MITSUBISHI HEAVY INDUSTRIES
AIR CONDITIONERS

HEAVY DUTY

MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

FD series

Non-Inverter Packaged Air-Conditioners

High Performance
Air-Conditioning

2019-2020

High Performance Air-Conditioning FD series

The PAC range from Mitsubishi Heavy Indusfries Thermal systems is ideal for air condifioning offices, shops, resfauranfs, and bars ... as well as other commercial environments. The versafilify of the PAC range. offers you a wide selection of models in funcfion of your installafion needs.
The modern and affracfive design of our indoor units is harmoniously infegrafed in the any afmosphere creafing a pleasant and relaxing environment.

CONTENTS

New Generation FDT

Automatic energy saving control

Keep maximum comfort with minimal draft

Quiet operation

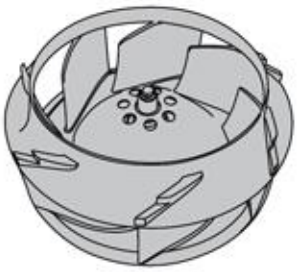
High energy efficiency with new technology

New FDT can achieve higher Coefficient of Performance (COP) by Mitsubishi Heavy Industries latest technology.

More quiet noise & improve the aerodynamic performance of the unit

New technology has realised quiet noise with keeping capacity and comfort. Our new design turbo fan can achieve low noise by reducing the pressure fluctuation in the indoor unit.
A fan guard attains both safety and quietness by flow.

New design turbo fan



Fan guard (standard equipment)

Flexible flap control for draft prevention. Brand new function in the market

Draft Prevention Panel (Option)

4 additional flaps are to be controlled individually at each operation mode. They change air flow direction and prevents draft feeling. This new function also achieve more flexible control for air flow direction.

Motion Sensor (Option)

New motion sensor (option) detects human activity. Energy saving control is achieved by shifting set temperature according to detected amount of activity.

Draft Prevention Panel FDT

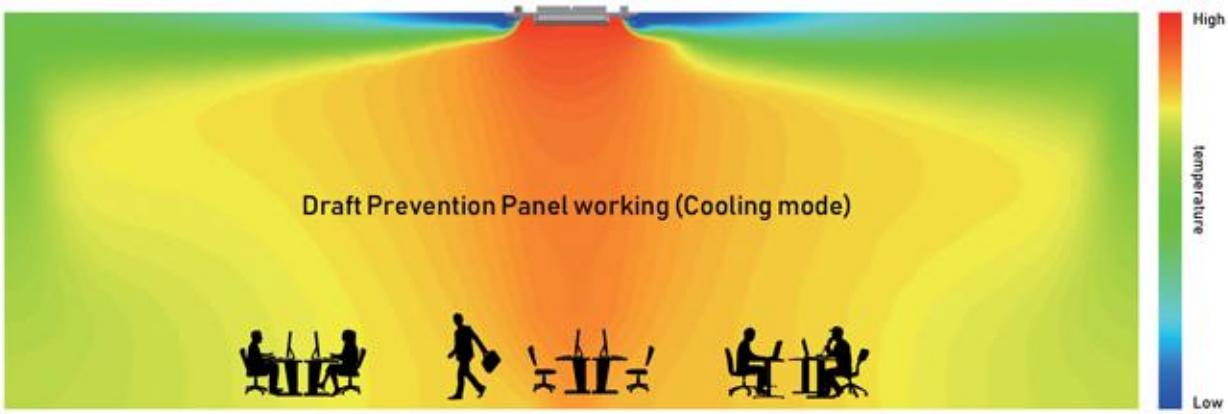
Keep maximum comfort with minimal draft:
New FDT control flaps with more flexibility.

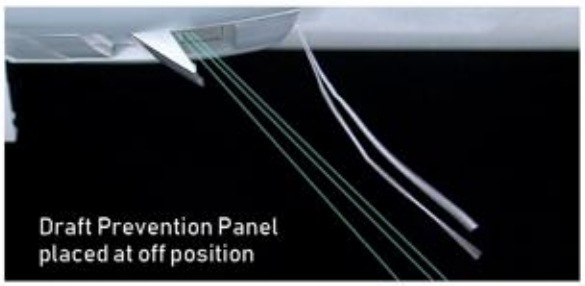
GOOD DESIGN

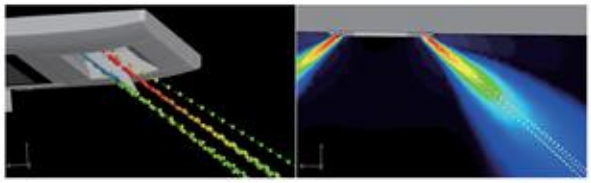
The Good Design Award is Japan's only comprehensive design evaluation and recommendation initiative, originating with the "Good Design Products Selection System" founded in 1957.
It is now a global design award with participation from numerous Japanese and international companies and organizations.
The "G Mark", the symbol of the Good Design Award, is known widely as a symbol of excellent design.

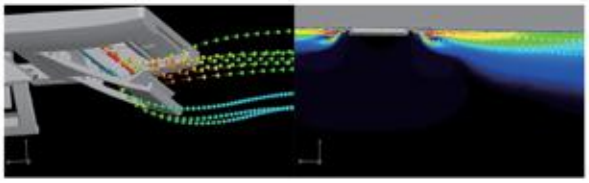
Draft Prevention Panel Operating Image

New Generation!









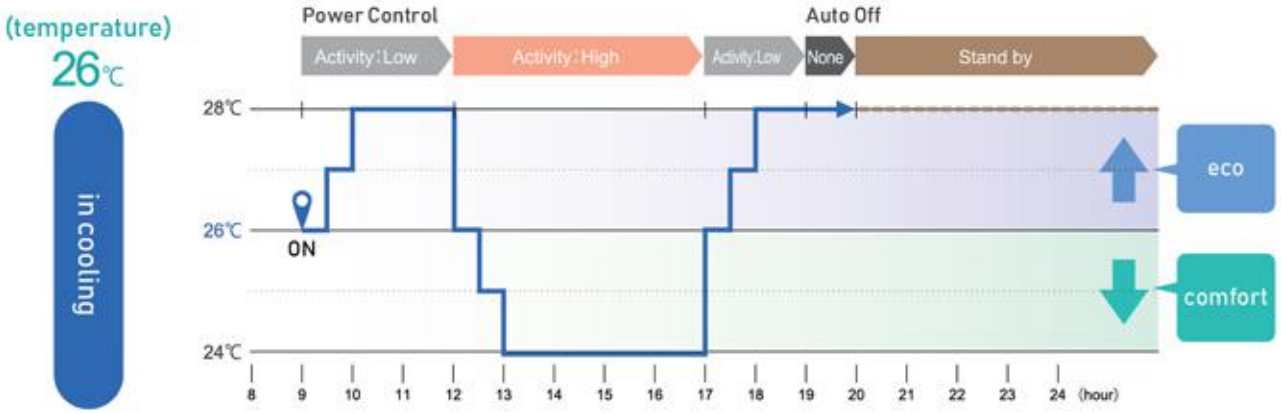
Draft Prevention Panel provides a comfortable airflow without any draft feeling. Whether cooling a room, the remote control can be used to instantly suppress cool drafts. This accurately assists how air flow is directed out of the indoor unit.

Motion sensor FDT

Energy saving control by detecting human moving

3 Step Control

Power Control	New motion sensor (option) detects human activity. Energy saving control is achieved by shifting set temperature according to detected amount of activity.
Stand by	Unit will go on stand-by mode when no activity is detected. When unit will detect activity again, unit will re-start operation automatically.
Auto Off	Unit will go off automatically when no activity is detected for 12 hours.



Operation mode and Control of Motion sensor			eco operation / comfort operation	Operation mode: Cool	Dry	Fan
Power Control ※1	Human activity	Low		+2℃	—	—
		High		-2℃	—	—
Auto Off ※2				•	•	•

※1 Set temperature is revised maximum 2℃ at Cooling mode by detecting heat volume movement.
※2 Absence for 1 hour ⇒ Operation stops ("Stand-by") More 12 hours absence ⇒ Operation stops completely

Remote Control

Added new function

Simple use with advanced settings REMOTE CONTROL

RC-EX3A

Easy touch and Easy view with full dot Liquid Crystal display

Function Switch

The function switch allows you to select and set two functions that you desire among the seven available functions shown. These functions can be used by simply pressing the button after they are set, allowing you to use your preferable functions immediately.

1. High Power Mode

High Power Mode achieve excessive cooling / heating capacity for 15 minutes to quickly adjust the room temperature to a comfortable level.

2. Energy Saving Mode

Temperature is set to optimized to save energy without losing comfort.

3. Quiet Mode

Outdoor unit starts to operate quietly by activating this mode. The time of this mode can be set in conjunction with Indoor Silent Timer.

4. Home Leave Mode

Home leave mode maintains the room temperature at a moderate level.

5. Favourite Mode

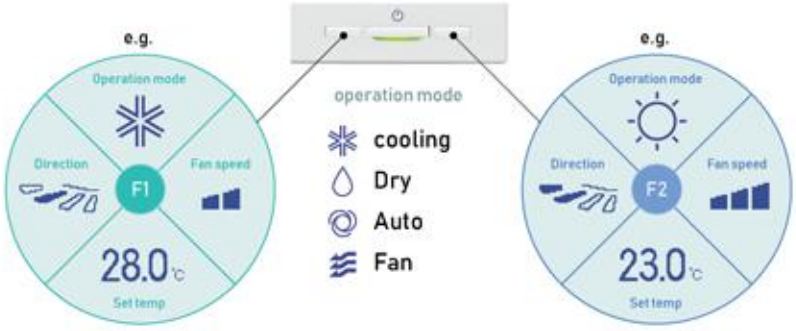
Operation mode, set temperature, fan speed and air flow direction are automatically adjusted to the programmed favorite setting.

6. Filter Sign

Announces the due time for cleaning the air filter.

Favourite Mode

Operation mode, set temperature, fan speed and air flow direction are memorized and allocated to two buttons that can be operated by one touch.



Adjustable Brightness of the Operation Lamp

The brightness of the operation lamp behind Run/Stop switch can be adjusted by 10 stages.

Draft Prevention Setting

(only FDT series)

User can enable/disable the motion of panel with anti draft for each blow outlet for each operation mode. This function can be set while operating.

Easy Modification of Air Flow

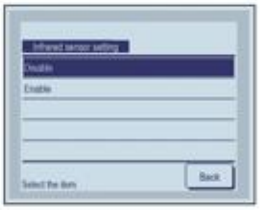
User can visually confirm and set the direction of louvres using the visual display on the remote controller.

Motion Sensor Control

Presence of humans and the amount of motion are detected by a motion sensor to perform various controls.

❶ Select Enable / Disable Motion sensor control

Enable/Disable

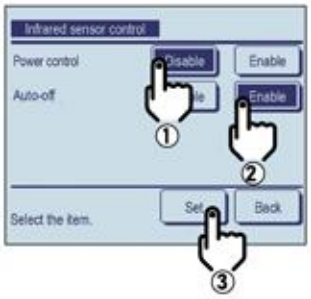


Select Enable / Disable for the motion sensor of the indoor unit connected to the R/C.

❷ Select Enable / Disable per control

- Power control
- Auto-off

Enable/Disable



Backup Control

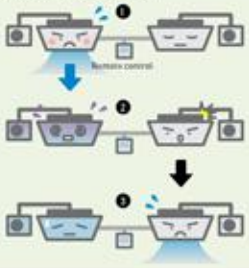
Control restricted to two indoor units (two groups)

Fault backup control

Reassurance Comfort

Keep back up all the time!

If one of the two indoor units malfunctions and stops its operation, the other starts backup operation so that users' comfort will not be compromised.

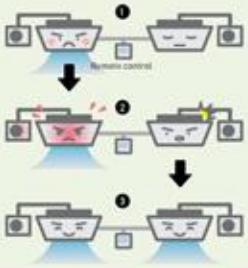


Capacity backup control

Comfort Energy saving Longer unit life

Maintains users' comfort!

When the control system detects either of two units is operating with overload, the other unit cover the capacity.

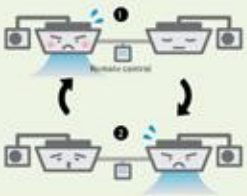


Rotational operation control

Longer unit life Energy saving

Energy saving and longer life!

By operating two indoor units alternately, their chronological changes are equalized. (The alternate operation cycle can be specified in a range from 10 to 999 hours in increments of 10 hours.)



Additional Functions of External Input / Output

The external input/output of indoor unit by remote controller can set input/output based on user's demand.

Remote surveillance system

Card key on-off

External Input

CNT (1-6) CNTA (1-2)

Input: On/Off, Permission/Prohibition, Cooling/Heating, Emergency Stop

- Set temp. shift
- Forced thermo-off
- IU operation stop
- Silent mode

Newly added

External Output

CNT (New)

2 Output - Operation
- Heating
- Compressor ON (thermo-ON)

3 Output - Inspection

4 Output
- Cooling (defrosting)
- Fan operation
- Fan operation with Phi or Hi
- Fan operation with Me or Lo
- Defrosting (oil return in heating operation)
- Ventilation

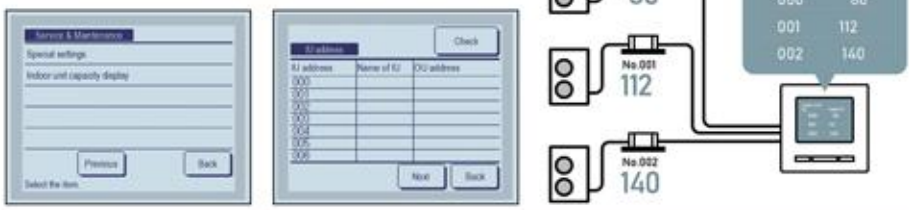
5 Output
- Heater ON
- Free cooling
- IU overload alarm

Newly added

(For only FDT with RC-EX3A)

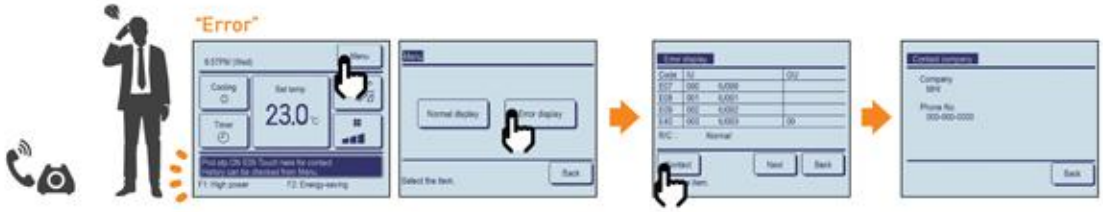
Indoor Unit Capacity Display

Capacities of Indoor units connected to the RC-EX3A are displayed.

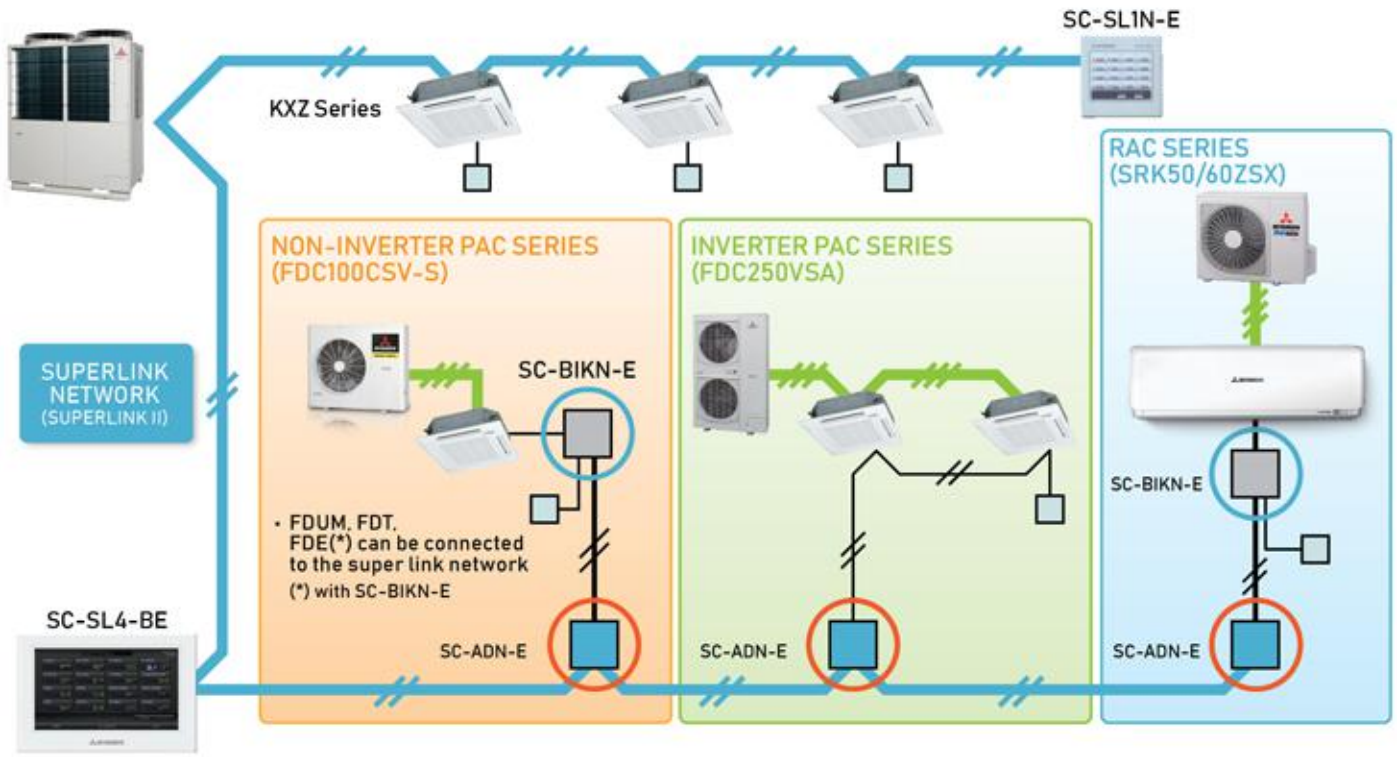


Contact company & Error display

If any error occurs on the air conditioner, the "Unit protection stop" is indicated on the message display.



SUPERLINK SYSTEM



Central Control

SC-SL1N-E

Start/stop control of up to 16 indoor units is possible either individually or collectively. With simple operations, you can effect centralized control.

SC-SL2NA-E

Centralized control of up to 64 indoor units. Including weekly timer function as standard.

SC-SL4-AE/BE

Easy operation realized with a large color LCD and touch panel. Up to 128 indoor units can be controlled, when SUPERLINK-Ⅱ systems are connected.

Building Management Systems

Production by order

Users can manage up to 1024 units by connecting the four devices !!

SC-WBGW256*

Web gateway
BACnet gateway

SC-WBGW256, up to 256 cells (some cells can have two or more indoor units and total number of indoor units can be up to 256 units) are controlled from the Internet Explorer and centrally from Building Management Systems.

SC-LGWNB*

LonWorks gateway

Up to 96 indoor units can be integrated to a central control point via the building management system network.

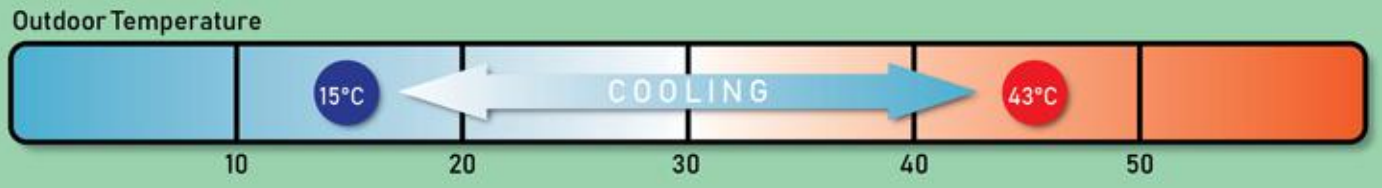
* Additional engineering service is required. Please consult your dealer when using these system.

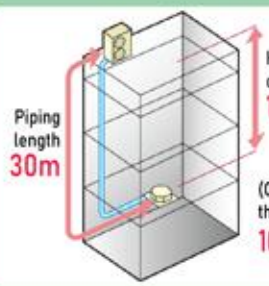
Non - Inverter PAC

TYPE	HI-COP					
	HP	2	3	4	5	6
	kW	5.0	7.1	10.0	12.5	14.0
 CEILING CASSETTE	Indoor	FDT50CNVX-S	FDT71CNVX-S	-	-	-
	Outdoor	FDC50CNVX-S	FDC71CNVX-S	-	-	-
 DUCT CONNENCTED	Indoor	-	-	-	-	-
	Outdoor	-	-	-	-	-
 CEILING SUSPENDED	Indoor	FDE50CNVX-S	FDE71CNVX-S	-	-	-
	Outdoor	FDC50CNVX-S	FDC71CNVX-S	-	-	-
 FLOOR STANDING	Indoor	-	-	-	-	-
	Outdoor	-	-	-	-	-
OUTDOOR UNIT						

TYPE	STANDARD					
	HP	2	3	4	5	6
	kW	5.0	7.1	10.0	12.5	14.0
 CEILING CASSETTE	Indoor	FDT50CNV-S	FDT71CNV-S	FDT100CNV-S (1 Phase) FDT100CSV-S (3 Phase)	FDT125CSV-S	FDT140CSV-S
	Outdoor	FDC50CNV-S	FDC71CNV-S	FDC100CNV-S (1 Phase) FDC100CSV-S (3 Phase)	FDC125CSV-S	FDC140CSV-S
 DUCT CONNENCTED	Indoor	FDUM50CNV-S	FDUM71CNV-S	FDUM100CNV-S (1 Phase) FDUM100CSV-S (3 Phase)	FDUM125CSV-S	FDUM140CSV-S
	Outdoor	FDC50CNV-S	FDC71CNV-S	FDC100CNV-S (1 Phase) FDC100CSV-S (3 Phase)	FDC125CSV-S	FDC140CSV-S
 CEILING SUSPENDED	Indoor	-	-	FDE100CNV-S (1 Phase) FDE100CSV-S (3 Phase)	FDE125CSV-S	FDE140CSV-S
	Outdoor	-	-	FDC100CNV-S (1 Phase) FDC100CSV-S (3 Phase)	FDC125CSV-S	FDC140CSV-S
 FLOOR STANDING	Indoor	-	FDF71CNV-S	-	FDF125CSV-S	FDF140CSV-S
	Outdoor	-	FDC71CNV-S	-	FDC125CSV-S	FDC140CSV-S
OUTDOOR UNIT						

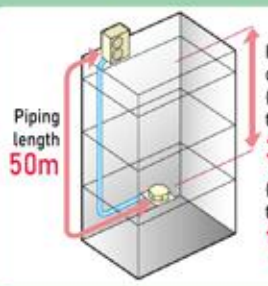
Usage Limitation





FDC50, 71CNV-S
FDC50, 71CNVX-S

Pre-Charge piping length: **15m**



FDC100CNV-S
FDC100, 125, 140CSV-S

Pre-Charge piping length: **30m**

BENEFITS SUMMARY

■ Indoor units

When using RC-EX3A (Remote control), functions with symbol ○ are available.
However, for RC-E5 (Remote control), functions with ※ are not available.

Economy	Set Temperature Auto Return※	This function allows you to program a preferred set temperature that the unit will return to each time it is operated.	○	○	○	
Comfort	Automatic Operation	This function automatically selects the required cooling function based on the current room conditions.	○	○	○	○
	Motion sensor※	This sensor detects human activity and shifts the temperature setting according to the amount of activity in the room.	○ Option			
Air flow	Flap Control System	This function allows you to set the upper and lower limit positions of the flap at each air outlet individually, providing you with complete control over interior air flow.	○		○	
	Vertical Auto Swing	The vertical louvers on your unit will move up and down continuously during operation. This function allows you to set the up/down swing position of the louver to your preferred operation angle.	○		○	○
	Draft prevention setting※	Draft Prevention setting provides a comfortable air flow without any draft feeling. Whether cooling or heating a room, the remote control can be used to instantly suppress any warm or cool drafts. This accurately assists how air flow is directed out of the indoor unit.	○ Option			
	Automatic Fan Speed	The unit's on-board microcomputer continuously monitors the room's air temperature and adjusts the air flow automatically.	○	○	○	
Timer	Sleep Timer	This function allows you to set a pre-determined amount of time between 30 and 240 minutes that your unit will operate for before switching off.	○	○	○	
	Weekly Timer	Set your unit to turn on and off automatically on a weekly basis to suit your usual room usage on each day.	○	○	○	
Convenient	Function Switch※	From the seven available functions on the unit, this function allows you to set two functions to operate automatically.	○	○	○	
	Favorite setting※	Operation mode, set temperature, fan speed and air flow direction automatically adjust to the programmed favorite setting.	○	○	○	
	Select the language※	Set the language to be displayed on the remote control.	○	○	○	
	Air Filter	The air filter in the unit traps and removes airborne dust particles and other allergens to provide you with a clean air function.	○	○ Option	○	○
	Filter Sign	This warning alerts you to when the filter needs to be cleaned.	○	○	○	○
	Outside Air Intake	This function provides clean fresh air into the room through the external air intake, avoiding the constant recycling of internal air.	○	○		
Others	Self Diagnostics	The internal microcomputer automatically runs a diagnostic of the system in the event of a malfunction. This enables your authorised dealer to isolate and repair any issues.	○	○	○	○
	Built in Drain Pump	The built-in drain pump, allows greater flexibility with installation, offering a great solution for applications with limited space.	○	○		
	Improved Serviceability	The fan unit (comprised of impeller and motor) is easily accessible from either the side or bottom of the unit and can be slid out for easy maintenance.		○		

CEILING CASSETTE FDT

-4WAY-

R410A

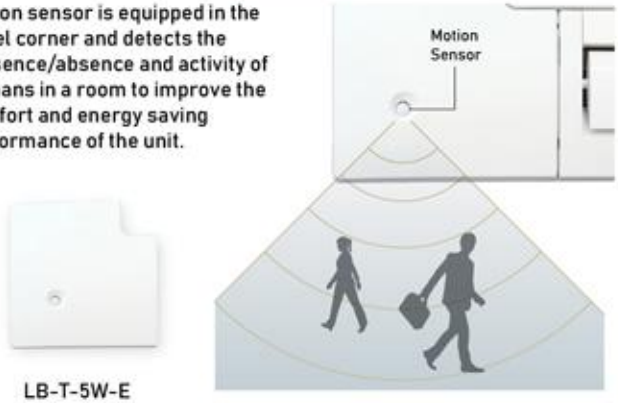
Draft Prevention Panel (Option)

Draft Prevention Panel prevents cold draft being blown directly on the user.It is possible to set Draft Prevention Panel for each air outlet.

User can position Draft Prevention Panel panels by using the remote controller only (RC-EX3A, RCN-T-5AW-E2).

Motion Sensor (Option)

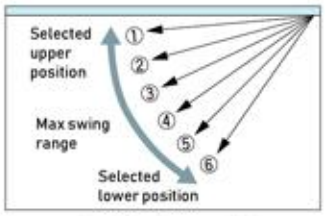
Motion sensor is equipped in the panel corner and detects the presence/absence and activity of humans in a room to improve the comfort and energy saving performance of the unit.



LB-T-5W-E

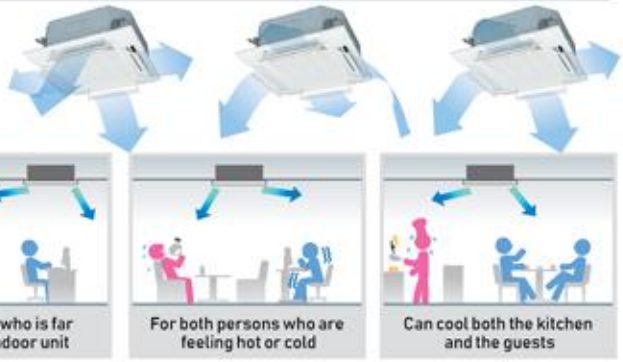
Individual Flap Control System

According to room conditions, four directions of air flow can be controlled individually by utilizing the flap control system. Individual flap control is available even after installation.

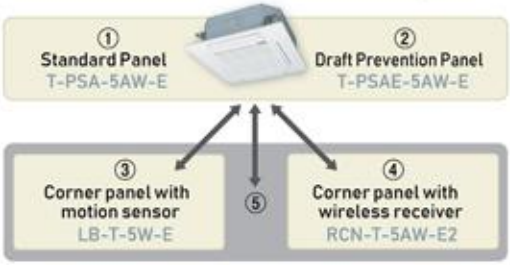


Flap can swing within an upper and lower flap range position within can be selected with a wired remote control.

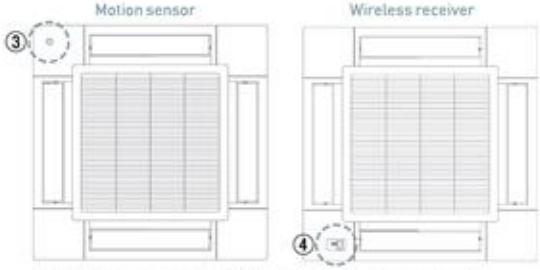
• The wireless remote control is not applicable to the Individual flap control system.



Panel Select Pattern (Option)



Installation position of Wireless kit and Motion sensor kit



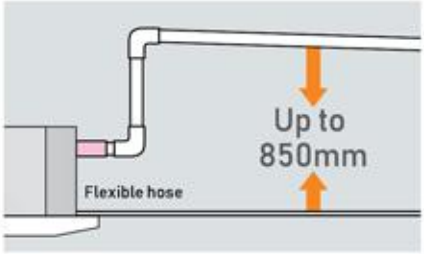
*Wireless receiver and Motion sensor can be installed to the position as shown

8 patterns of panel are available.

①	Standard Panel only
①+③	Standard Panel with corner panel with motion sensor
①+④	Standard Panel with corner panel with wireless receiver
①+⑤	Standard Panel with corner panel with motion sensor & corner panel with wireless receiver
②	Draft Prevention Panel only
②+③	Draft Prevention Panel with corner panel with motion sensor
②+④	Draft Prevention Panel with corner panel with wireless receiver
②+⑤	Draft Prevention Panel with corner panel with motion sensor & corner panel with wireless receiver

850 mm Drain Pump

Drain can be discharged upwards by 850mm from the ceiling surface. It allows a piping layout with a high degree of freedom. Depending on the installation location and 185mm flexible hose as a standard equipment supports easy workability.



FDT50/71CNVX-S
FDT50/71/100CNV-S
FDT100/125/140CSV-S

R410A

SPECIFICATIONS

			FDT SERIES	
			HI - COP	
Indoor unit			FDT50CNVX-S	FDT71CNVX-S
Outdoor unit			FDC50CNVX-S	FDC71CNVX-S
Power source			1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz
Capacity		kW	5.4	7.1
Power consumption		kW	1.43	1.91
COP		W/W	3.78	3.72
Inrush current / Max. current		A	34 / 8.2	44 / 10.7
Indoor unit	Airflow rate (PHi/Hi/Me/Lo)	m³/min	22/ 19 / 16 / 14	32/ 26/ 21 / 17
	Sound pressure level (PHi/Hi/Me/Lo)	dB(A)	37/35/34/32	46/43/39/37
	Exterior dimensions (HxWxD)	mm	236 x 840 x840	236 x 840 x 840
	Net weight	kg	22	22
Outdoor unit	Airflow rate	m³/min	38	60
	Sound pressure level	dB(A)	51	55
	Exterior dimensions (HxWxD)	mm	640 x 800(+71) x 290	750 x 880(+88) x 340
	Net weight	kg	45	58
Refrigerant type	type		R410A	R410A
	charge amont	kg (m)	1.40 (15m)	1.50 (15m)
Piping size (Liquid/Gas)		mm	ϕ6.35 / ϕ15.88	ϕ6.35 / ϕ15.88
Refrigerant line (one way) length		m	30	30
Vertical height differences	Outdoor is Higher/ Lower	m	Max.10 / Max.10	Max.10 / Max.10
Outdoor operating temperature range		°c	21~43	21~43

GOOD DESIGN

Draft Prevention Panel (Option)

REMOTE CONTROL

Wireless (option) Wired (option)

RCN-T-5AW-E2 RC-EX3A RC-E5 RCH-E3

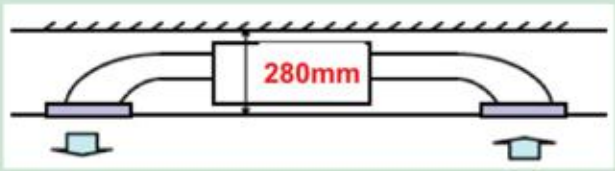
FDC50/71CNV-S FDC50CNVX-S FDC71CNVX-S FDC100CNV-S FDC100/125CSV-S FDC140CSV-S

SPECIFICATIONS

			FDT SERIES					
			STANDARD					
Indoor unit			FDT50CNV-S	FDT71CNV-S	FDT100CNV-S	FDT100CSV-S	FDT125CSV-S	FDT140CSV-S
Outdoor unit			FDC50CNV-S	FDC71CNV-S	FDC100CNV-S	FDC100CSV-S	FDC125CSV-S	FDC140CSV-S
Power source			1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz
Capacity		kW	5.0	7.3	10.5	10.4	13.0	14.5
Power consumption		kW	1.55	2.25	2.91	2.88	4.16	4.50
COP		W/W	3.23	3.24	3.61	3.61	3.13	3.22
Inrush current / Max. current		A	34 / 8.2	44 / 13	58.7 / 17.3	16.4 / 5.8	49.7 / 9.6	53.1 / 11.0
Indoor unit	Airflow rate (PHi/Hi/Me/Lo)	m³/min	22/ 20/ 17 / 15	32/ 26/ 21 / 17	31/ 26/ 23 / 17	31/ 26/ 23 / 17	31/ 28/ 25 / 18	31/ 28/ 26 / 20
	Sound pressure level (PHi/Hi/Me/Lo)	dB(A)	39/38/37/34	46/43/39/37	43/40/38/34	44/40/38/34	44/ 41/ 39 / 36	44/ 41/ 39 / 36
	Exterior dimensions (HxWxD)	mm	236 x 840 x 840	236 x 840 x 840	298 x 840 x 840	298 x 840 x 840	298 x 840 x 840	298 x 840 x 840
	Net weight	kg	20	22	25	25	25	25
Outdoor unit	Airflow rate	m³/min	38	37	75	75	75	132
	Sound pressure level	dB(A)	51	56	55	57	58	59
	Exterior dimensions (HxWxD)	mm	640 x 800(+71) x 290	640 x 800(+71) x 290	845 x 970 x 370	845 x 970 x 370	845 x 970 x 370	1300 x 970 x 370
	Net weight	kg	42	46	77.5	79	85	108
Refrigerant type	type		R410A	R410A	R410A	R410A	R410A	R410A
	charge amont	kg (m)	1.00 (10m)	1.40 (15m)	2.40 (30m)	2.65 (30m)	2.15 (30m)	3.10 (30m)
Piping size (Liquid/Gas)		mm	ϕ6.35 / ϕ15.88	ϕ6.35 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88
Refrigerant line (one way) length		m	30	30	50	50	50	50
Vertical height differences	Outdoor is Higher/ Lower	m	Max.10 / Max.10	Max.10 / Max.10	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15
Outdoor operating temperature range		°c	21~43	21~43	21~43	21~43	21~43	21~43

DUCT CONNECTED FDUM
-MIDDLE STATIC PRESSURE-

• Indoor height is thin easy to install at narrow ceiling



: **280mm** (Height)

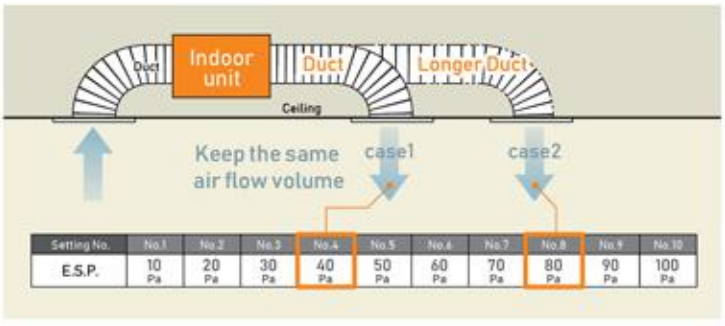
Automatic External Static Pressure (E.S.P.) Control

Duct design was simplified. Using DC motor, the most optimum air flow volume can be achieved by this automatic control. Indoor unit will recognize external static pressure by itself automatically and keep rated air flow volume.

RC-E5

E.S.P. button

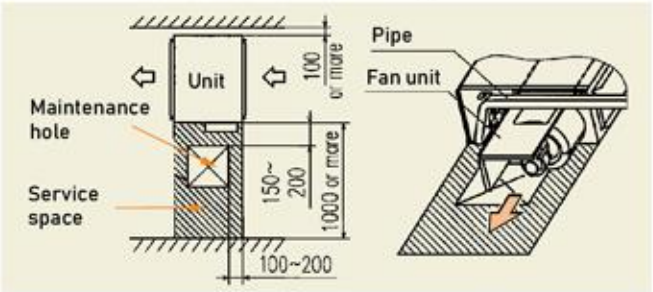
External Static Pressure (E.S.P.) can be set by E.S.P. button.



Setting No.	No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10
E.S.P.	10 Pa	20 Pa	30 Pa	40 Pa	50 Pa	60 Pa	70 Pa	80 Pa	90 Pa	100 Pa

Improvement of the Serviceability

Fan unit (impeller and motor) can be pulled out from the right side of the unit. Maintenance can be available from the right side or the bottom side.

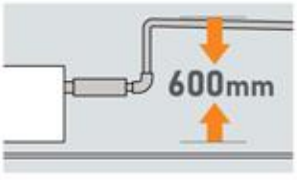


Transparent Inspection Window

Dirt condition of the bottom of a drain pan can be checked through this transparent inspection window without removing drain pan.

Enhanced Installation Workability

600mm Drain Pump is mounted in all models. The indoor unit is completely hidden in the ceiling. so this is suitable for spaces with classy interior decoration.



FDC50/71CNV-S

FDC100CNV-S
FDC100/125CSV-S

FDUM50/71/100CNV-S
FDUM100/125/140CSV-S

FDC140CSV-S

FILTER KIT (OPTION)

UM-FL1EF : for 50, 71
UM-FL2EF : for 100, 125
UM-FL3EF : for 140

external static pressure loss:5Pa

REMOTE CONTROL

Wireless (option)

RCN-KIT4-E2

Wired (option)

RC-EX3A RC-E5 RCH-E3

SPECIFICATIONS

			FDUM SERIES					
			STANDARD					
Indoor unit			FDUM50CNV-S	FDUM71CNV-S	FDUM100CNV-S	FDUM100CSV-S	FDUM125CSV-S	FDUM140CSV-S
Outdoor unit			FDC50CNV-S	FDC71CNV-S	FDC100CNV-S	FDC100CSV-S	FDC125CSV-S	FDC140CSV-S
Power source			1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz
Capacity		kW	5.0	7.1	10.5	10.4	13.0	14.5
Power consumption		kW	1.613	2.29	3.03	3.10	4.46	4.70
COP		W/W	3.10	3.10	3.47	3.35	2.91	3.09
Inrush current / Max. current		A	32.0 / 8.2	42.0 / 13.0	60.5 / 18.3	15.5 / 6.2	44.7 / 10.2	51.2 / 11.4
Indoor unit	Airflow rate (PHi/Hi/Me/Lo)	m³/min	13 / 10 / 9 / 8	24 / 19 / 15 / 10	39 / 32 / 26 / 20	39 / 32 / 26 / 20	48 / 35 / 28 / 22	48 / 35 / 28 / 22
	Sound pressure level(PHi/Hi/Me/Lo)	dB(A)	35 / 31 / 29 / 27	38 / 33 / 31 / 29	42 / 36 / 32 / 29	42 / 36 / 32 / 29	44 / 37 / 33 / 29	44 / 37 / 33 / 29
	Exterior dimensions (HxWxD)	mm	280 x 750 x635	280 x 950 x635	280 x 1370 x 740	280 x 1370 x 740	280 x 1370 x 740	280 x 1370 x 740
	Net weight	kg	29	34	53	53	53	53
Outdoor unit	Airflow rate	m³/min	38	37	75	75	75	132
	Sound pressure level	dB(A)	51	56	55	57	58	59
	Exterior dimensions (HxWxD)	mm	640 x 800(+71) x 290	640 x 800(+71) x 290	845 x 970 x 370	845 x 970 x 370	845 x 970 x 370	1300 x 970 x 370
	Net weight	kg	42	46	77.5	79	85	108
Refrigerant type	type		R410A	R410A	R410A	R410A	R410A	R410A
	charge amont	kg (m)	1.00 (15m)	1.40 (15m)	2.40 (30m)	2.65 (30m)	2.15 (30m)	3.10 (30m)
Piping size (Liquid/Gas)		mm	ϕ6.35 / ϕ15.88	ϕ6.35 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88
Refrigerant line (one way) length		m	30	30	50	50	50	50
Vertical height differences	Outdoor is higher / lower	m	Max.10 / Max.10	Max.10 / Max.10	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15
Outdoor operating temperature range		°c	21~43	21~43	21~43	21~43	21~43	21~43

CEILING SUSPENDED FDE

R410A

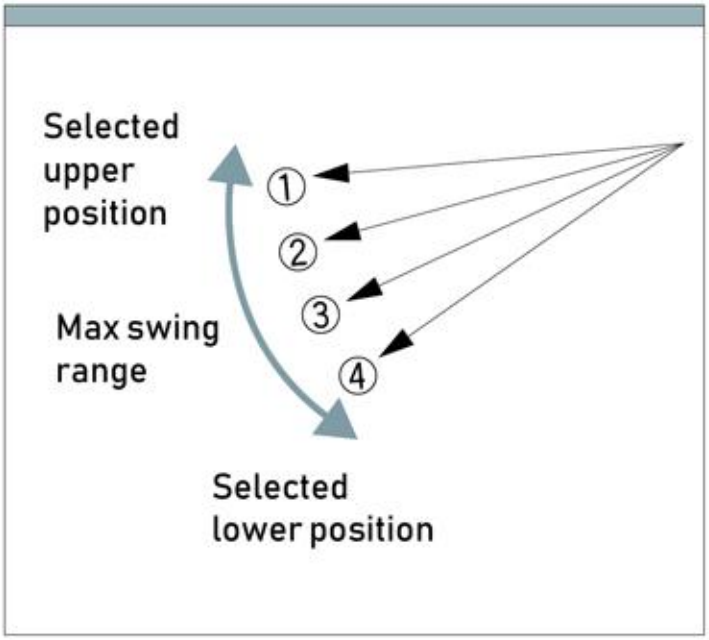
IMPROVED INSTALLATION WORKABILITY

Increased freedom of a piping layout.
The refrigerant pipe from the unit can be arranged in three directions, rear, right and up. The drain pipe can be arranged in two directions, left and right. This will allow a free layout of piping for various installation conditions. The unit can only can only be serviced from the bottom.

COMPACT AND MODERN DESIGN

All models fit compactly on ceiling. (Height-210mm or 250mm). Plain, modern design featuring rounded edges gives room a comfortable atmosphere. FDE50CNVX-S weights 32kg the lightest level in the industry. Convenient and quick installation.

FLAP CONTROL SYSTEM



The flap can swing within the range of upper and lower flap position selected.

- The wireless remote control is not applicable to the flap control system.

FDC50CNVX-S

FDC71CNVX-S

FDC100CNV-S
FDC100/125CSV-S

FDC140CSV-S

FDE50/71CNVX-S
FDE100CNV-S
FDE100/125/140CSV-S

REMOTE CONTROL

Wireless (Standard)

Wired (option)

RC-EX3A

RC-E5

RCH-E3

SPECIFICATIONS

			FDE SERIES					
			HI - COP		STANDARD			
Indoor unit			FDE50CNVX-S	FDE71CNVX-S	FDE100CNV-S	FDE100CSV-S	FDE125CSV-S	FDE140CSV-S
Outdoor unit			FDC50CNVX-S	FDC71CNVX-S	FDC100CNV-S	FDC100CSV-S	FDC125CSV-S	FDC140CSV-S
Power source			1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	1 Phase, 220-240V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz
Capacity		kW	5.4	7.1	10.5	10.4	12.5	14.5
Power consumption		kW	1.44	1.91	2.91	2.88	4.16	4.50
COP		W/W	3.75	3.72	3.61	3.61	3.00	3.22
Inrush current / Max. current		A	32.0 / 8.2	41.5 / 10.7	59.8 / 17.5	16.1 / 6.0	44.0 / 9.7	48.9 / 11.0
Indoor unit	Airflow rate (Hi/Me/Lo)	m³/min	20 / 16.5 / 13	23 / 18 / 13	35 / 26 / 17	35 / 26 / 17	35 / 29 / 18	35 / 29 / 18
	Sound pressure level(Hi/Me/Lo)	dB(A)	43 / 39 / 34	48 / 42 / 35	47 / 41 / 34	47 / 41 / 34	47 / 43 / 34	48 / 43 / 35
	Exterior dimensions (HxWxD)	mm	210 x 1320 x 690	210 x 1320 x 690	250 x 1620 x 690	250 x 1620 x 690	250 x 1620 x 690	250 x 1620 x 690
	Net weight	kg	32	32	42	42	42	42
Outdoor unit	Airflow rate	m³/min	38	60	75	75	75	132
	Sound pressure level	dB(A)	51	55	55	57	58	59
	Exterior dimensions (HxWxD)	mm	640 x 800(+71) x 290	750 x 880 (+88) x 340	845 x 970 x 370	845 x 970 x 370	845 x 970 x 370	1300 x 970 x 370
	Net weight	kg	45	58	77.5	79	85	108
Refrigerant type	type		R410A	R410A	R410A	R410A	R410A	R410A
	charge amont	kg (m)	1.40 (15m)	1.50 (15m)	2.40 (30m)	2.65 (30m)	2.15 (30m)	3.10 (30m)
Piping size (Liquid/Gas)		mm	ϕ6.35 / ϕ15.88	ϕ6.35 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88
Refrigerant line (one way) length		m	30	30	50	50	50	50
Vertical height differences	Outdoor is higher / lower	m	Max.10 / Max.10	Max.10 / Max.10	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15	Max.30 / Max.15
Outdoor operating temperature range		°c	21~43	21~43	21~43	21~43	21~43	21~43

FLOOR STANDING FDF

R410A

POINT 1

AUTO HORIZONTAL SWING

Auto horizontal swing enables wide and powerful air flow, increase your comfort, realizing high effciency in combination with our highly advanced outdoor units.

POINT 2

EASY TRANSPORTATION AND INSTALLATION WORKABILITY

Piping and drain hose connection can be selected out of 4 directions and the selection makes installation workability more effective. Due to slim design (Depth:320mm), easy transportation and installation are realized.

Easy Maintenance
The surface of heat exchanger can be appeared only removing the front panel. Easy cleaning of heat exchanger is possible.

FDC71CNV-S

FDC125CSV-S

FDC140CSV-S

FDF71CNV-S
FDF125,140CSV-S

R410A

REMOTE CONTROL

Wireless (standard)

SPECIFICATIONS

			FDF SERIES		
			STANDARD		
Indoor unit			FDF71CNV-S	FDF125CSV-S	FDF140CSV-S
Outdoor unit			FDC71CNV-S	FDC125CSV-S	FDC140CSV-S
Power source			1 Phase, 220-240V, 50Hz	3 Phase, 380-415V, 50Hz	3 Phase, 380-415V, 50Hz
Capacity		kW	7.1	12.5	14.0
Power consumption		kW	2.50	4.46	4.70
COP		W/W	2.84	2.80	2.98
Inrush current / Max. current		A	44.5 / 13.0	44.6 / 10.5	53.0 / 11.4
Indoor unit	Airflow rate (Hi/Me/Lo)	m³/min	21 / 15 *	25 / 17 / 15	28 / 17 / 15
	Sound pressure level(Hi/Me/Lo)	dB(A)	48 / 40 **	51 / 41 / 37	54 / 41 / 37
	Exterior dimensions (HxWxD)	mm	1850 x 600 x 320	1850 x 600 x 320	1850 x 600 x 320
	Net weight	kg	51	53	53
Outdoor unit	Airflow rate	m³/min	37	75	132
	Sound pressure level	dB(A)	56	58	59
	Exterior dimensions (HxWxD)	mm	640 x 800(+71) x 290	845 x 970 x 370	1300 x 970 x 370
	Net weight	kg	46	85	108
Refrigerant type	type		R410A	R410A	R410A
	charge amont	kg (m)	1.40 (15m)	2.15 (30m)	3.10 (30m)
Piping size (Liquid/Gas)		mm	ϕ6.35 / ϕ15.88	ϕ9.52 / ϕ15.88	ϕ9.52 / ϕ15.88
Refrigerant line (one way) length		m	30	50	50
Vertical height differences	Outdoor is higher / lower	m	Max.10 / Max.10	Max.30 / Max.15	Max.30 / Max.15
Outdoor operating temperature range		°c	21~43	21~43	21~43

*Airflow rate (Me/Lo)
**Sound pressure level (Me/Lo)

Before starting use

Heating performance

The heating performance values (kW) described in the catalogue are the values obtained by operating at an outdoor temperature of 7 C and indoor temperature of 20 C as set forth in the ISO Stahdards. As the heating performance decreases the outdoor temperature drops, if the outdoor temperature is too low and the heating performance is insufficient, use other heating appliances as well.

Indication of sound values

The sound values are the values (A scale) measured in a chamber such as an anechoic chamber following the ISO Standards. In the actual installation state, the value is normally larger than the values given in the catalog due to the effect of surrounding noise and echo. Take this into consideration when installing.

Use in oil atmosphere

Avoid installing this unit in an atmosphere where oil scatters or builds up, such as in a kitchen or machine factory.
If the oil adheres to the heat exchanger, the heat exchanging performance will drop, mist may be generated, and the synthetic resin parts may deform and break.

Use in acidic or alkaline atmosphere

If this unit is used in acidic atmosphere such as hot spring areas having high level of sulfuric gases or in alkaline atmosphere including ammonia or calcium chloride, places where the exhaust of the heat exchanger is sucked in or at coastal areas where the unit is subject to salt breezes, the outer plate or heat exchanger, etc. will corrode. Please ask a dealer or specialist when you use an air conditioner in places differing from a general atmosphere.

Use in places with high ceilings

If the ceiling is high, install a circulator to improve the heat and air flow distribution when heating.

Refrigerant leakage

The refrigerant (R32, R410A) used for Air conditioner is non-toxic and inflammable in its original state. However, in consideration of a state where the refrigerant leaks into the room, measures against refrigerant leaks must be taken in small rooms where the tolerable level could be exceeded. Take measures by installing ventilation devices, etc.

Use in snowy areas

Take the following measures when installing the outdoor unit in snowy areas.

- Snow prevention

Install a snow-prevention hood so that the snow does not obstruct the air intake port or enter and freeze in the outdoor unit.

- Snow piling

In areas with heavy snow fall, the piled snow could block the air intake port. In this case, a frame that is 50cm or higher than the estimated snow fall must be installed underneath the outdoor unit.

Automatic defrosting device

If the temperature is low, and the humidity is high, frost will stick to the heat exchanger of the outdoor unit. If use is continued, the heating performance will drop.
The "Automatic defrosting device" will function to remove this frost.
After heating for approx, three to ten minutes, it will stop, and the frost will be removed. After defrosting, hot air will be blown again.

Servicing the air-conditioner

After the air-conditioner is used for several seasons, dirt will build up in the air-conditioner causing the performance to drop. In addition to regular servicing, we recommend the maintenance contract (charged for) by a specialist.

Safety Precautions

Air-conditioner usage target

The air-conditioner described in this catalog is a dedicated cooling/heating device for human use.
Do not use it for special applications such as the storage of food items, animals or plants, precision devices or valuable art, etc.
This could cause the quality of the items to drop, etc.
Do not use this for cooling vehicles or ships. Water leakage or current leaks could occur.

Before use

Always read the "User's Manual" thoroughly before starting use.

Installation

Always commission the installation to a dealer or specialist. Improper installation will lead to water leakage, electric shocks and fires.
Make sure that the outdoor unit is stable in installation. Fix the unit to stable base.

Usage place

Do not install in places where combustible gas could leak or where there are sparks.
Installation in a place where combustible gas could be generated, flow or accumulate, or places containing carbon fibers could lead to fires.

Mitsubishi Heavy Industries Thermal Systems, Ltd.
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220 Soi Chalongkrung 31, Lamplatiew, Lad Krabang, Bangkok 10520, Thailand **www.mhi-air.maco.co.th**

ISO9001
Our Air Conditioning & Refrigeration Systems Headquarters is an ISO9001 approved factory for residential air conditioners and commercial-use air conditioners (including heat pumps).

ISO14001
Our Air Conditioning & Refrigeration Systems Headquarters has been assessed and found to comply with the requirements of ISO14001.

Because of our policy of continuous improvement, we reserve right to make changes in all specifications without notice.

CATALOGUE NO. MACO PAC19