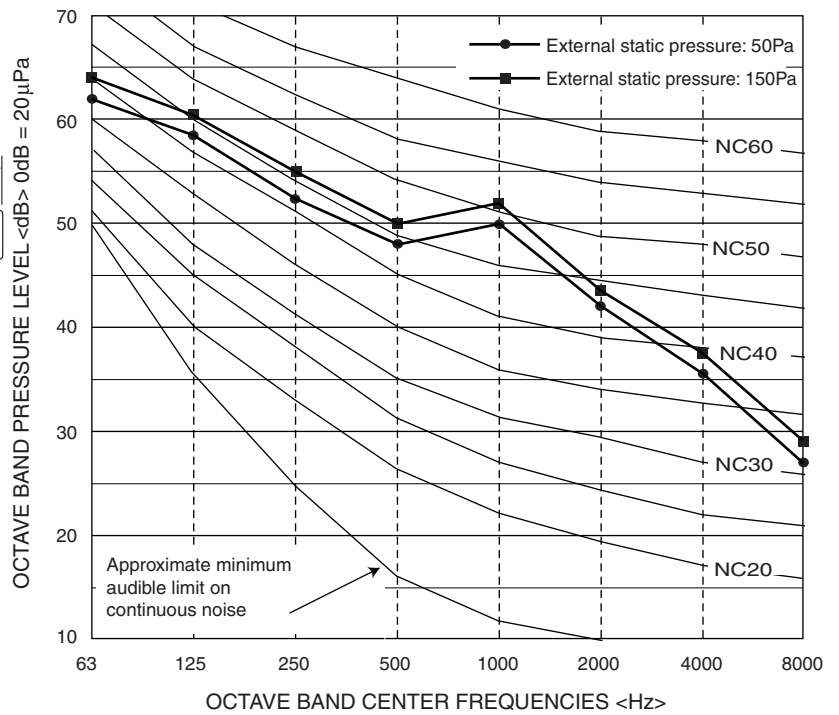
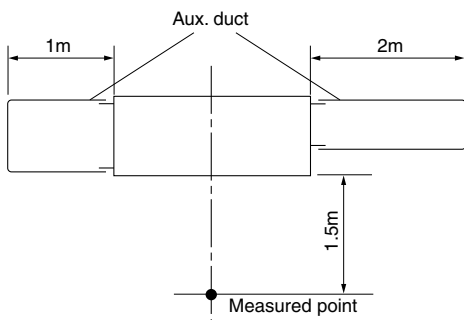
PEH-RP200MYA

Measurement condition

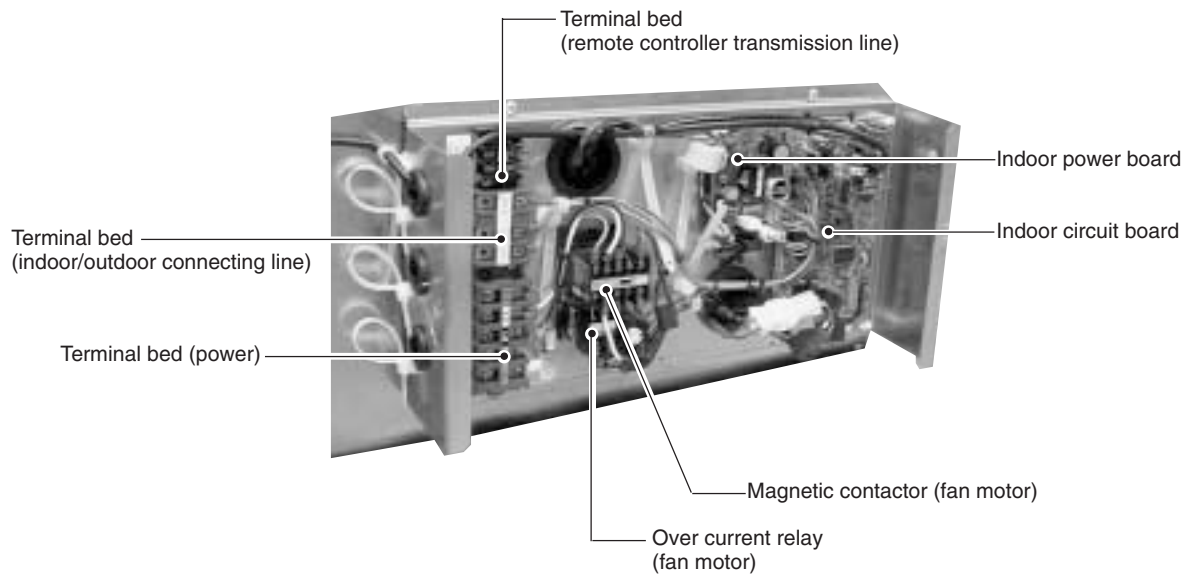


PEH-RP250MYA

Measurement condition

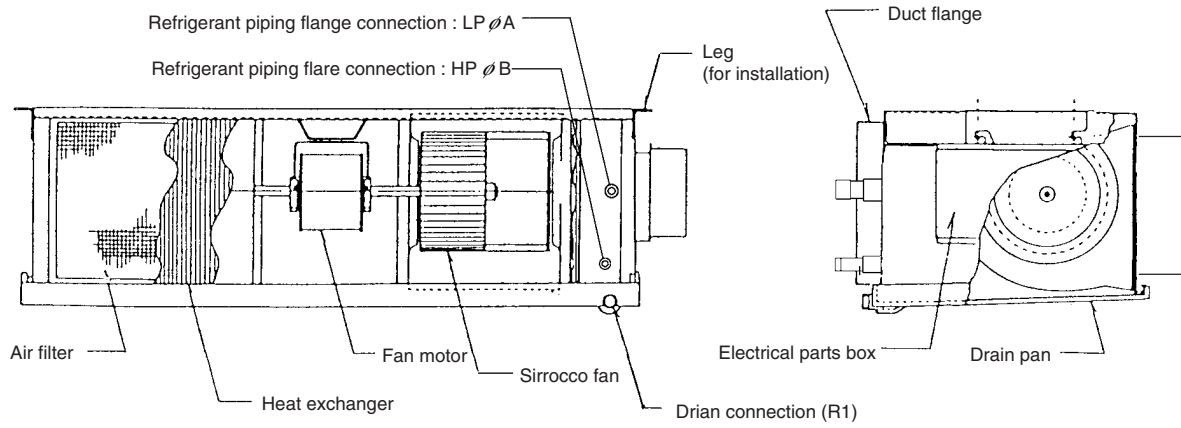




**[1] Appearance of Equipment****• PEH-RP200MYA/RP250MYA Electrical Parts Box (with cover removed)**

## [2] Internal Construction

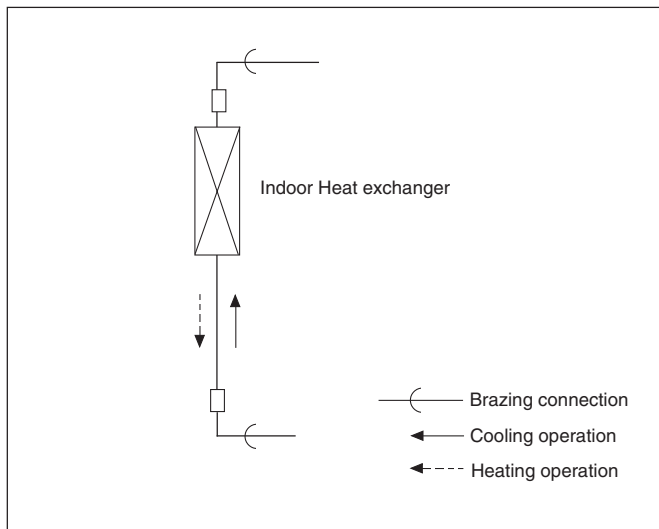
### • PEH-RP200MYA/RP250MYA (Indoor unit)



Model name	A	B
PEH-RP200MYA	25.4	9.52 (*12.7)
PEH-RP250MYA	28.58	12.7

\* The supplied reducer accommodates the  $\phi$ 12.7 pipe from R407C outdoor units.

## [3] Refrigerant Circuit



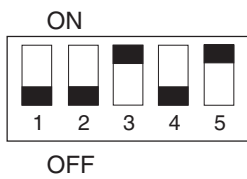
## 8 FUNCTION OF SWITCH ON INDOOR CIRCUIT BOARD

### [1] DIP SW1 for model Selection (DIP SW1 has been set at factory)

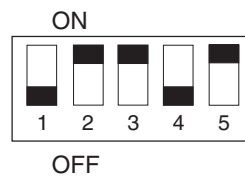


PEH-RP200MYB/RP250MYB : SW1-1, -4 ON, SW1-2, -3, -5 OFF

### [2] DIP SW2 for Capacity Setting (DIP SW2 has been set at factory)

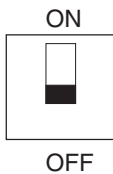


PEH-RP200MYA : SW2-3, -5 ON, SW2-1, -2, -4 OFF



PEH-RP250MYA : SW2-2, -3, -5 ON, SW2-1, -4 OFF

### [3] DIP SWE for Emergency Operation



When SWE is turned ON, FAN turns ON. Setting of emergency operation other than SWE is performed at the outdoor unit. For a description of the specific emergency operation execution method, refer to the outdoor unit (PUHZ-RP200YHA, PUHZ-RP250YHA, PUH-P200MYA, PUH-P250MYA) Technical & Service Manual.

## [1] Before test run

The test run can be carried out either from the outdoor unit or the indoor unit.

### 1. Check list

- After the installation, piping setup, and wiring of the indoor and outdoor units is complete, check that refrigerant is not leaking, the power and control wires are not loose, and the poles are not reversed.
  - Use a 500 V insulation resistance tester to make sure that the resistance between the power terminal and the ground is 1.0 M or more. If it is less than 1.0 M, do not operate the unit. \*Absolutely do not touch the tester to indoor/outdoor connection terminals S1, S2, and S3. An accident could occur.
  - Make sure there is no malfunction in the outdoor unit. (If there is a malfunction, you can diagnose it using LED1 on the board.)
  - Check that the ball valve is fully open on both the liquid and gas ends.
  - Check the electrical power phase. If the phase is reversed, the fan may rotate in the wrong direction or stop, or unusual sounds may be produced.
  - Starting at least 12 hours before the test run, send current through the crankcase heater. (If the current is running for a shorter period of time, damage to the compressor could result.)
  - For specific models requiring changing of settings for higher ceilings or selection of power supply ON/OFF capability, make proper changes referring to the description for Selection of Functions through Remote Controller.
- After the above checks are complete, carry out the test run as indicated in the following outline.

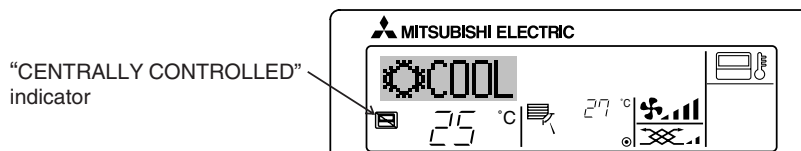
## [2] Test run procedures

### 1. Indoor unit

#### Operating procedures

#### ① Turn on the main power supply

While the display on the remote controller indicates “”, the remote controller is disabled. Turn off the “” indicator before using the remote controller.



#### ② Press the [TEST] button twice successively within three seconds. Test run starts.

“TEST RUN” and “OPERATION MODE” are displayed alternately.

#### ③ Press [ ] button

Cooling/drying mode: Cool air should start to blow.

Heating mode: Warm air should start to blow (after a while).

#### ④ Check the outdoor unit fan for correct running

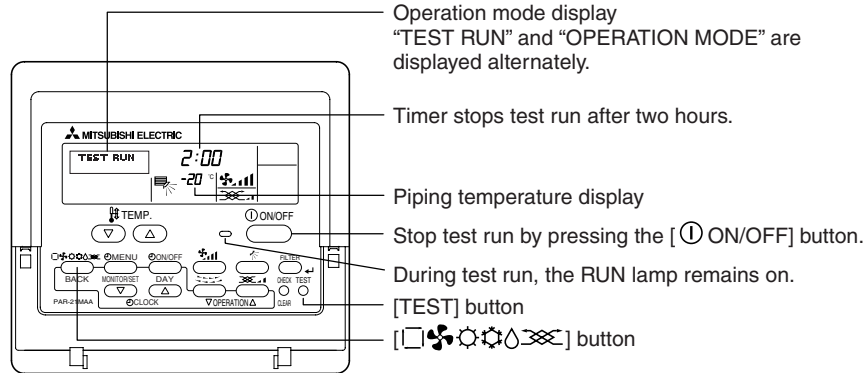
The outdoor unit features automatic capacity control to provide optimum fan speeds. The fan keeps running at a low speed to meet the current outside air condition unless it exceeds its available maximum power. Then, in actuality, the fan may stop or run in the reverse direction depending on the outside air, which does not mean malfunction.

#### ⑤ Press the [① ON/OFF] button to reset the test run in progress

- The test run will be automatically shut down after two hours in response to the AUTO STOP setting of two hours on the timer.
- During the test run, the room temperature display shows the indoor unit tubing temperatures.
- In the case of the test run, the OFF timer will activate, and the test run will automatically stop after two hours.
- The room temperature display section shows the control temperature for the indoor units during the test run.
- Check that all the indoor units are running properly for simultaneous twin and triple operation.  
Malfunctions may not be displayed even if the wiring is incorrect.

⑥ Register a telephone number

The telephone number of the repair shop, sales office, etc., to contact if an error occurs can be registered in the remote controller. The telephone number will be displayed when an error occurs. For registration procedures, refer Function selection of remote controller.



(\*1)

After turning ON the power, the system will go into startup mode, and the remote controller operation lamp (green) and the display section's "PLEASE WAIT" will flash. Also, in the case of the indoor substrate LEDs, LED 1 and LED 2 light up (when address is 0) or become dim (when address is not 0), and LED 3 flashes. In the case of the outdoor substrate LED display, [ ] and [ ] are displayed alternatively at 1-second intervals.

- If one of the above operations does not function correctly, the following causes should be considered, and if applicable, dealt with. (The following symptoms have been determined under test run mode. Note that "startup" in the chart means the \*1 display above.)

Symptoms		Cause
Remote Controller Display	Outdoor Substrate LED Display	
Remote controller is displaying "PLEASE WAIT", and operation is not possible.	After "startup" display, "00" is displayed (correct operation).	<ul style="list-style-type: none"> <li>• After power is turned ON, system startup lasts for about 2 mins., and "PLEASE WAIT" is displayed (correct operation).</li> <li>• Outdoor unit's safeguard installation connector is open.</li> <li>• Negative phase and open phase of outdoor unit's power terminal board (Single phase: L, N, ⊕ / triple phase: L1, L2, L3, N, ⊕)</li> </ul>
After power is turned ON, "PLEASE WAIT" is displayed for 3 mins., then error code is displayed.	After "startup" display, error code is displayed.	
Power is turned ON, and "EE" or "EF" are displayed after "PLEASE WAIT" is displayed.	After "startup" display, "F1" (negative phase) is displayed.	<ul style="list-style-type: none"> <li>• Incorrect connection of outdoor terminal board (Single phase: L, N, ⊕ / triple phase: L1, L2, L3, N, ⊕ grounding and S1, S2, S3)</li> <li>• Outdoor unit and indoor unit construction differ</li> </ul>
Display messages do not appear even when remote controller operation switch is turned ON (operation lamp does not light up).	After "startup" display, "EA" (error for number of units) or "Eb" (unit number error) is displayed.	<ul style="list-style-type: none"> <li>• Wiring for the indoor and outdoor unit is not connected correctly. (Polarity is wrong for S1, S2, S3)</li> <li>• Remote controller transmission wire short</li> <li>• There is no outdoor unit for address 0 (address is something other than 0).</li> <li>• Remote controller transmission wire burnout</li> </ul>
	After "startup" display, "00" is displayed (correct operation).	
	After "startup" display, "00" is displayed (correct operation).	
Operation display appears but soon disappears even when remote controller operations are executed.	After "startup" display, "00" is displayed (correct operation).	<ul style="list-style-type: none"> <li>• After cancellation of function selection, operation is not possible for about 30 secs. (correct operation).</li> </ul>

\* Press the remote controller's "CHECK" button twice consecutively to be able to run a self diagnosis. See the chart below for content of error code displays.

LCD	Nonconformity content	LCD	Nonconformity content	LCD	Nonconformity content
P1	Suction sensor error	P8	Tube temperature error	E6 ~ EF	Signal error between indoor and outdoor units
P2	Tubing (liquid) sensor error	P9	Tube (2-phase tube) sensor error		
P4	Drain sensor error	U0 ~ UP	Outdoor unit nonconformity	----	No error history
P5	Drain overflow safeguard operation	F1 ~ FA	Outdoor unit nonconformity	FFFF	No relevant unit
P6	Freezing/overheating safeguard operation	E0 ~ E5	Signal error between remote controller and indoor unit		

See the chart below for details of the LED displays (LED 1, 2, 3) on the indoor substrate.

LED 1 (microcomputer power supply)	Displays the ON/OFF of power for control. Check that this is lit during normal use.
LED 2 (remote controller feed)	Displays the ON/OFF of feed to wired remote controller. Is only lit for indoor unit linked to outdoor unit with address "00".
LED 3 (indoor and outdoor signals)	Displays signal between indoor and outdoor units. Check that this is flashing during normal use.

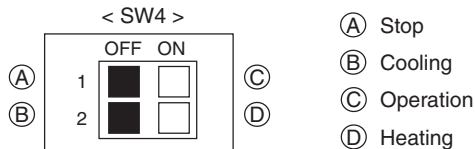
## 2. Outdoor unit

### (1) Check Items

- After installation of indoor and outdoor units, and piping and electric wiring work, check that the unit is free from leaks of refrigerant, loosened connections, and incorrect polarity.
- Check that there is no negative phase and open phase. (The F1 message for negative phase and the F2 message for open phase will flash at LED 1 on the outdoor substrate. If this happens, rewire correctly.)
- Measure the impedance between power terminals (Single phase: L, N, ⊕ / triple phase: L1, L2, L3, N, ⊕) and the ground with a 500 V Megger and check that it is 1.0 M or more. Do not operate the equipment if measurement is less than 1.0 M. \*Never conduct this operation on the outdoor connection wiring terminals (S1, S2, S3) as this causes damage.
- When there is no error at the outdoor unit. (If there is an error at the outdoor unit, it can be evaluated at LED 1 [digital display] of the outdoor substrate.)
- The stop valves are open both the liquid and gas sides.  
After checking the above, execute the test run in accordance with the following.

### (2) Test run start and finish

- Operation from the indoor unit  
Execute the test run using the installation manual for the indoor unit.
- Operation from the outdoor unit  
Execute settings for test run start, finish and operation mode (cooling, heating) using the DIP switch SW 4 on the outdoor substrate.



- a) Set the operation mode (cooling, heating) using SW 4-2
  - b) Turn ON SW 4-1, The operation mode for SW 4-2 will be adhered to, and the test run will commence
  - c) Turn OFF SW 4-1 to finish the test run
- There may be a faint knocking noise emitted from the proximity of the fan during the test run. This is torque fluctuation occurring due to control of fan revolutions. There is no problem with the product.

#### Note:

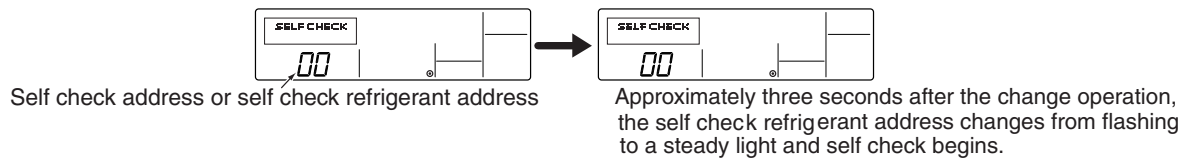
The SW 4-2 operation mode cannot be changed during the test run. (To change test run mode, stop the equipment with SW 4-1, change the operation mode, then restart test run with SW 4-1.)

- If the 2-hour timer is set, the test run will stop automatically after 2 hours.
- During the test run, the room temperature display on the indoor unit will indicate the temperature of the indoor unit piping.

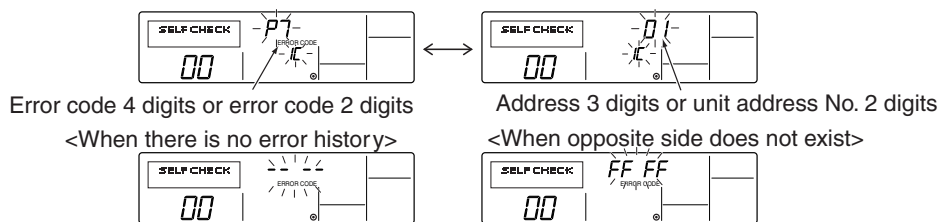
### [3] Self-diagnosis

Retrieve the error history of each unit using the remote controller.

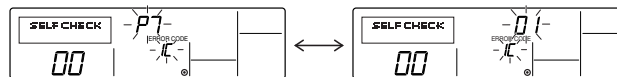
- ① Switch to the self check mode.  
When the **[CHECK]** button is pressed twice successively within three seconds, the display shown below appears.
- ② Set the address or refrigerant address No. you want to self check.  
When the **[TEMP. (▽) and (△)]** buttons are pressed, the address decreases and increases between 01 and 50 or 00 and 15. Set it to the address No. or refrigerant address No. you want to self check.



- ③ Self check result display <Error history> (For the contents of the error code, refer to 13. Troubleshooting, error code list.)

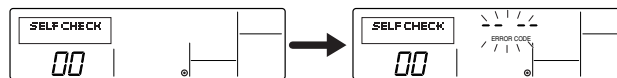


- ④ Error history reset  
The error history is displayed in ③ Self check results display.



When the **[MENU]** button is pressed twice successively within three seconds, the self check address or refrigerant address flashes.

When the error history was reset, the display shown below appears. When error history reset failed, the error contents are displayed again.

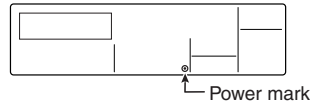


- ⑤ Self check reset  
There are the following two ways of resetting self check.  
Press the **[CHECK]** button twice successively within three seconds → Resets self check and returns to the state before self check.  
Press the **[ON/OFF]** button → Self check resets and indoor units stop.  
(When operation is prohibited, this operation is ineffective.)

## [4] Remote controller diagnosis

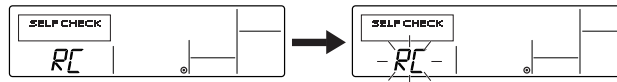
If operation cannot be carried out from the remote controller, use this function to diagnose the remote controller.

- ① First check the power mark.  
 When normal voltage (DC12V) is not applied to the remote controller, the powermark goes off.  
 When the power mark is off, check the remote controller wiring and the indoor unit.



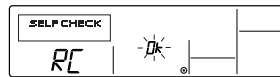
- ② Switch to the remote controller check mode.  
 When the [CHECK] button is held down for five seconds or longer, the display shown below appears.

When the [FILTER] button is pressed, remote controller check begins.



- ③ Remote controller check result

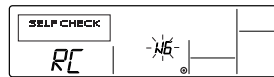
When remote controller is normal



Since there is no problem at the remote controller, check for other causes.

When remote controller is faulty

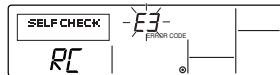
(Error display 1) "NG" flashes → Remote controller send/receive circuit abnormal



Remote controller switching is necessary.

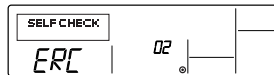
When the problem is other than the checked remote controller

(Error code 2) "E3" "6833" "6832" flash → Cannot send



There is noise on the transmission line, or the indoor unit or another remote controller is faulty. Check the transmission line and the other remote controllers.

(Error display 3) "ERC" and data error count are displayed  
 → Data error generation

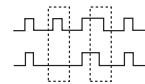


"Data error count" is the difference between the number of bits of remote controller send data and the number of bits actually sent to the transmission line. In this case, the send data was disturbed by the noise, etc. Check the transmission line.

When data error count is 02

Remote controller send data

Send data on transmission line



- ④ Remote controller check reset

When the [CHECK] button is held down for five seconds or longer, remote controller check resets and the "PLEASE WAIT" and RUN lamp flash. Approximately 30 seconds later, the remote controller returns to the state before remote controller check.



— MEMO —



Certificate Number FM33568

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air conditioning equipment.

**ISO Authorization System**

The ISO 9000 series is a plant authorization system relating to quality warranties as stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



Certificate Number EC97J1227  
Registered on March 10, 1998

The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO). ISO 14001 certifies the plant's environmental protection system and activities.

# MITSUBISHI ELECTRIC CORPORATION

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