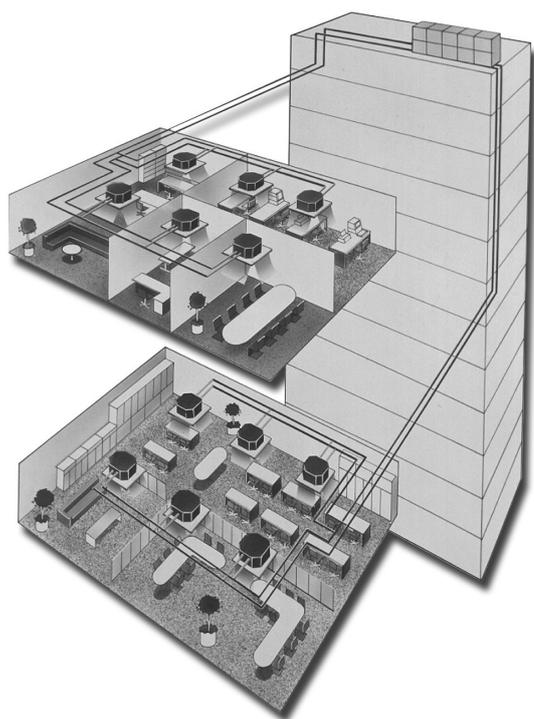


HITACHI INVERTER-DRIVEN MULTI-SPLIT SYSTEM HEAT PUMP AIR CONDITIONERS

- SET-FREE INDOOR UNITS -

HITACHI

Technical Catalogue for Indoor Unit



Models

<Indoor Units>

- In-the-Ceiling Type (Low Static Pressure)
RPIL-0.8~6.0HNAUNQ
- In-the-Ceiling Type (Middle Static Pressure)
RPIM-0.8~2.5HNAUNQ
- In-the-Ceiling Type (High Static Pressure)
RPIH-3.0~6.0HNAUNQ
- Low-Height In-the-Ceiling Type(AC)
RPIZ-0.8~2.5HNATNQ
- Low-Height In-the-Ceiling Type(DC)
RPIZ-0.8~2.5HNDTSQ

IMPORTANT NOTICE

- HITACHI pursues a policy of continuing improvement in design and performance of products. The right is therefore reserved to vary specifications without notice.
- HITACHI cannot anticipate every possible circumstance that might involve a potential hazard.
- This heat pump air conditioner is designed for standard air conditioning only. Do not use this heat pump air conditioner for other purposes such as drying clothes, refrigerating foods or for any other cooling or heating process.
- The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable, if local regulations are not available. International Organization for Standardization, ISO5149 or European Standard, EN378 or Japan Standard, KHKS0010.
- No part of this manual may be reproduced without written permission.
- The following words (DANGER, WARNING and CAUTION) are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

▲ DANGER

: Immediate hazards which WILL result in severe personal injury or death.

▲ WARNING

: Hazards or unsafe practices which COULD result in severe personal injury or death.

▲ CAUTION

: Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

NOTE

: Useful information for operation and/or maintenance.

- It is assumed that this heat pump air conditioner will be operated and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language.
- If you have any questions, contact your distributor or dealer of HITACHI.
- This manual gives a common description and information for this heat pump air conditioner which you operate as well as for other models.
- This heat pump air conditioner has been designed for the following temperatures. Operate the heat pump air conditioner within this range.

Temperature		(°C)	
		Maximum	Minimum
Cooling Operation	Indoor	32 DB/23 WB	21 DB/15 WB
	Outdoor	43 DB *	-5 DB *
Heating Operation	Indoor	27 DB	15 DB
	Outdoor	15 WB *	-20 WB *

DB: Dry Bulb, WB: Wet Bulb

*: The temperature may change depending on the outdoor units.

Attention

This system has been designed for only cooling or heating operation. Do not apply this system to the rooms where individual cooling and heating operation are required at the same time. If applied, it will result in uncomfortable air conditioning due to big temperature changes when the operation mode is changed.

This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.

SAFETY SUMMARY

DANGER

- Use the specified non-flammable refrigerant to the outdoor unit in the refrigerant cycle. Do not charge material other than specified refrigerant into the unit such as hydrocarbon refrigerants (propane or etc.), oxygen, flammable gases (acetylene or etc.) or poisonous gases when installing, maintaining and moving. These flammables are extremely dangerous and may cause an explosion, a fire, and injury.
- Do not pour water into the indoor or outdoor unit. These products are equipped with electrical parts. If poured, it will cause a serious electrical shock.
- Do not touch or adjust safety devices inside the indoor or outdoor units. If these devices are touched or readjusted, it may cause a serious accident.
- Do not open the service cover or access panel for the indoor or outdoor units without turning OFF the main power supply.
- Refrigerant leakage can cause difficulty with breathing due to insufficient air. Turn OFF the main switch, extinguish any naked flames and contact your service contractor, if refrigerant leakage occurs.
- The installer and system specialist shall secure safety against refrigerant leakage according to local regulations or standards.
- Use an ELB (Electric Leakage Breaker). In the event of a fault, there is danger of an electric shock or a fire if it is not used.
- Do not install the outdoor unit where there is a high level of oil mist, flammable gases, salty air or harmful gases such as sulphur.

WARNING

- Do not use any sprays such as insecticide, lacquer, hair spray or other flammable gases within approximately one (1) meter from the system.
- If circuit breaker or fuse is often activated, stop the system and contact your service contractor.
- Do not perform installation work, refrigerant piping work, drain piping and electrical wiring connection without referring to our installation manual. If the instructions are not followed, it may result in a water leakage, electric shock or a fire.
- Check that the ground wire is securely connected. If the unit is not correctly grounded, it lead electric shock. Do not connect the ground wiring to gas piping, water piping, lightning conductor or ground wiring for telephone.
- Connect a fuse of specified capacity.
- Do not put any foreign material on the unit or inside the unit.
- Make sure that the outdoor unit is not covered with snow or ice, before operation.
- Before performing any brazing work, check to ensure that there is no flammable material around.
When using refrigerant be sure to wear leather gloves to prevent cold injuries.
- Protect the wires, electrical parts, etc. from rats or other small animals.
If not protected, rats may gnaw at unprotected parts and which may lead to a fire.
- Fix the cables securely. External forces on the terminals could lead to a fire.

SAFETY SUMMARY

CAUTION

- Do not install the indoor unit, outdoor unit, remote control switch and cable within approximately 3 meters from strong electromagnetic wave radiators such as medical equipment.
 - Supply electrical power to the system to energize the oil heater for 12 hours before start-up after a long shutdown.
 - Do not step or put any material on the product.
 - Provide a strong and correct foundation so that;
 - a. The outdoor unit is not on an incline.
 - b. Abnormal sound does not occur.
 - c. The outdoor unit will not fall down due to a strong wind or earthquake.
-

NOTES:

- It is recommended that the room be ventilated every 3 to 4 hours.
- The heating capacity of the heat pump unit is decreased according to the outdoor air temperature. Therefore, it is recommended that auxiliary heating equipment be used in the field when the unit is installed in a low temperature region.

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1. Features

1.1 System Features

New SET-FREE Series

HITACHI proudly introduces the New SET-FREE Indoor Units, the highly-efficient and reliable air conditioning system. Recently, increased numbers of buildings are requiring "Intelligent" facilities - communication networks, office automation, including a comfortable environment. Particularly, comfortable space is required all the day through the year in office buildings.

This multi-split system air conditioner, SET-FREE can meet these requirements. The proven combination of the scroll compressor and the inverter provides the best air conditioning for small/medium office buildings.

Uses of the HFC Series New R410A Refrigerant

HITACHI has developed and introduced the new SET-FREE indoor units to meet the global needs to help protect the Earth's environment by using non-ozone depleting refrigerant, R410A as HITACHI's standard series.

Various Indoor Units and Combinations

The line-up of new SET-FREE series indoor units has been extended up to a total of 10 categories to meet various building requirements. (0.8HP through 6.0HP)

Indoor Unit Type	Nominal Capacity (HP)												
	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.3	4.0	5.0	6.0
In-the-Ceiling(Low Static Pressure)	○	○	○	○	○	○	○	○	○	○	○	○	○
In-the-Ceiling(Middle Static Pressure)	○	○	○	○	○	○	○	○					
In-the-Ceiling(High Static Pressure)									○	○	○	○	○
Low-height In-the-Ceiling(AC)	○	○	○	○	○	○	○	○					
Low-height In-the-Ceiling(DC)	○	○	○	○	○	○	○	○					
In-the-Ceiling(Slim)	○	○	○	○									
4-Way Cassette		○	○	○	○	○	○	○	○	○	○	○	○
Wall-Mounted Type	○	○	○	○	○	○	○						
Floor Concealed		○		○		○		○					
Ceiling & Floor Type					○	○	○	○	○	○	○	○	

○ : Available

Corresponding to New Transmission System H-LINK II

The total number of the indoor units to be controlled is increased from 128 to 160, the total number of the refrigerant cycle to be controlled is increased from 16 to 64 by combined with the equipments corresponding to the new transmission system H-LINK II.

* However, H-LINK II function is available only for the models with outdoor unit and the central control equipments corresponding to H-LINK II. (If the model does not correspond to H-LINK II, it performs as H-LINK.)

Facilitated Installation Works

- Remote Control Cable Reduction for Simultaneous Twin/Triple Unit (*1)
No remote control cable between indoor units is required for the wired remote control switch.
- Facilitated Workability at Terminal Board for Transmission
Enlarged the distance between terminals (from 9mm to 10.5mm) to facilitate workability.

Extensive Control Functions

- Operation Control Indication
The following items are added to display at the remote control switch. ("AUTO CONTROL" is indicated at the remote control switch LCD.)
 - (1) Compressor Preheating (*2)
 - (2) Hot Start (*3)
 - (3) Different Operation Mode (*3)
- Indoor Unit Address Change with the Remote Control Switch (*3)
The indoor unit address checking and changing are available with the remote control switch.

Advanced Energy Saving by Remote Control Switch "Operation Control Function"

Following functions are additionally available to set.

- Cooling Lower Limit and Heating Upper Limit for Setting Temperature
The cooling lower limit and the heating upper limit of setting temperature are fixed to restrict the setting temperature range set by the remote control switch. Consequently, this function prevents overcooling and overheating.
- Automatic Reset of Setting Temperature
The setting temperature is automatically returned to the preset setting temperature, if no switch operation for a certain period since the setting temperature change at the remote control switch.
This function provides the economical operation.
- Locking Operation
The operations from the remote control switch are restricted to prevent the uncontrolled change for operation mode, setting temperature, fan speed or swing louver. This function provides energy saving by keeping the optimum operation. It is also effective to prevent the wrong operation or the tampering.
- Automatic OFF Timer Setting
When a certain period of time has passed since operation started, the operation is automatically stopped to eliminate the unnecessary operation. The setting period of time is available from 30 minutes to 24 hours.

*1: In case of connecting to the remote control switch and the outdoor unit (except SET FREE) corresponding to H-LINK II.

(Refer to above "*" about outdoor unit corresponding to H-LINK II.)

*2: In case of connecting to the remote control switch and the outdoor unit corresponding to H-LINK II.

(Refer to above "*" about outdoor unit corresponding to H-LINK II.)

*3: In case of connecting to the remote control switch corresponding to H-LINK II.

Wide Operation Range

This unit has been designed for cooling operation under low ambient temperatures down to -5°C. This feature enables cooling to be obtained even in winter on buildings with high internal heat gains due to lighting, people and machines, particularly in areas such as shops, lecture rooms, data processing areas etc. And the heating operation under low ambient temperature down to -20°C can be also performed.

		Maximum	Minimum
Cooling Operation	Indoor	32 DB/23 WB	21 DB/15 WB
	Outdoor	43 DB *	-5 DB *
Heating Operation	Indoor	27 DB	15 DB
	Outdoor	15 WB *	-20 WB *

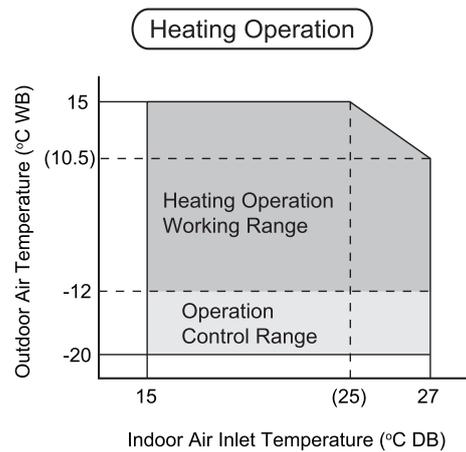
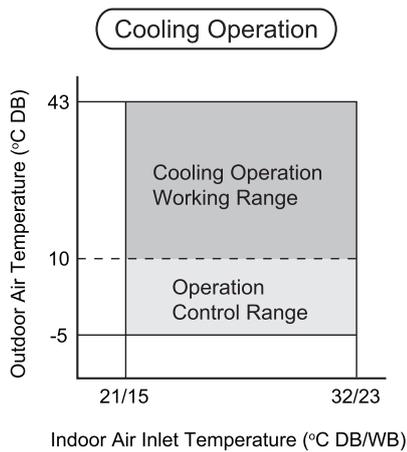
DB: Dry Bulb, WB: Wet Bulb

*: The temperature may change depending on the outdoor units.

NOTES:

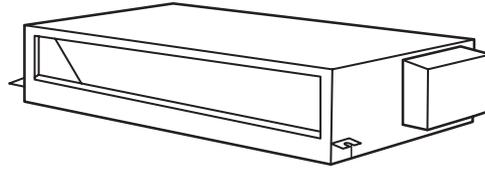
(*) 10°C DB ~ -5°C DB, Operation Control Range

(**) -12°C WB ~ -20°C WB, Operation Control Range



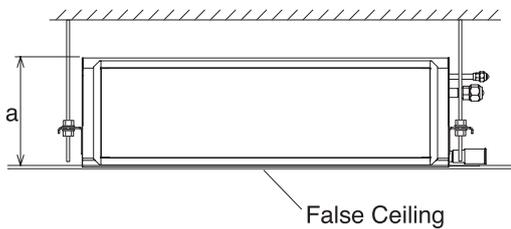
1.2 Features on Indoor Unit

1.2.1 In-the-Ceiling Type



Space Saving Design

With a height of only 270mm (0.8 to 2.5HP), 300mm (3.0 to 6.0HP), this unit can be installed in a false ceiling space in almost any building.



Model	a
RPIL-0.8~2.5HNAUNQ	270
RPIL-3.0~6.0HNAUNQ	300
RPIM-0.8~2.5HNAUNQ	270
RPIH-3.0~6.0HNAUNQ	300

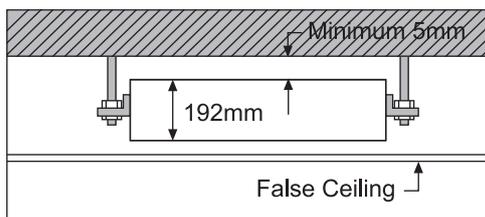
Adjustable Fan Speed

The indoor fan motor has three speeds that can be adjusted to allow for pressure loss in the duct, thus providing a more efficient air flow.

1.2.2 Low-height

Installation Space-saving

With a height of 192mm may be easily installed inside the low height residential ceiling.



Board Range of External Static Pressure

10Pa(or 30Pa), flexibly supports a wide range of installation conditions at site, e.g. longer ducts and shorter ducts supplied (for AC).

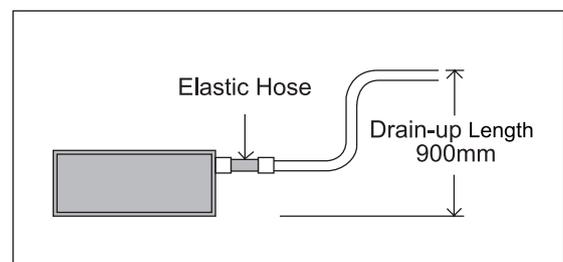
10Pa(or 0Pa, 30Pa), flexibly supports a wide range of installation conditions at site, e.g. longer ducts and shorter ducts supplied (for DC).

Quiet Operation

- (1) Air flow rate can be adjusted by 3 grades, lower noise in lower grade(For AC).
- (2) Air flow rate can be adjusted by 6 grades, lower noise in lower grade(For DC).

Drain-up Mechanism as Standard Part

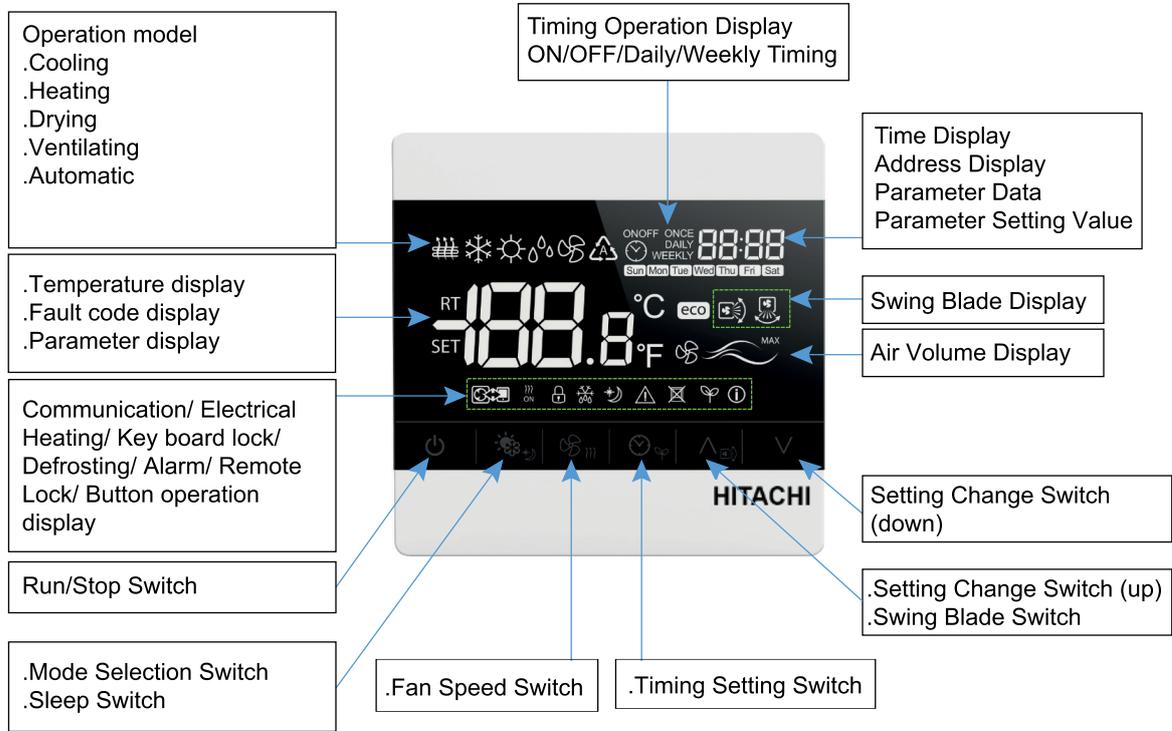
Drain-up length achieves 900mm which enables convenient drain piping and enlarges the flexibility of installation.



1.3 Controller Features

1.3.1 Wired Controller

● Description of HCWA10NEGQ Wired Controller



● Dimensions



Item	Description
Length	X=88mm
Width	Y=88mm
Thickness	D=15.5mm

● General Data

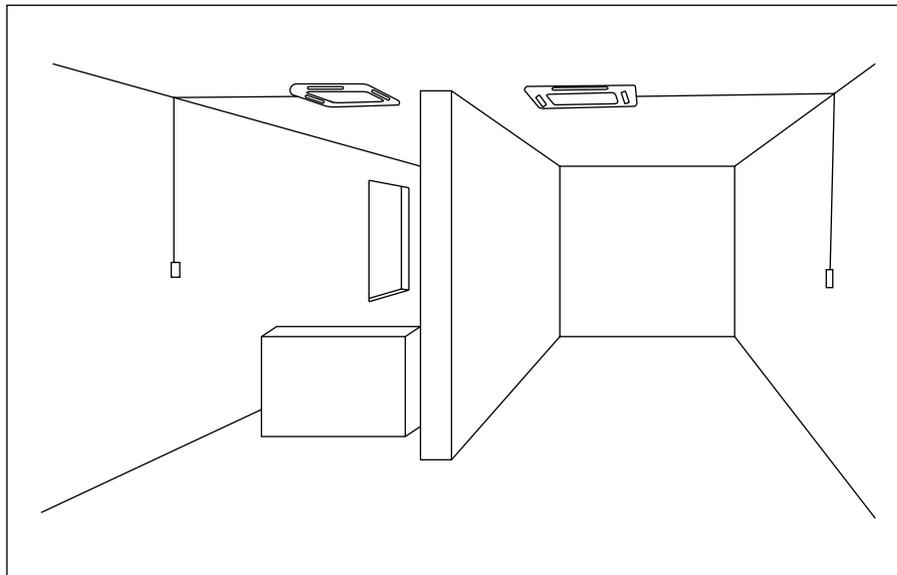
Maximum control quantity of indoor unit	16
Maximum controller quantity to an indoor unit	1
User interface	Icon
UI language	Icon
Sound reminder	Buzzer
Date and time	Support
Dimensions (L x W x D)	88mm x 88mm x 15.5mm
LCD panel size (L x W)	76mm x 43.4mm
Key	Touch pad
Installation method	Wall mounted
Power supply	15V/DC
Maximum power dissipation	1.5W
Maximum load current	120mA
Communication	H-Link II
Communicable length limitation	600m
Temperature detection	0°C~40°C
Storage temperature range	-10~50°C
Working temperature range	0~40°C
Storage humidity range	≤95%
Allowable attitude	≤2000m
Vibration	General testing standard for QJET10008-2014 controller - 3.6.1.2 vibration
Class of pollution	2

No.	Main Features	Summary
1	Receive setting data	Receive settings from the central controller or checker to change the setting, selected functions and so on.
2	Power failure	Check if "power off" is less than 2s or longer than 5s, handle it differently.
3	Data saving	Save the setting data in EEPROM
4	Temperature sensor	Detect temperature via the internal NTC and send them to the IDU
5	Start/stop	Start/stop the air conditioner
6	Settings of operation condition and display.	Following settings and status display: <ul style="list-style-type: none"> ● Operating mode (cold, heat, dry, auto or blow-out) ● Temperature setting (up/down limit, 1°C/0.5°C, temperature sign display) ● Fan speed (low, mid, high, super or auto) ● Louver auto swing/stop
7	Multi-IDU control	16 IDU connection in maximum.
8	Touch operation lock	Lock the touch key to avoid mistake.
9	IDU status display	Monitor the data received from the IDU and show the following status: <ul style="list-style-type: none"> ● Communication (communicating between wired controller and indoor unit) ● Defrosting (outdoor unit defrosting working) ● Controlled with central controller
10	Error monitor	Display following information when error occurred. <ul style="list-style-type: none"> ● Error code display ● Indoor unit address and system number
11	Alarm Reset	Clear alarm message.
12	Filter time reset	Reset the time of filter usage
13	Time	Once/daily/weekly setting

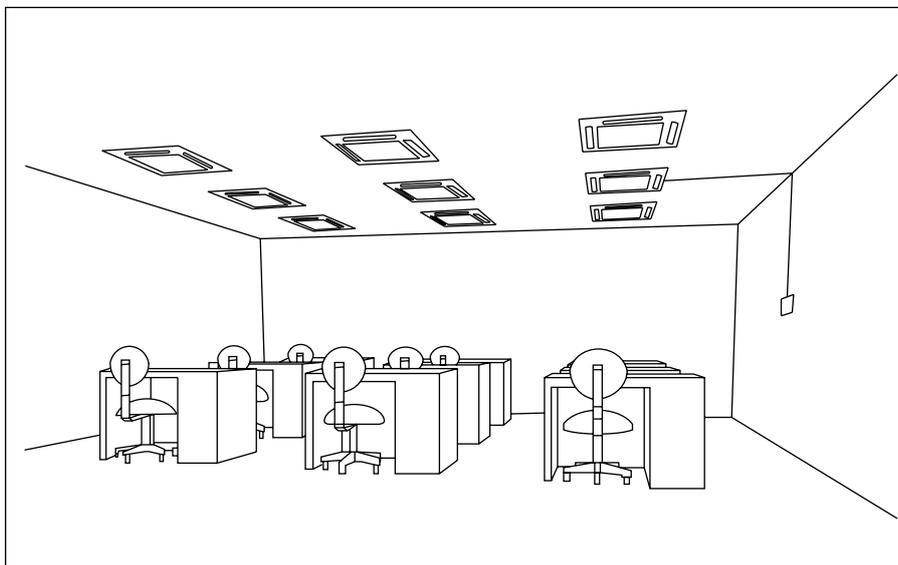
14	Louver control individually	4-way Cassette only, control each 4 -direction louver.
15	Current time display	Display current time and weekday information
16	Test run	Change settings of Test-Run mode.
17	Functional parameter	To configure various parameters of IDU,ODU
18	Auto reset of temperature setting	Automatically reset the set temperature
19	Temperature Up/Down limit	To set the down/up limit temperature of the COOL and HEAT mode.
20	Input/output unit configuration	Configure the IDU input/output port.
21	Change IDU Address, System No.	Change IDU address, system no.
22	Inspection	Check parameters/status of the IDU
23	Error history query	To check the error history
24	Temperature data unit	To select the temperature unit (°C/°F)
25	Main/sub controller	Automatically put controller in Main/Sub status
26	Priority	The main controller controls the mode and temperature of the other sub controller in the same refrigerating system.

● Application Function of Wired Controller

You can operate one indoor unit with one wired controller.

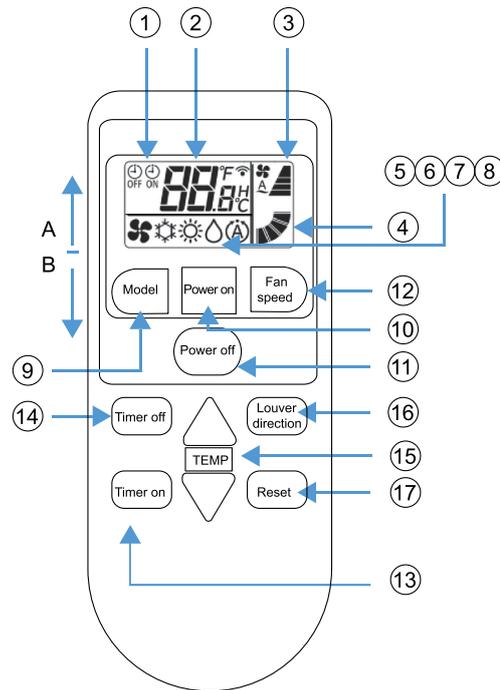


One wired controller can control up to 16 indoor units at the maximum.



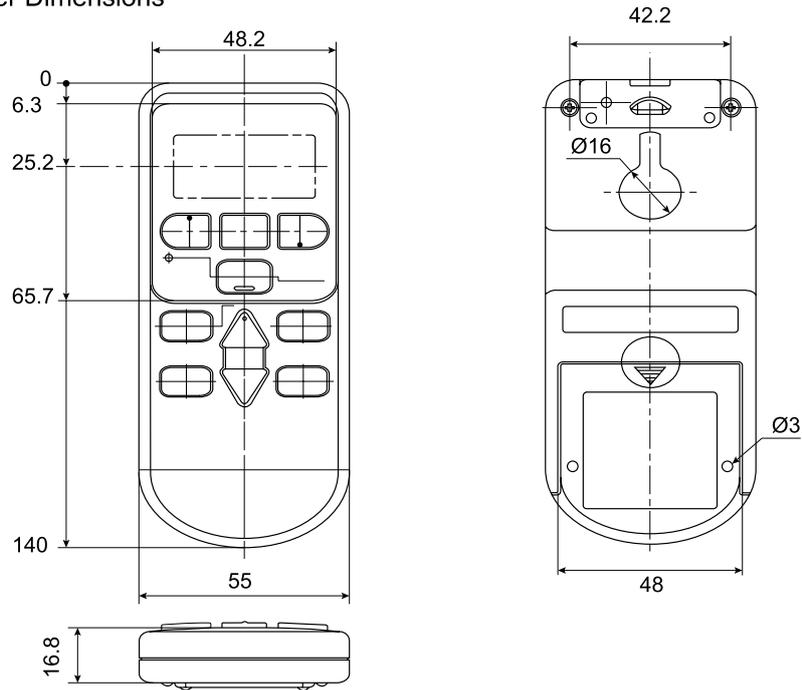
1.3.2 Wireless Controller

● HCRB10NEWQ Wireless Controller Introduction



A Liquid Displays		B Functional Buttons	
①	Timer on/off	⑨	Mode
②	Temperature setting	⑩	Power on
③	Fan speed	⑪	Power off
④	Louver Angle	⑫	Fan speed
⑤	Ventilation	⑬	Timer on
⑥	Cooling	⑭	Timer off
⑦	Heating	⑮	Temperature setting
⑧	Dry	⑯	Louver direction
		⑰	Reset

● Wireless Controller Dimensions



● Wireless Controller Feature

Feature	Description
Communication	Send command by infrared
Operating mode	Ventilation/ Cooling/Heating/Dry
Power supply	Two AAA/1.5V batteries
Temperature range	Operating: 0~40°C, Storage: -20~60°C
Installation method	Fix firmly the holding bracket onto the wall and attach the controller where the receiver can receive the commands

Note: Maximum effective transmission distance is 6m.

2. General Data

Indoor Unit Type		In-the-Ceiling Type (Low Static Pressure)				
Model		RPIL-0.8HNAUNQ	RPIL-1.0HNAUNQ	RPIL-1.3HNAUNQ	RPIL-1.5HNAUNQ	RPIL-1.8HNAUNQ
Indoor Unit Power Supply		220-240V ~ 50Hz				
Nominal Cooling Capacity *1)	kW	2.2	2.8	3.6	4.3	5.0
	Btu/h	7,500	9,500	12,300	14,700	17,000
Nominal Cooling Capacity *2)	kW	2.3	2.9	3.8	4.4	5.2
	Btu/h	7,800	9,900	13,000	15,000	17,700
Nominal Heating Capacity	kW	2.8	3.3	4.2	4.9	5.6
	Btu/h	9,500	11,300	14,300	16,700	19,100
Sound Pressure Level (Overall A Scale)	dB	28/25/22	28/25/22	34/32/30	34/32/30	34/32/29
Outer Dimensions Height	mm	270	270	270	270	270
Width	mm	650+75	650+75	650+75	650+75	900+75
Depth	mm	720	720	720	720	720
Net Weight	kg	24	24	25	25	31
Refrigerant	—	R410A(Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate*3)	m ³ /min.	9/8/7	9/8/7	13/11/9	13/11/9	15/14/12
External Pressure*4)	Pa	30	30	30	30	30
Connections Refrigerant Piping	Flare-Nut Connection (with Flare Nuts)					
Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.22	0.22	0.22	0.22	0.28

NOTES:

- The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions
 Indoor Air Inlet Temperature: 27°C DB (80°F DB)
 *1) 19.0°C WB (66.2°F WB)
 *2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions
 Indoor Air Inlet Temperature: 20°C DB (68°F DB)
 Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
 6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

- The sound pressure level is based on following conditions.
 1.4 Meter Beneath the Unit.
 With Discharge Duct (2.0m) and Return Duct (1.0m).
 Voltage of the power source for the indoor fan motor is 220V.
 In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.
 The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
- The air flow rate is based on following conditions.
 Voltage of the power source for the indoor fan motor is 230V.
- The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		In-the-Ceiling Type (Low Static Pressure)				
Model		RPIL-2.0HNAUNQ	RPIL-2.3HNAUNQ	RPIL-2.5HNAUNQ	RPIL-3.0HNAUNQ	RPIL-3.3HNAUNQ
Indoor Unit Power Supply		220-240V ~ 50Hz				
Nominal Cooling Capacity *1)	kW	5.6	6.3	7.1	8.4	9.0
	Btu/h	19100	21500	24200	28700	30700
Nominal Cooling Capacity *2)	kW	5.8	6.5	7.3	8.7	9.3
	Btu/h	19800	22200	24900	29700	31700
Nominal Heating Capacity	kW	6.5	7.5	8.5	9.6	10.0
	Btu/h	22,200	25,600	29,000	32,800	34,100
Sound Pressure Level (Overall A Scale)	dB	34/32/29	36.5/30.5/25	36.5/30.5/25	38/30/24	38/30/24
Outer Dimensions	Height	mm	270	270	270	300
	Width	mm	900+75	900+75	900+75	1100+75
	Depth	mm	720	720	720	800
Net Weight	kg	31	32	32	45	45
Refrigerant	—	R410A (Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate*3)	m ³ /min.	15/14/12	21/14/11	21/14/11	29/25/21	29/25/21
External Pressure *4)	Pa	30	30	30	60	60
Connections		Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping	Liquid Line	mm	Φ6.35	Φ9.53	Φ9.53	Φ9.53
		mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.28	0.28	0.28	0.4	0.4

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.

1.4 Meter Beneath the Unit.

With Discharge Duct (2.0m) and Return Duct (1.0m).

Voltage of the power source for the indoor fan motor is 220V.

In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. The air flow rate is based on following conditions.

Voltage of the power source for the indoor fan motor is 230V.

4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		In-the-Ceiling Type (Low Static Pressure)			In-the-Ceiling Type (Middle Static Pressure)	
Model		RPIL-4.0HNAUNQ	RPIL-5.0HNAUNQ	RPIL-6.0HNAUNQ	RPIM-0.8HNAUNQ	RPIM-1.0HNAUNQ
Indoor Unit Power Supply		220-240V ~ 50Hz				
Nominal Cooling Capacity *1)	kW	11.2	14.2	16.0	2.2	2.8
	Btu/h	38,200	48,500	54,600	7,500	9,500
Nominal Cooling Capacity *2)	kW	11.6	14.5	16.5	2.3	2.9
	Btu/h	39600	49500	56300	7,800	9,900
Nominal Heating Capacity	kW	13.0	16.3	18.0	2.8	3.3
	Btu/h	44,400	55,600	61,400	9,500	11,300
Sound Pressure Level (Overall A Scale)	dB	38/35/31	44/39/35	46/41/35	32/27/24	32/27/24
Outer Dimensions						
Height	mm	300	300	300	270	270
Width	mm	1100+75	1,400+75	1,400+75	650+75	650+75
Depth	mm	800	800	800	720	720
Net Weight	kg	45	53	54	24	24
Refrigerant	—	R410A (Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate*3)	m ³ /min.	29/25/21	36/31/26	42/34/26	10/8/7	10/8/7
External Pressure *4)	Pa	60	60	60	50(80)	50(80)
Connections		Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping						
Liquid Line	mm	Φ9.53	Φ9.53	Φ9.53	Φ6.35	Φ6.35
Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ12.7	Φ12.7
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.4	0.49	0.49	0.22	0.22

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.

1.4 Meter Beneath the Unit.

With Discharge Duct (2.0m) and Return Duct (1.0m).

Voltage of the power source for the indoor fan motor is 220V.

In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. The air flow rate is based on following conditions.

Voltage of the power source for the indoor fan motor is 230V.

4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		In-the-Ceiling Type (Middle Static Pressure)				
Model		RPIM-1.3HNAUNQ	RPIM-1.5HNAUNQ	RPIM-1.8HNAUNQ	RPIM-2.0HNAUNQ	RPIM-2.3HNAUNQ
Indoor Unit Power Supply		220-240V ~ 50Hz				
Nominal Cooling Capacity *1)	kW	3.6	4.3	5.0	5.6	6.3
	Btu/h	12,300	14,700	17,000	19100	21500
Nominal Cooling Capacity *2)	kW	3.8	4.4	5.2	5.8	6.5
	Btu/h	13,000	15,000	17,700	19800	22200
Nominal Heating Capacity	kW	4.2	4.9	5.6	6.5	7.5
	Btu/h	14,300	16,700	19,100	22,200	25,600
Sound Pressure Level (Overall A Scale)	dB	35/33/28	35/33/28	35.5/33/28	35.5/33/28	39/34/26
Outer Dimensions						
Height	mm	270	270	270	270	270
Width	mm	650+75	650+75	900+75	900+75	900+75
Depth	mm	720	720	720	720	720
Net Weight	kg	25	25	31	31	32
Refrigerant	—	R410A (Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate *3)	m ³ /min.	12/11/9	12/11/9	16/14/11.5	16/14/11.5	20/16/11
External Pressure *4)	Pa	50(80)	50(80)	50(80)	50(80)	50(80)
Connections		Flare-Nut Connection (with Flare Nuts)				
Refrigerant Piping						
Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ9.53
Gas Line	mm	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.22	0.22	0.28	0.28	0.28

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.
1.4 Meter Beneath the Unit.
With Discharge Duct (2.0m) and Return Duct (1.0m).
Voltage of the power source for the indoor fan motor is 220V.
In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. The air flow rate is based on following conditions.
Voltage of the power source for the indoor fan motor is 230V.
4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		In-the-Ceiling Type (Middle Static Pressure)	In-the-Ceiling Type (High Static Pressure)			
Model		RPIM-2.5HNAUNQ	RPIH-3.0HNAUNQ	RPIH-3.3HNAUNQ	RPIH-4.0HNAUNQ	RPIH-5.0HNAUNQ
Indoor Unit Power Supply		220-240V ~50Hz				
Nominal Cooling Capacity *1)	kW	7.1	8.4	9.0	11.2	14.2
	Btu/h	24200	28700	30700	38200	48500
Nominal Cooling Capacity *2)	kW	7.3	8.7	9.3	11.6	14.5
	Btu/h	24900	29700	31700	39600	49500
Nominal Heating Capacity	kW	8.5	9.6	10.0	13.0	16.3
	Btu/h	29,000	32800	34100	44400	55600
Sound Pressure Level (Overall A Scale)	dB	39/34/26	42/39/34	42/39/34	43/39/34	44/41/37
Outer Dimensions Height	mm	270	300	300	300	300
Width	mm	900+75	1100+75	1100+75	1100+75	1400+75
Depth	mm	720	800	800	800	800
Net Weight	kg	32	45	45	45	53
Refrigerant	—	R410A (Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate*3)	m ³ /min.	20/16/11	30/28/23	30/28/23	30/28/23	35.5/32/27
External Pressure *4)	Pa	50(80)	120(90)	120(90)	120(90)	120(90)
Connections Refrigerant Piping	Flare-Nut Connection (with Flare Nuts)					
Liquid Line	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.28	0.4	0.4	0.4	0.49

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.
1.4 Meter Beneath the Unit.
With Discharge Duct (2.0m) and Return Duct (1.0m).
Voltage of the power source for the indoor fan motor is 220V.
In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. The air flow rate is based on following conditions.
Voltage of the power source for the indoor fan motor is 230V.
4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		In-the-Ceiling Type (High Static Pressure)	Low-Height In-the-Ceiling Type(DC)			
Model		RPIH-6.0HNAUNQ	RPIZ-0.8HNDTSQ	RPIZ-1.0HNDTSQ	RPIZ-1.3HNDTSQ	RPIZ-1.5HNDTSQ
Indoor Unit Power Supply		220-240V~50Hz	220-240V~50Hz, 220V~60Hz			
Nominal Cooling Capacity *1)	kW	16.0	2.2	2.8	3.6	4.0
	Btu/h	54600	7,500	9,500	12,300	13,600
Nominal Cooling Capacity *2)	kW	16.5	2.3	2.9	3.8	4.4
	Btu/h	56300	7,800	9,900	13,000	15,000
Nominal Heating Capacity	kW	18.0	2.5	3.2	4	4.5
	Btu/h	61400	8,500	10,900	13,600	15,300
Sound Pressure Level (Overall A Scale)	dB	48/42/37	32/30/29/27 /25/24	33/31/28/25/ 23.5/22.5	33/31/28/25/ 23.5/22.5	31/30/28/ 25/22/20
Outer Dimensions Height	mm	300	192	192	192	192
Width	mm	1400+75	700	700	700	910
Depth	mm	800	447	447	447	447
Net Weight	kg	54	17	17	17	20
Refrigerant	—	R410A(Nitrogen-Charged for Corrosion-Resistance)				
Indoor Fan Air Flow Rate *3)	m ³ /min.	41/33/26	7/6.3/5.7/5.3/4.8/4.5	8.5/8/7/6/5.5/5	8.5/8/7/6/5.5/5	10/9/8/7.5/6.5/6
External Pressure *4)	Pa	120(90)	10(0-10-30)	10(0-10-30)	10(0-10-30)	10(0-10-30)
Connections Refrigerant Piping	Flare-Nut Connection (with Flare Nuts)					
Liquid Line	mm	Φ9.53	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Gas Line	mm	Φ15.88	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Condensate Drain	—	VP25	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.49	0.14	0.14	0.14	0.15

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.

1.4 Meter Beneath the Unit.

With Discharge Duct (2.0m) and Return Duct (1.0m).

Voltage of the power source for the indoor fan motor is 220V.

In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. The air flow rate is based on following conditions.

Voltage of the power source for the indoor fan motor is 230V.

4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		Low-Height In-the-Ceiling Type(DC)			
Model		RPIZ-1.8HNDTSQ	RPIZ-2.0HNDTSQ	RPIZ-2.3HNDTSQ	RPIZ-2.5HNDTSQ
Indoor Unit Power Supply		220-240V~50Hz, 220V~60Hz			
Nominal Cooling Capacity *1)	kW	5.0	5.6	6.3	7.1
	Btu/h	17,000	19,100	21,500	24,200
Nominal Cooling Capacity *2)	kW	5.2	5.8	6.5	7.3
	Btu/h	17,700	19,800	22,200	24,900
Nominal Heating Capacity	kW	5.6	6.3	7.1	8.0
	Btu/h	19,100	21,500	24,200	27,300
Sound Pressure Level (Overall A Scale)	dB	36/34/32/29/28/25	36/34/32/29/28/25	36/33.5/31/28/24.5/22.5	36/33.5/31/28/24.5/22.5
Outer Dimensions					
Height	mm	192	192	192	192
Width	mm	1,180	1,180	1,180	1,180
Depth	mm	447	447	447	447
Net Weight	kg	24	24	24	24
Refrigerant	—	R410A(Nitrogen-Charged for Corrosion-Resistance)			
Indoor Fan Air Flow Rate *3)	m ³ /min.	14.5/13.2/11.8/10.5/9.2/8	14.5/13.2/11.8/10.5/9.2/8	16.5/15/13/12/10/9	16.5/15/13/12/10/9
External Pressure *4)	Pa	10(0-10-50)	10(0-10-50)	10(0-10-50)	10(0-10-50)
Connections		Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping Liquid Line	mm	Φ6.35	Φ6.35	Φ9.53	Φ9.53
Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.18	0.18	0.18	0.18

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.
1.4 Meter Beneath the Unit.
With Discharge Duct (2.0m) and Return Duct (1.0m).
Voltage of the power source for the indoor fan motor is 220V.
In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. The air flow rate is based on following conditions.
Voltage of the power source for the indoor fan motor is 230V.
4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		Low-Height In-the-Ceiling Type(AC)			
Model		RPIZ-0.8HNATNQ	RPIZ-1.0HNATNQ	RPIZ-1.3HNATNQ	RPIZ-1.5HNATNQ
Indoor Unit Power Supply		220-240V~50Hz			
Nominal Cooling Capacity *1)	kW	2.2	2.8	3.6	4.0
	Btu/h	7,500	9,500	12,300	13,600
Nominal Cooling Capacity *2)	kW	2.3	2.9	3.8	4.4
	Btu/h	7,800	9,900	13,000	15,000
Nominal Heating Capacity	kW	2.5	3.2	4	4.5
	Btu/h	8,500	10,900	13,600	15,300
Sound Pressure Level (Overall A Scale)	dB	30/23/20	30/23/20	34/25/22	32.5/26/23
Outer Dimensions					
Height	mm	192	192	192	192
Width	mm	700	700	700	910
Depth	mm	447	447	447	447
Net Weight	kg	17	17	17	21
Refrigerant	—	R410A(Nitrogen-Charged for Corrosion-Resistance)			
Indoor Fan Air Flow Rate*3)	m ³ /min.	9.5/6.5/5.5	9.5/6.5/5.5	9.5/6.5/5.5	10/7/6
External Pressure *4)	Pa	10(30)	10(30)	10(30)	10(30)
Connections		Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping					
Liquid Line	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Gas Line	mm	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Condensate Drain	—	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.142	0.142	0.142	0.15

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

2. The sound pressure level is based on following conditions.

1.4 Meter Beneath the Unit.

With Discharge Duct (2.0m) and Return Duct (1.0m).

Voltage of the power source for the indoor fan motor is 220V.

In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. The air flow rate is based on following conditions.

Voltage of the power source for the indoor fan motor is 230V.

4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

Indoor Unit Type		Low-Height In-the-Ceiling Type(AC)			
Model		RPIZ-1.8HNATNQ	RPIZ-2.0HNATNQ	RPIZ-2.3HNATNQ	RPIZ-2.5HNATNQ
Indoor Unit Power Supply		220-240V~50Hz			
Nominal Cooling Capacity *1)	kW	5.0	5.6	6.3	7.1
	Btu/h	17,000	19,100	21,500	24,200
Nominal Cooling Capacity *2)	kW	5.2	5.8	6.5	7.3
	Btu/h	17,700	19,800	22,200	24,900
Nominal Heating Capacity	kW	5.6	6.3	7.1	8
	Btu/h	19,100	21,500	24,200	27,300
Sound Pressure Level (Overall A Scale)	dB	34/26/25	34/26/25	37/29/27	37/29/27
Outer Dimensions					
Height	mm	192	192	192	192
Width	mm	1,180	1,180	1,180	1,180
Depth	mm	447	447	447	447
Net Weight	kg	27	27	28	28
Refrigerant	—	R410A(Nitrogen-Charged for Corrosion-Resistance)			
Indoor Fan Air Flow Rate *3)	m ³ /min.	15/10/9	15/10/9	17/10/9	17/10/9
External Pressure *4)	Pa	10(30)	10(30)	10(30)	10(30)
Connections		Flare-Nut Connection (with Flare Nuts)			
Refrigerant Piping Liquid Line	mm	Φ6.35	Φ6.35	Φ9.53	Φ9.53
Gas Line	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Condensate Drain	—	VP25	VP25	VP25	VP25
Approximate Packing Measurement	m ³	0.18	0.18	0.18	0.18

NOTES:

1. The nominal cooling capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions

Indoor Air Inlet Temperature: 27°C DB (80°F DB)
*1) 19.0°C WB (66.2°F WB)
*2) 19.5°C WB (67°F WB)

Outdoor Air Inlet Temperature: 35°C DB (95°F DB)

Heating Operation Conditions

Indoor Air Inlet Temperature: 20°C DB (68°F DB)
Outdoor Air Inlet Temperature: 7°C DB (45°F DB)
6°C WB (43°F WB)

Piping Length: 7.5 Meters Piping Lift: 0 Meter

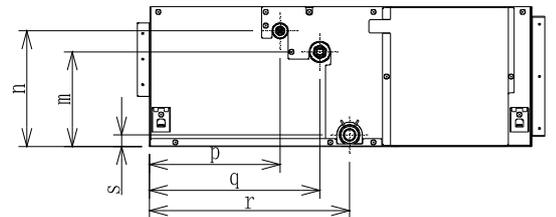
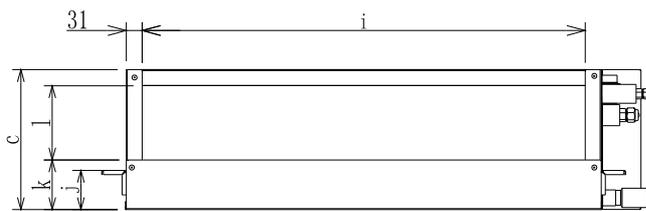
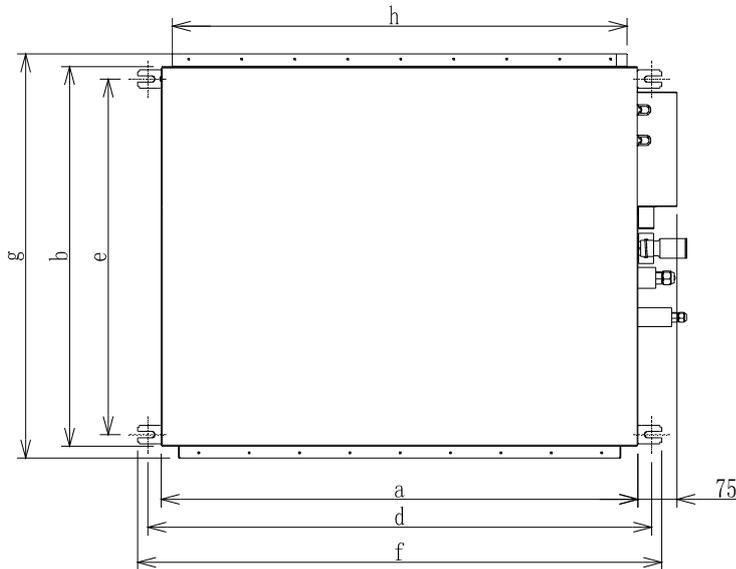
2. The sound pressure level is based on following conditions.
1.4 Meter Beneath the Unit.
With Discharge Duct (2.0m) and Return Duct (1.0m).
Voltage of the power source for the indoor fan motor is 220V.
In case of the power source of 240V, the sound pressure level increases by about 1~2 dB.
The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. The air flow rate is based on following conditions.
Voltage of the power source for the indoor fan motor is 230V.
4. The data for external pressure *4) indicates "Standard Pressure Setting values when a filter is not used.

3. Dimensional Data

■ In-the-Ceiling Type

Models: RPIL-0.8~6.0HNAUNQ, RPIM-0.8~2.5HNAUNQ, RPIH-3.0~6.0HNAUNQ

Unit: mm



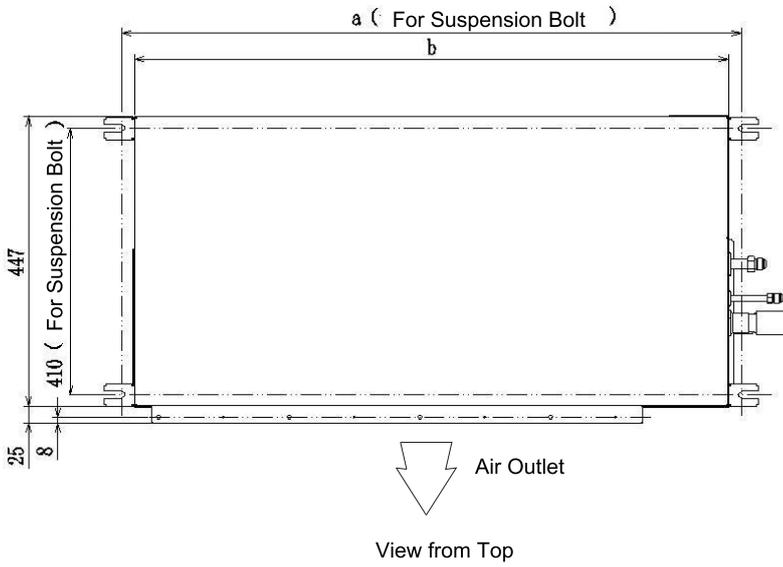
Unit: mm

Dimension Model	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s
0.8	650	720	270	700	676	740	768	608	582	74	95	138	182	222	246	321	377	23	20
1.0	650	720	270	700	676	740	768	608	582	74	95	138	182	222	246	321	377	23	20
1.3	650	720	270	700	676	740	768	608	582	74	95	138	182	222	246	321	377	23	20
1.5	650	720	270	700	676	740	768	608	582	74	95	138	182	222	246	321	377	23	20
1.8	900	720	270	950	676	990	768	858	832	74	95	138	182	222	246	321	377	23	20
2.0	900	720	270	950	676	990	768	858	832	74	95	138	182	222	246	321	377	23	20
2.3	900	720	270	950	676	990	768	858	832	74	95	138	182	222	246	321	377	23	20
2.5	900	720	270	950	676	990	768	858	832	74	95	138	182	222	246	321	377	23	20
3.0	1100	800	300	1150	756	1190	848	1049	1036	74	72	195	150	190	270	345	401	22	25
3.3	1100	800	300	1150	756	1190	848	1049	1036	74	72	195	150	190	270	345	401	22	25
4.0	1100	800	300	1150	756	1190	848	1049	1036	74	72	195	150	190	270	345	401	22	25
5.0	1400	800	300	1450	756	1490	848	1349	1336	74	72	195	150	190	270	345	401	22	25
6.0	1400	800	300	1450	756	1490	848	1349	1336	74	72	195	150	190	270	345	401	22	25

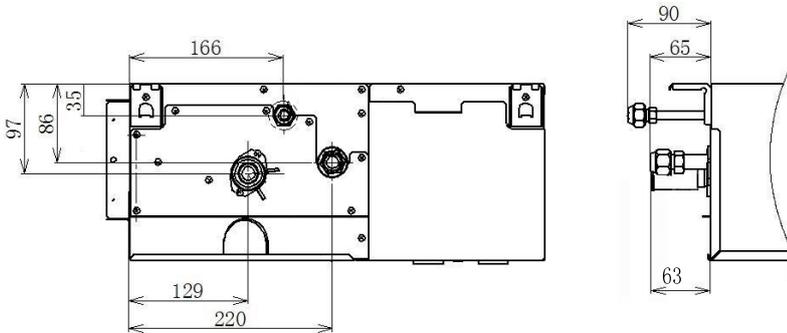
■ Low-Height in-the Ceiling Type

Models: RPIZ-0.8~2.5HNATNQ/HNDTSQ

Unit: mm



Model	Dimension	a	b
RPIZ-0.8~1.3HNATNQ/HNDTSQ		740	700
RPIZ-1.5HNATNQ/HNDTSQ		950	910
RPIZ-1.8~2.5HNATNQ/HNDTSQ		1220	1180



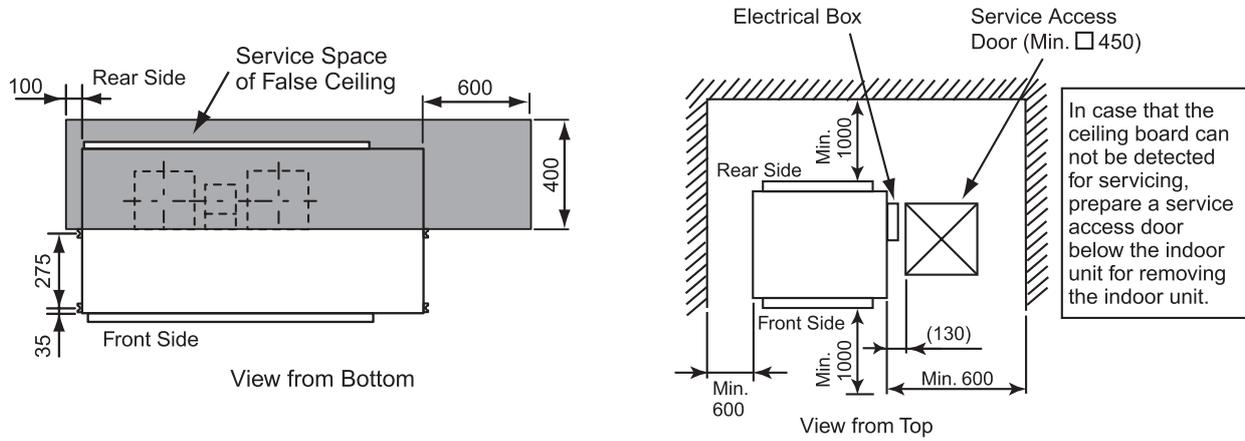
4. Selection Data

4.1 Operation Space

■ In-the-Ceiling Type

Models: RPIL-0.8~6.0HNAUNQ, RPIM-0.8~2.5HNAUNQ, RPIH-3.0~6.0HNAUNQ

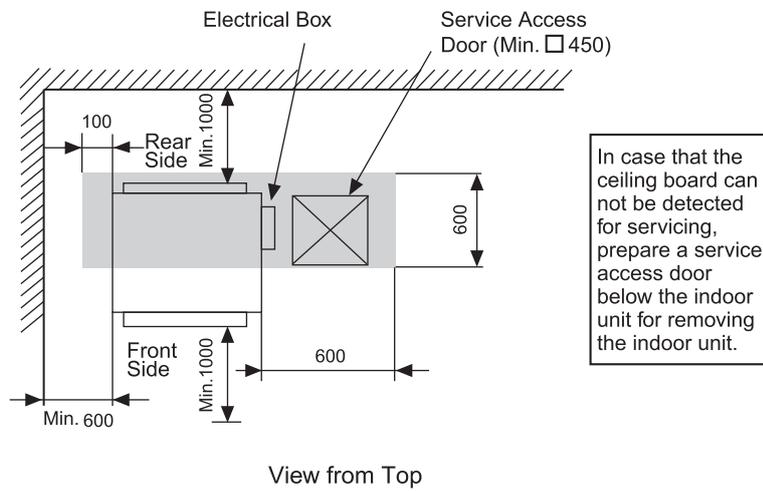
Unit: mm



■ Low-Height In-the-Ceiling Type

Models: RPIZ-0.8~2.5HNATNQ/HNDTSQ

Unit: mm



4.2 Sensible Heat Factor (SHF)

The sensible heat factor of indoor units at each fan speed based on the JIS Standard B8616, is given in the below.

Unit: mm

Indoor Unit Model	SHF		
	Hi	Me	Lo
RPIL-0.8HNAUNQ	0.75	0.71	0.68
RPIL-1.0HNAUNQ	0.75	0.71	0.68
RPIL-1.3HNAUNQ	0.75	0.71	0.68
RPIL-1.5HNAUNQ	0.75	0.71	0.68
RPIL-1.8HNAUNQ	0.74	0.70	0.67
RPIL-2.0HNAUNQ	0.74	0.70	0.67
RPIL-2.3HNAUNQ	0.74	0.70	0.67
RPIL-2.5HNAUNQ	0.74	0.70	0.67
RPIL-3.0HNAUNQ	0.73	0.69	0.65
RPIL-3.3HNAUNQ	0.73	0.69	0.65
RPIL-4.0HNAUNQ	0.73	0.69	0.65
RPIL-5.0HNAUNQ	0.73	0.69	0.65
RPIL-6.0HNAUNQ	0.73	0.69	0.65
RPIM-0.8HNAUNQ	0.75	0.71	0.68
RPIM-1.0HNAUNQ	0.75	0.71	0.68
RPIM-1.3HNAUNQ	0.75	0.71	0.68
RPIM-1.5HNAUNQ	0.75	0.71	0.68
RPIM-1.8HNAUNQ	0.74	0.70	0.67
RPIM-2.0HNAUNQ	0.74	0.70	0.67
RPIM-2.3HNAUNQ	0.74	0.70	0.67
RPIM-2.5HNAUNQ	0.74	0.70	0.67
RPIH-3.0HNAUNQ	0.73	0.69	0.65
RPIH-3.3HNAUNQ	0.73	0.69	0.65
RPIH-4.0HNAUNQ	0.73	0.69	0.65
RPIH-5.0HNAUNQ	0.73	0.69	0.65
RPIH-6.0HNAUNQ	0.73	0.69	0.65
RPIZ-0.8HNDTSQ	0.73	0.7	0.68
RPIZ-1.0HNDTSQ	0.73	0.7	0.68
RPIZ-1.3HNDTSQ	0.73	0.7	0.68
RPIZ-1.5HNDTSQ	0.73	0.7	0.67
RPIZ-1.8HNDTSQ	0.73	0.7	0.67
RPIZ-2.0HNDTSQ	0.72	0.69	0.67
RPIZ-2.3HNDTSQ	0.72	0.69	0.68
RPIZ-2.5HNDTSQ	0.75	0.71	0.66

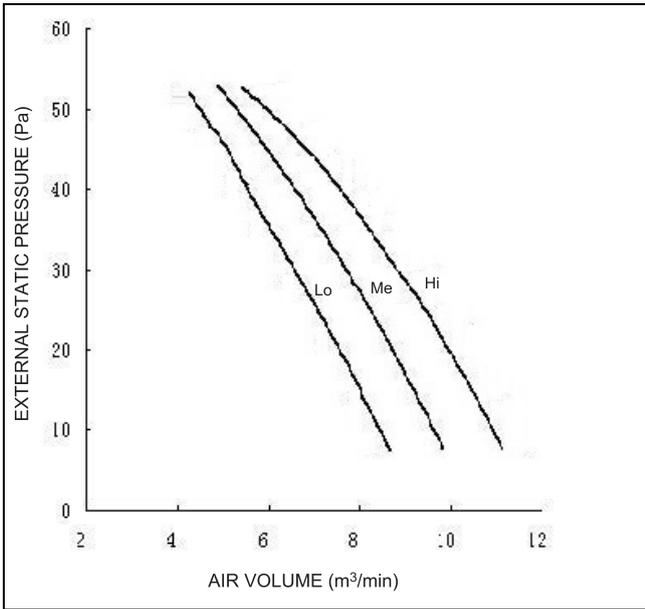
Unit: mm

Indoor Unit Model	SHF					
	HH2	HH1	Hi	ME	Lo	SLo
RPIZ-0.8HNATNQ	0.73	0.71	0.7	0.69	0.69	0.68
RPIZ-1.0HNATNQ	0.73	0.71	0.7	0.69	0.69	0.68
RPIZ-1.3HNATNQ	0.73	0.71	0.7	0.69	0.69	0.68
RPIZ-1.5HNATNQ	0.73	0.71	0.7	0.69	0.69	0.67
RPIZ-1.8HNATNQ	0.73	0.71	0.7	0.69	0.69	0.67
RPIZ-2.0HNATNQ	0.72	0.7	0.69	0.69	0.68	0.67
RPIZ-2.3HNATNQ	0.72	0.7	0.69	0.69	0.68	0.68
RPIZ-2.5HNATNQ	0.75	0.73	0.71	0.69	0.68	0.66

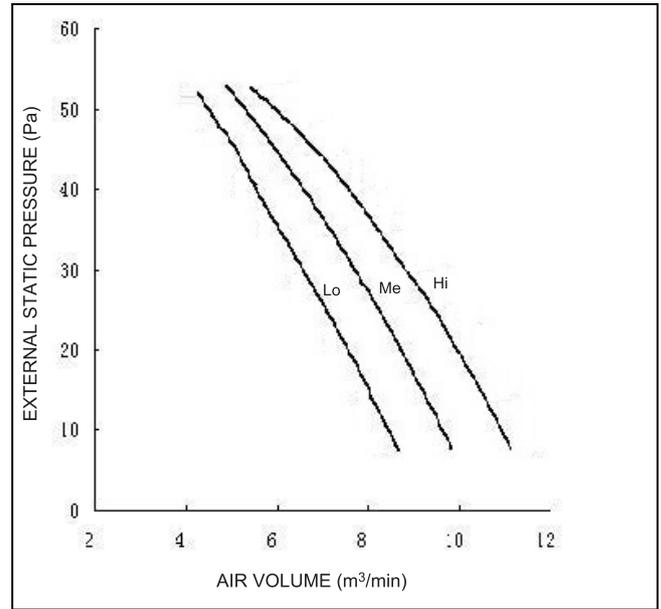
4.3 Fan Performance

In the Ceiling Type(Low Static Pressure)

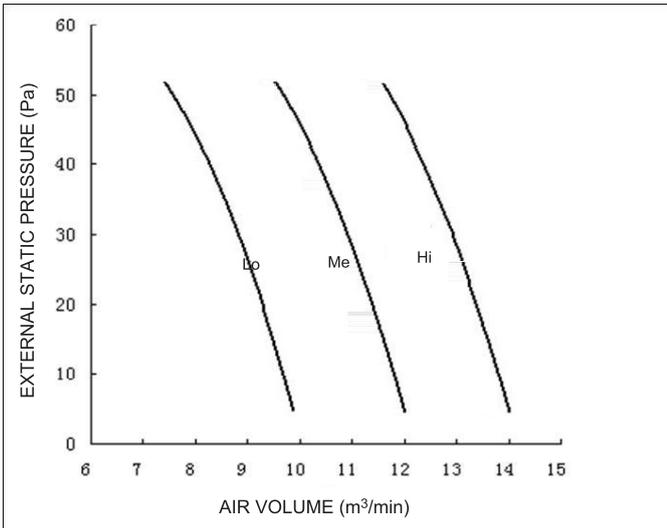
RPIL-0.8HNAUNQ



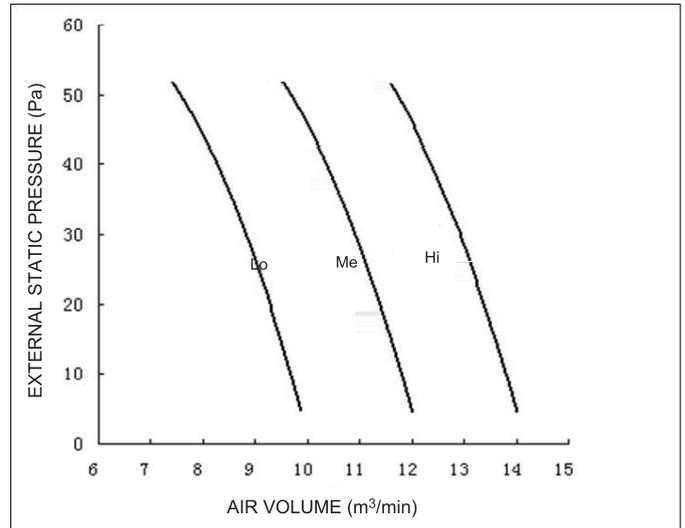
RPIL-1.0HNAUNQ



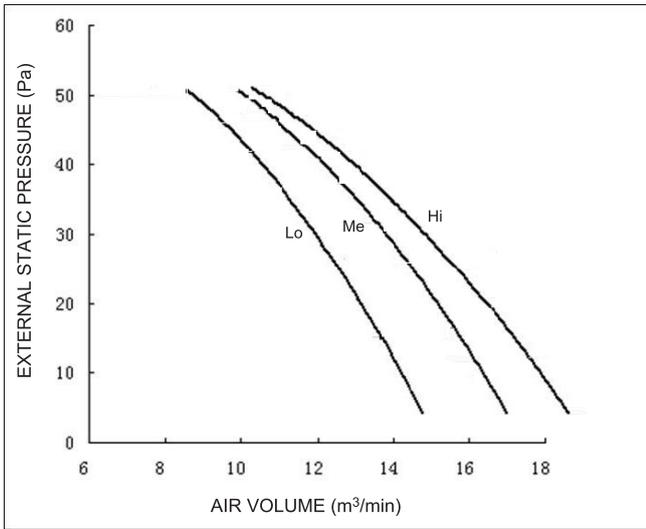
RPIL-1.3HNAUNQ



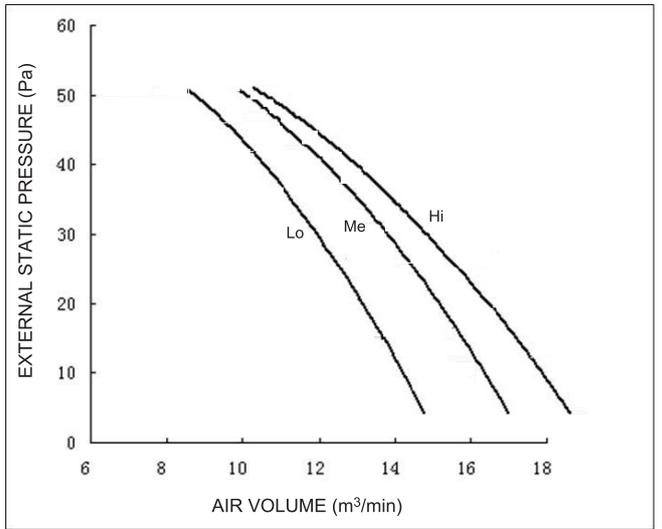
RPIL-1.5HNAUNQ



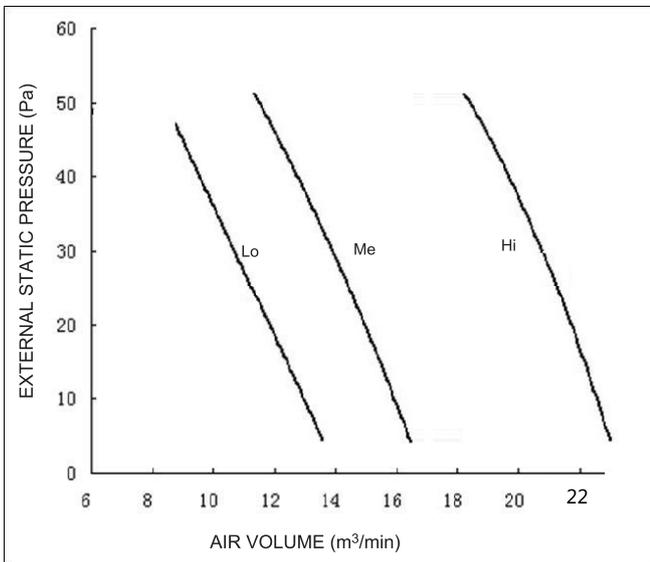
RPIL-1.8HNAUNQ



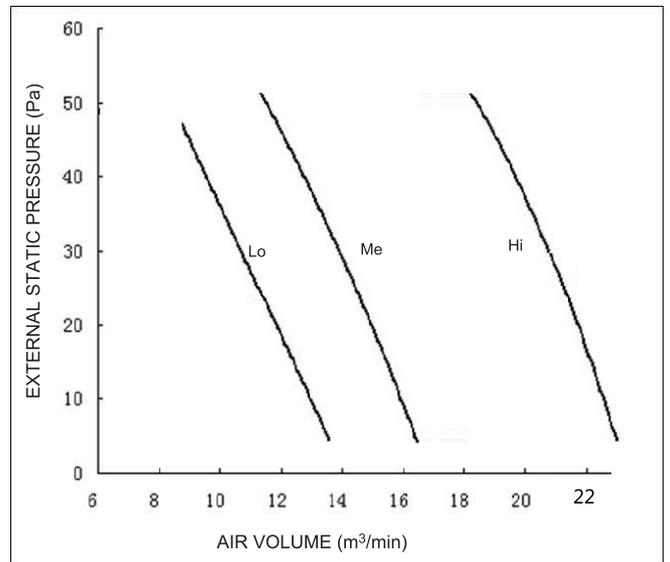
RPIL-2.0HNAUNQ



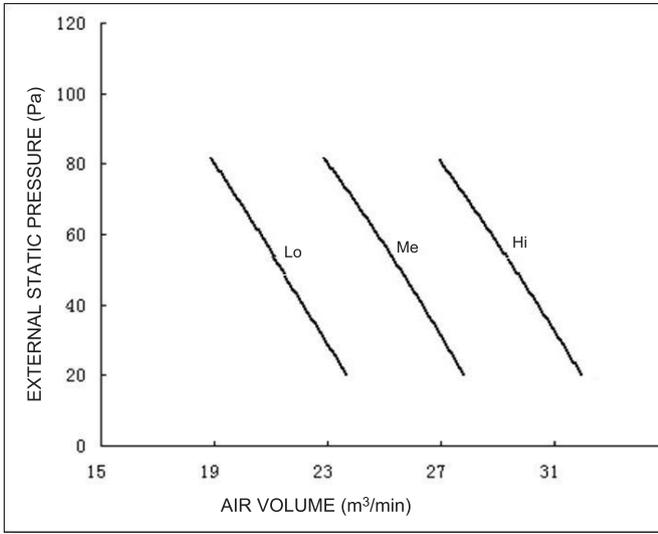
RPIL-2.3HNAUNQ



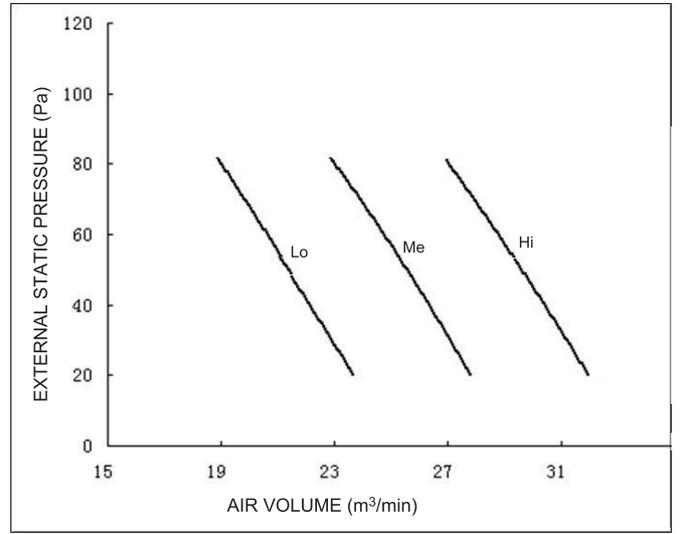
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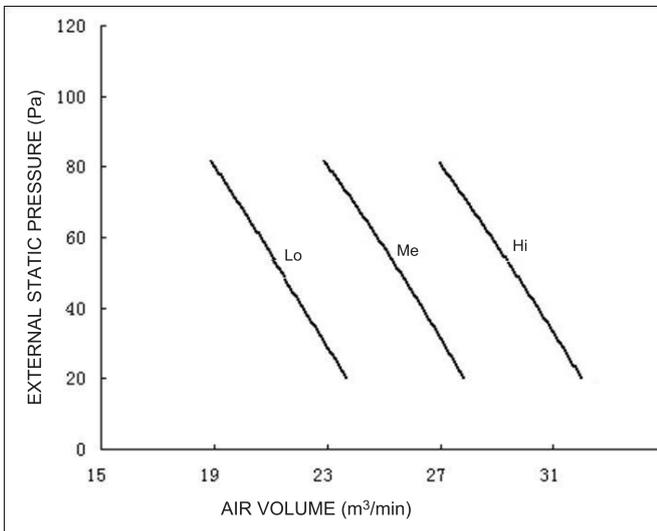
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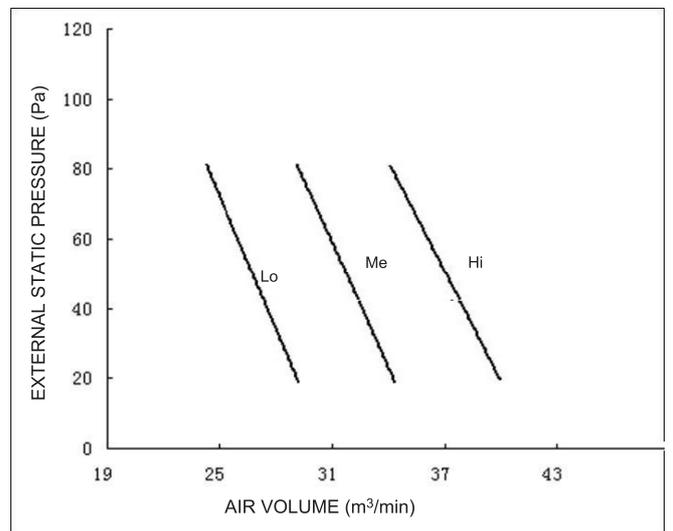
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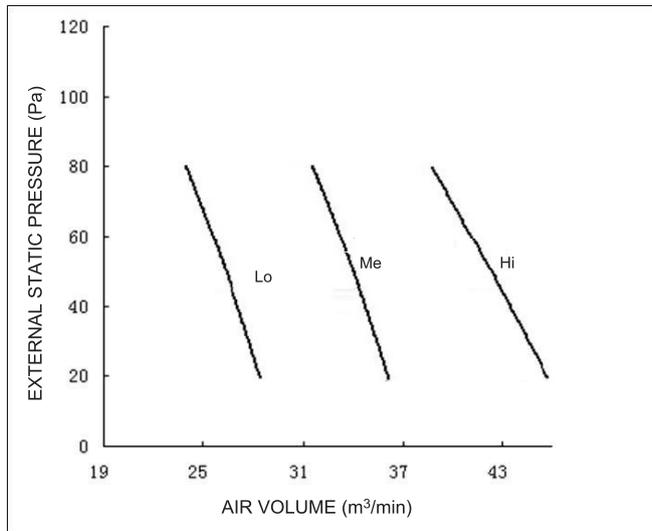
RPIL-4.0HNAUNQ



RPIL-5.0HNAUNQ

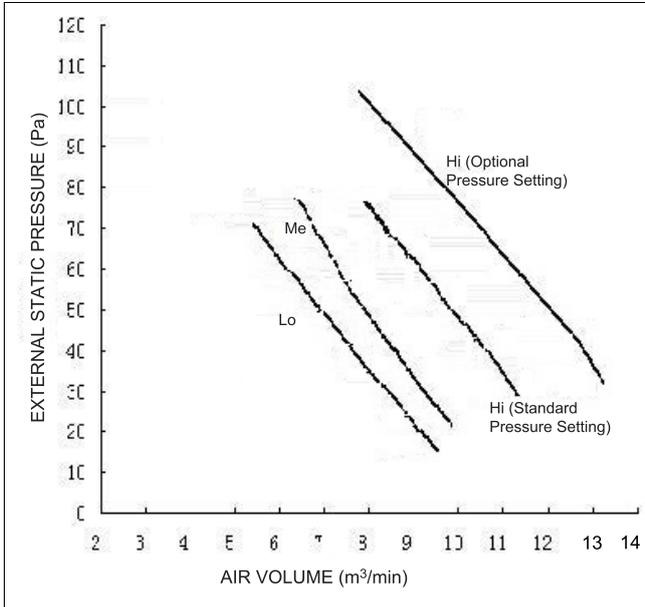


RPIL-6.0HNAUNQ

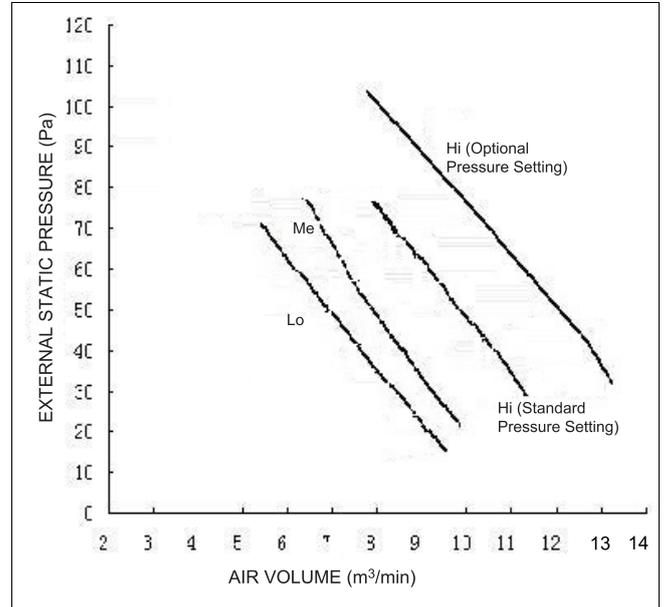


In-the-Ceiling Type (Middle Static Pressure)

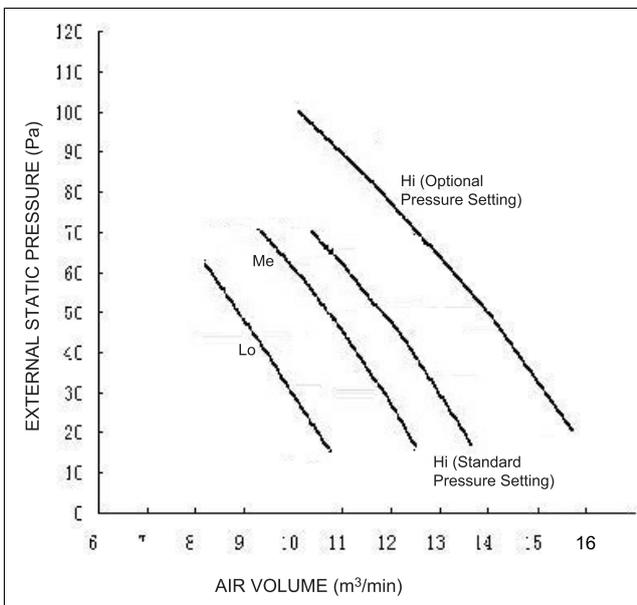
RPIM-0.8HNAUNQ



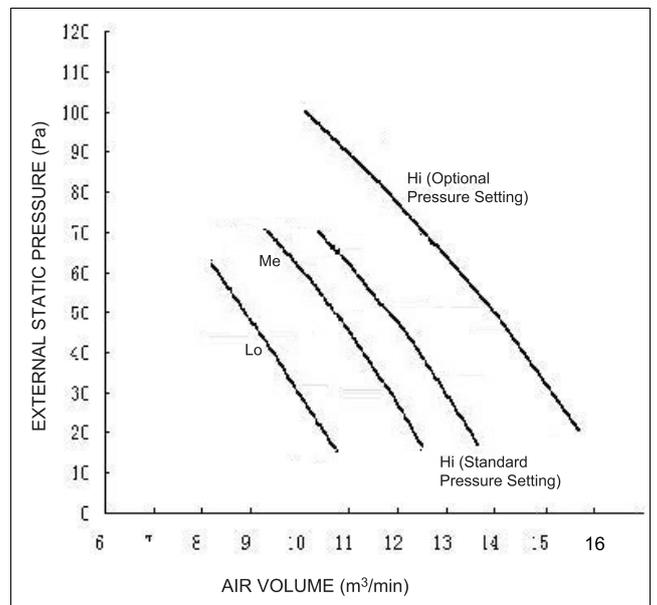
RPIM-1.0HNAUNQ



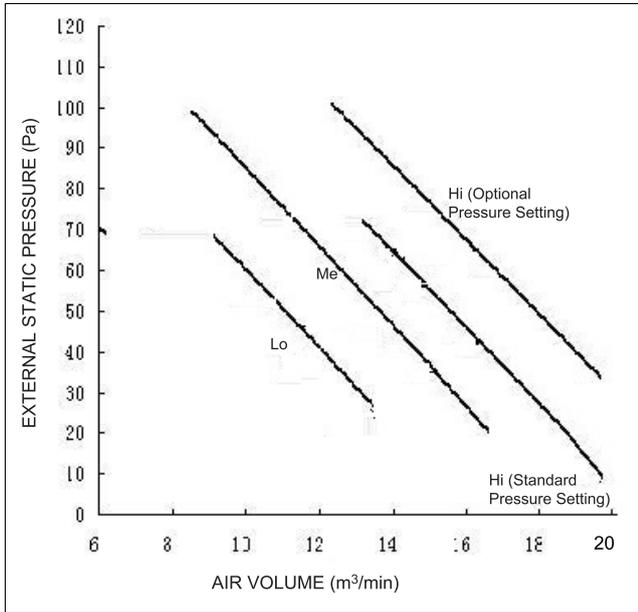
RPIM-1.3HNAUNQ



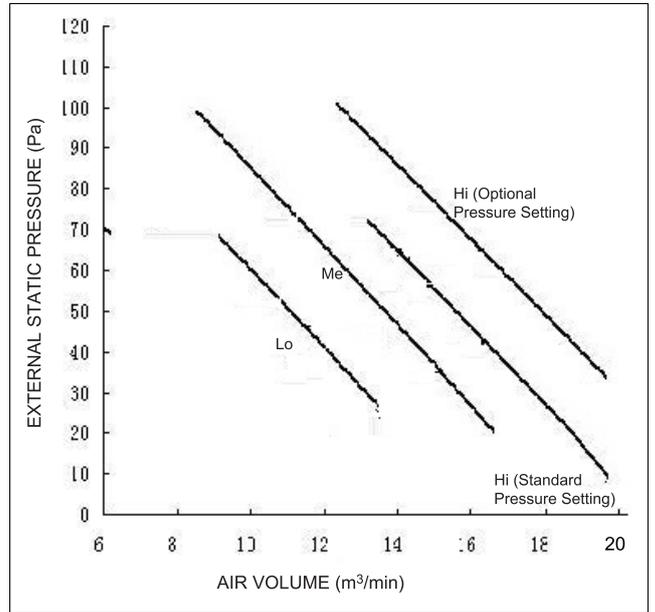
RPIM-1.5HNAUNQ



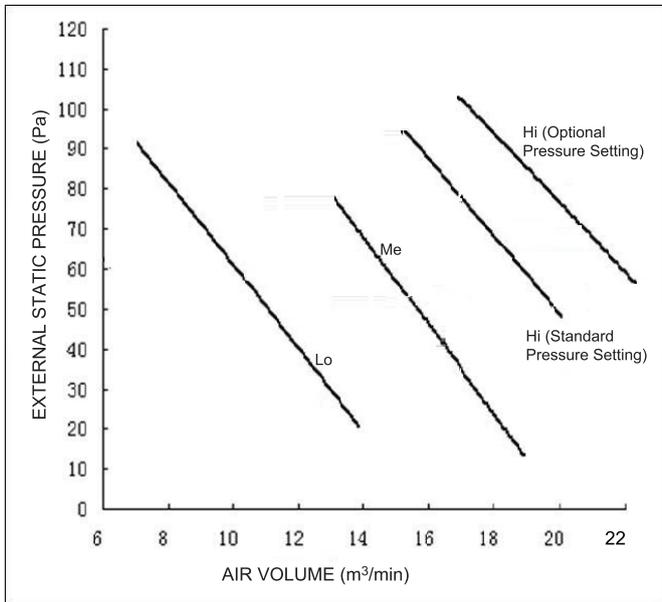
RPIM-1.8HNAUNQ



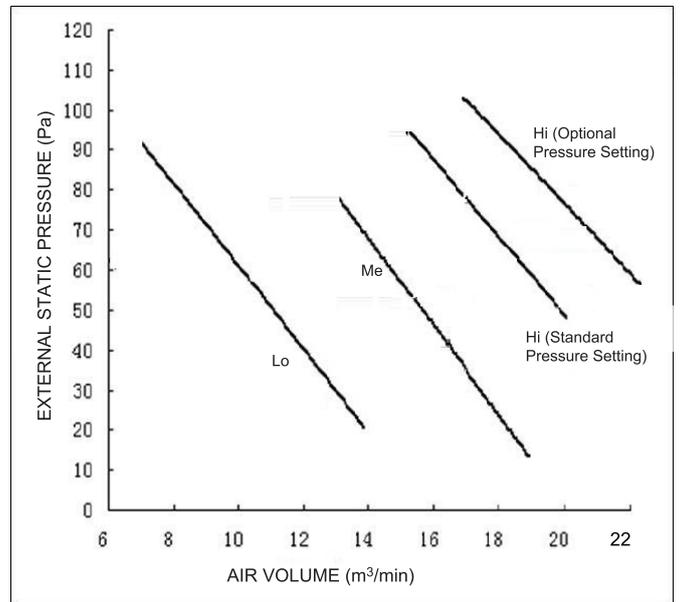
RPIM-2.0HNAUNQ



RPIM-2.3HNAUNQ

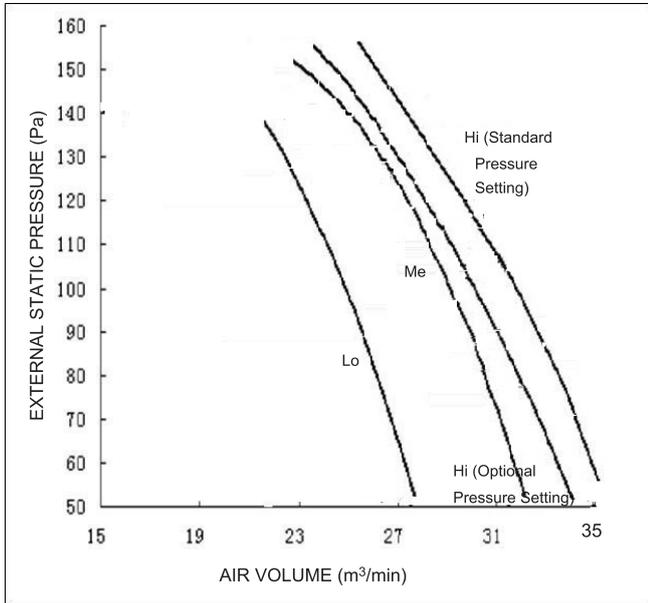


RPIM-2.5HNAUNQ

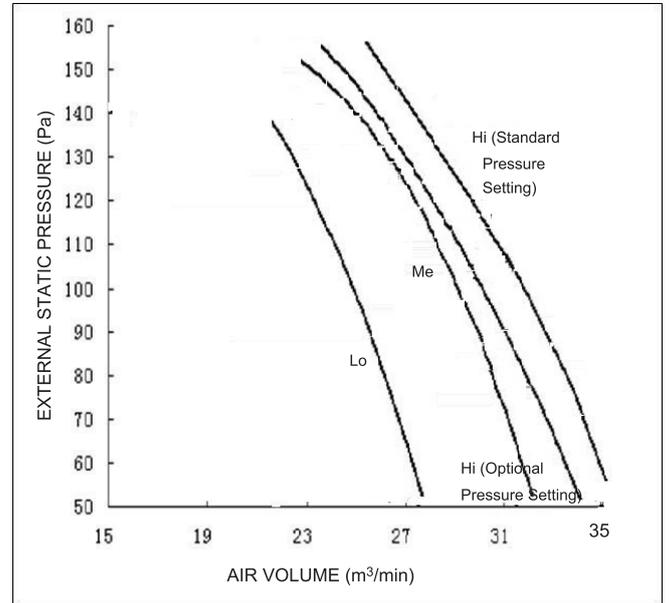


In-the-Ceiling Type (High Static Pressure)

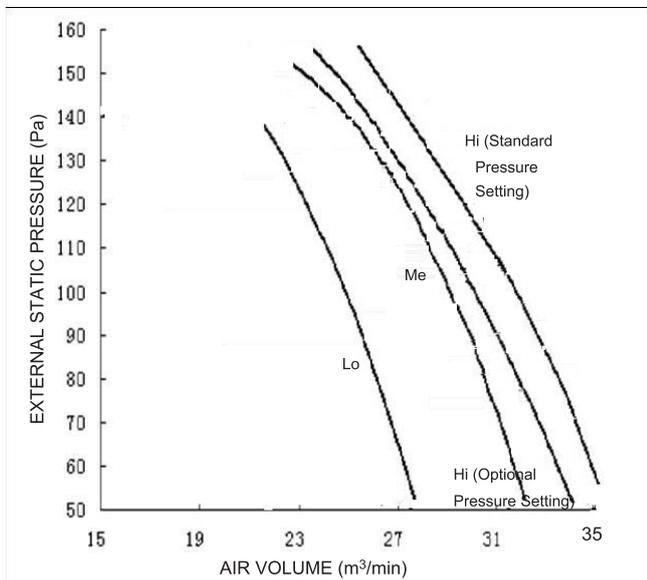
RPIH-3.0HNAUNQ



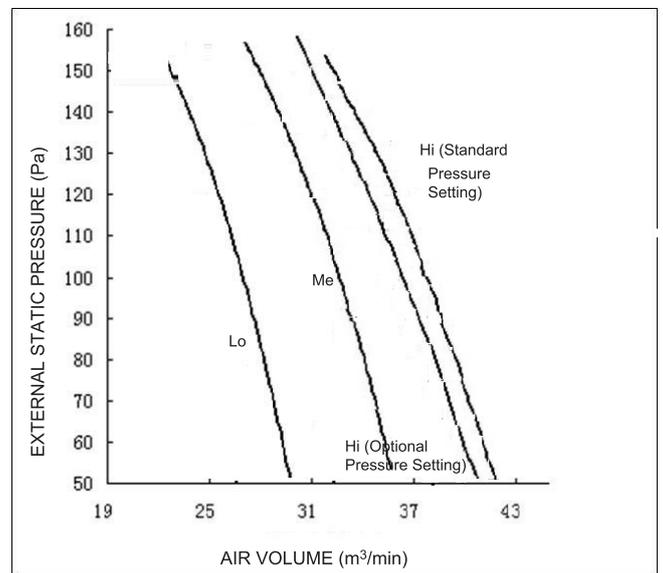
RPIH-3.3HNAUNQ



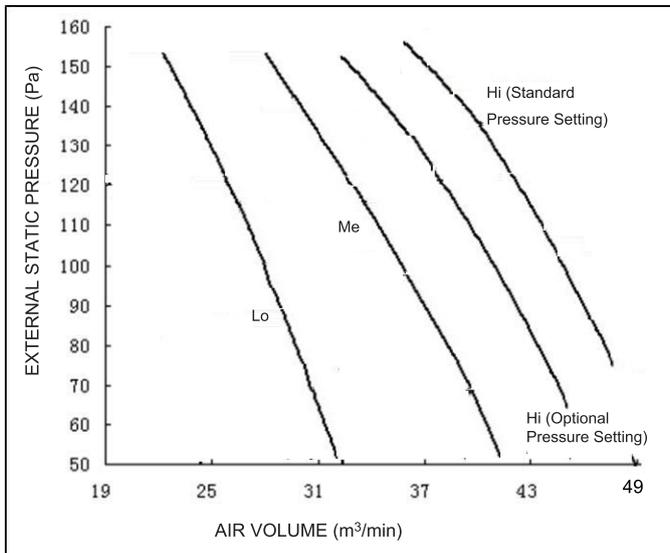
RPIH-4.0HNAUNQ



RPIH-5.0HNAUNQ

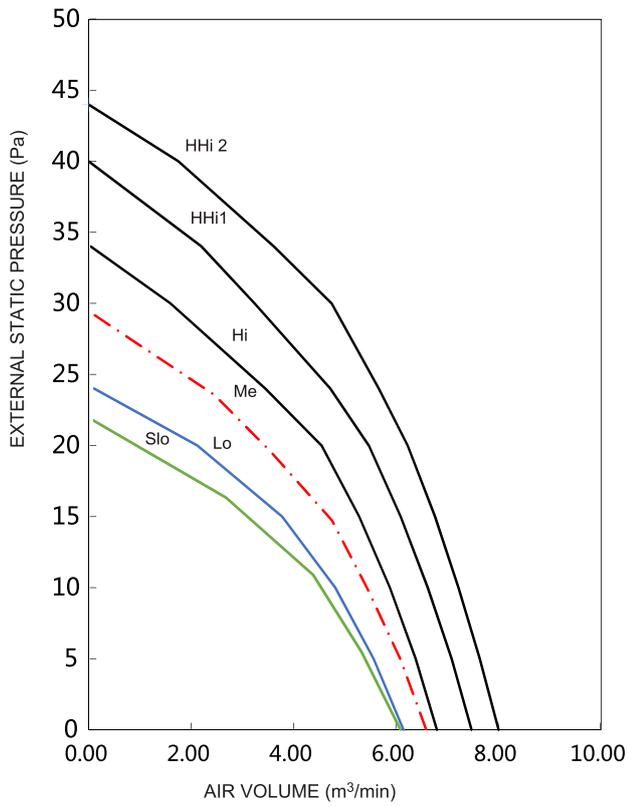


RPIH-6.0HNAUNQ

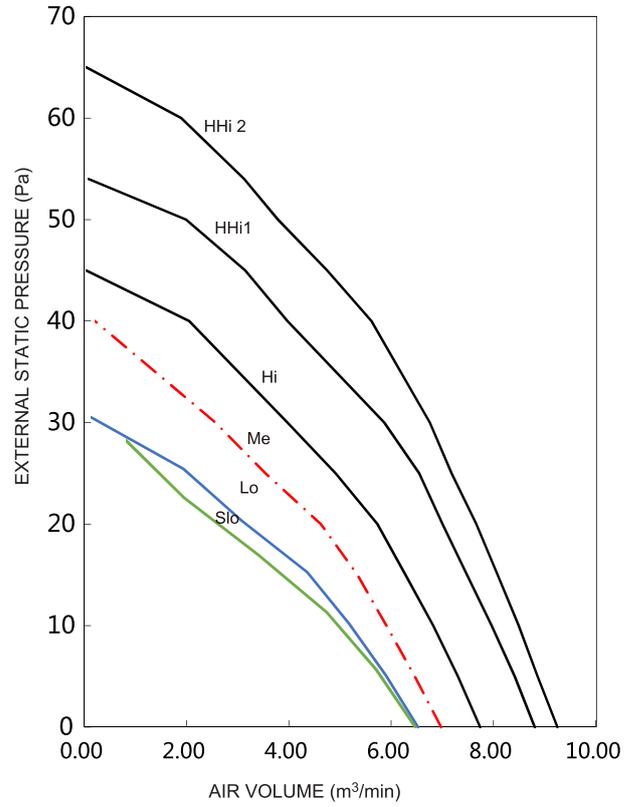


Low-Height In-the-Ceiling Type(DC)

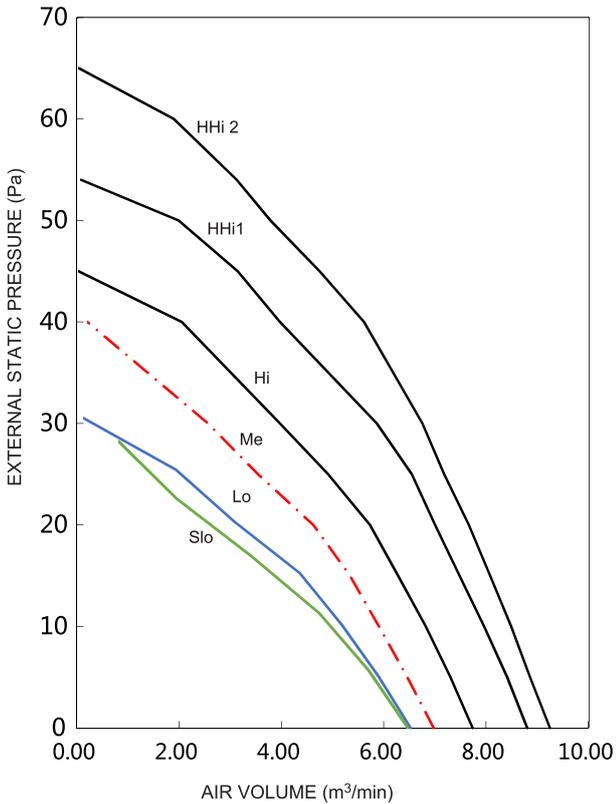
RPIZ-0.8HNDTSQ



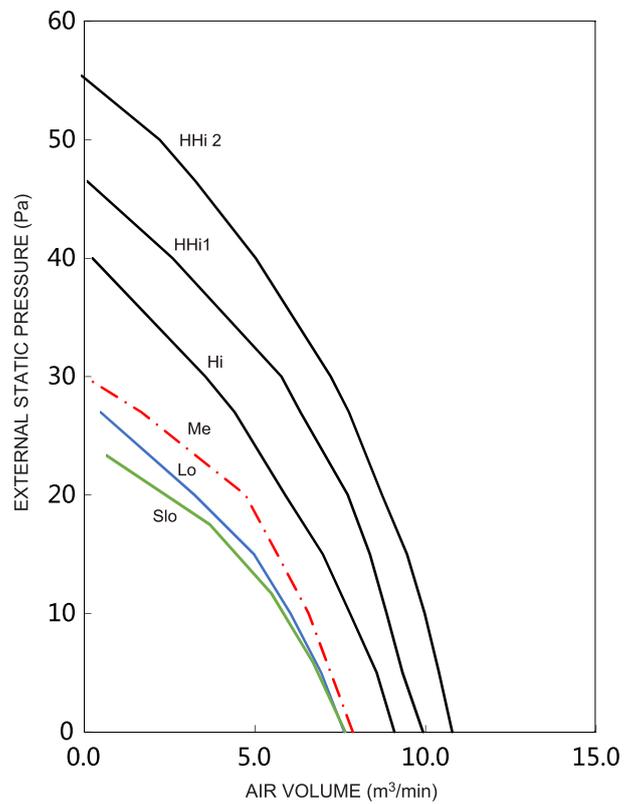
RPIZ-1.0HNDTSQ



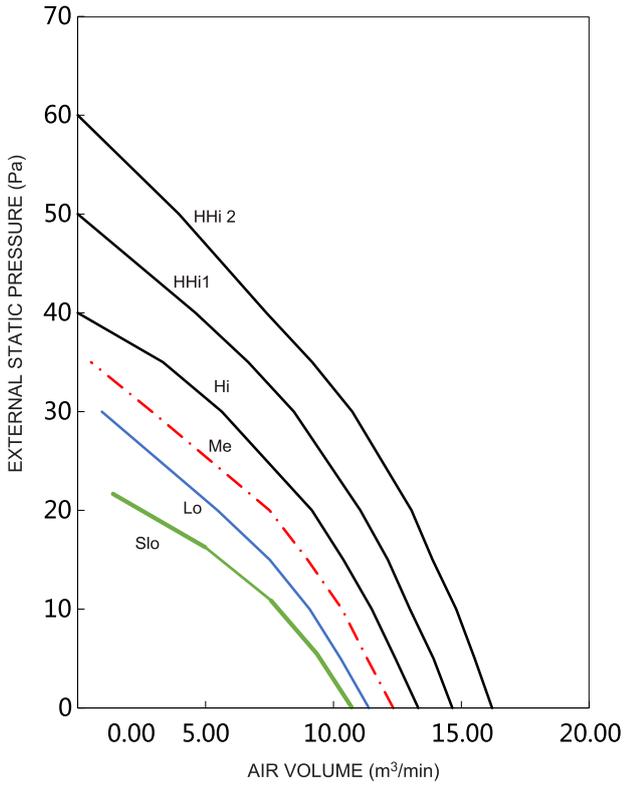
RPIZ-1.3HNDTSQ



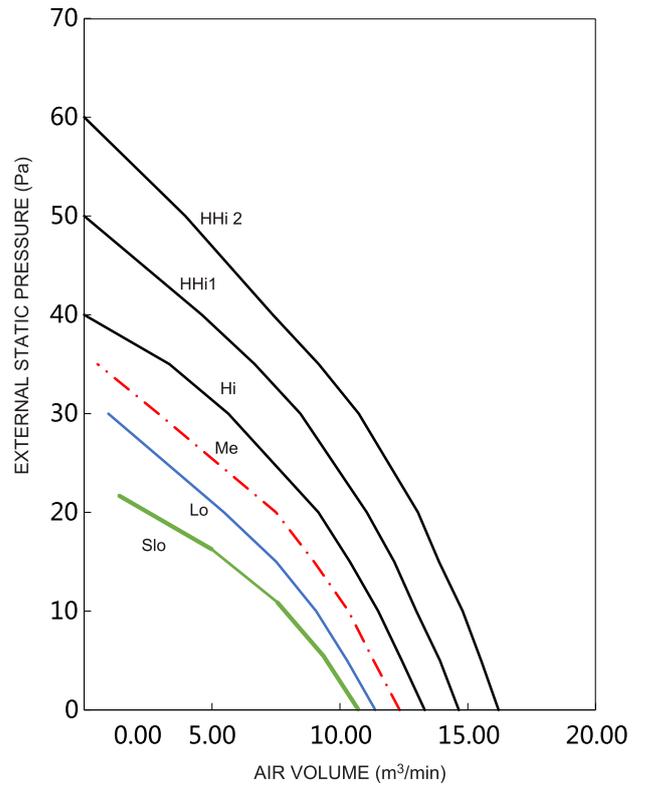
RPIZ-1.5HNDTSQ



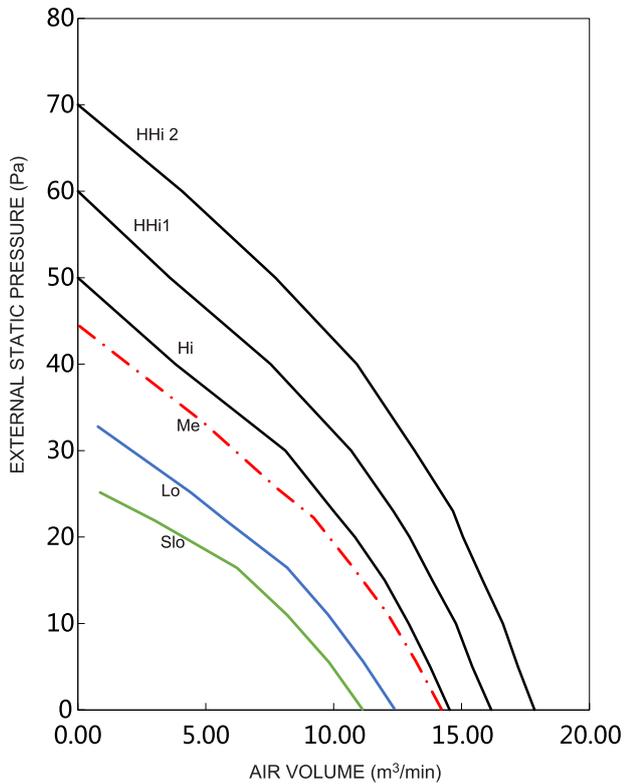
RPIZ-1.8HNDTSQ



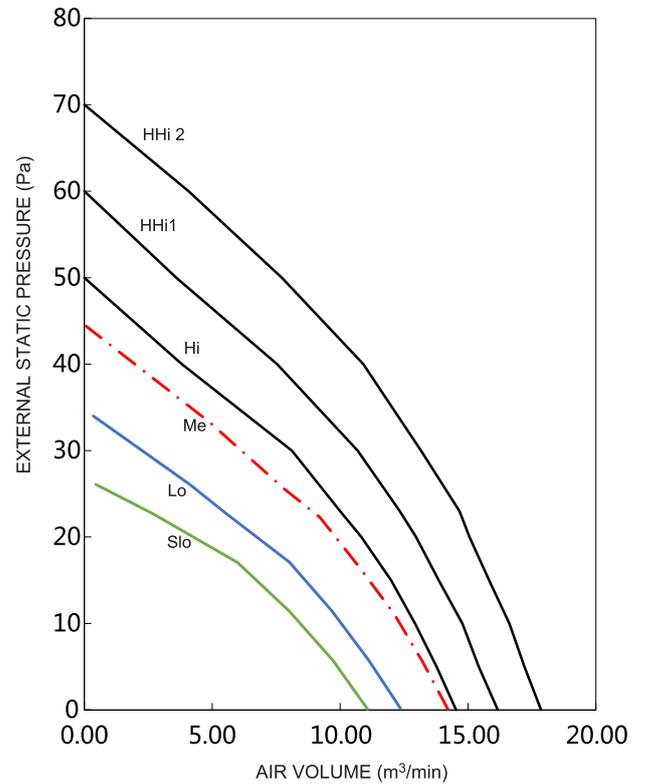
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RPIZ-2.3HNDTSQ

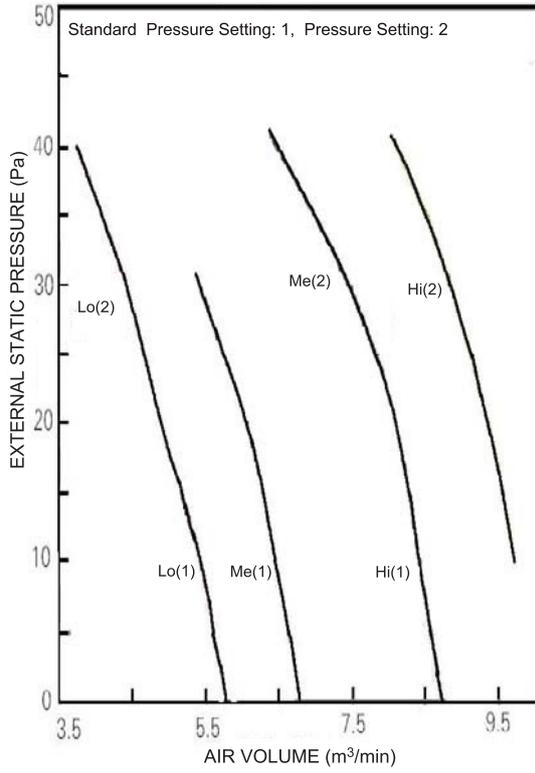


RPIZ-2.5HNDTSQ

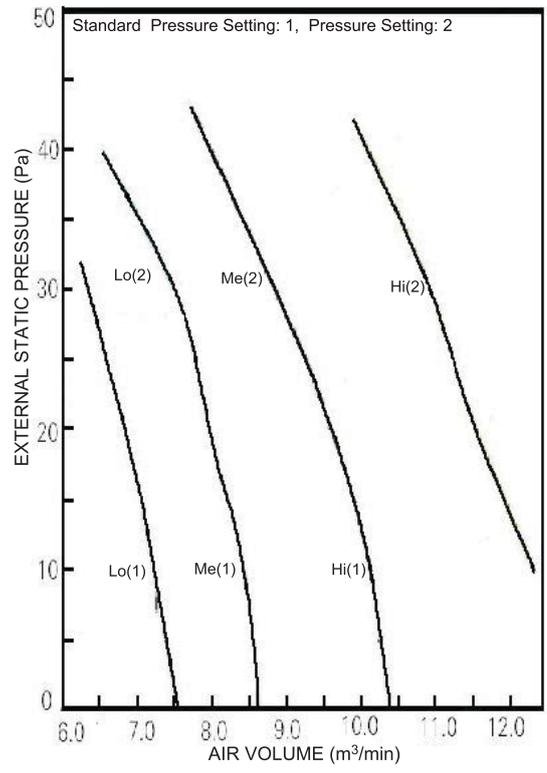


Low-Height In-the-Ceiling Type(AC)

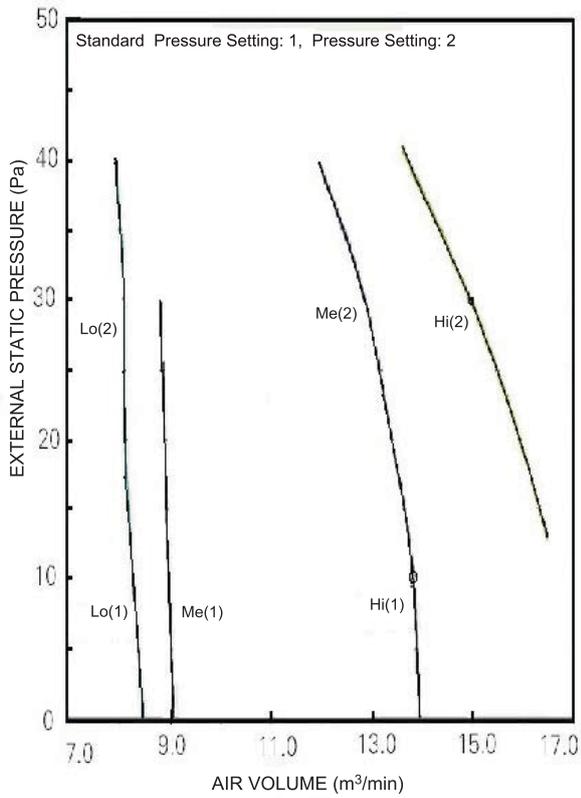
RPIZ-0.8/1.0/1.3HNATNQ



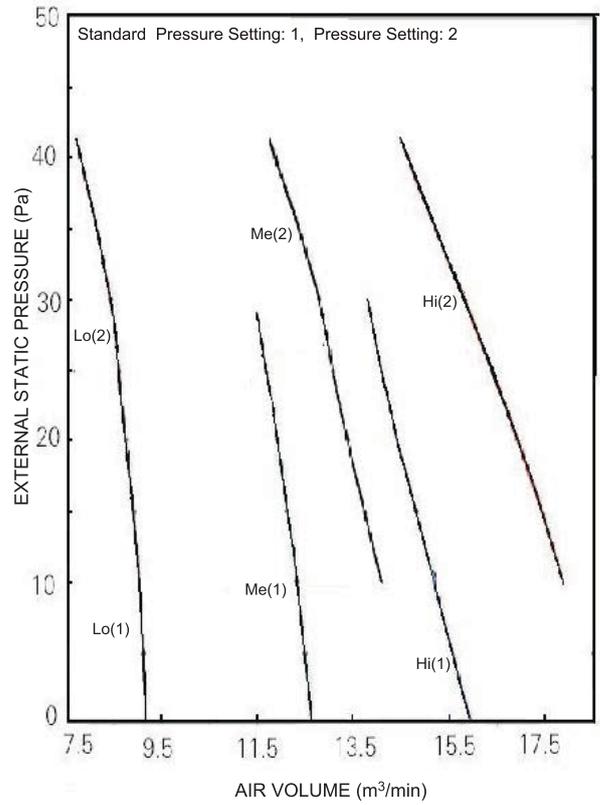
RPIZ-1.5HNATNQ



RPIZ-1.8/2.0HNATNQ



RPIZ-2.3/2.5HNATNQ



5. Electrical Data

Model		Unit Main Power			Applicable Voltage		Indoor		
		VOL	PH	HZ	Maximum	Minimum	PH	RNC	IPT
In-the-Ceiling Type (Low Static Pressure)	RPIL-0.8HNAUNQ	220- 240	1	50	264	198	1	0.27/0.27	0.06/0.06
	RPIL-1.0HNAUNQ							0.27/0.27	0.06/0.06
	RPIL-1.3HNAUNQ							0.51/0.51	0.12/0.12
	RPIL-1.5HNAUNQ							0.51/0.51	0.12/0.12
	RPIL-1.8HNAUNQ							0.41/0.41	0.09/0.09
	RPIL-2.0HNAUNQ							0.41/0.41	0.09/0.09
	RPIL-2.3HNAUNQ							0.75/0.75	0.16/0.16
	RPIL-2.5HNAUNQ							0.75/0.75	0.16/0.16
	RPIL-3.0HNAUNQ							1.13/1.13	0.25/0.25
	RPIL-3.3HNAUNQ							1.13/1.13	0.25/0.25
	RPIL-4.0HNAUNQ							1.13/1.13	0.25/0.25
	RPIL-5.0HNAUNQ							1.32/1.32	0.29/0.29
	RPIL-6.0HNAUNQ							1.64/1.64	0.38/0.38
In-the-Ceiling Type (Middle) Static Pressure)	RPIM-0.8HNAUNQ	220- 240	1	50	264	198	1	0.44/0.44	0.10/0.10
	RPIM-1.0HNAUNQ							0.44/0.44	0.10/0.10
	RPIM-1.3HNAUNQ							0.53/0.53	0.12/0.12
	RPIM-1.5HNAUNQ							0.53/0.53	0.12/0.12
	RPIM-1.8HNAUNQ							0.63/0.63	0.14/0.14
	RPIM-2.0HNAUNQ							0.63/0.63	0.14/0.14
	RPIM-2.3HNAUNQ							0.88/0.88	0.19/0.19
	RPIM-2.5HNAUNQ							0.88/0.88	0.19/0.19
In-the-Ceiling Type (High Static Pressure)	RPIH-3.0HNAUNQ	220- 240	1	50	264	198	1	1.14/1.14	0.25/0.25
	RPIH-3.3HNAUNQ							1.14/1.14	0.25/0.25
	RPIH-4.0HNAUNQ							1.14/1.14	0.25/0.25
	RPIH-5.0HNAUNQ							1.72/1.72	0.34/0.34
	RPIH-6.0HNAUNQ							2.02/2.02	0.45/0.45

VOL: Rated Unit Power Supply Voltage (Plated)(V)
 PH: Phase (ϕ)
 HZ: Frequency (Hz)

RNC: Running Current (A)
 IPT: Input (kW)

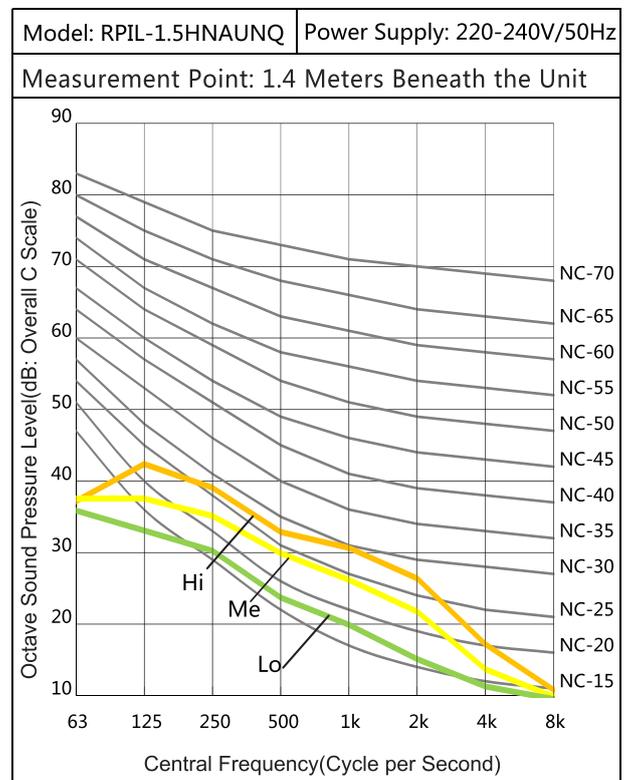
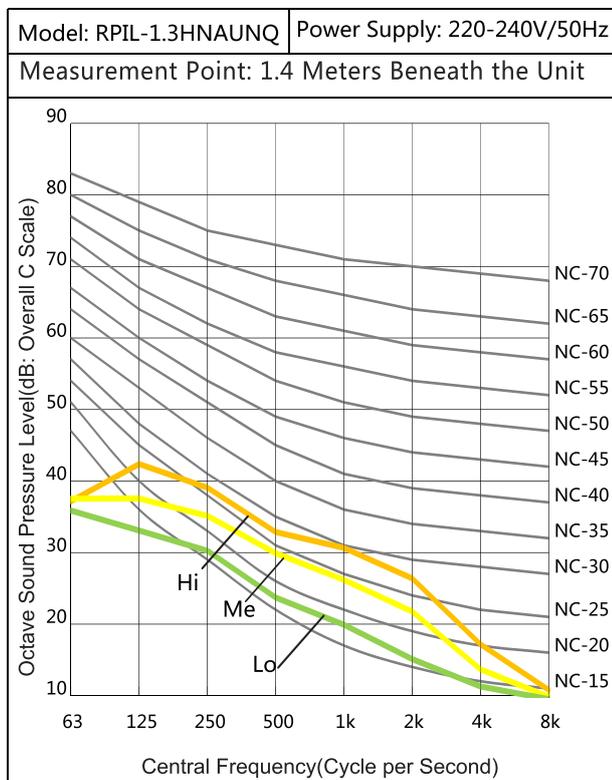
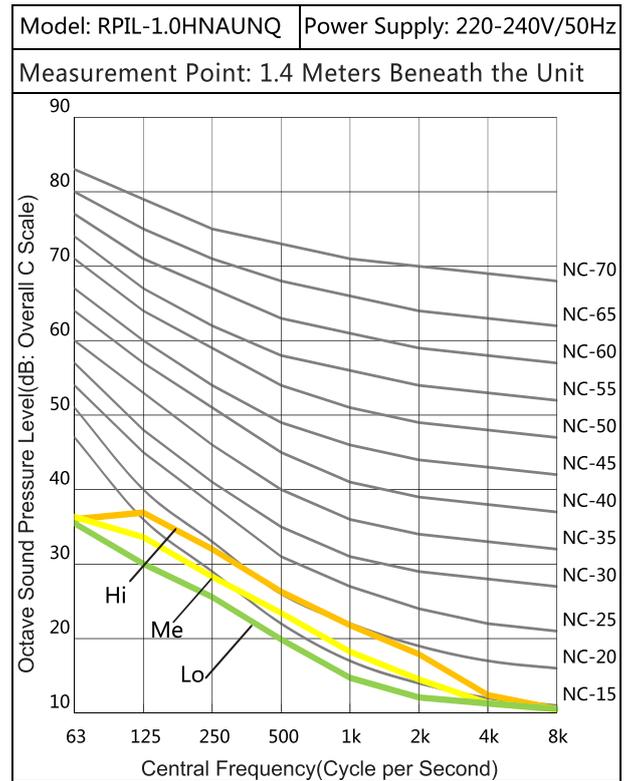
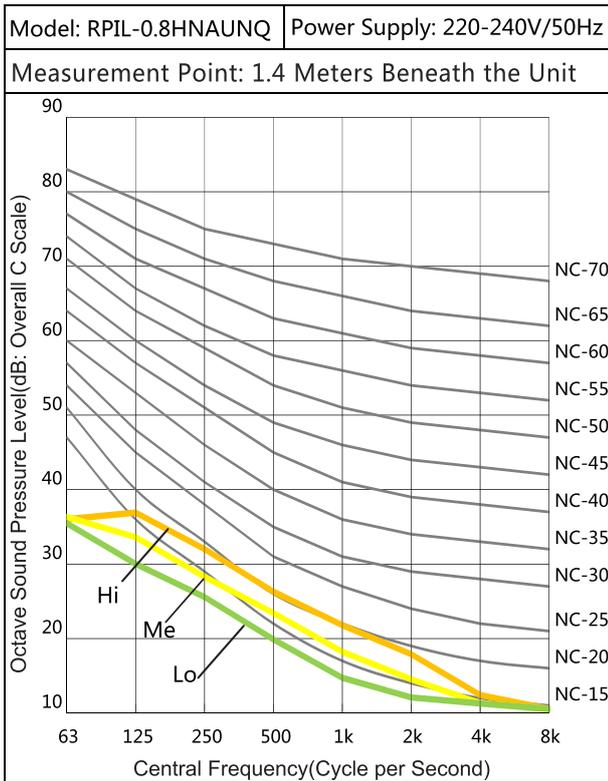
Model		Unit Main Power			Applicable Voltage		Indoor		
		VOL	PH	Hz	Maximum	Minimum	PH	RNC	IPT
Low-Height In-the-Ceiling Type(DC)	RPIZ-0.8HNDSQ	220– 240	1	50/60	264	198	1	0.04/0.04	0.32/0.32
	RPIZ-1.0HNDSQ							0.04/0.04	0.32/0.32
	RPIZ-1.3HNDSQ							0.04/0.04	0.32/0.32
	RPIZ-1.5HNDSQ							0.03/0.03	0.29/0.29
	RPIZ-1.8HNDSQ							0.06/0.06	0.54/0.54
	RPIZ-2.0HNDSQ							0.06/0.06	0.54/0.54
	RPIZ-2.3HNDSQ							0.06/0.06	0.54/0.54
	RPIZ-2.5HNDSQ							0.06/0.06	0.54/0.54
Low-Height In-the-Ceiling Type(AC)	RPIZ-0.8HNATNQ	220– 240	1	50	264	198	1	0.32/0.32	0.07/0.07
	RPIZ-1.0HNATNQ							0.32/0.32	0.07/0.07
	RPIZ-1.3HNATNQ							0.32/0.32	0.07/0.07
	RPIZ-1.5HNATNQ							0.32/0.32	0.07/0.07
	RPIZ-1.8HNATNQ							0.42/0.42	0.09/0.09
	RPIZ-2.0HNATNQ							0.42/0.42	0.09/0.09
	RPIZ-2.3HNATNQ							0.44/0.44	0.10/0.10
	RPIZ-2.5HNATNQ							0.44/0.44	0.10/0.10

VOL: Rated Unit Power Supply Voltage (Plated)(V)
PH: Phase (φ)
Hz: Frequency (Hz)

RNC: Running Current (A)
IPT: Input (kW)

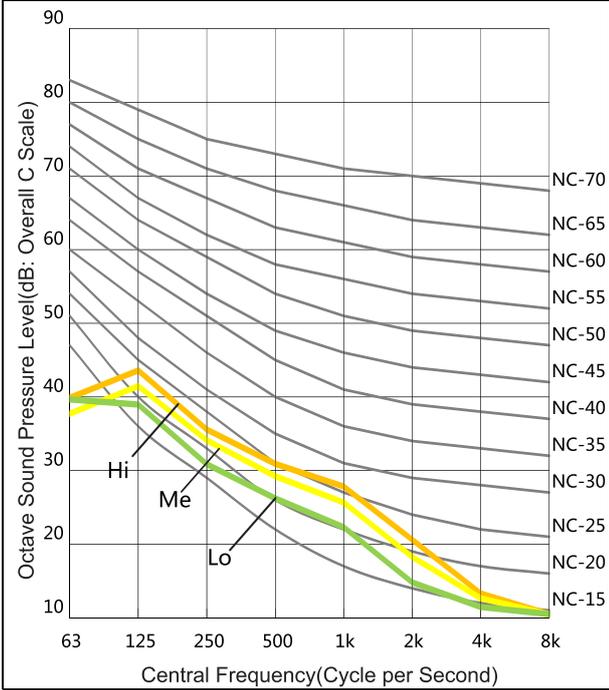
6. Sound Data

In-the Ceiling Type (Low Static Pressure)



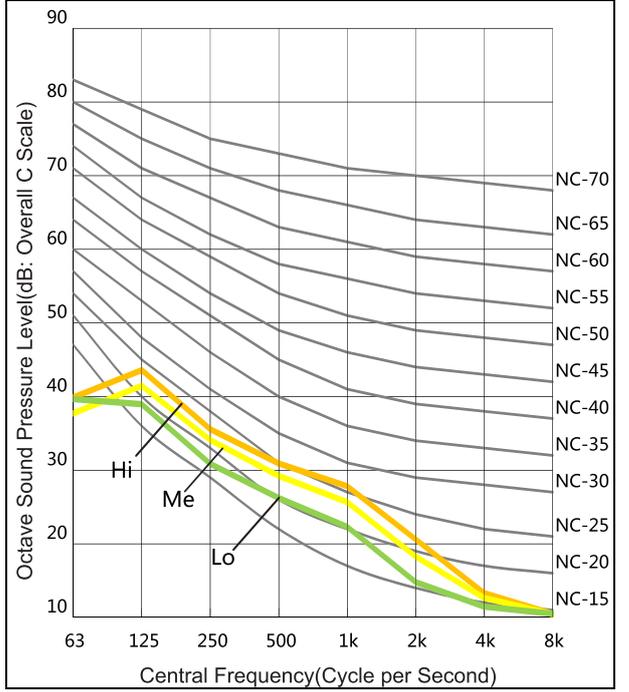
Model: RPIL-1.8HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



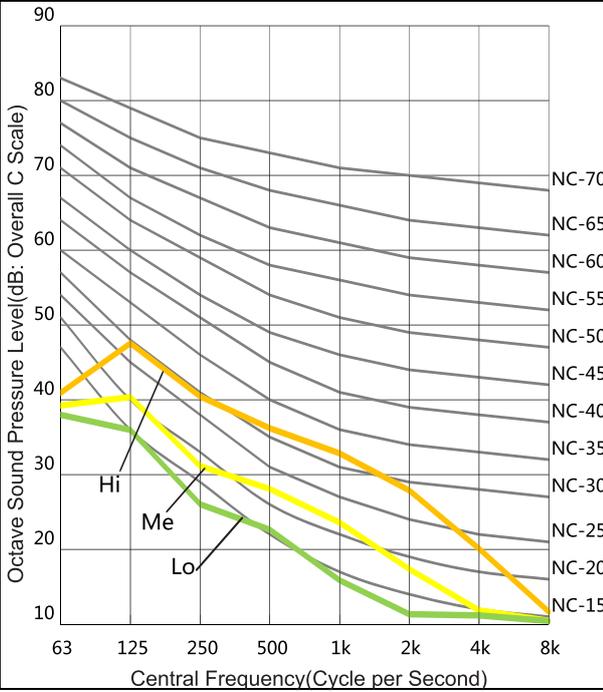
Model: RPIL-2.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



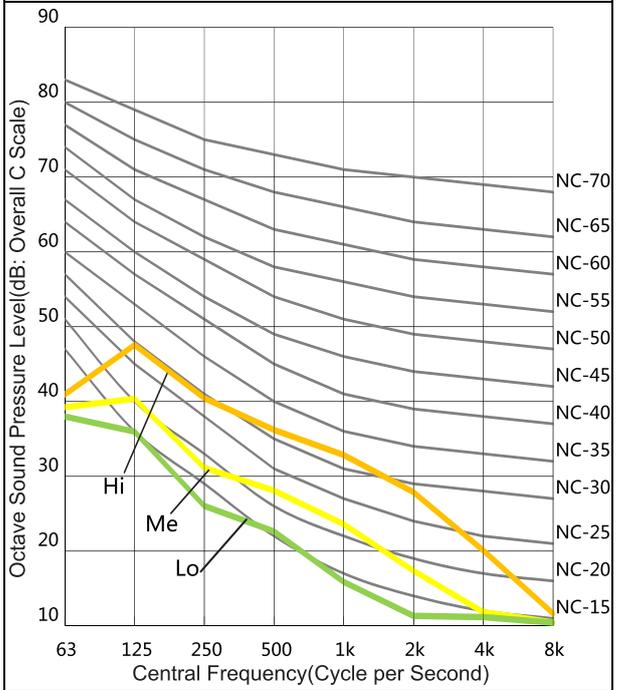
Model: RPIL-2.3HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



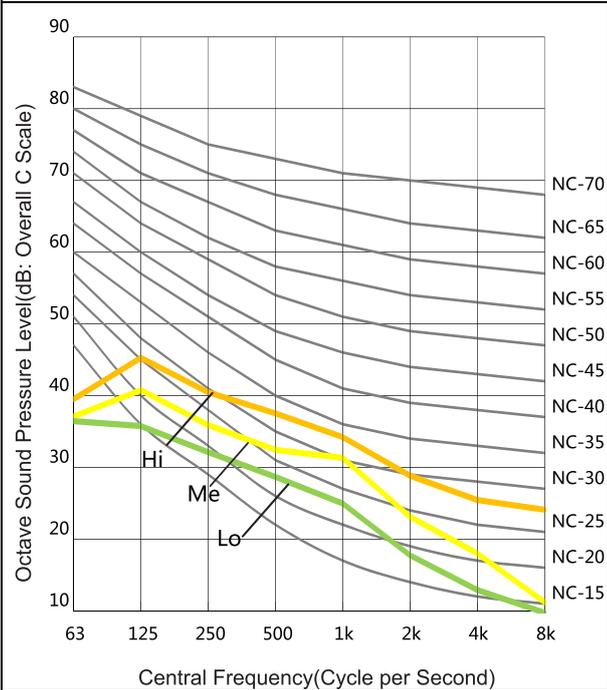
Model: RPIL-2.5HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



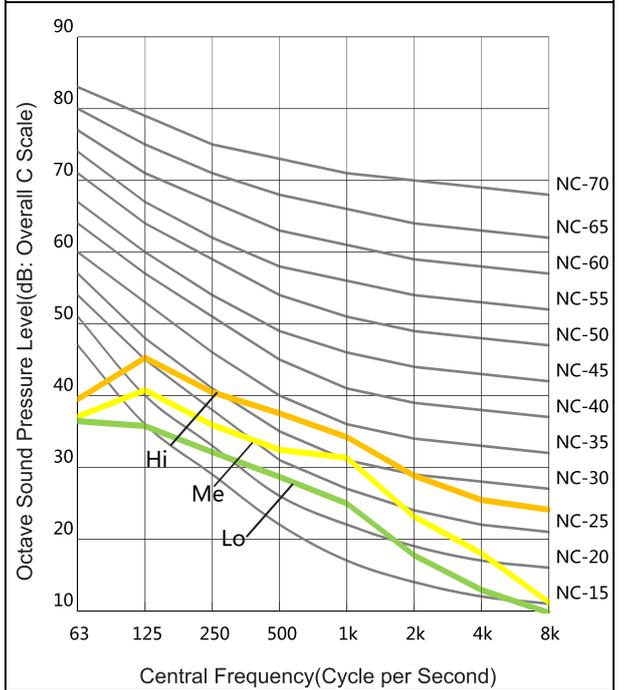
Model: RPIL-3.0HNAUNQ | Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



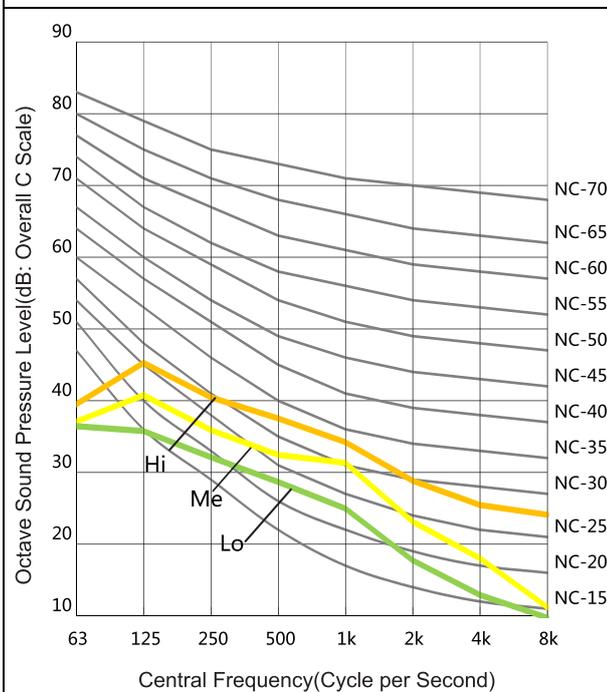
Model: RPIL-3.3HNAUNQ | Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



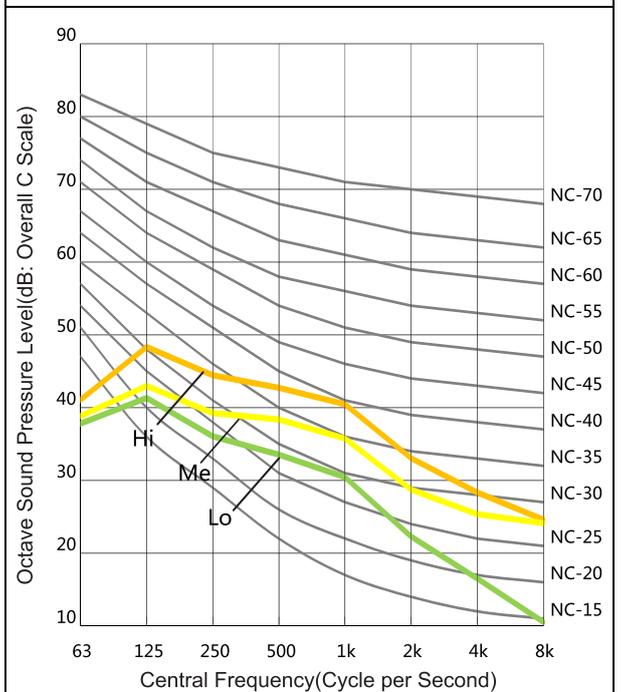
Model: RPIL-4.0HNAUNQ | Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



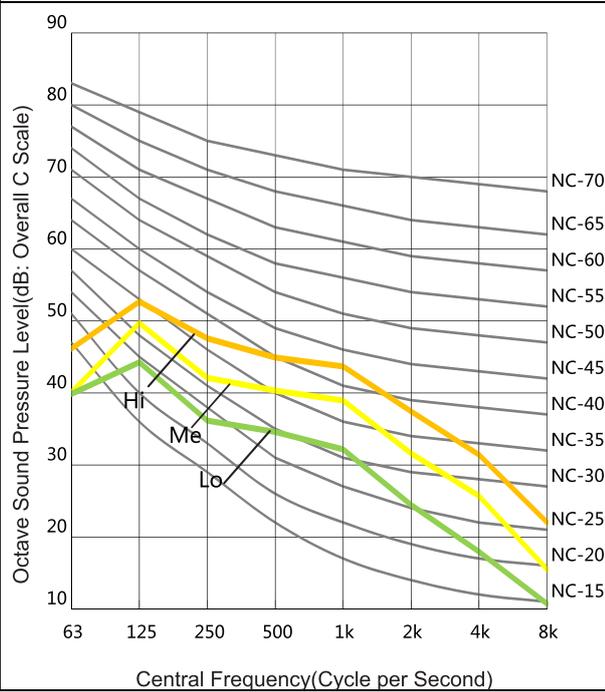
Model: RPIL-5.0HNAUNQ | Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



Model: RPIL-6.0HNAUNQ Power Supply: 220-240V/50Hz

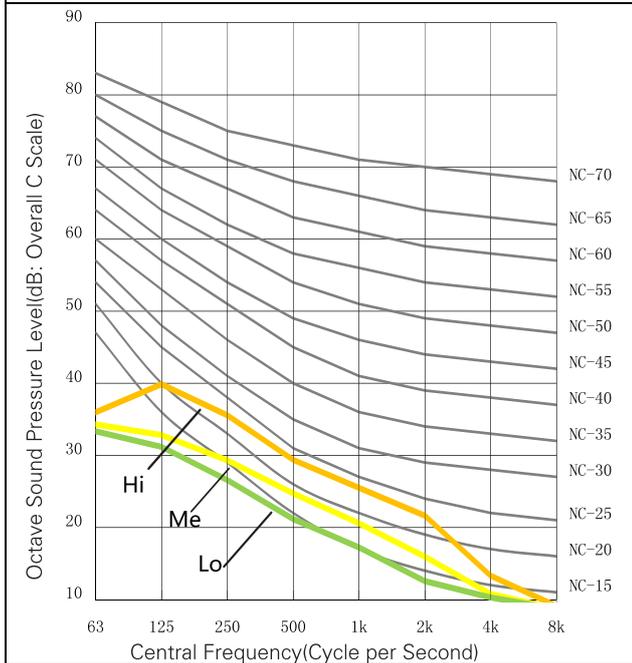
Measurement Point: 1.4 Meters Beneath the Unit



In-the Ceiling Type (Middle Static Pressure)

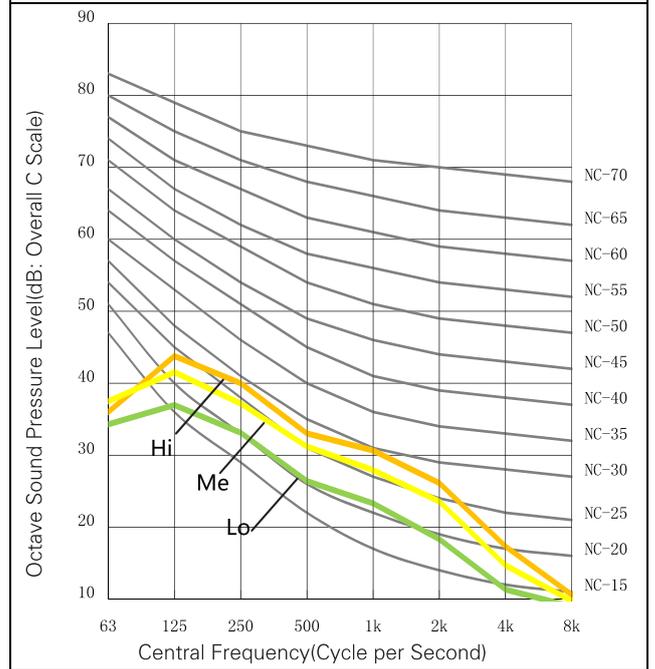
Model: RPIM-0.8/1.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



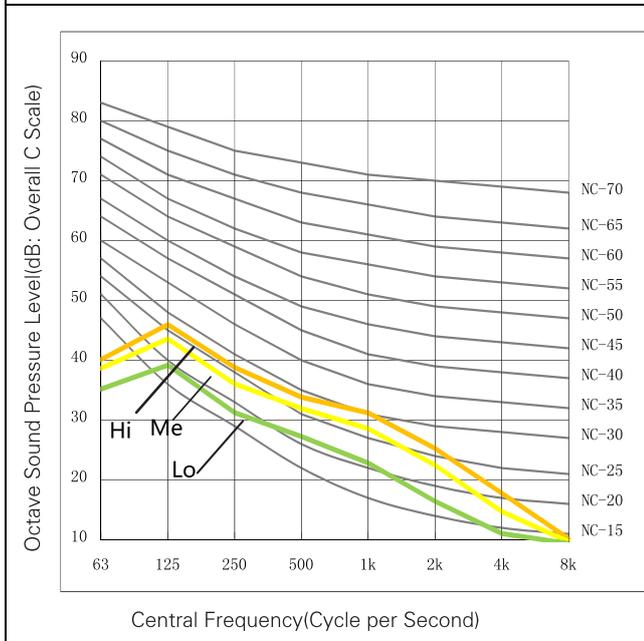
Model: RPIM-1.3/1.5HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



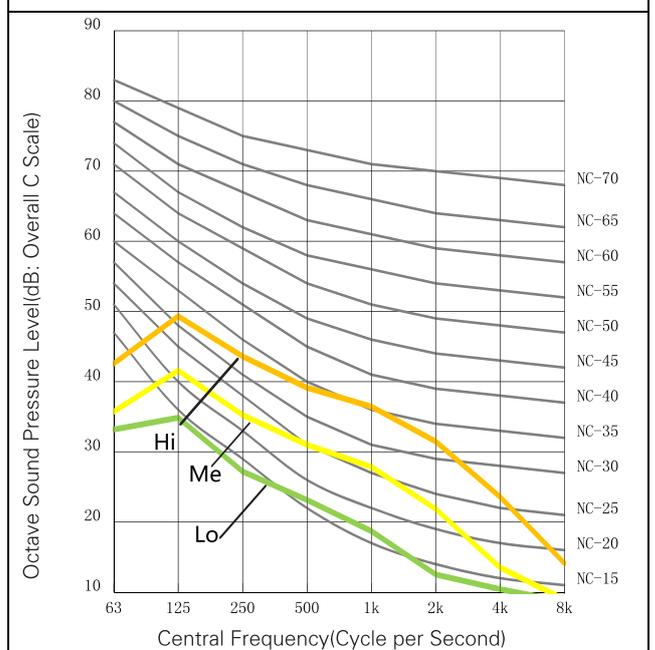
Model: RPIM-1.8/2.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



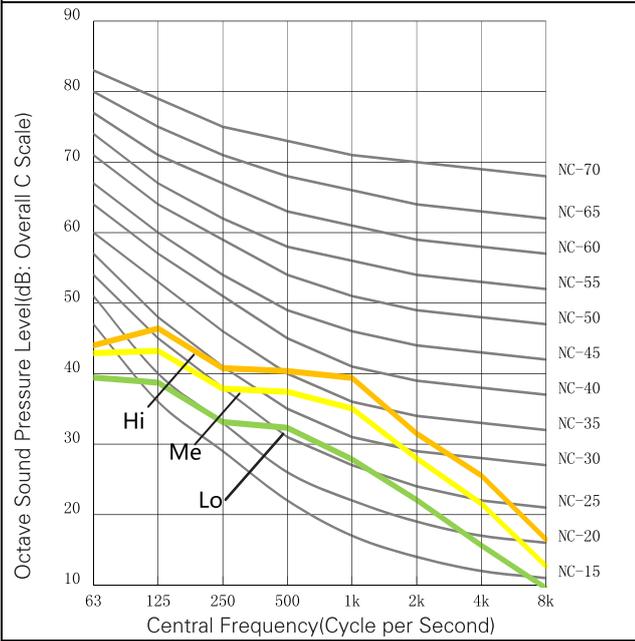
Model: RPIM-2.3/2.5HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



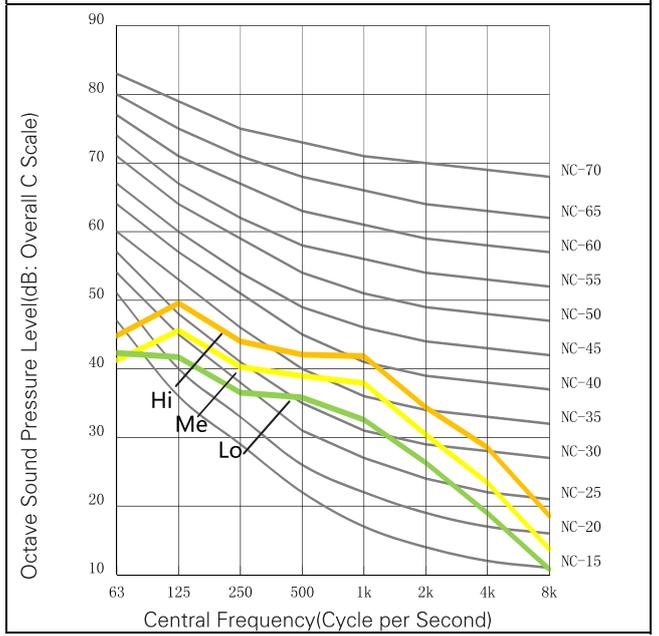
Model: RPIH-3.0/3.3/4.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



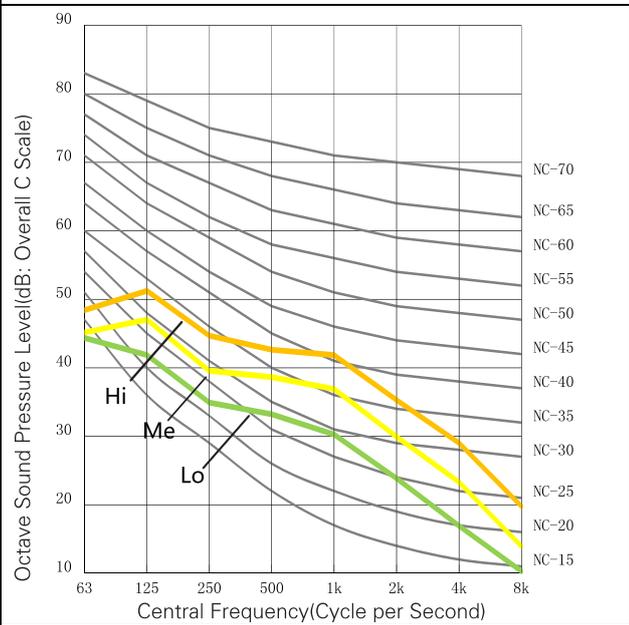
Model: RPIH-5.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit

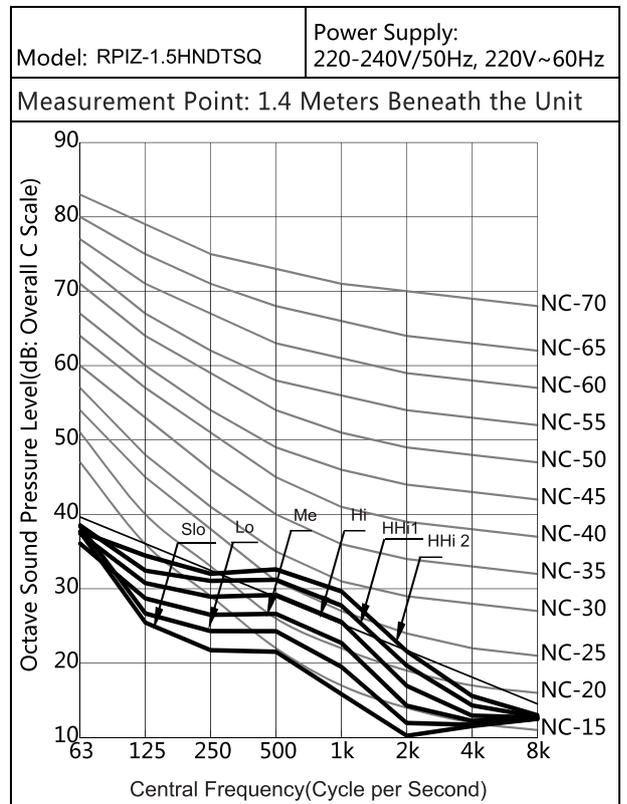
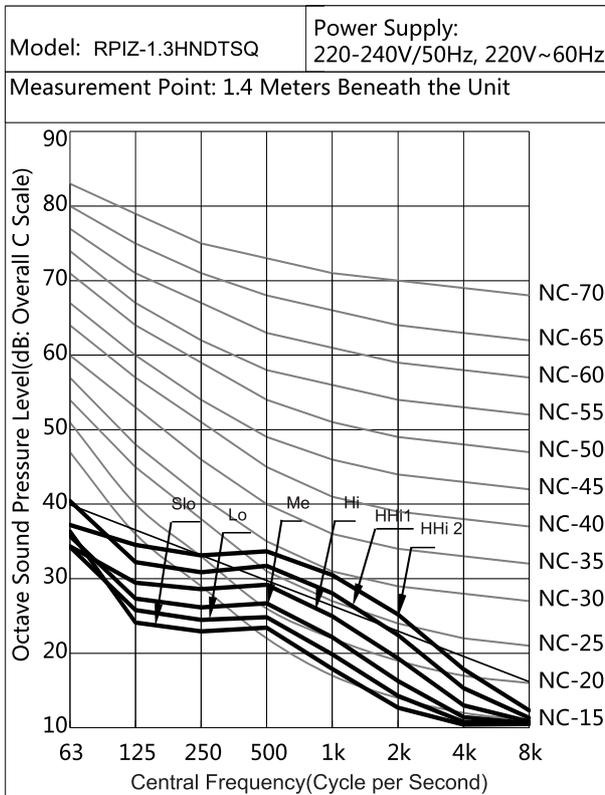
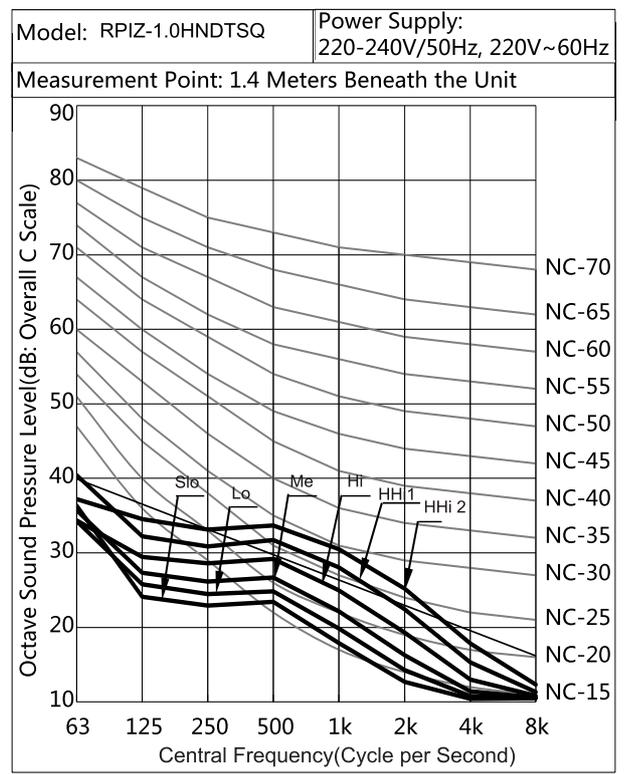
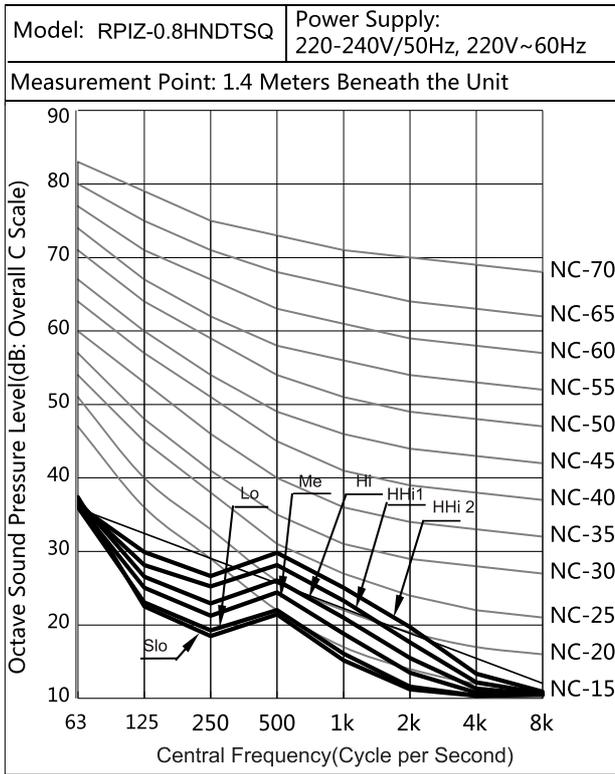


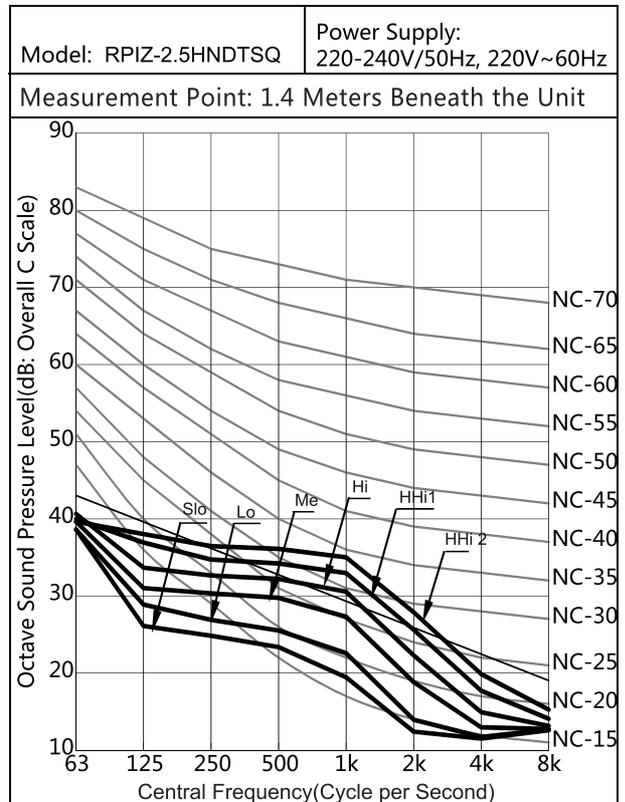
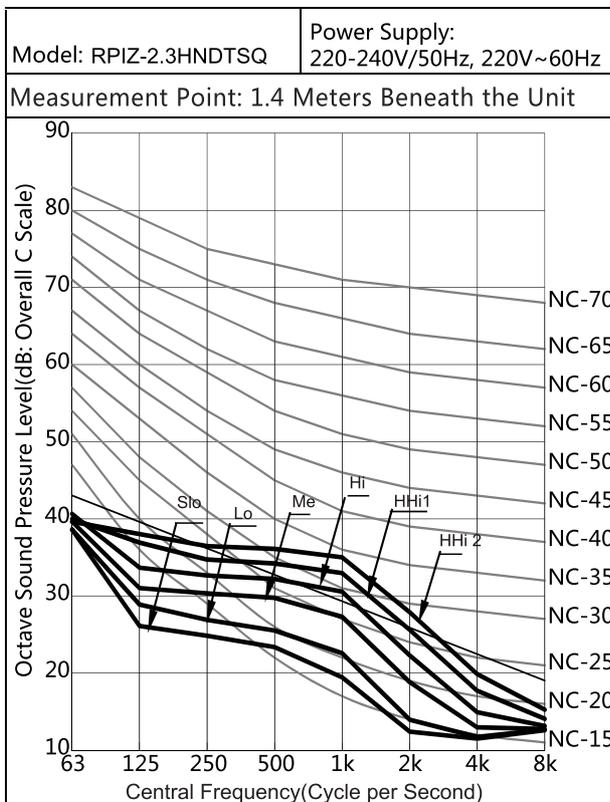
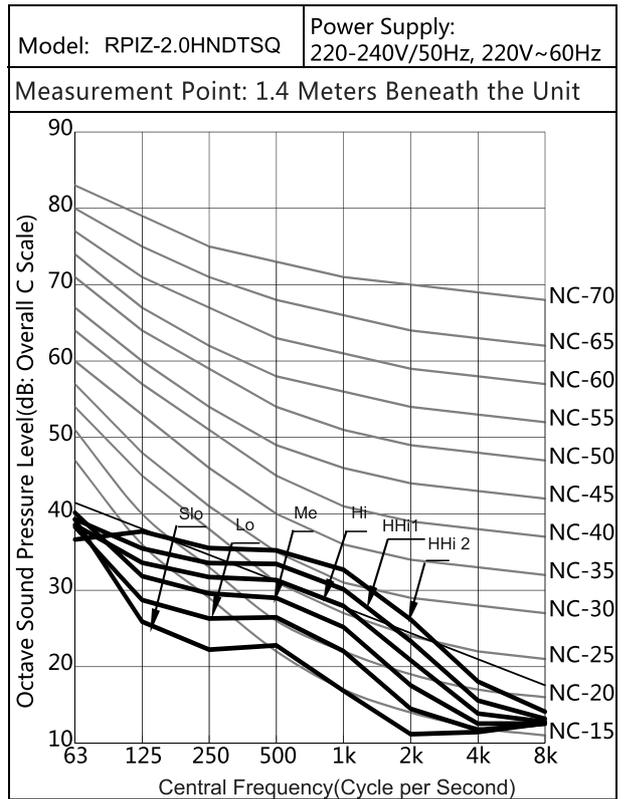
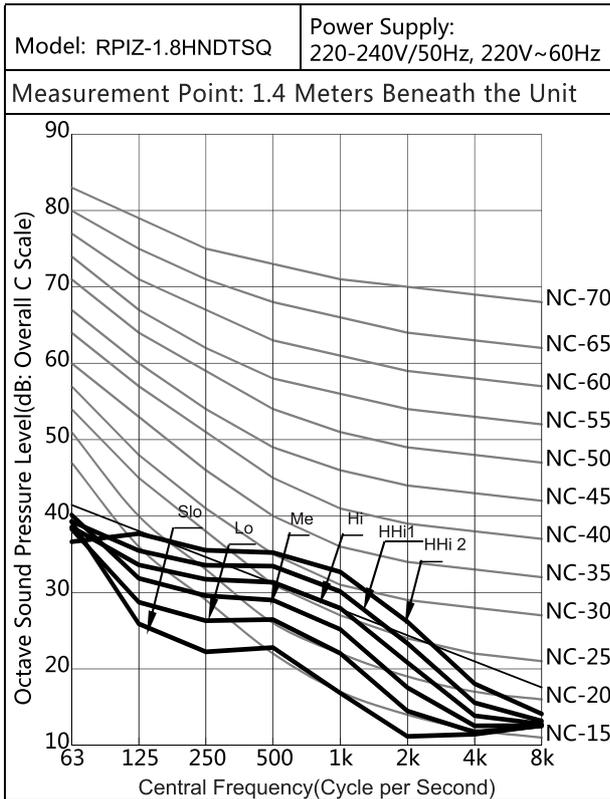
Model: RPIH-6.0HNAUNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



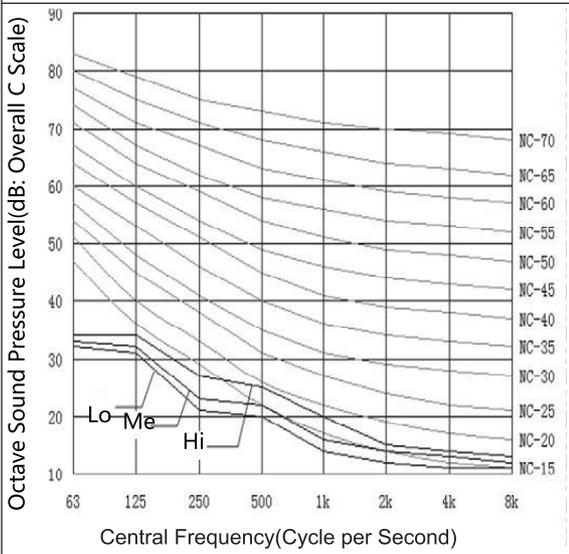
Low-Height In-the Ceiling Type





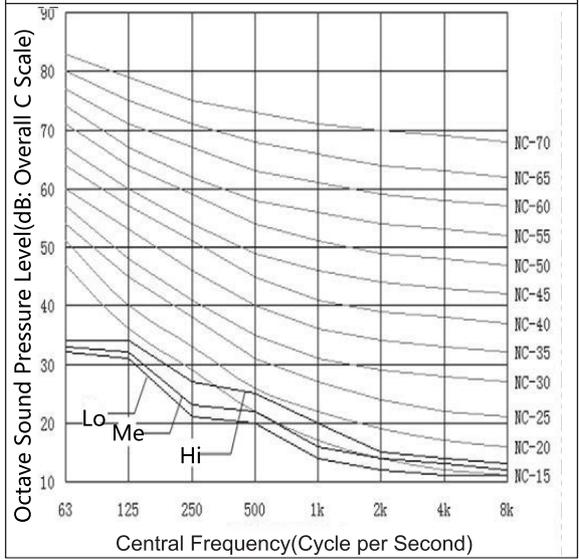
Model: RPIZ-0.8HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



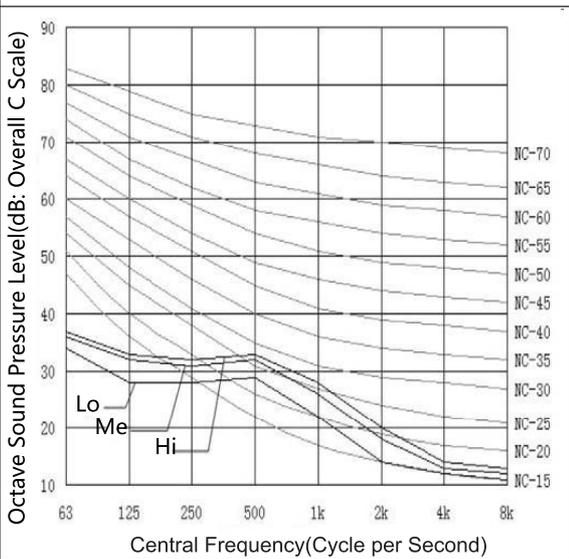
Model: RPIZ-1.0HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



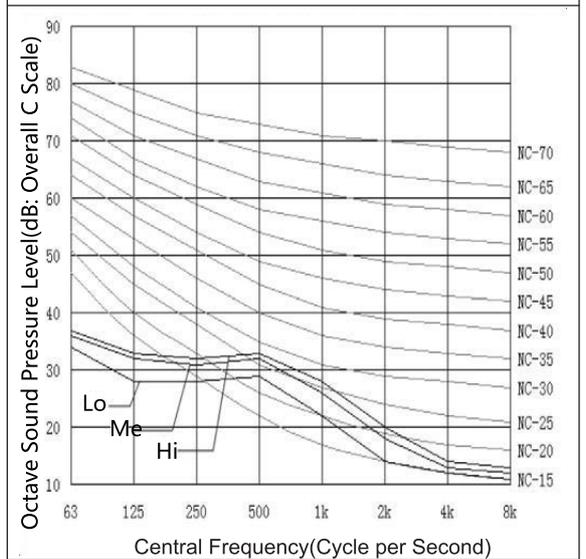
Model: RPIZ-1.3HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



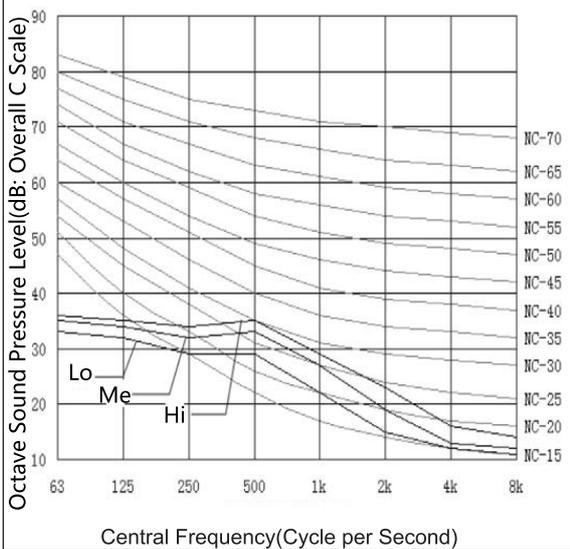
Model: RPIZ-1.5HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



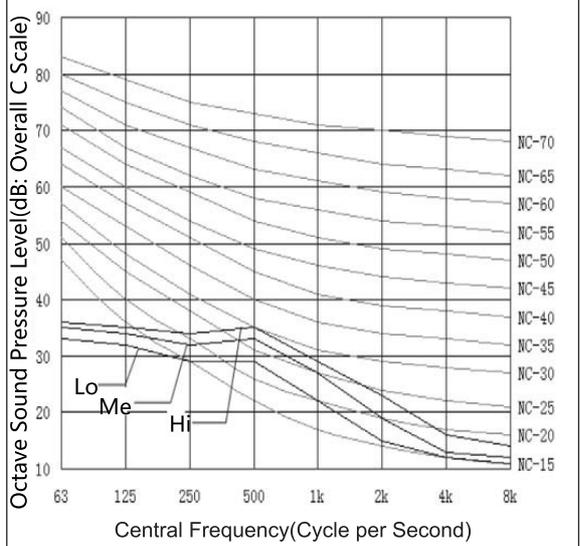
Model: RPIZ-1.8HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



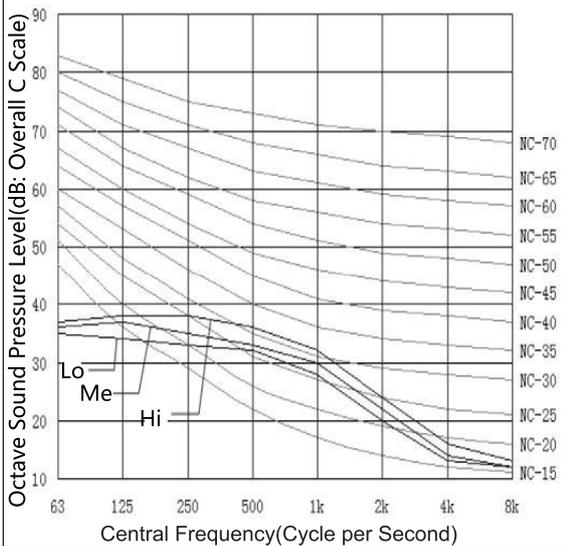
Model: RPIZ-2.0HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



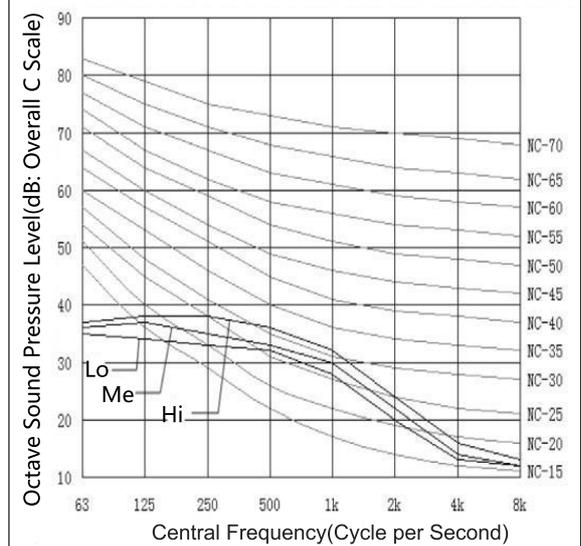
Model: RPIZ-2.3HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



Model: RPIZ-2.5HNATNQ Power Supply: 220-240V/50Hz

Measurement Point: 1.4 Meters Beneath the Unit



7. Working Range

Power Supply

Working Voltage: 90% to 110% of the Rated Voltage

Voltage Imbalance: Within a 3% Deviation from Each Voltage at the Main Terminal of Outdoor Unit

Starting Voltage: Higher than 85% of the Rated Voltage

Temperature Range

The temperature range are given in the following table.

		Maximum	Minimum
Cooling Operation	Indoor	32 DB/23 WB	21 DB/15 WB
	Outdoor	43 DB *	-5 DB *
Heating Operation	Indoor	27 DB	15 DB
	Outdoor	15 WB *	-20 WB *

DB: Dry Bulb, WB: Wet Bulb

*: The temperature may change depending on the outdoor units.

8. Component Data

Indoor Heat Exchanger and Fan

Model		RPIL-0.8HNAUNQ	RPIL-1.0HNAUNQ	RPIL-1.3HNAUNQ	RPIL-1.5HNAUNQ	RPIL-1.8HNAUNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	2	2	3	3	3
Fin Material		Aluminum				
Pitch	mm	1.8	1.8	1.8	1.8	1.8
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.135	0.135	0.135	0.135	0.21
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan	—	Multi-Blade Centrifugal Fan				
Number/Unit		1	1	1	1	2
Outer Diameter	mm	180	180	180	180	180
Revolution (230V)	rpm	765/667/580	765/667/580	958/839/693	958/839/693	860/797/710
Nominal Air Flow(230V)	m ³ /min.	9/8/7	9/8/7	13/11/9	13/11/9	15/14/12
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	16	16	41	41	45
Quantity	—	1	1	1	1	1
Insulation Class	—	B	B	B	B	B

Model		RPIL-2.0HNAUNQ	RPIL-2.3HNAUNQ	RPIL-2.5HNAUNQ	RPIL-3.0HNAUNQ	RPIL-3.3HNAUNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3	3
Fin Material		Aluminum				
Pitch	mm	1.8	1.8	1.8	1.8	1.8
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.21	0.21	0.21	0.324	0.324
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan				
Number/Unit	—	2	2	2	2	2
Outer Diameter	mm	180	180	180	200	200
Revolution (230V)	rpm	860/797/710	1000/750/610	1000/750/610	989/851/738	989/851/738
Nominal Air Flow(230V)	m ³ /min.	15/14/12	21/14/11	21/14/11	29/25/21	29/25/21
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	45	60	60	100	100
Quantity	—	1	1	1	1	1
Insulation Class	—	B	F	F	B	B

Indoor Heat Exchanger and Fan

Model		RPIL-4.0HNAUNQ	RPIL-5.0HNAUNQ	RPIL-6.0HNAUNQ	RPIM-0.8HNAUNQ	RPIM-1.0HNAUNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	3	3	3	2	2
Fin Material		Aluminum				
Pitch	mm	1.8	1.8	1.6	1.8	1.8
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.324	0.432	0.432	0.135	0.135
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan				
Number/Unit	—	2	2	2	1	1
Outer Diameter	mm	200	200	200	180	180
Revolution (230V)	rpm	989/851/738	1059/927/794	1158/953/756	915/755/664	915/755/664
Nominal Air Flow(230V)	m ³ /min.	29/25/21	36/31/26	42/34/26	10/8/7	10/8/7
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	100	140	230	40	40
Quantity	—	1	1	1	1	1
Insulation Class	—	B	F	F	B	B

Model		RPIM-1.3HNAUNQ	RPIM-1.5HNAUNQ	RPIM-1.8HNAUNQ	RPIM-2.0HNAUNQ	RPIM-2.3HNAUNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3	3
Fin Material		Aluminum				
Pitch	mm	1.8	1.8	1.8	1.8	1.8
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.135	0.135	0.21	0.21	0.21
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan				
Number/Unit	—	1	1	2	2	2
Outer Diameter	mm	180	180	180	180	180
Revolution (230V)	rpm	1062/956/788	1062/956/788	977/895/745	977/895/745	1097/840/638
Nominal Air Flow(230V)	m ³ /min.	12/11/9	12/11/9	16/14/11.5	16/14/11.5	20/16/11
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	50	50	75	75	112
Quantity	—	1	1	1	1	1
Insulation Class	—	B	B	B	B	F

Model		RPIH-2.5HNAUNQ	RPIH-3.0HNAUNQ	RPIH-3.3HNAUNQ	RPIH-4.0HNAUNQ	RPIH-5.0HNAUNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3	3
Fin Material		Aluminum				
Pitch	mm	1.8	1.8	1.8	1.8	1.8
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.21	0.324	0.324	0.324	0.432
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan				
Number/Unit	—	2	2	2	2	2
Outer Diameter	mm	180	200	200	200	200
Revolution (230V)	rpm	1097/840/638	1236/1127/976	1236/1127/976	1236/1127/976	1263/1117/966
Nominal Air Flow(230V)	m ³ /min.	20/16/11	30/28/23	30/28/23	30/28/23	35.5/32/27
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	112	120	120	120	200
Quantity	—	1	1	1	1	1
Insulation Class	—	F	F	F	F	F

Model		RPIH-6.0HNAUNQ	RPIZ-0.8HNATNQ	RPIZ-1.0HNATNQ	RPIZ-1.3HNATNQ	RPIZ-1.5HNATNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube				
Tube Material		Copper Tube				
Outer Diameter	mm	7.0	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3	2
Fin Material		Aluminum				
Pitch	mm	1.6	1.6	1.6	1.6	1.6
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.432	0.14	0.14	0.14	0.147
Number of Coil/Unit	—	1	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan				
Number/Unit	—	2	2	2	2	2
Outer Diameter	mm	200	134	134	134	130
Revolution (230V)	rpm	1315/1058/843	1200/857/760	1200/857/760	1200/857/760	1088/756/682
Nominal Air Flow(230V)	m ³ /min.	41/33/26	9.5/6.5/5.5	9.5/6.5/5.5	9.5/6.5/5.5	10/7/6
Indoor Fan Motor		Drip-Proof Type Enclosure PSC				
Starting Method	—	(Permanent Split Capacitor)				
Nominal Output	W	200	28	28	28	28
Quantity	—	1	1	1	1	1
Insulation Class	—	F	B	B	B	B

Indoor Heat Exchanger and Fan

Model		RPIZ-1.8HNATNQ	RPIZ-2.0HNATNQ	RPIZ-2.3HNATNQ	RPIZ-2.5HNATNQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube			
Tube Material		Copper Tube			
Outer Diameter	mm	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3
Fin Material		Aluminum			
Pitch	mm	1.6	1.6	1.6	1.6
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.201	0.201	0.201	0.201
Number of Coil/Unit	—	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan			
Number/Unit	—	3	3	3	3
Outer Diameter	mm	130	130	130	130
Revolution (230V)	rpm	1107/749/698	1107/749/698	1233/732/754	1233/732/754
Nominal Air Flow(230V)	m ³ /min.	15/10/9	15/10/9	17/10/9	17/10/9
Indoor Fan Motor		Drip-Proof Type Enclosure			
Starting Method	—	PSC (Permanent Split Capacitor)			
Nominal Output	W	45	45	60	60
Quantity	—	1	1	1	1
Insulation Class	—	B	B	B	B

Model		RPIZ-0.8HNDSQ	RPIZ-1.0HNDSQ	RPIZ-1.3HNDSQ	RPIZ-1.5HNDSQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube			
Tube Material		Copper Tube			
Outer Diameter	mm	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3
Fin Material		Aluminum			
Pitch	mm	1.6	1.6	1.6	1.6
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.105	0.105	0.105	0.147
Number of Coil/Unit	—	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan			
Number/Unit	—	2	2	2	2
Outer Diameter	mm	130	130	130	130
Revolution (230V)	rpm	1163/1066/971/875 /820/770	1163/1066/971/875 /820/770	1163/1066/971/875 /820/770	1052/972/894/811 /736/656
Nominal Air Flow(230V)	m ³ /h	8.5/8/7/6/5.5/5	8.5/8/7/6/5.5/5	8.5/8/7/6/5.5/5	10/9/8/7.5/6.5/6
Indoor Fan Motor		Drip-Proof Type Enclosure PSC			
Starting Method	—	(Permanent Split Capacitor)			
Nominal Output	W	40	40	40	40
Quantity	—	1	1	1	1
Insulation Class	—	E	E	E	E

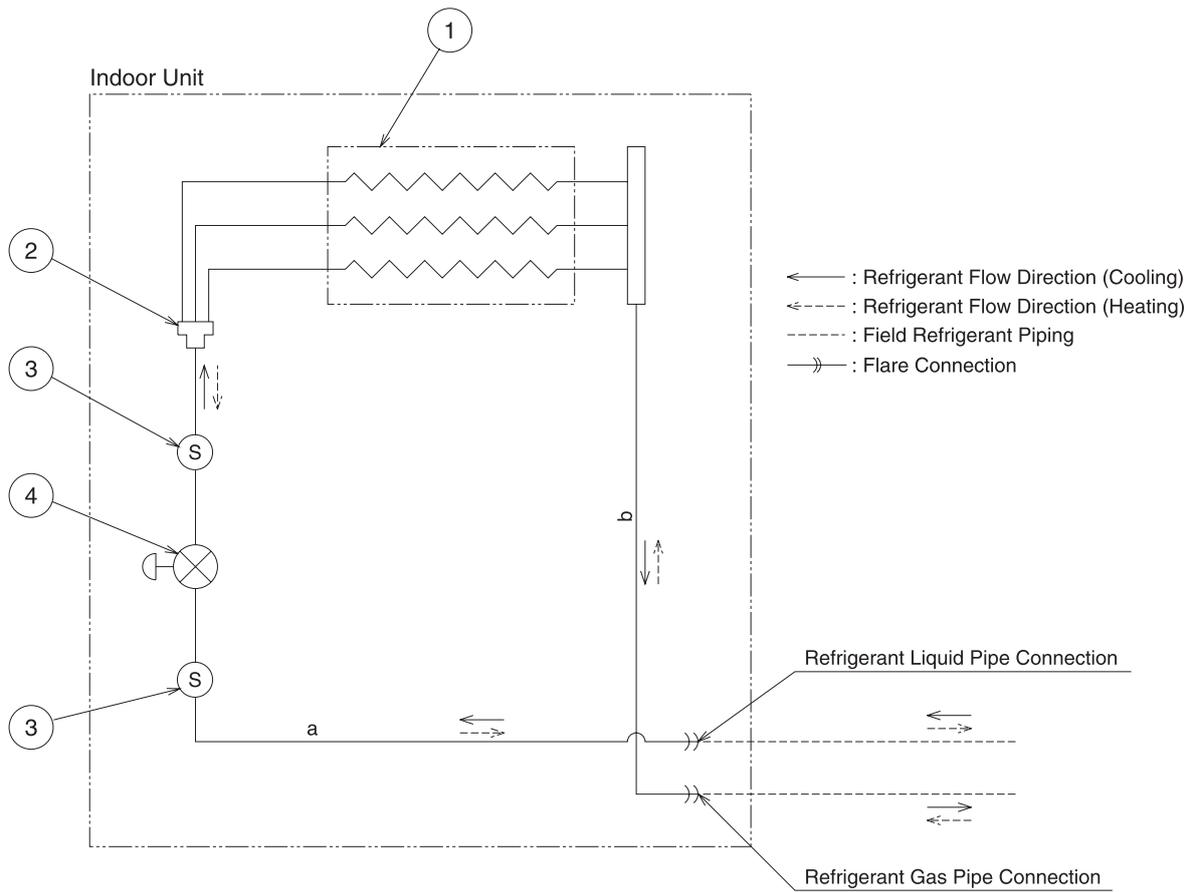
Indoor Heat Exchanger and Fan

Model		RPIZ-1.8HNDSQ	RPIZ-2.0HNDSQ	RPIZ-2.3HNDSQ	RPIZ-2.5HNDSQ
Heat Exchanger Type	—	Multi-Pass Cross Finned Tube			
Tube Material		Copper Tube			
Outer Diameter	mm	7.0	7.0	7.0	7.0
Rows	—	3	3	3	3
Fin Material		Aluminum			
Pitch	mm	1.6	1.6	1.6	1.6
Maximum Operating Pressure	MPa	4.15	4.15	4.15	4.15
Total Face Area	m ²	0.201	0.201	0.201	0.201
Number of Coil/Unit	—	1	1	1	1
Indoor Fan		Multi-Blade Centrifugal Fan			
Number/Unit	—	3	3	3	3
Outer Diameter	mm	130	130	130	130
Revolution (230V)	rpm	1199/1102/1006/902 /780/710	1199/1102/1006/902 /780/710	1199/1102/1006/902 /780/710	1199/1102/1006/902 /780/710
Nominal Air Flow(230V)	m ³ /min.	16.5/15/13/12/10/9	16.5/15/13/12/10/9	16.5/15/13/12/10/9	16.5/15/13/12/10/9
Indoor Fan Motor		Drip-Proof Type Enclosure			
Starting Method	—	DC Driven			
Nominal Output	W	60	60	60	60
Quantity	—	1	1	1	1
Insulation Class	—	E	E	E	E

9. Control System

9.1 Refrigeration Cycle

RPIL-0.8~6.0HNAUNQ, RPIM-0.8~2.5HNAUNQ, RPIH-3.0~6.0HNAUNQ, RPIZ-0.8~2.5HNATNQ,
RPIZ-0.8~2.5HNDTSQ



Mark	Part Name
1	Heat Exchanger
2	Distributor
3	Strainer
4	Micro-Computer Control Expansion Valve

9.2 System Control

9.2.1 Control in a Room

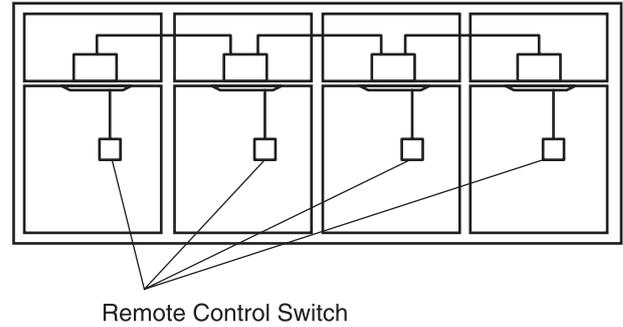
Individual Operation System

Each indoor unit is individually controlled by its own remote control switch.

Control Method	by each Optional Remote Control Switch
Operation Method	by One Group
(1) ON/OFF	Yes
(2) Setting of Operation Mode	Yes*
(3) Room Temperature Setting	Yes
(4) Fan Speed Setting	Yes
(5) Timer Setting	Yes
(6) ON/OFF by Timer Control	Yes
(7) Operation Indication	Yes
(8) Alarm Indication	Yes
(9) Self-Checking	Yes
(10) Test Mode	Yes

Yes: Available

* : Cooling and heating can not be operated simultaneously.



Group Control Operation System

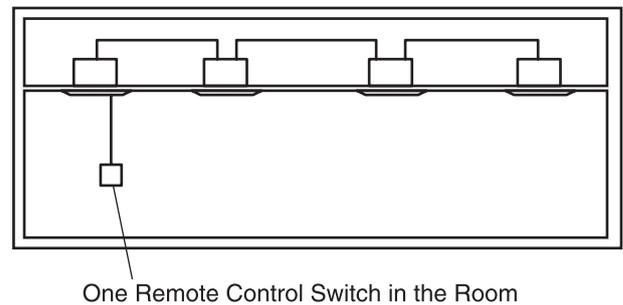
One remote control switch can control simultaneously up to 16 indoor units.

This system can be applied to a wide space air conditioning such as in a lobby of hotel / hospital, an office building, etc. By one remote control switch, starting and stopping are easily and quickly performed for all the units.

Control Method	by One Optional Remote Control Switch
Operation Method	by One Group
(1) ON/OFF	Yes
(2) Setting of Operation Mode	Yes*
(3) Room Temperature Setting	Yes
(4) Fan Speed Setting	Yes
(5) Timer Setting	Yes
(6) ON/OFF by Timer Control	Yes
(7) Operation Indication	Yes
(8) Alarm Indication	Yes
(9) Self-Checking	Yes
(10) Test Mode	Yes

Yes: Available

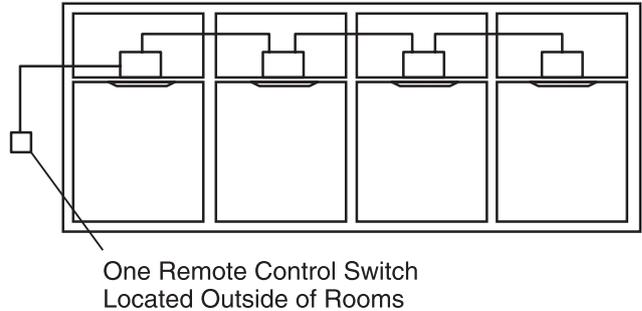
* : Only if all units in one group are connected to the same outdoor unit.



9.2.2 Group Control from a Remote Place

One remote control switch can control from a remote location simultaneously up to 16 indoor units. This system is the most appropriate for an open plan air conditioning such as in a lobby of hotel / hospital, an office building, etc. By one remote control switch, starting and stopping are easily and quickly performed for all the units.

Control Method	by One Optional Remote Control Switch
Operation Method	by One Group
(1) ON/OFF	Yes
(2) Setting of Operation Mode	Yes*
(3) Room Temperature Setting	Yes
(4) Fan Speed Setting	Yes
(5) Timer Setting	Yes
(6) ON/OFF by Timer Control	Yes
(7) Operation Indication	Yes
(8) Alarm Indication	Yes
(9) Self-Checking	Yes
(10) Test Mode	Yes



Yes: Available

* : Only if all units in one group are connected to the same outdoor unit.

9.2.3 Control in a Room/Control from a Remote Place

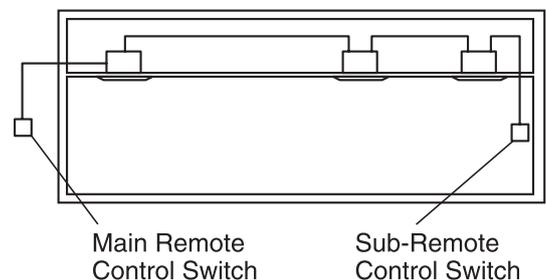
By Utilizing Sub-Remote Control Switch and Main Remote Control Switch for Maximum 16 Indoor Unit Control

Simultaneous Operation System

Two remote control switches are used to control indoor units up to 16 sets. One remote control switch is installed in the room and another one is installed in a remote central control room.

This system is the most appropriate for an open plan space such a lobby in the hotel, restaurant, etc.

Control Method	by Optional Remote Control Switch in the Room	by Optional Remote Control Switch from Remote Place
Operation Method	by One Group	by One Group
(1) ON/OFF	Yes	Yes
(2) Setting of Operation Mode	Yes*	Yes*
(3) Room Temperature Setting	Yes	Yes
(4) Fan Speed Setting	Yes	Yes
(5) Timer Setting	Yes	Yes
(6) ON/OFF by Timer Control	Yes	Yes
(7) Operation Indication	Yes	Yes
(8) Alarm Indication	Yes	Yes
(9) Self-Checking	Yes	Yes
(10) Test Mode	Yes	Yes



Yes: Available

* : Only if all units in one group are connected to the same outdoor unit.

NOTE:

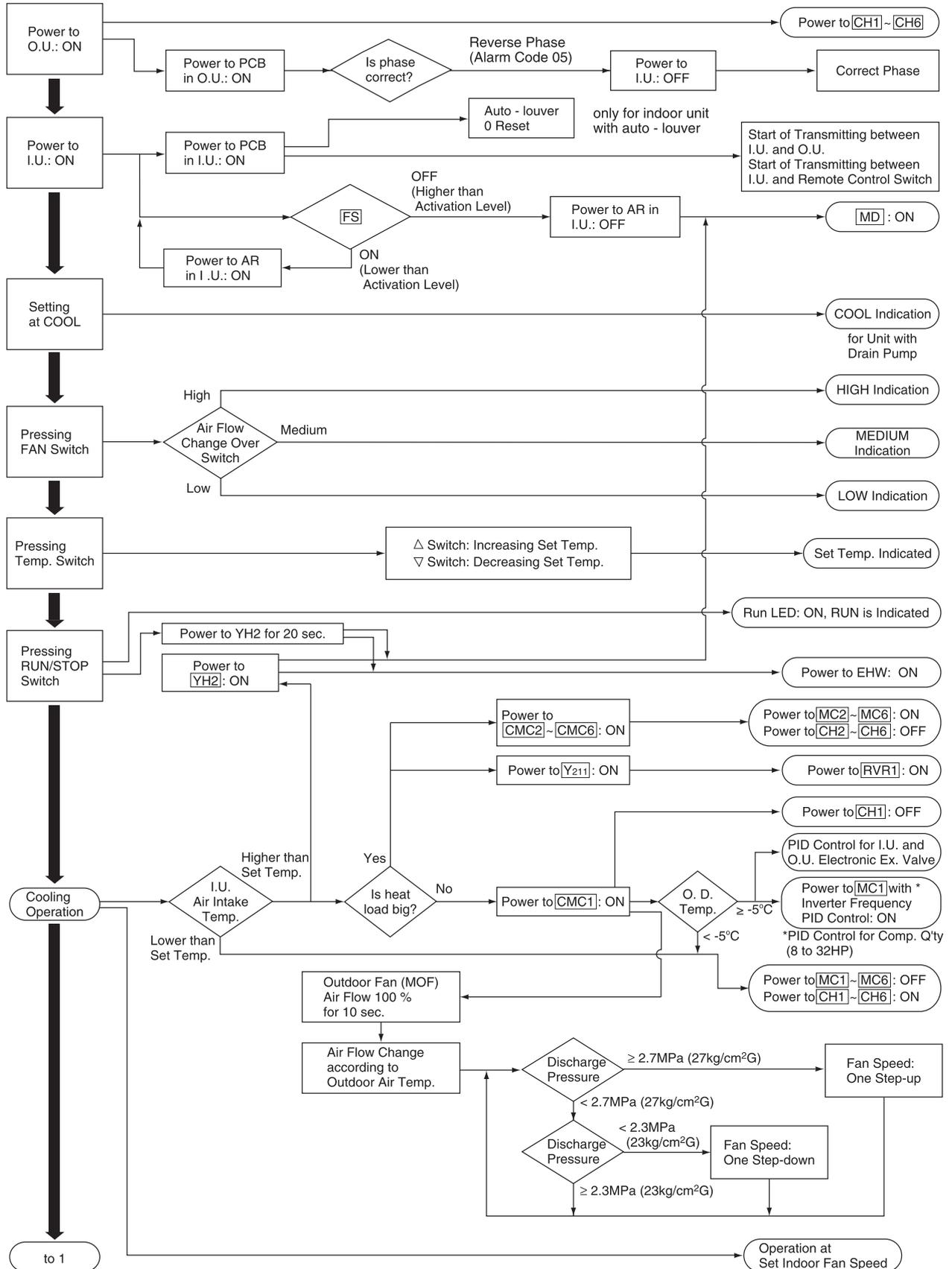
The last setting remote control switch in the two remote control switches has priority in this system.

9.3 Standard Operation Sequence

■ Cooling Operation

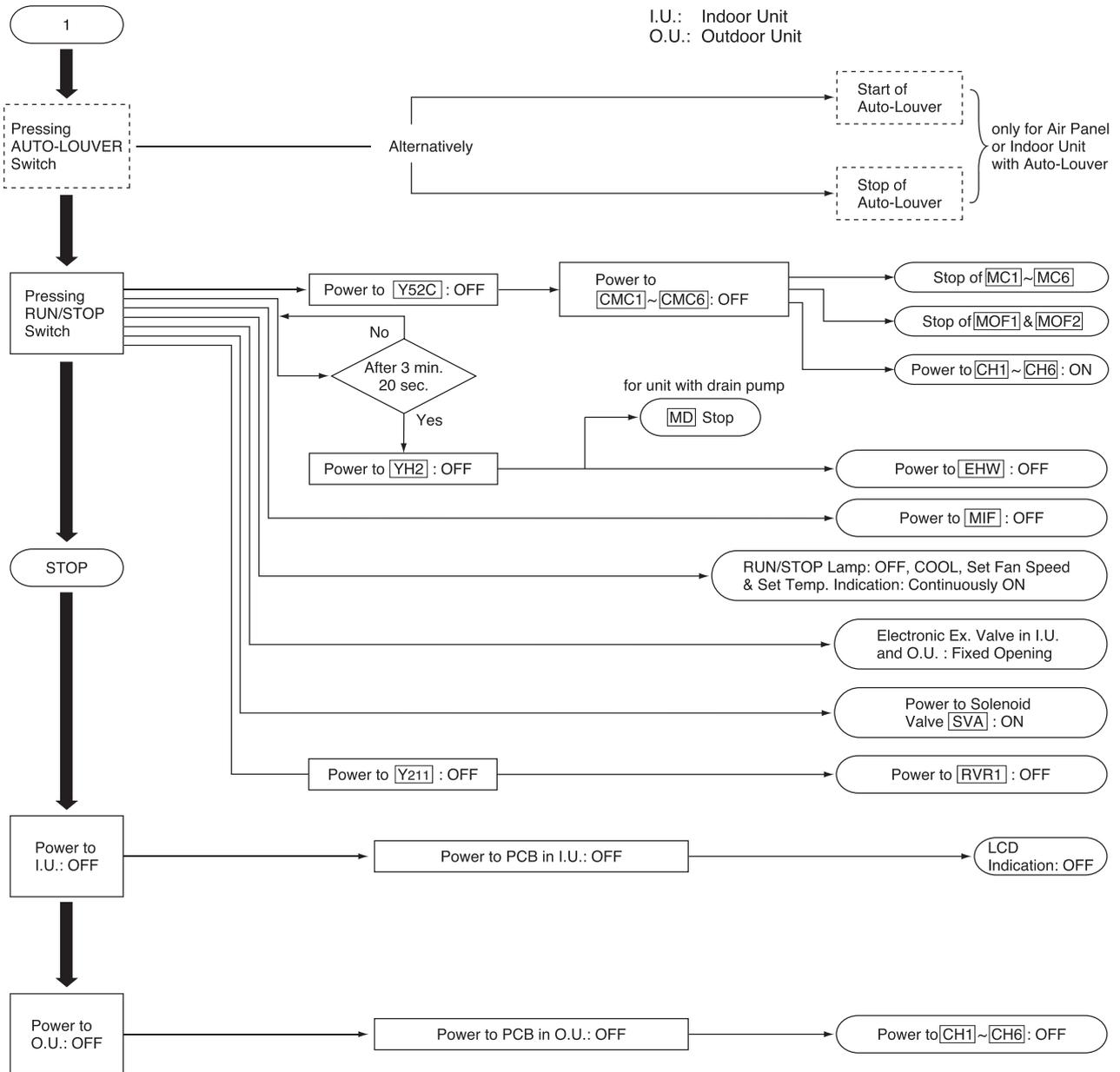
Following is only one example. The sequence may be different depending on the outdoor unit model to be connected. Refer to the "Outdoor Unit Technical Catalog" for details.

I.U.: Indoor Unit
 O.U.: Outdoor Unit
 T.C.: Temperature of Condensing



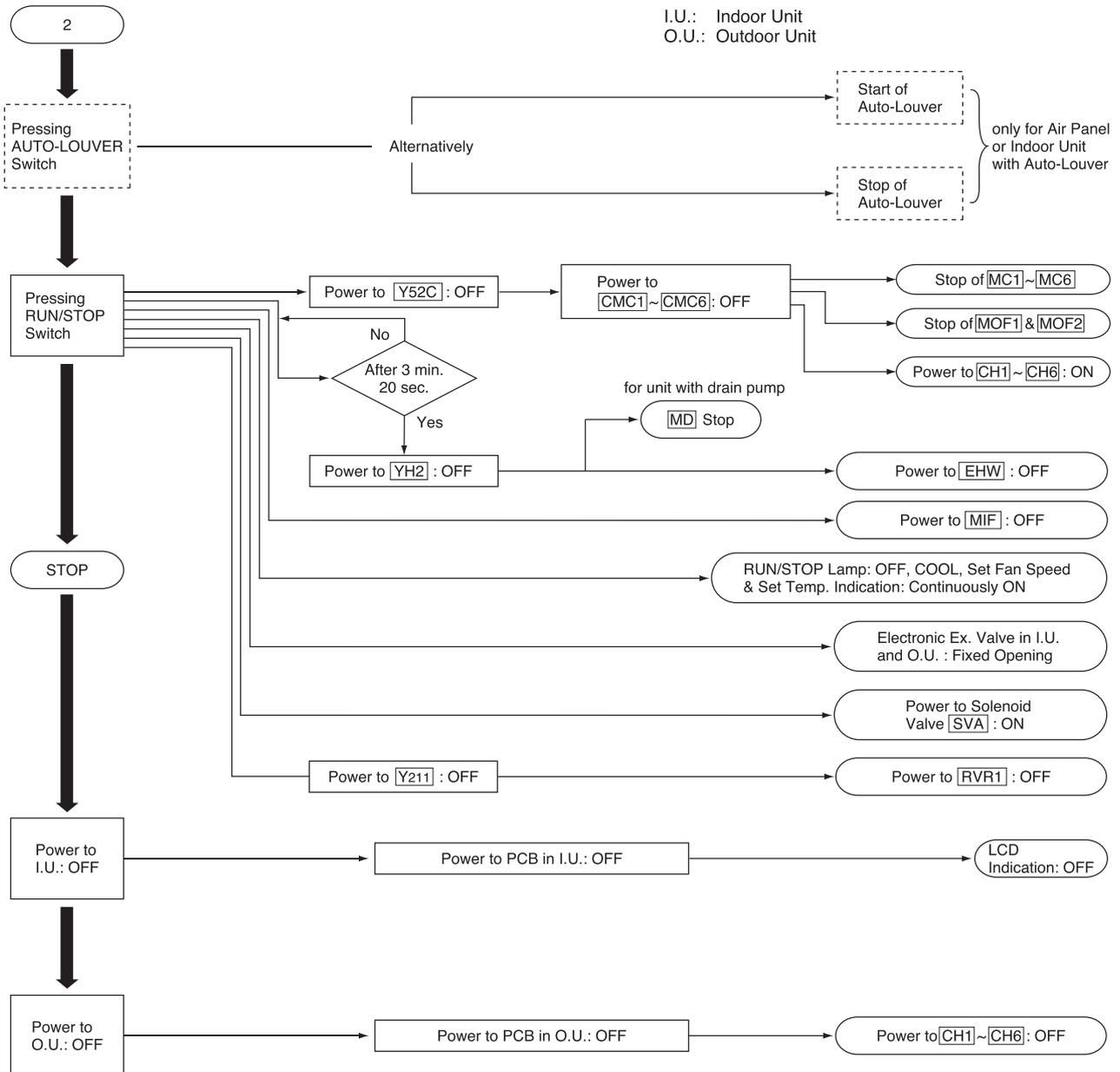
■ Cooling Operation

Following is only one example. The sequence may be different depending on the outdoor unit model to be connected. Refer to the “Outdoor Unit Technical Catalog” for details.



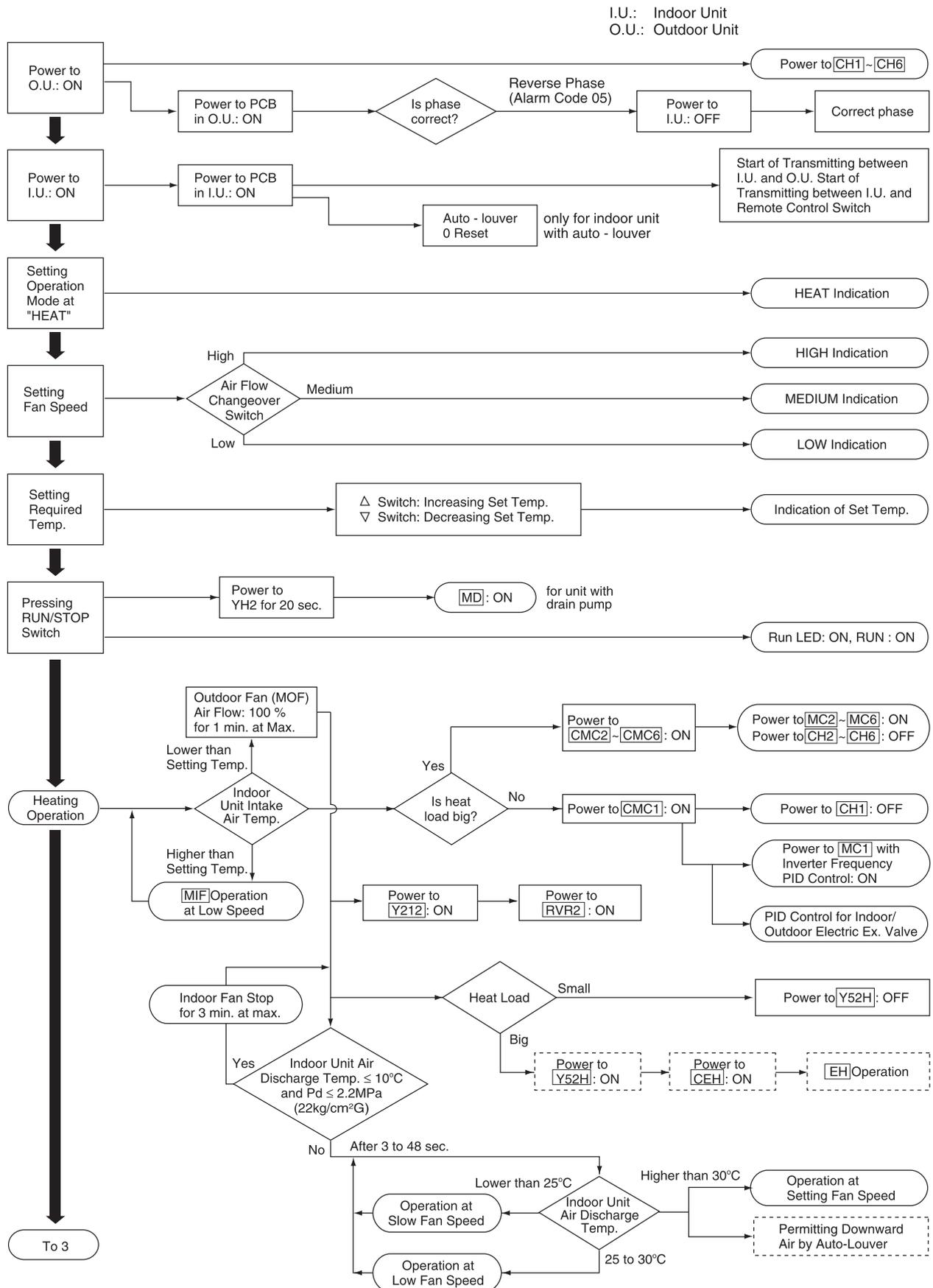
■ Dry Operation

Following is only one example. The sequence may be different depending on the outdoor unit model to be connected. Refer to the “Outdoor Unit Technical Catalog” for details.



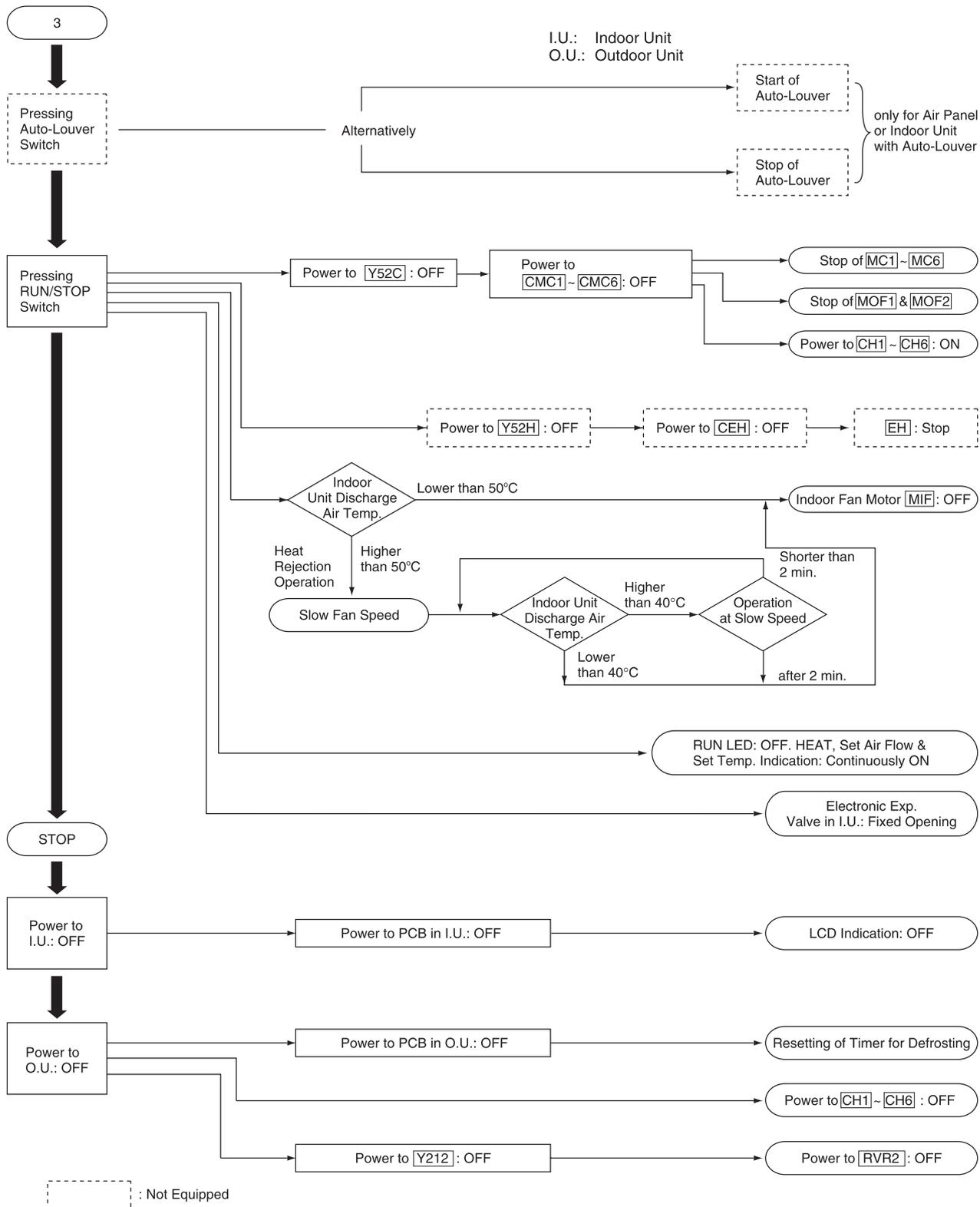
■ Heating Operation

Following is only one example. The sequence may be different depending on the outdoor unit model to be connected. Refer to the "Outdoor Unit Technical Catalog" for details.



■ Heating Operation

Following is only one example. The sequence may be different depending on the outdoor unit model to be connected. Refer to the “Outdoor Unit Technical Catalog” for details.



9.4 Safety and Control Device Setting

< Indoor Units >

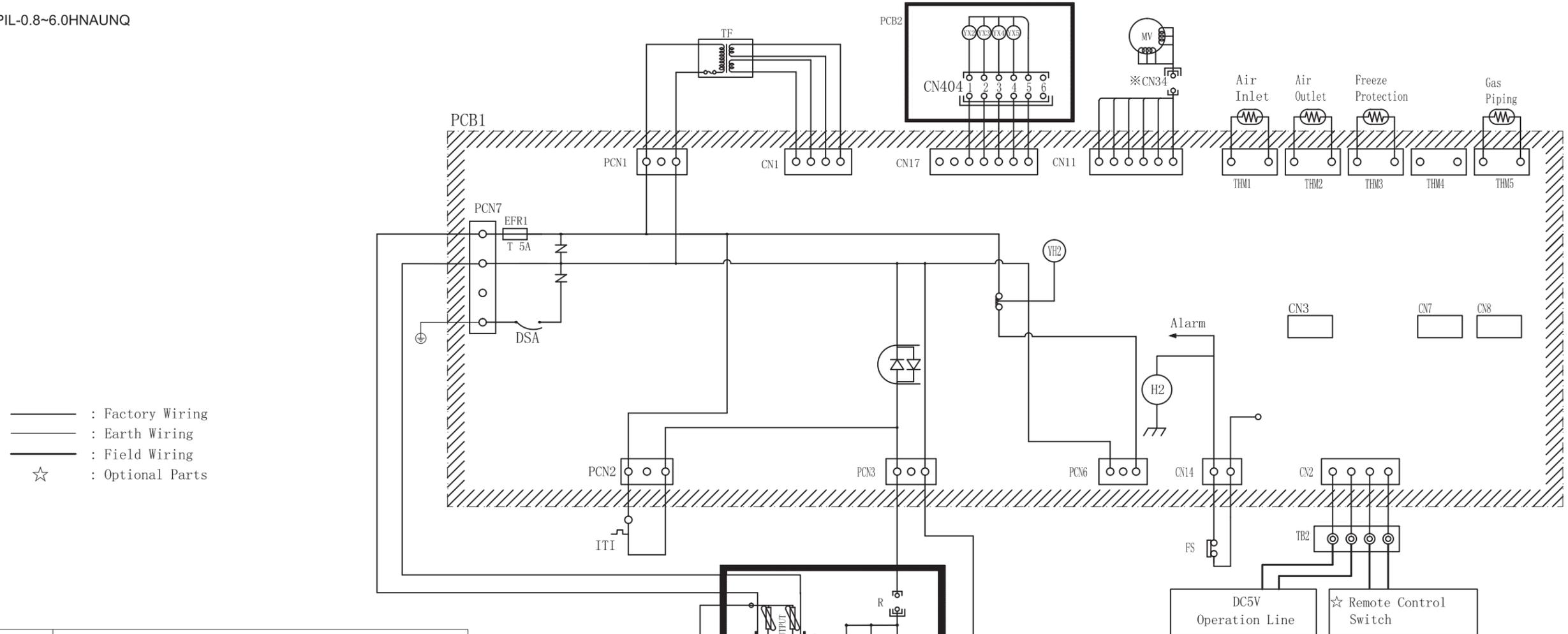
Model		RPIL-0.8~2.0 HNAUNQ	RPIL-2.3~2.5 HNAUNQ	RPIL-3.0~4.0 HNAUNQ	RPIL-5.0 HNAUNQ	RPIL-6.0 HNAUNQ
For Evaporator Fan Motor Internal Thermostat		Automatic Reset, Non-Adjustable (each one for each motor)				
Cut-Out	°C	130±5	150±5	135±5	150±5	150±5
Cut-In	°C	90±15	105±15	90±15	100±15	105±15
For Control Circuit Fuse Capacity	A	5				
Freeze Protection Thermostat						
Cut-Out	°C	0				
Cut-In	°C	14				
Thermostat Differential	°C	2				

Model		RPIM-0.8~1.0 HNAUNQ	RPIM-1.3~2.0 HNAUNQ	RPIM-2.3~2.5 HNAUNQ	RPIH-3.0~5.0 HNAUNQ	RPIH-6.0 HNAUNQ
For Evaporator Fan Motor Internal Thermostat		Automatic Reset, Non-Adjustable (each one for each motor)				
Cut-Out	°C	135±5	130±5	150±5	150±5	150±5
Cut-In	°C	95±15	90±15	105±15	100±15	105±15
For Control Circuit Fuse Capacity	A	5				
Freeze Protection Thermostat						
Cut-Out	°C	0				
Cut-In	°C	14				
Thermostat Differential	°C	2				

Model		RPIZ-0.8~2.0HNATNQ	RPIZ-2.3~2.5HNATNQ	RPIZ-0.8~2.5HNDTSQ
For Evaporator Fan Motor Internal Thermostat		Automatic Reset, Non-Adjustable (each one for each motor)		
Cut-Out	°C	130±5	130±5	-
Cut-In	°C	90±15	85±15	-
For Control Circuit Fuse Capacity	A	5		
Freeze Protection Thermostat				
Cut-Out	°C	0		
Cut-In	°C	14		
Thermostat Differential	°C	2		

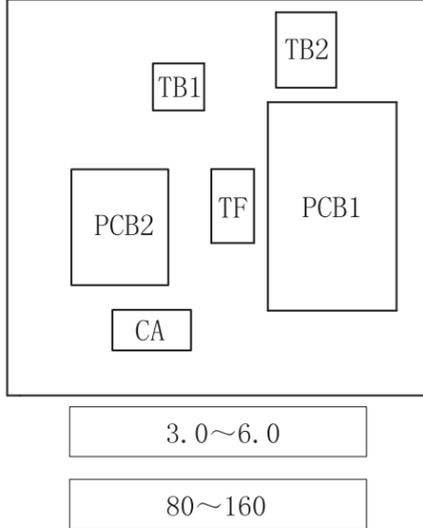
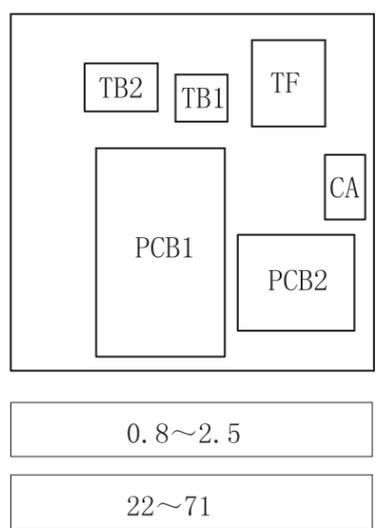
9.5 Electrical Wiring Diagram

RPIL-0.8~6.0HNAUNQ

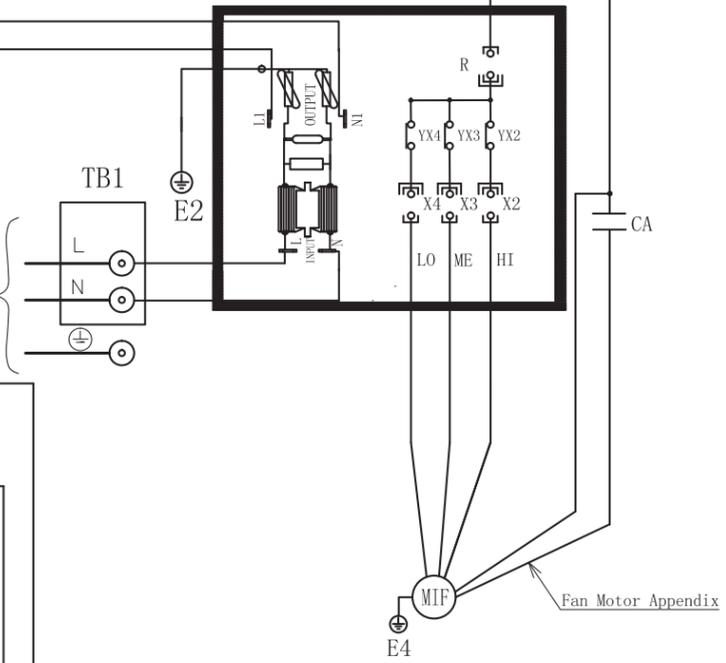


WARNING
Before inspecting the electrical parts set the Operation Switch to OFF, and cut OFF the power supply.

Electrical Control Box of Indoor Unit



Power source details refer to the nameplate

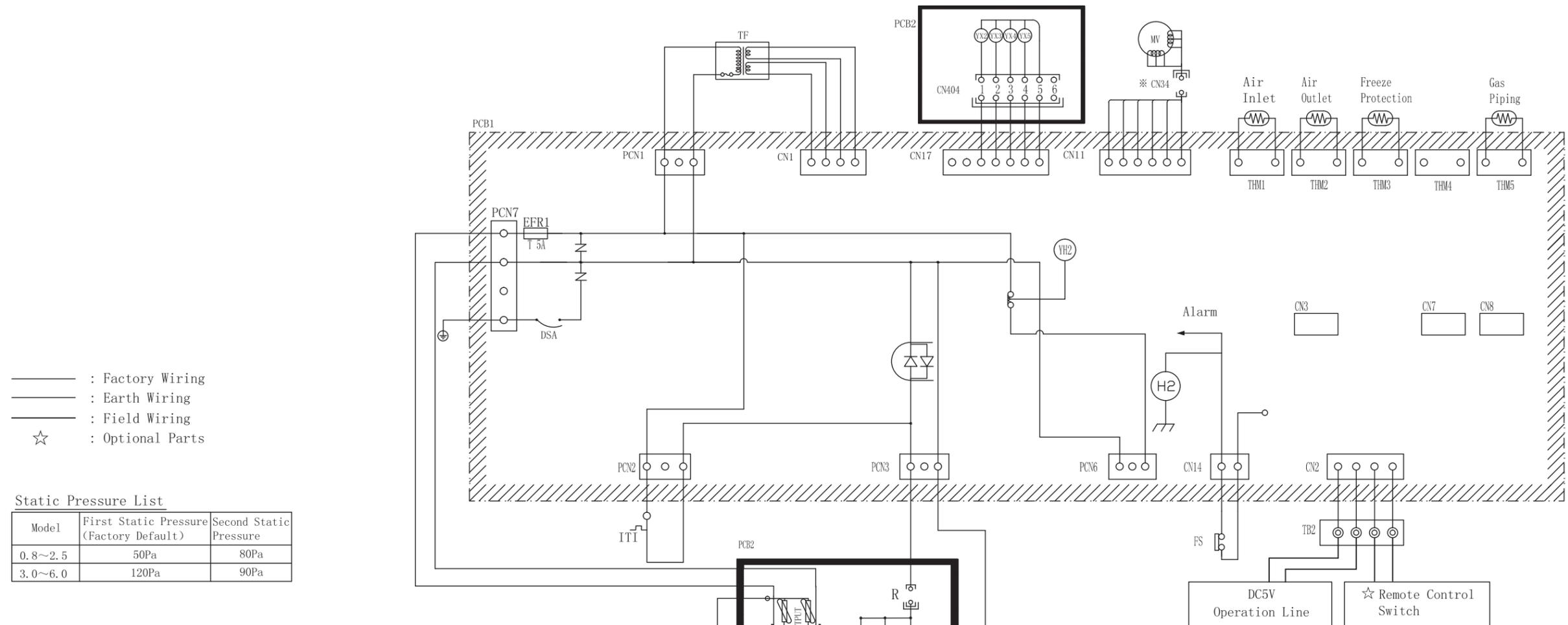


Note :
1. All the field wiring and equipment must comply with local codes.

Mark	Name
CA	Capacitor
CN1~17, 401~404	Connector on PCB
※CN32~34	Connector
DSW3~7	Dip Switch for Setting
EFR1, EF1	Fuse
FS	Float Switch
ITI	Internal Thermostat for Indoor Fan Motor
MIF	Motor for Indoor Fan
MV	Micro-Computer Control Expansion Valve
PCB1,2	Printed Circuit Board
PCN1~7	Connector on PCB
YX2~YX5	Relay on PCB
TB1,2	Terminal Board
TF	Transformer
THM1~5	Thermistor
YH2	Relay on PCB
◎	Terminals

※: Several models use.

RPIM-0.8~2.5HNAUNQ, RPIH-3.0~6.0HNAUNQ



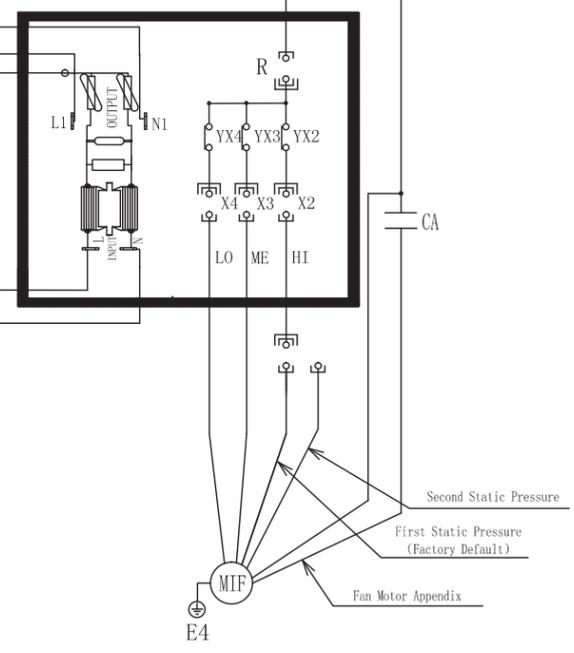
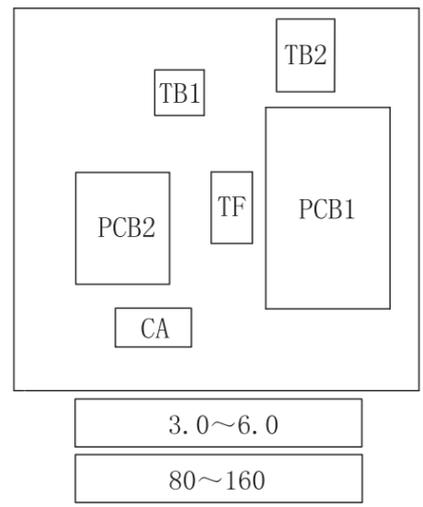
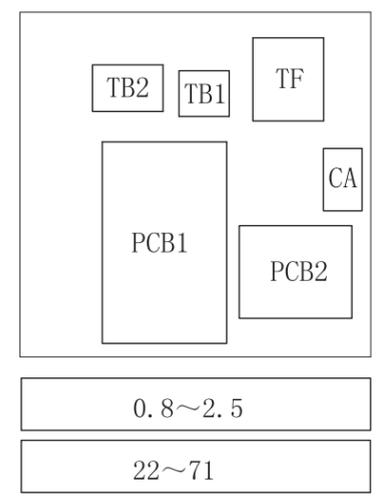
— : Factory Wiring
 — : Earth Wiring
 — : Field Wiring
 ☆ : Optional Parts

Static Pressure List

Model	First Static Pressure (Factory Default)	Second Static Pressure
0.8~2.5	50Pa	80Pa
3.0~6.0	120Pa	90Pa

WARNING
 Before inspecting the electrical parts set the Operation Switch to OFF, and cut OFF the power supply.

Electrical Control Box of Indoor Unit

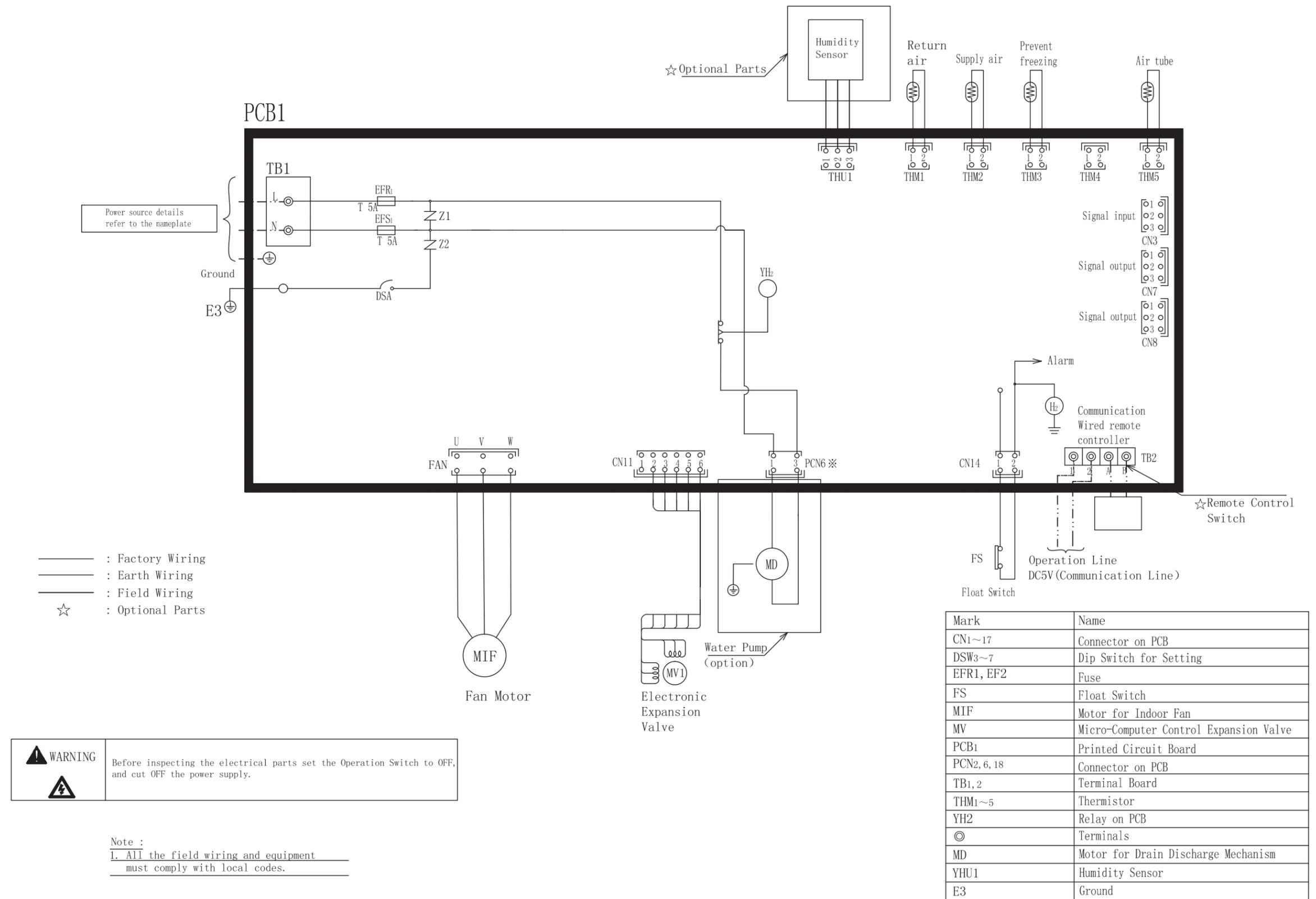


Note :
 1. All the field wiring and equipment must comply with local codes.

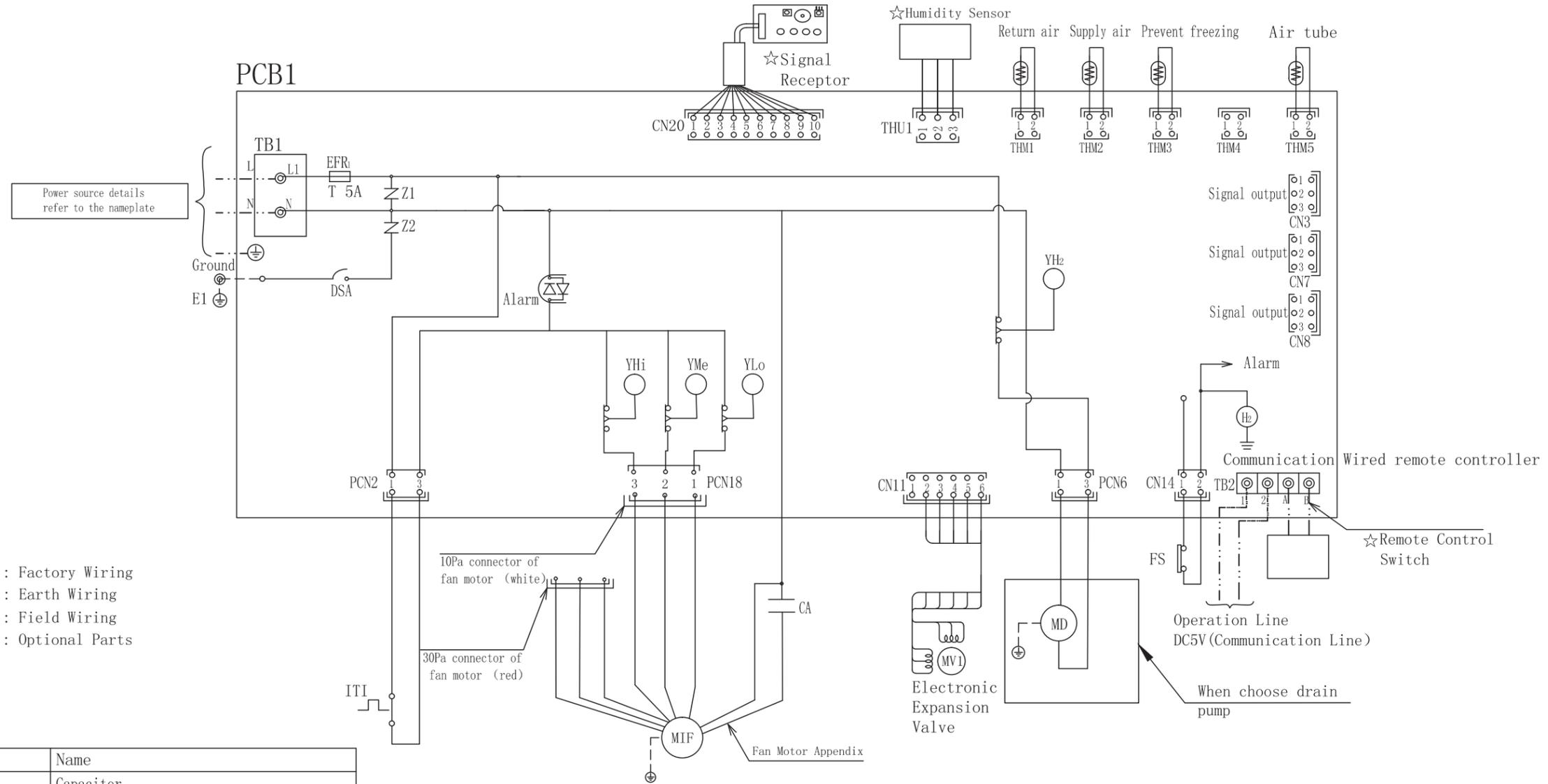
Mark	Name
CA	Capacitor
CN1~17, 401~404	Connector on PCB
※CN32~34	Connector
DSW3~7	Dip Switch for Setting
EFRI, EF1	Fuse
FS	Float Switch
ITI	Internal Thermostat for Indoor Fan Motor
MIF	Motor for Indoor Fan
MV	Micro-Computer Control Expansion Valve
PCB1,2	Printed Circuit Board
PCN1~7	Connector on PCB
YX2~YX5	Relay on PCB
TB1,2	Terminal Board
TF	Transformer
THM1~5	Thermistor
YH2	Relay on PCB
◎	Terminals

※: Several models use.

RPIZ-0.8~2.5HNDTSQ



RPIZ-0.8~2.5HNATNQ



- : Factory Wiring
- : Earth Wiring
- : Field Wiring
- ☆ : Optional Parts

Mark	Name
CA	Capacitor
CN1~17	Connector on PCB
DSW3~7	Dip Switch for Setting
EFR1, EF2	Fuse
FS	Float Switch
ITI	Internal Thermostat for Indoor Fan Motor
MIF	Motor for Indoor Fan
MV	Micro-Computer Control Expansion Valve
PCB1	Printed Circuit Board
PCN2, 6, 18	Connector on PCB
YX2~YX4	Relay on PCB
TB1, 2	Terminal Board
TF	Transformer
THM1~5	Thermistor
YH2	Relay on PCB
◎	Terminals
MD	Motor for Drain Discharge Mechanism
YHU1	Humidity Sensor
E1	Ground

⚠ WARNING Before inspecting the electrical parts set the Operation Switch to OFF, and cut OFF the power supply.

Note :
1. All the field wiring and equipment
must comply with local codes.

10. Miscellaneous Notes

Special Notes

1. Provide a service access door near the unit piping connection part on the false ceiling for the cassette type units.
2. Consider the air distribution from the unit to the space of the room, and select a suitable location so that uniform air temperature in the room can be obtained.
Cassette and Ceiling Types - Avoid unit installation in a room where the ceiling height (distance between the floor to the false ceiling) exceeds three meters. If the indoor unit is installed in a room with a ceiling of higher than 3 meters, it is recommended that an air circulation fan be installed separately to obtain uniform air temperature in the room, especially during the heating operation.
3. Check to ensure that the ceiling slab is strong enough and that the false ceiling is flat and level.
4. Avoid obstacles which may restrict the air intake or the discharge flow.
5. Do not install the unit in a machinery shop or kitchen where vapor from oil or its mist can enter to the unit.
The oil will deposit on the heat exchanger, thereby reducing the unit performance, and may deform, in the worst case, break the plastic parts of the unit.
6. Pay attention to the following points when the unit is installed in a hospital or other facilities where electromagnetic wave is radiated from medical equipment.
 - (A) Do not install the unit where the electromagnetic wave is directly radiated to the electrical box, remote control cable or remote control switch.
 - (B) Install the unit and component as far as practical (at least three meters) from the electromagnetic wave radiator.
 - (C) Prepare a steel box and install the remote control switch in it. Prepare a steel conduit pipe and wire the remote control cable in it. And then, connect earth wire with the box and the pipe.
 - (D) Install a noise filter when the power supply emits harmful noise.
7. Do not install the units in an acid or alkaline environment due to the corrosive action on the heat exchanger. In the case that outdoor units are installed near the sea, it is recommended that optional corrosion-resistant type outdoor unit be used.
8. Do not install the units in a flammable environment due to the danger of an explosion.
9. Regarding cassette type indoor units, consider the direct and reflected sound level, when selecting the unit for spaces where extremely low sound is required.
10. During heating operation, the outdoor heat exchanger produces condensate dew or melting water from frost.
Install the outdoor unit where drainage of such water is convenient, or provide a drain passage.
11. Heating Performance: The heating capacity normally decreases when outdoor temperatures decrease. Therefore, provide an auxiliary heating unit if outdoor temperatures are very low.
12. In the case that an outdoor temperature is low and humidity is high, the outdoor heat exchanger will be covered with frost, resulting in lower heating capacity. In order to remove the frost, the unit is automatically changed to the defrosting mode. During this defrosting operation, the unit is stopped for approximately 3 to 10 minutes.
13. As this unit is of heat pump type by circulating hot air in the whole room space, it takes time to heat up the room temperature.
14. The operating sound data is based on an anechoic chamber. Therefore, the actual operating sound will be higher due to reflected sound from the floor and wall.
15. In the case that the unit is operated for a long time higher than the indoor temperature of 27°CDB or the humidity of 80%, dewing may occur on the cabinets resulting in dew drops. If dewing, it is required to add thermal insulator on the cabinets.
16. Provide snow-protection hoods to prevent the outdoor heat exchanger from snow clogging. If the unit is operated in an area where it snows heavily, provide a base under the outdoor unit which should be 50cm higher than the presumable maximum snow height.
17. It is recommended that periodical service and maintenance be performed by authorized service engineers before air conditioning seasons, in order to avoid performance decrease due to dust or dirt.
18. This heat pump air conditioner has been designed for normal air conditioning for men. Do not apply to other purposes such as for food, animals, plants, high precision machines or work of art. Also do not apply to vehicles or vessels. It will result in water leakage or electrical leakage.
19. It is recommended that the system be installed by authorized engineers. If not, it may cause water leakage, electric shock or fire.
20. In a place where fibers or dusts are floating, the air filter or heat exchangers or the drain pipe may be clogged, resulting in water leakage from the drain pan.

Special Notes on Refrigerant, R410A

Use tools and measuring instruments only for the new refrigerant which is directly touch to refrigerant.

◇ : Interchangeability is available with current R22

● : only for Refrigerant R410A (No Interchangeability with R22)

× : Prohibited

◆ : only for Refrigerant R407C (No Interchangeability with R22)

Measuring Instrument and Tool		Interchangeability with R22		Reason of Non-Interchangeability and Attention (★ : Strictly Required)	Use
		R410A	R407C		
Refrigerant Pipe	Pipe Cutter Chamfering Reamer	◇	◇	-	Cutting Pipe Removing Burrs
	Flaring Tool	◇●	◇	* The flaring tools for R407C are applicable to R22. * If using flaring tube, make dimension of tube larger for R410A. * In case of material 1/2H, flaring is not available.	Flaring for Tubes
	Extrusion Adjustment Gauge	●	-		Dimensional Control for Extruded Portion of Tube after Flaring
	Pipe Bender	◇	◇	* In case of material 1/2H, bending is not available. Use elbow for bend and braze.	Bending
	Expanding Tool	◇	◇	* In case of material 1/2H, expanding of tube is not available. Use socket for connecting tube.	Expanding Tubes
	Torque Wrench	●	◇	* For φ12.7, φ15.88, spanner size is up 2mm.	Connection of Flare Nut
		◇	◇	* For φ6.35, φ9.53, φ19.05, spanner size is the same.	
	Brazing Tool	◇	◇	* Perform correct brazing work.	Brazing for Tubes
	Nitrogen Gas	◇	◇	* Strict Control against Contamin (Blow nitrogen during brazing.)	Prevention from Oxidation during Brazing
Lubrication Oil (for Flare Surface)	●	◆	* Use a synthetic oil which is equivalent to the oil used in the refrigeration cycle. * Synthetic oil absorbs moisture quickly.	Applying Oil to the Flared Surface	
Vacuum Drying Refrigerant Charge	Refrigerant Cylinder	●	◆	* Check refrigerant cylinder color. ★ Liquid refrigerant charging is required regarding zeotropic refrigerant.	Refrigerant Charging
	Vacuum Pump	◇	◇	★ The current ones are applicable. However, it is required to mount a vacuum pump adapter which can prevent from reverse flow when a vacuum pump stops, resulting in no reverse oil flow.	Vacuum Pumping
	Adapter for Vacuum Pump	* ●	◆		
	Manifold Valve	●	◆	* No interchangeability is available due to higher pressures when compared with R22. ★ Do not use current ones to the different refrigerant. If used, mineral oil will flow into the cycle and cause sludges, resulting in clogging or compressor failure. Connection diameter is different; R410A: UNF1/2, R407C: UNF7/16.	Vacuum Pumping, Vacuum Holding, Refrigerant Charging and Check of Pressures
	Charging Hose	●	◆		
	Charging Cylinder	×	×	* Use the weight scale.	-
	Weight Scale	◇	◇	-	Measuring Instrument for Refrigerant Charging
Refrigerant Gas Leakage Detector	* ●	◆	* The current gas leakage detector (R22) is not applicable due to different detecting method.	Gas Leakage Check	

*: Interchangeability with R407C.

11. Standard Specifications

UNIT - The unit shall be a multi-split system inverter-driven heat pump air conditioner for application with R410A refrigerants, and shall be composed of 4-way cassette type indoor units, or in-the-ceiling type indoor units, ceiling type indoor units, wall type indoor units, floor type indoor units and an outdoor unit, with a distributed refrigeration cycle, electrical components and enclosing cabinets. Optional accessories shall also be provided upon customer request. The indoor unit shall be constructed for installation, and the outdoor unit shall be completely weather-proofed for outdoor installation. Both indoor unit and the outdoor unit shall be properly assembled, internally piped and wired, thoroughly tested, and charged with R410A refrigerant at the factory and shall comply with Japanese Industrial Standards and other Japanese standardization statues.

CAPACITY - The total capacity of the multi-split system inverter-driven heat pump air conditioner shall be ____ kW or greater with ____ °C air inlet dry bulb, ____ °C air inlet wet bulb, ____ °C outdoor air inlet temperature and ____ m³/min. indoor air flow. The total compressor power inputs shall not exceed ____ kW. The total heating capacity of the split-type air conditioners shall be ____ kW or greater, with ____ °C indoor heat exchanger inlet air dry bulb, ____ °C outdoor heat exchanger air inlet dry bulb, ____ °C outdoor heat exchanger air inlet wet bulb, and ____ m³/min. indoor air flow. The total compressor power input shall not exceed ____ kW.

INDOOR UNIT

CABINET - The cabinet shall be constructed of galvanized steel sheet or finished steel sheet, baked with synthetic resin-paint, with a plastic air panel assembly for cassette type unit, and be constructed of galvanized steel sheet for the in-the-ceiling duct type unit.

REFRIGERATION CYCLE - The refrigeration cycle shall be equipped with a heat exchanger, an electronic expansion valve, solenoid valves and flare connections.

INDOOR FAN AND FAN MOTOR - The indoor fan shall be the multi-blade centrifugal type, statically and dynamically balanced, and directly driven by a ____ W motor for model ____ and a ____ W motor for model _____. The fan motor bearing shall be permanently lubricated. The fan shall deliver ____ m³/min. air flow for model ____ and ____ m³/min. for model ____ at the nominal air flow. Three operating positions Hi, Me and Lo can be selected according to the required conditions.

INDOOR HEAT EXCHANGER - The heat exchanger shall be the multi-pass, cross-finned tube type, equipped with highly-efficient aluminum fins, mechanically bonded to seamless, oxygen-free copper tubes. The fins shall be spaced at no more than 12 fins per 25.4mm. The face area shall not be less than ____ m² for model ____ and ____ m² for model _____. The coil shall be cleaned, dehydrated and tested for leakage at the factory.

HITACHI

Qingdao Hisense Hitachi Air-conditioning Systems Co.,Ltd.

Specifications in this catalog are subject to change without notice, in order that HITACHI may bring the latest innovations to their customers.