

Light Commercial
SUPER INVERTER SERIES
MULTI TYPE
Service Manual



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Caution: Risk of fire/flammable materials

1. General information of Indoor Units

Four-way cassette (compact) 	A6 Duct 
New four-way cassette 	New console 

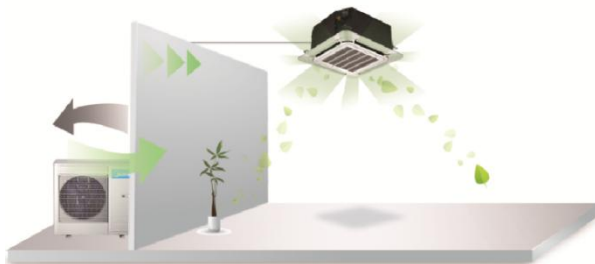
Model			
Four-way cassette (compact)	New four-way cassette	A6 Duct	New console
MCA3I-07HRFNX-QRD0	MCD1-24HRFNX-QRD0W(GA)	MTIU-07HWFNX-QRD0W	MFA2U-09HRFNX-QRD0W(GA)
MCA3I-09HRFN8-QRD0		MTIU-09HWFNX-QRD0W	MFA2U-12HRFNX-QRD0W(GA)
MCA3U-07HRFNX-QRD0W(GA)		MTIU-07HWFNX-QRD0W(GA)	MFA2U-17HRFNX-QRD0W(GA)
MCA3U-09HRFNX-QRD0W(GA)		MTIU-09HWFNX-QRD0W(GA)	
MCA3U-12HRFN8-QRD0W		MTIU-12HWFNX-QRD0W	
MCA3U-12HRFNX-QRD0W		MTIU-18HWFN1-QRD0W	
MCA3U-18HRFN8-QRC8W		MTIU-12HWFNX-QRD0W(GA)	
MCA3U-18HRFNX-QRD0W		MTIU-18HWFNX-QRD0W(GA)	
MCA3U-12HRFNX-QRD0W(GA)		MTI-24HWFNX-QRD0W(GA)	
MCA3U-18HRFNX-QRD0W(GA)		MTIU-18HWFNX-QRD0W	

2. Features

2.1 Cassette type

2.1.1 Fresh Air

- Fresh air intake function bring you fresh and comfortable air feeling.



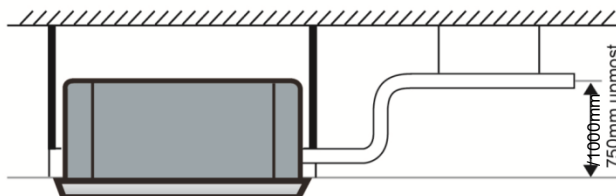
2.1.2 Wired Controller (Optional)

- Compared with infrared remote controller, wired controller can be fixed on the wall and avoid mislaying. It's mainly used for commercial zone and makes air conditioner control more convenient.



2.1.3 Build-in Drain Pump

- The drain pump can lift the condensing water up to 750mm(compact cassette)/1000mm(new cassette) upmost.
- It's convenient to install drainage piping under most space condition.



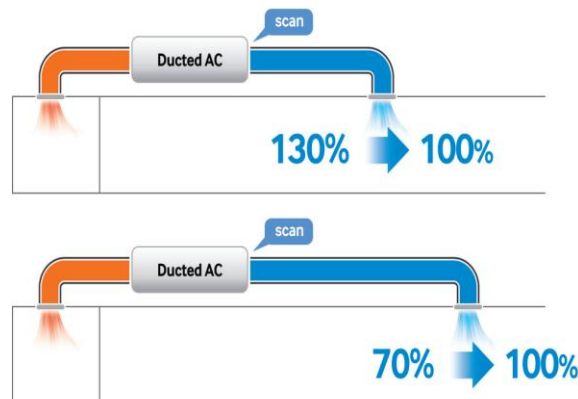
2.1.4 Terminals For Alarm Lamp and Long-distance On-off Controller Connection Are Standard

- Remote on-off: With the reserved ports, a remote switch can be easily connected to realize remote control.
- Alarm: The built-in PCB can output alarm signal, which achieve setting up an external alarm light or vibration gauge

2.2 A6 Duct

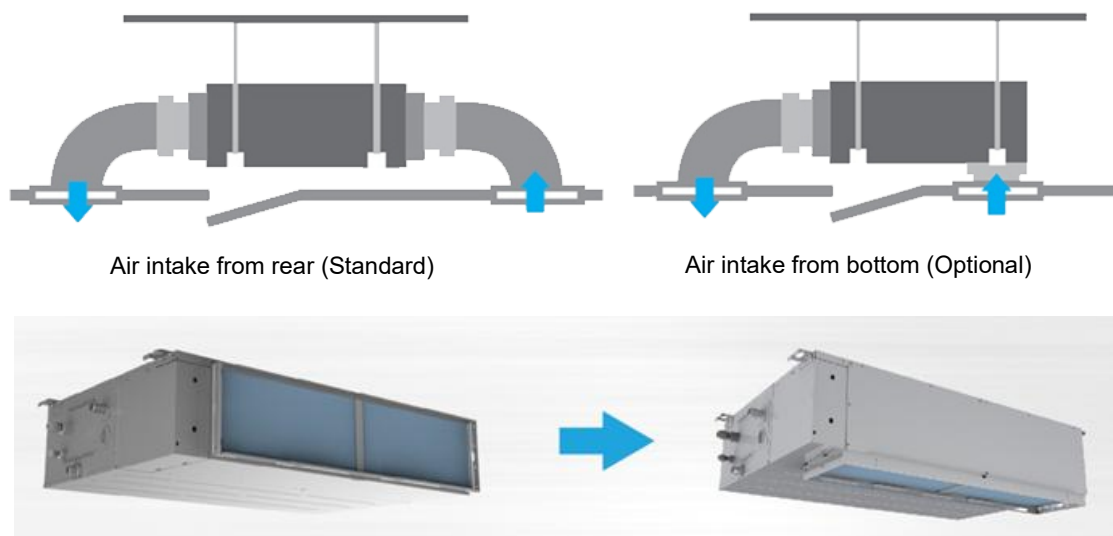
2.2.1 Constant air volume control

- For ordinary duct, when the static pressure exceeds the expected range, it is fairly difficult even for an experienced installer to calculate and adjust the air volume precisely.
- With constant air volume control technology, the duct will automatically adjust to perfect static pressure and keep constant air volume.



2.2.2 Flexible Air Intake Way (Bottom side or Rear side)

- The frame size of air inlet in rear and bottom is the same. It's very easy to switch to match different application.



2.2.3 Communication wire connection

- A6 duct uses two wires without polarity connection way, which almost has no mistake during the installation.

2.2.4 Easy Clean

- With a larger window design, once the motor and the blower wheels have been detached, heat exchanger and water receiver tray in behind can be seen very clearly. Dust can be easily removed from the inside by vacuum



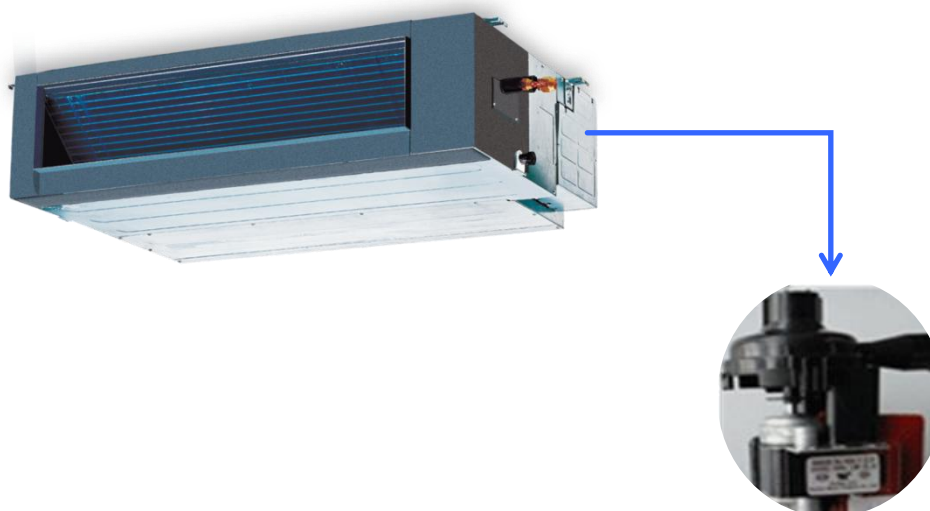
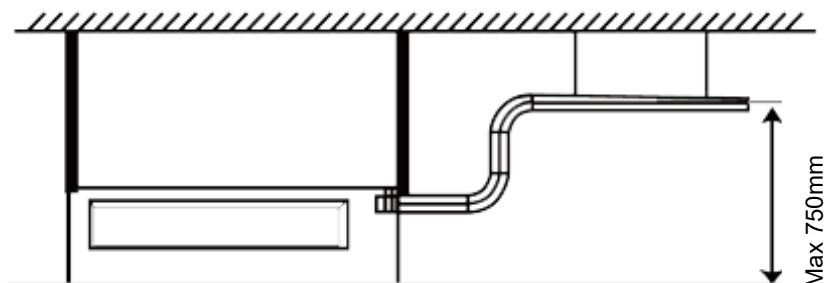
2.2.5 Fresh air intake function(Optional)

- Install one duct from the reserved fresh-air intake to outdoor.
Continually inhale the fresh air to improve the quality of the indoor air, fulfills air quality more healthy and comfortable.
- A ventilation motor (provided by the installer) can be installed inside the fresh air duct to improve the fresh air volume. There are reserved ports for this motor on main PCB (Standard for 3D inverter units, and only optional for DC inverter 53~160 units).

MODLE 9-12	MODLE 18-60

2.2.6 Built-in drain pump (Optional)

- Built-in drain pump can lift the water to 750mm upmost, which widens the drainage piping range.



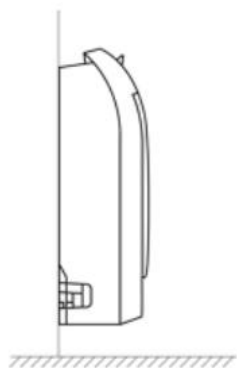
2.3 New console

2.3.1 An Elegant And Compact Design

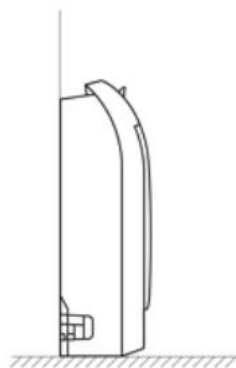
- The look of newly-upgraded console unit features flowing lines that is aesthetic enough.
- Its unobtrusive design can easily fit into most interiors with different decorating-schemes.
- The width of the machine has been reduced by 10mm, taking less space.

2.3.2 A Perfect Choice For New Buildings And Renovation Projects

- Console unit can be installed standing on the floor, or wall-mounted
- It is a great option for radiator replacement in order to save your space while provide more functions.



Wall-mounted



Floor-standing

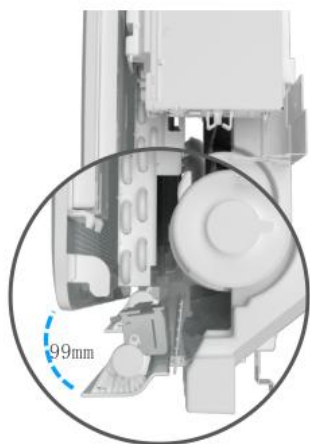
1.3 Dual Air Outlets With Larger Dimension

Efficiently improve air volume, providing constant, quick cooling and heating throughout whole year.



65.3% LARGER upper air outlet*

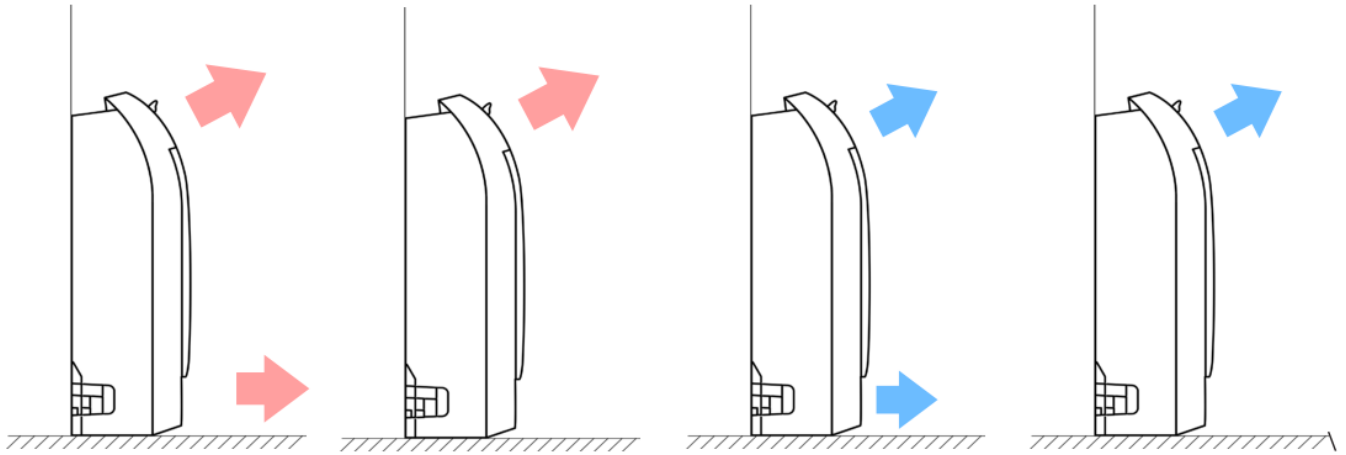
Dimension changes from
516mm*43mm to 655mm*56mm



94.1% WIDER lower air outlet*

99mm large lower air out deliver
even warm air distribution

Wide Airflow & Constant Comfort-Dual air outlets satisfy both cooling and heating needs in different seasons and allows a quick comfort of the room.



*Compared to last generation console unit

1.4 Air Quality

We care your indoor air quality from many perspectives

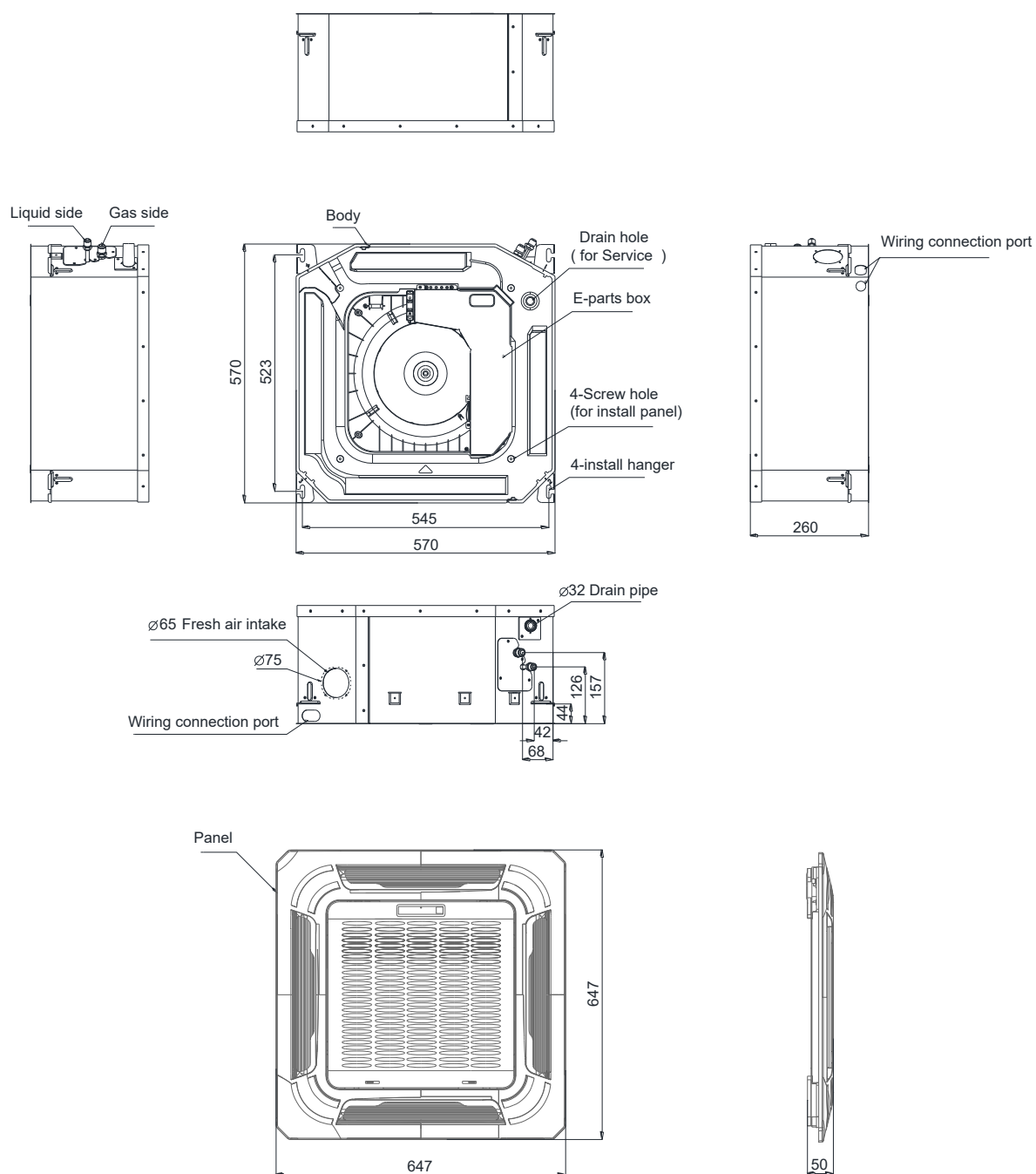
- Get Ideal HUMIDITY for You
- New console efficiently dehumidify the air to keep the ambient air dry and at comfort humidity level.
- Display screen on front panel is reliable and user-friendly to operate to use.



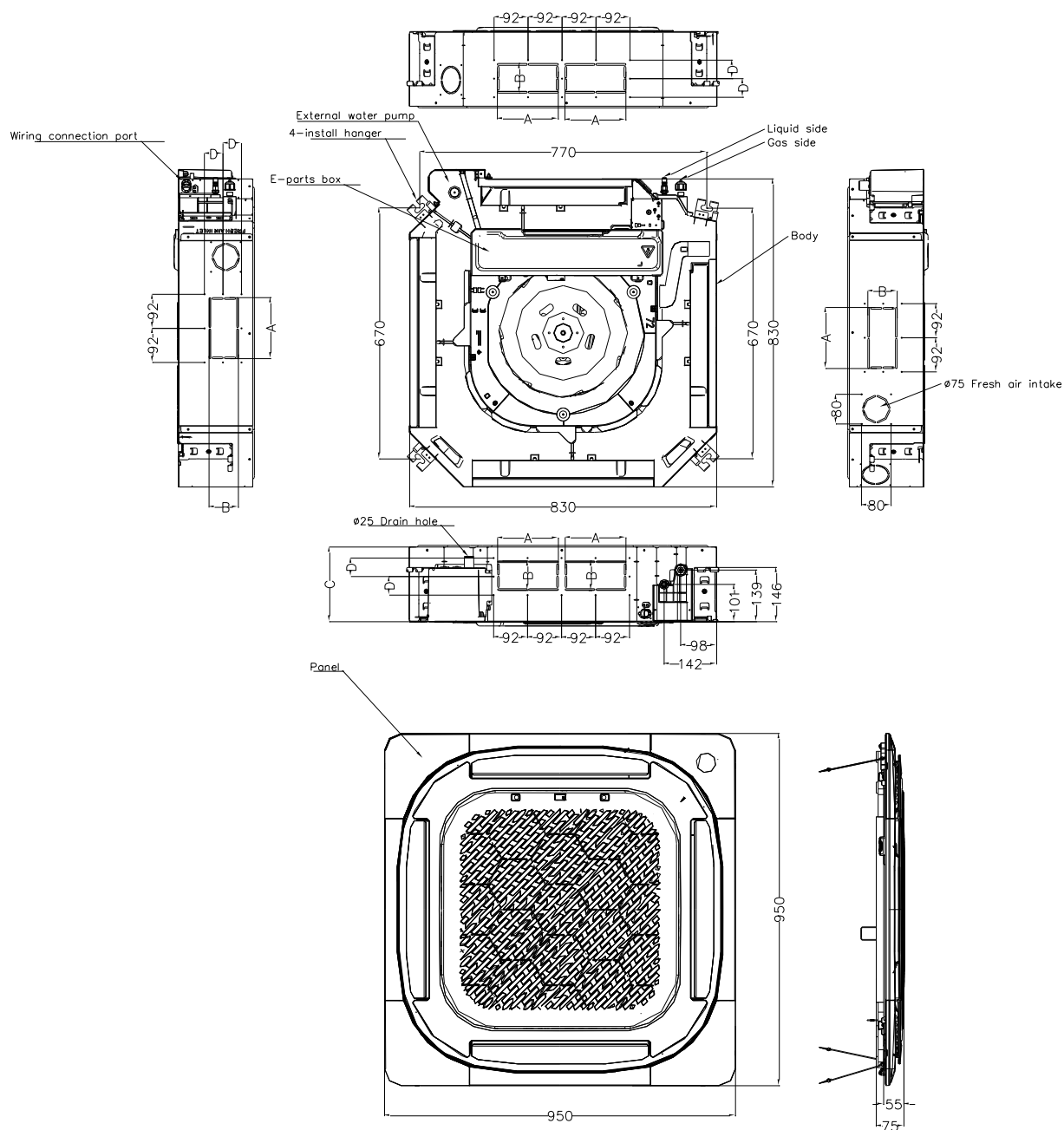
- Ion-Generator for a Space with Better Air Quality
- A built-in positive & negative ion generator in console produces powerful ions that binds to and neutralises airborne pollutants for a cleaner environment.
- Ions attach to airborne particles, which are then later collected onto an oppositely-charged flat plate.

3. Dimensions

3.1 Four-way cassette type (compact):

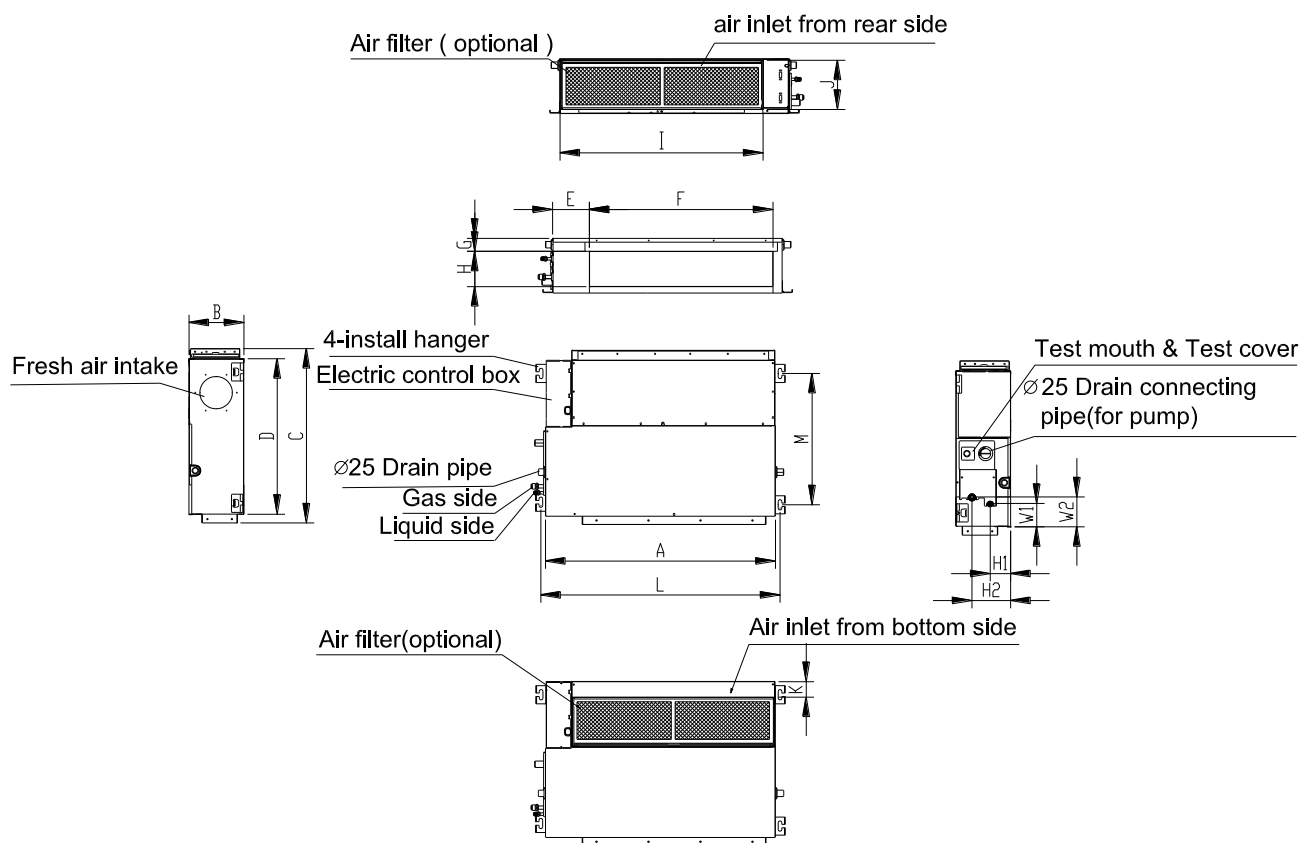


3.2 New Four-way cassette type:



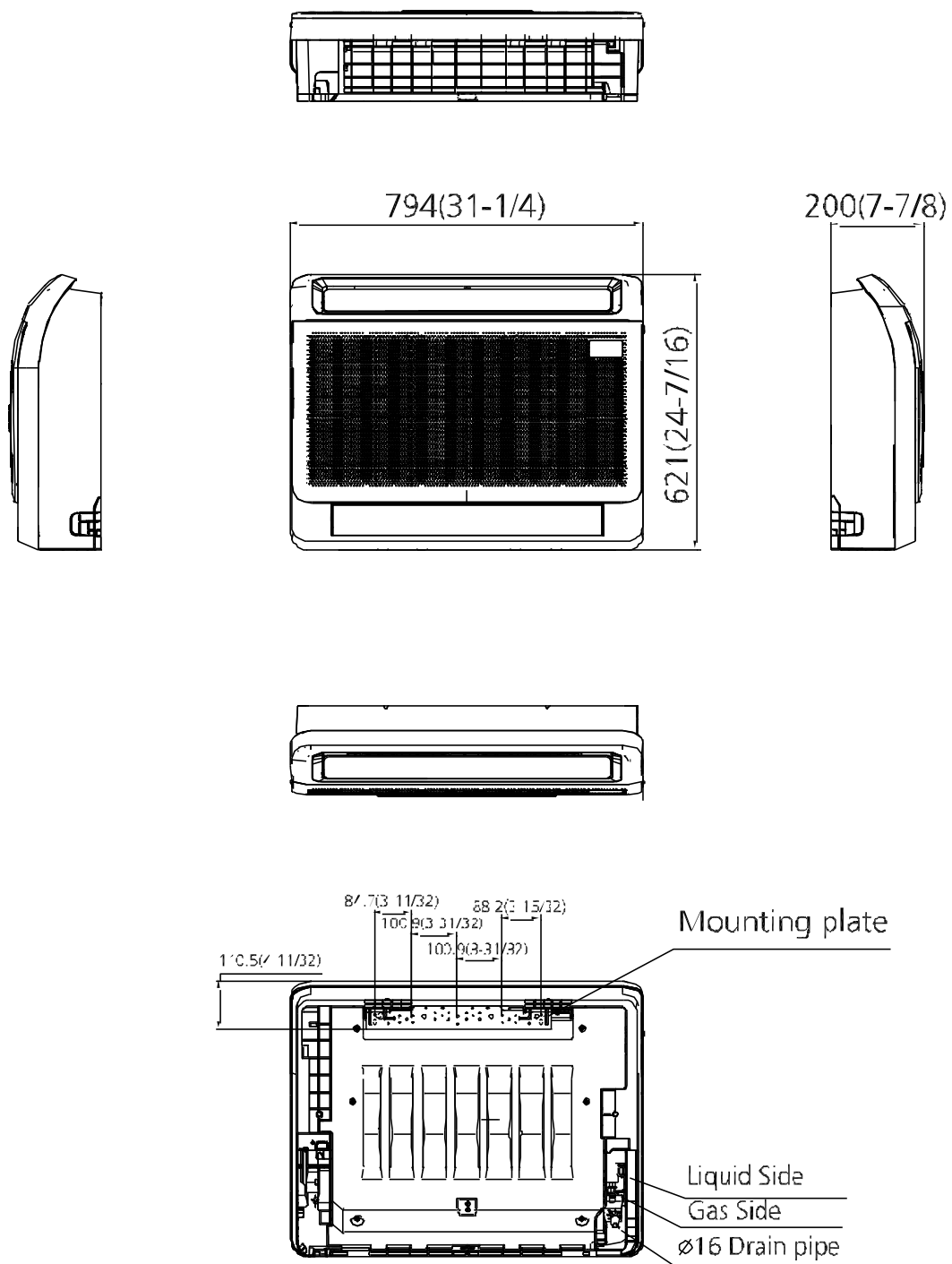
Capacity (Btu/h)	Unit	A	B	C	D
24K	mm	165	80	205	50
	inch	6.5	3.15	8.07	1.97
	inch	6.5	3.64	11.30	2.36

3.3 A6 Duct



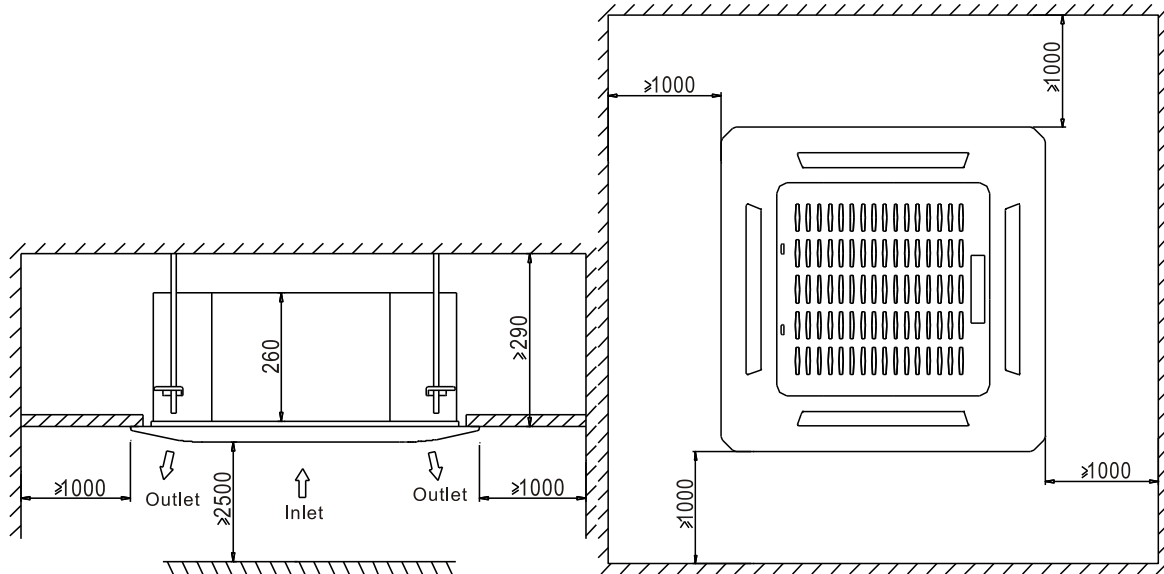
Model (KBtu/h)	unit	A	B	C	D	E	F	G	H	I	J	K	L	M	H1	H2	W1	W2
7/9/12	mm	700	200	506	450	137	537	30	152	599	186	50	741	360	84	140	84	84
18	mm	880	210	674	600	140	706	50	136	782	190	40	920	508	78	148	88	112
24	mm	1100	249	774	700	140	926	50	175	1001	228	5	1140	598	80	150	130	155

3.4 New console

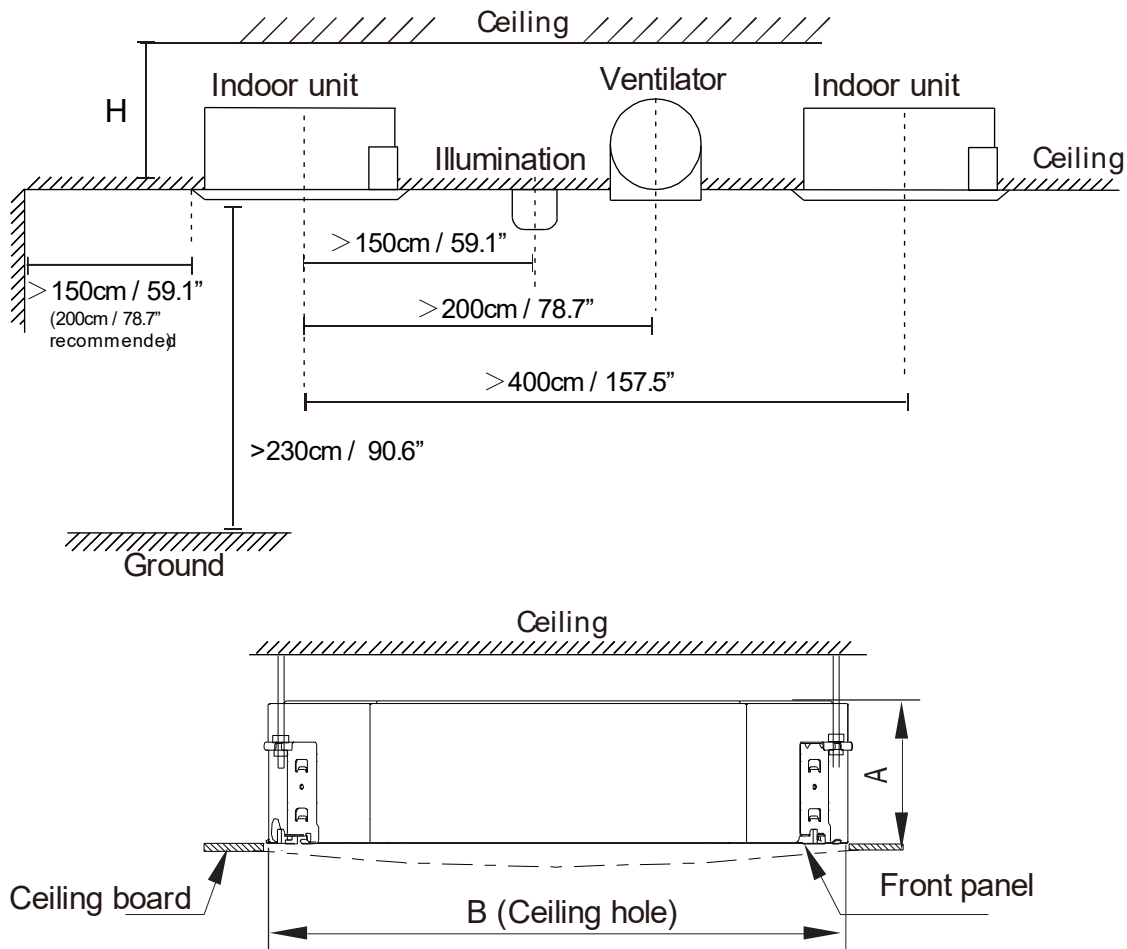


4. Service Space (unit: mm)

4.1 Four-way cassette (compact)



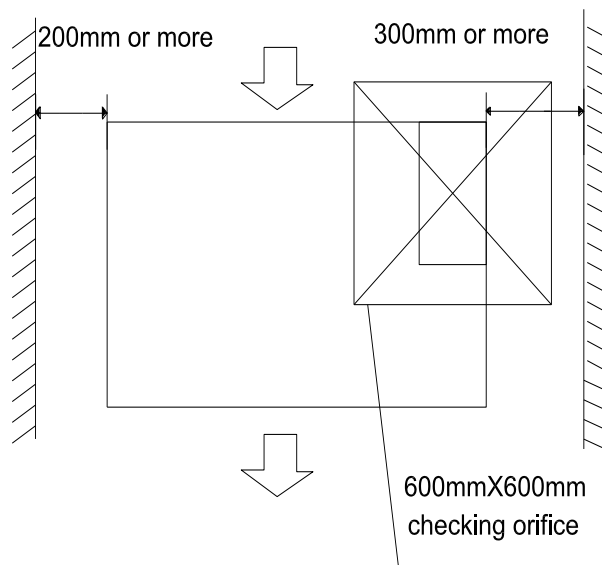
4.2 New Cassette Units



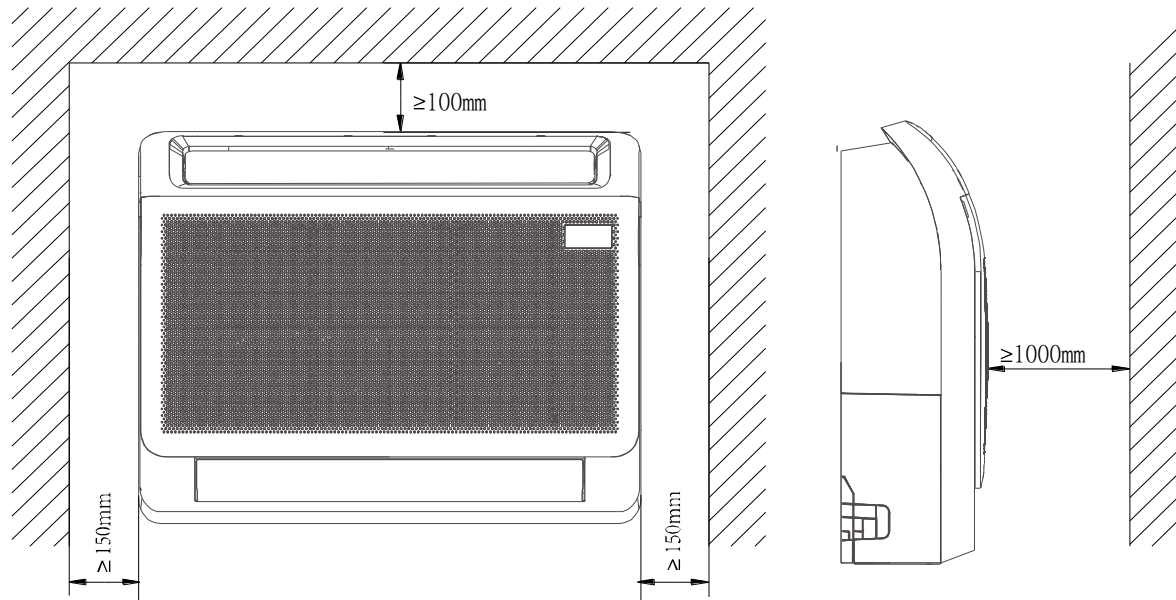
Capacity (kBtu/h)	A(mm/inch)	H(mm/inch)	B(mm/inch)
24	205/8.07	$>230/9.06$	900/35.4

4.3 A6 Duct

Ensure enough space required for installation and maintenance.

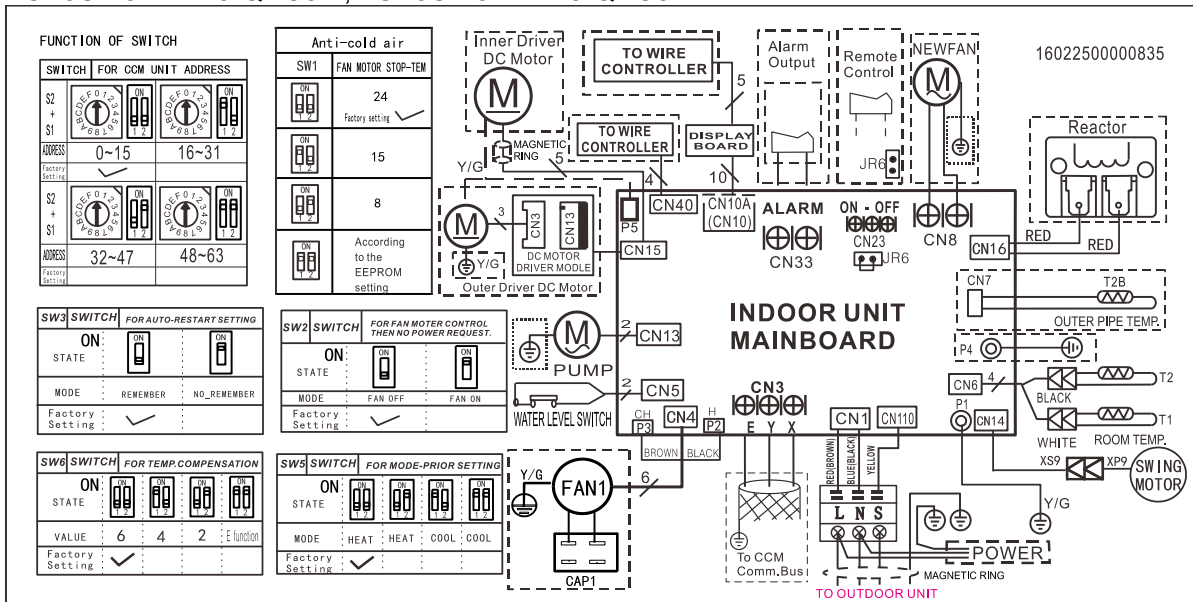


4.4 New Console

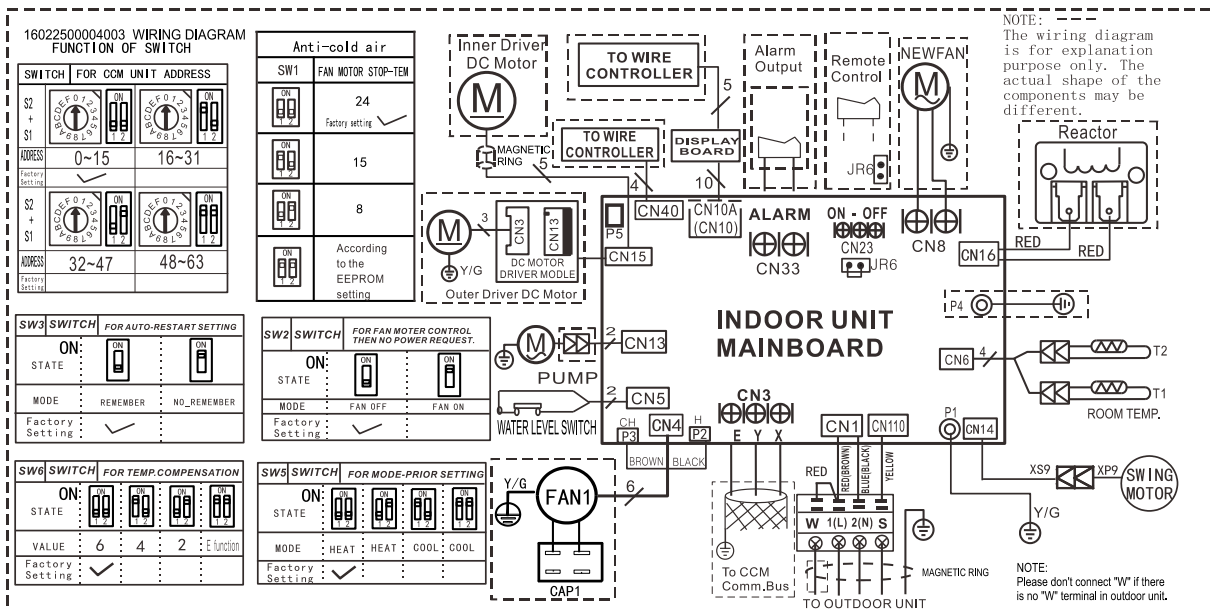


5. Wiring diagram

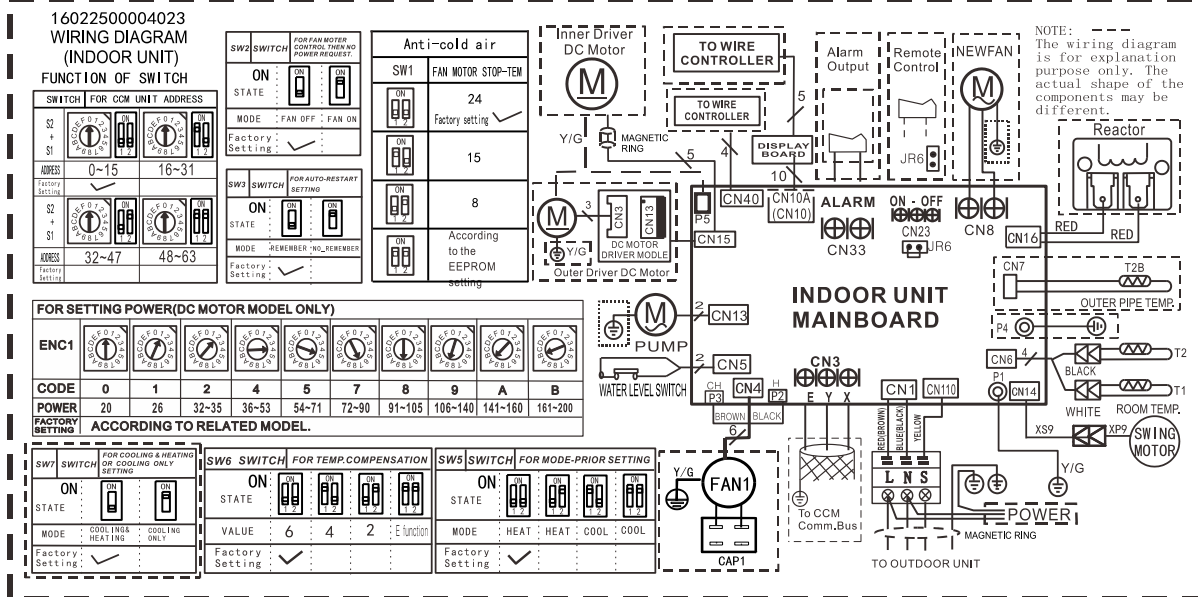
MCA3I-07HRFNX-QRD0, MCA3I-09HRFN8-QRD0, MCA3U-12HRFN8-QRD0W,
MCA3U-18HRFN8-QRC8W, MCA3U-18HRFN8-QRC8W



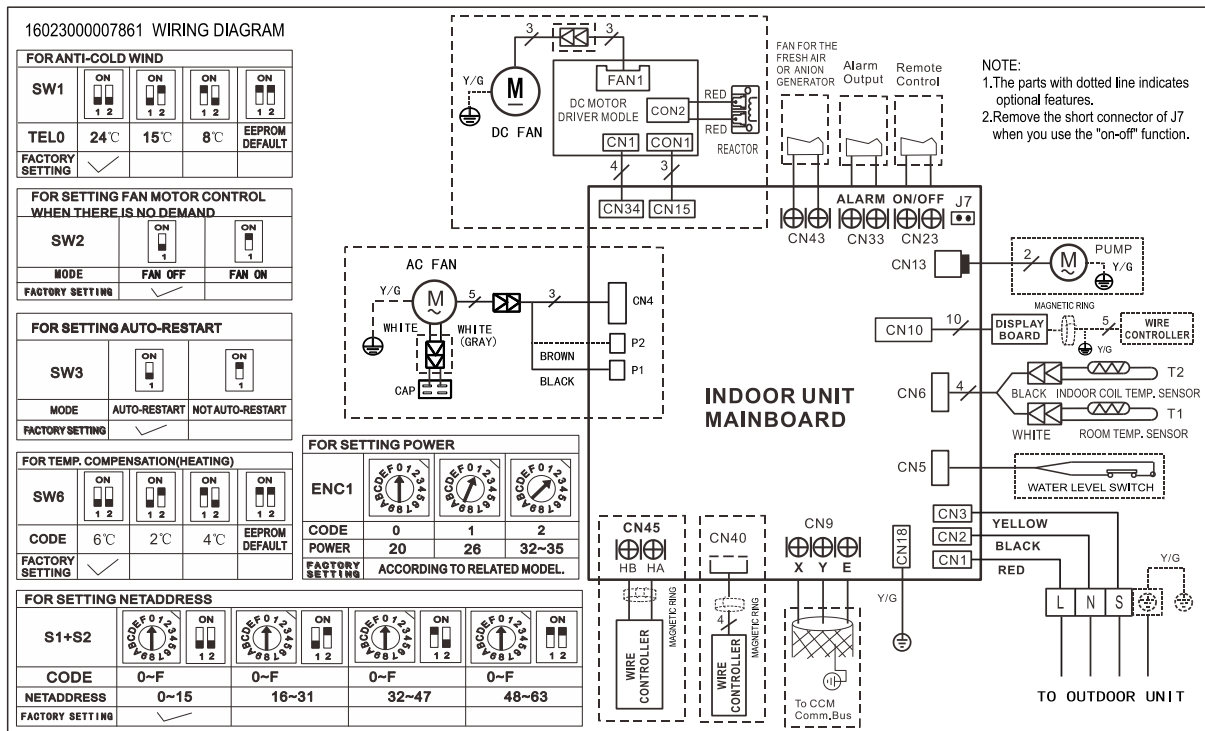
MCA3U-12HRFNX-QRD0W



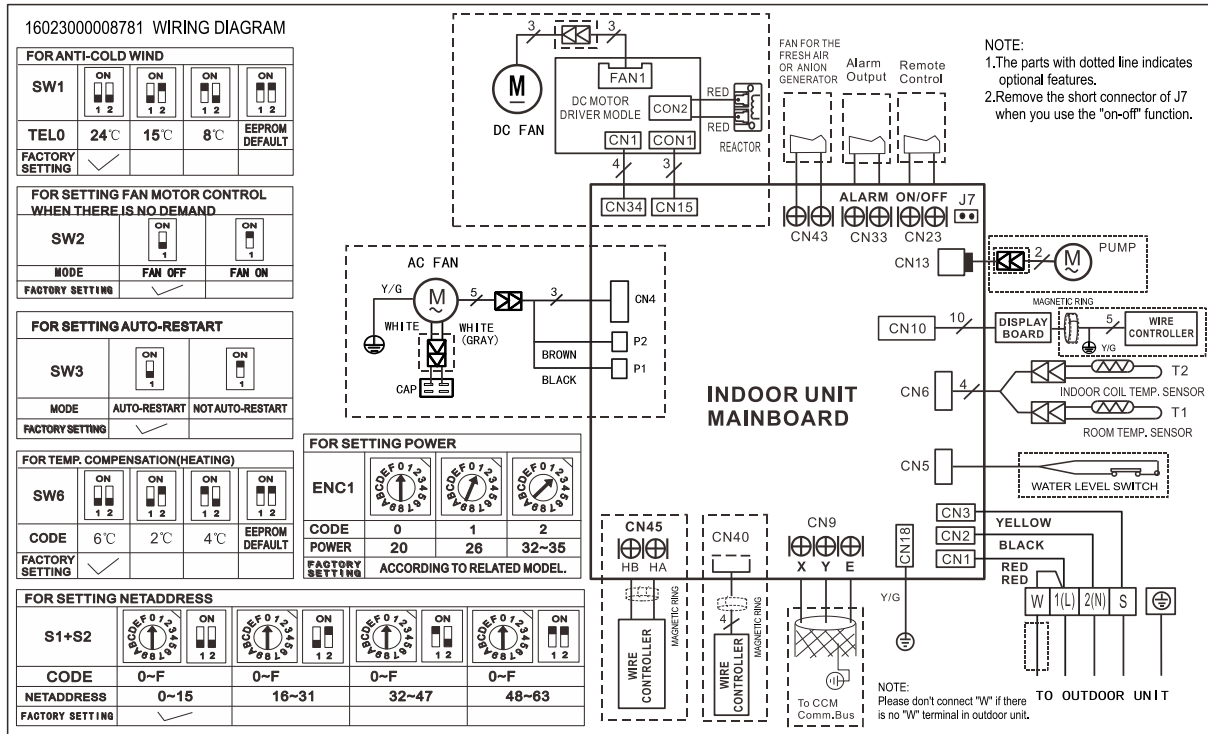
MCA3U-18HRFNX-QRD0W, MCA3U-07HRFNX-QRD0W(GA), MCA3U-09HRFNX-QRD0W(GA),
MCA3U-12HRFNX-QRD0W(GA), MCA3U-18HRFNX-QRD0W(GA), MCD1-24HRFNX-QRD0W(GA)



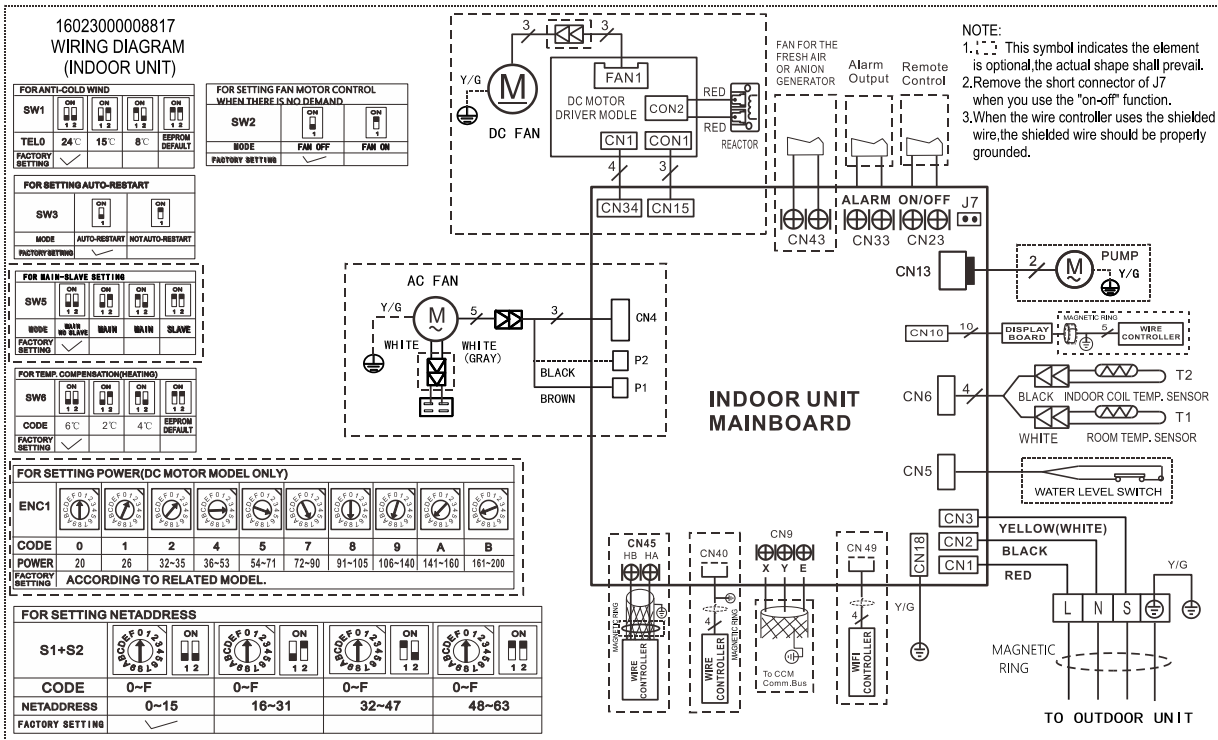
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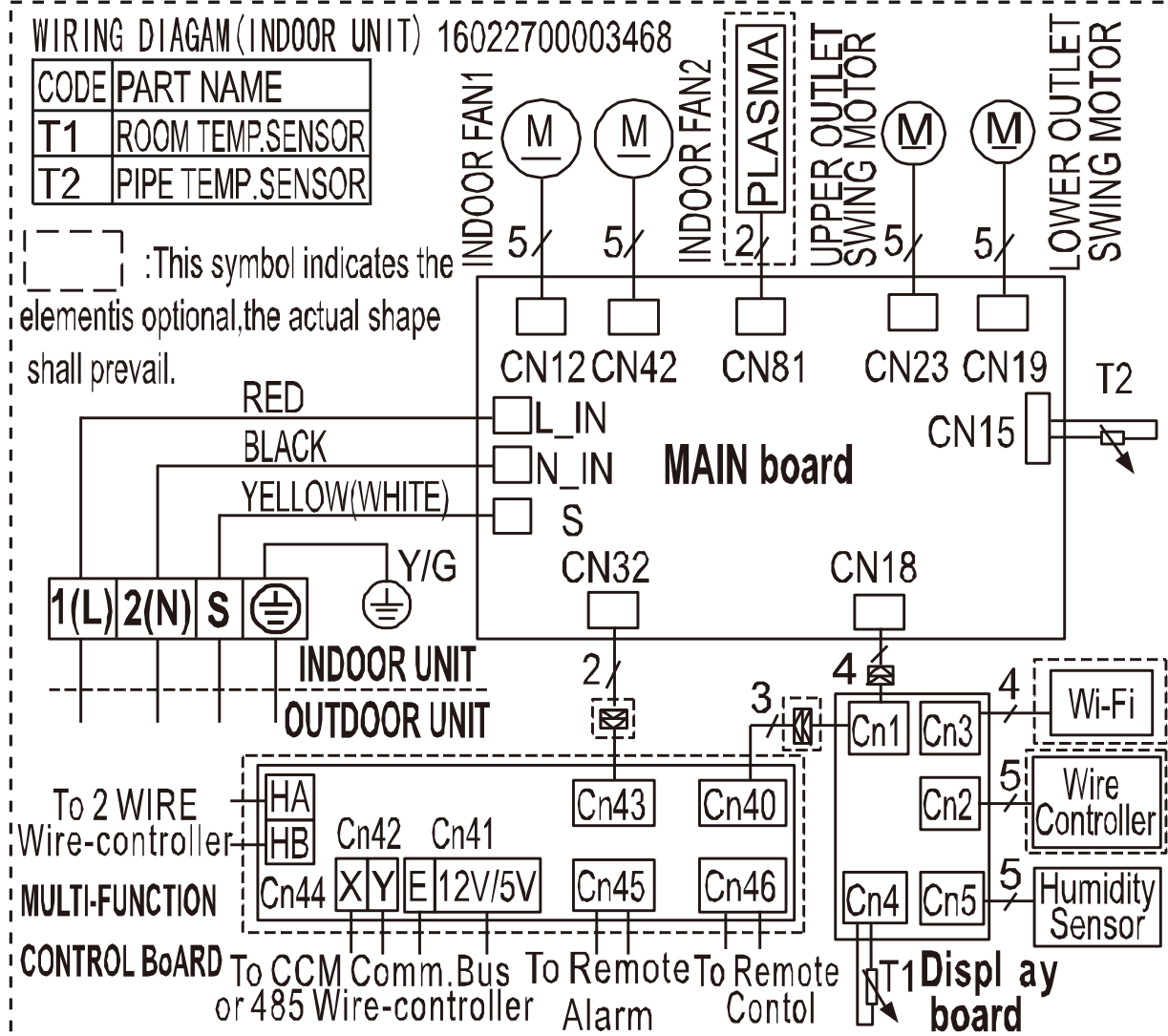


MTIU-12HWFNX-QRD0W



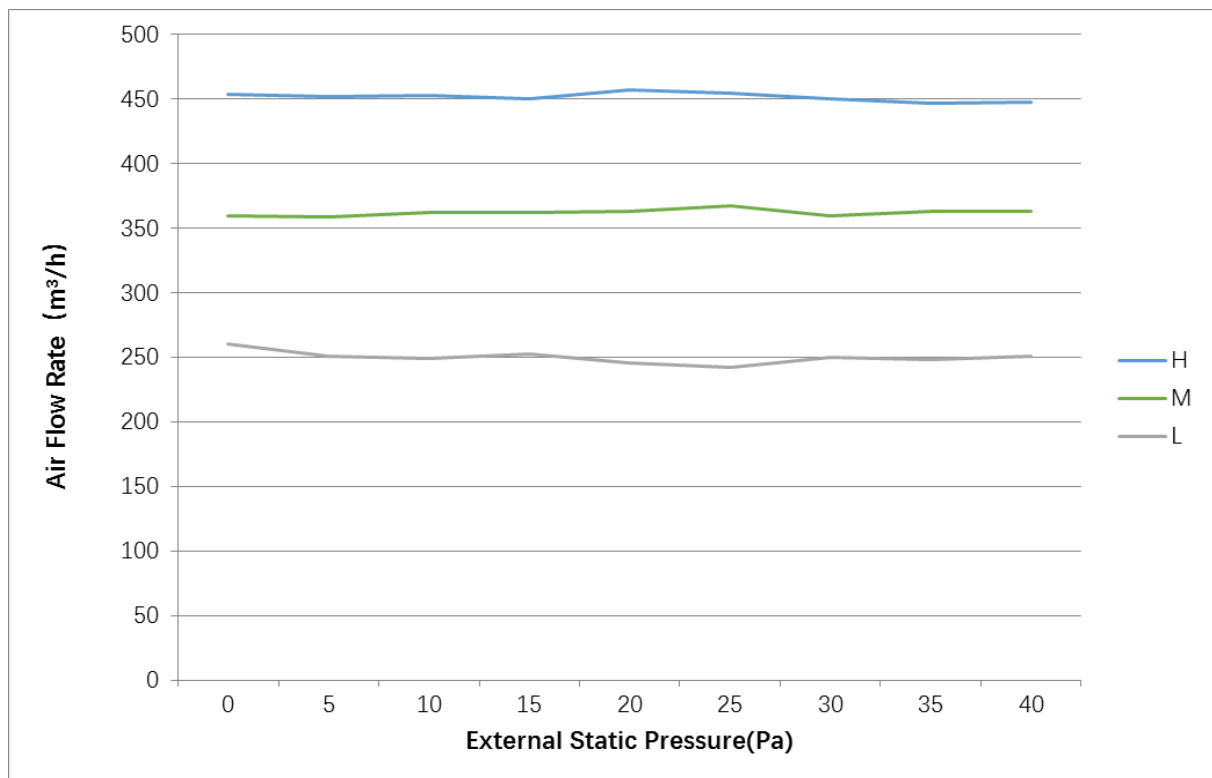
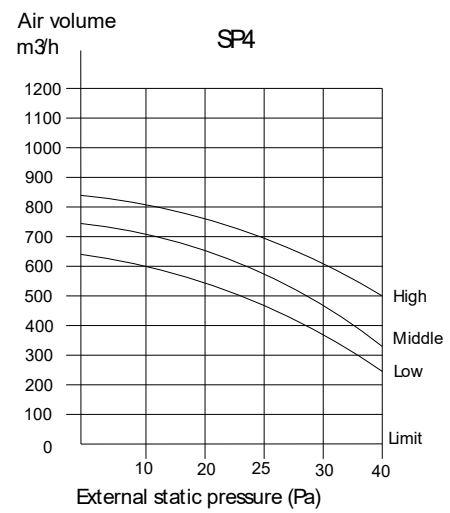
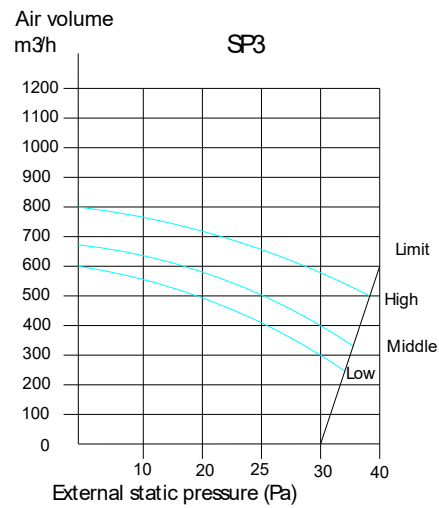
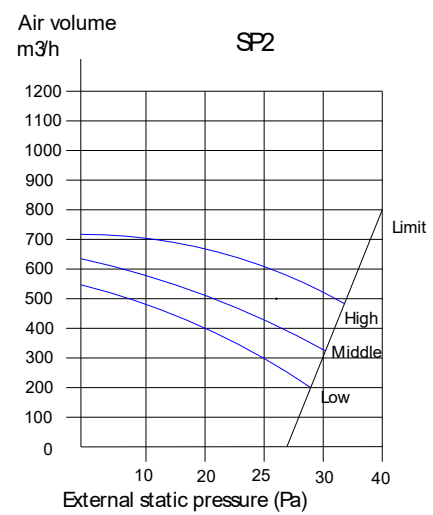
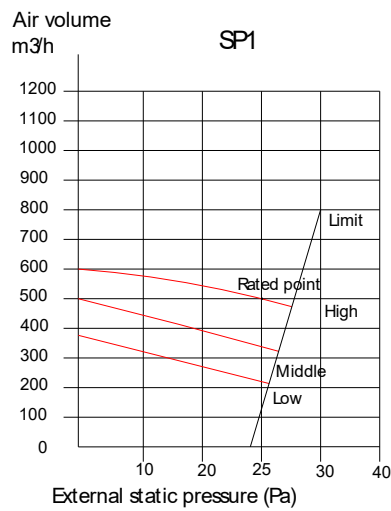
MTIU-18HWFN1-QRD0W, MTIU-07HWFNX-QRD0W(GA), MTIU-09HWFNX-QRD0W(GA),
MTIU-12HWFNX-QRD0W(GA), MTIU-18HWFNX-QRD0W(GA), MTI-24HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W



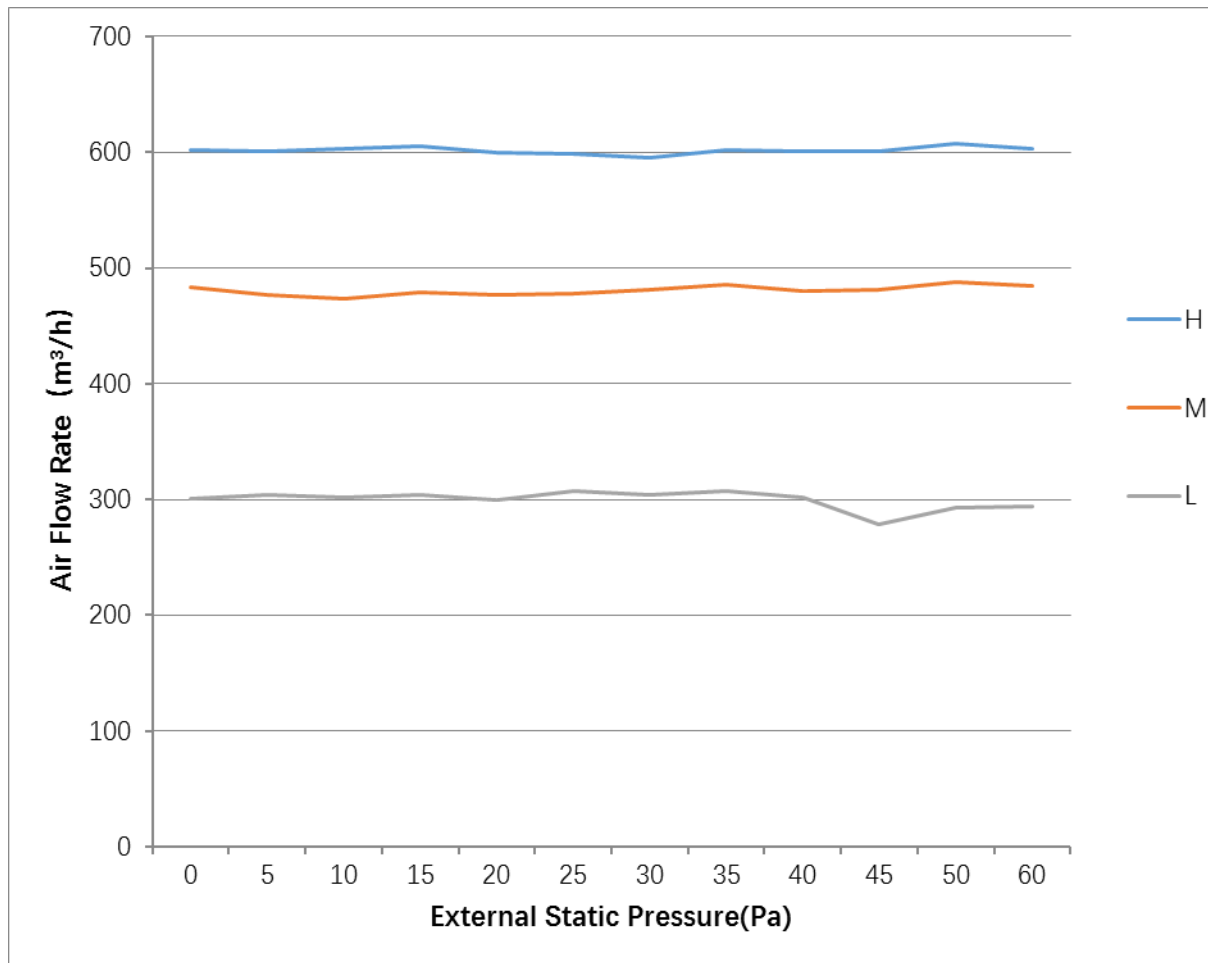
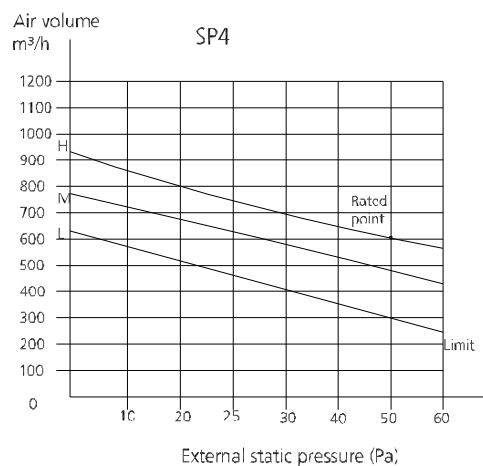
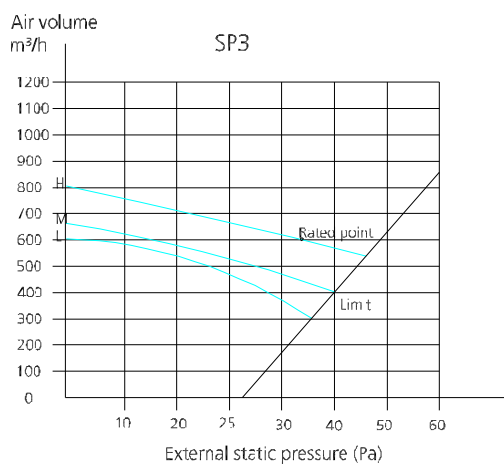
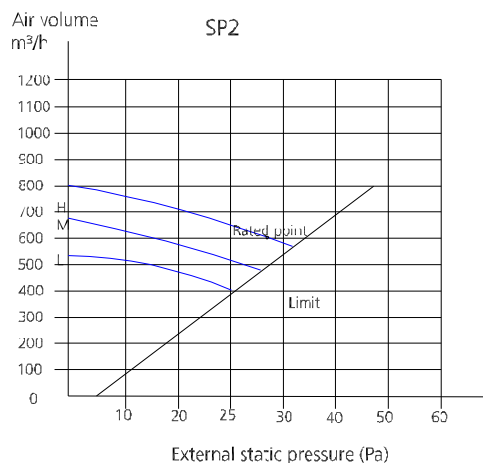
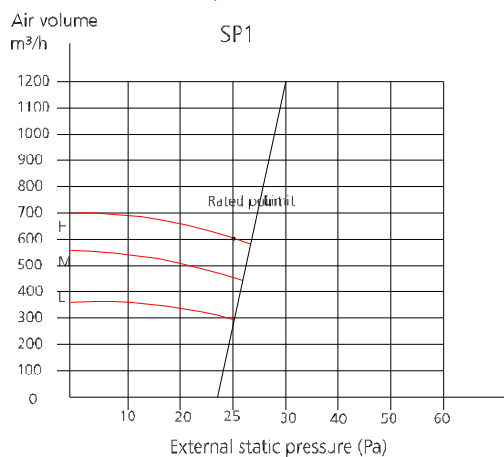


6. Static Pressure (Duct)

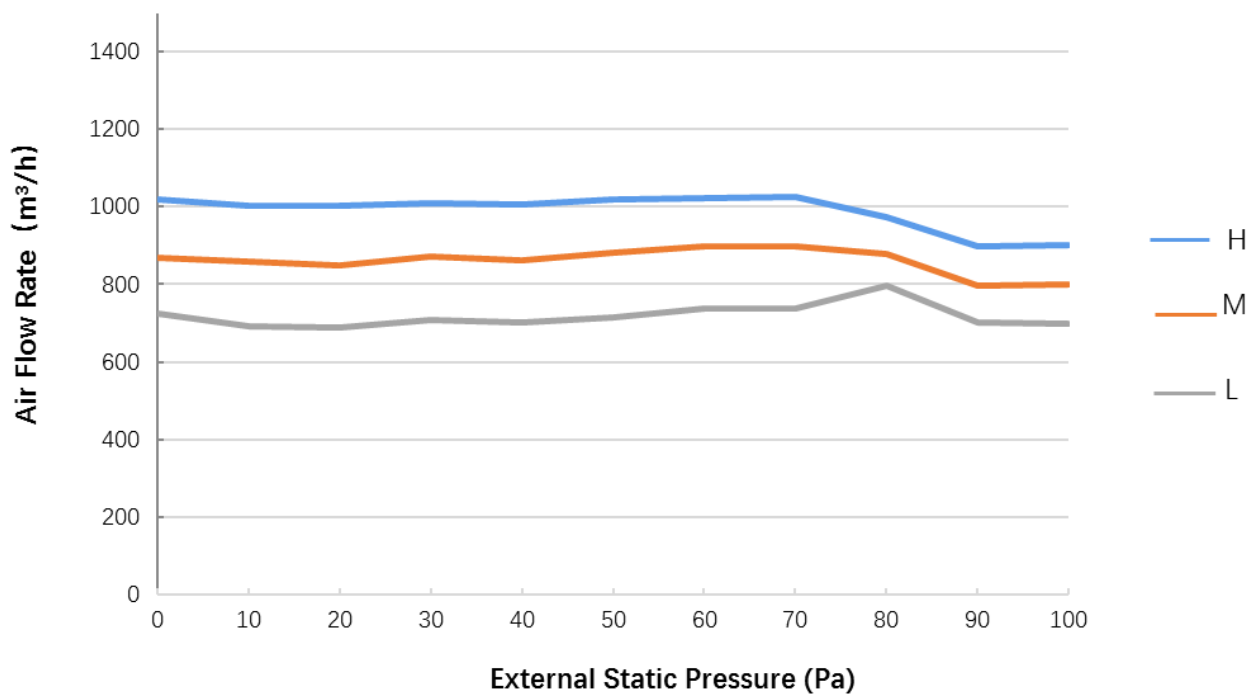
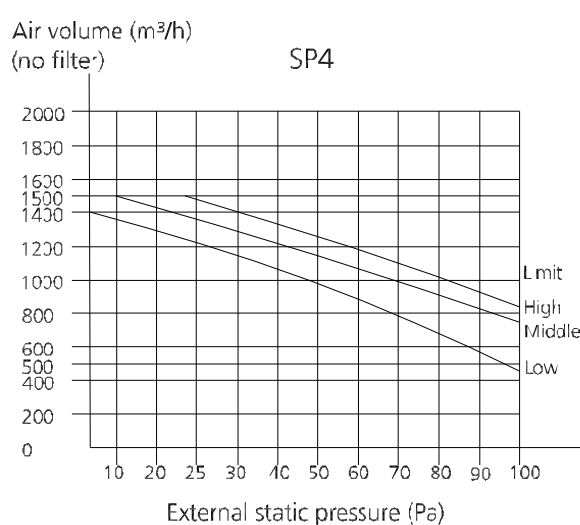
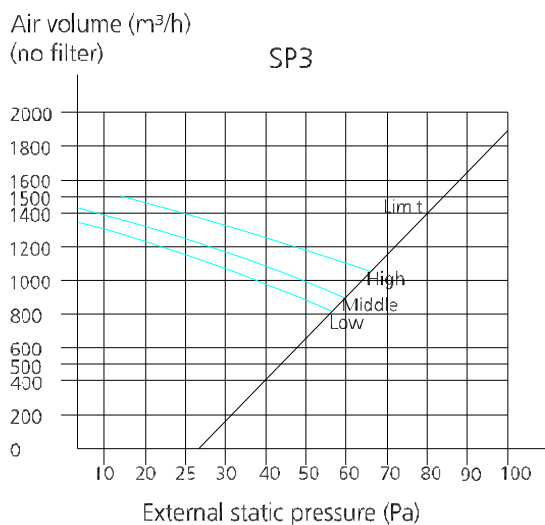
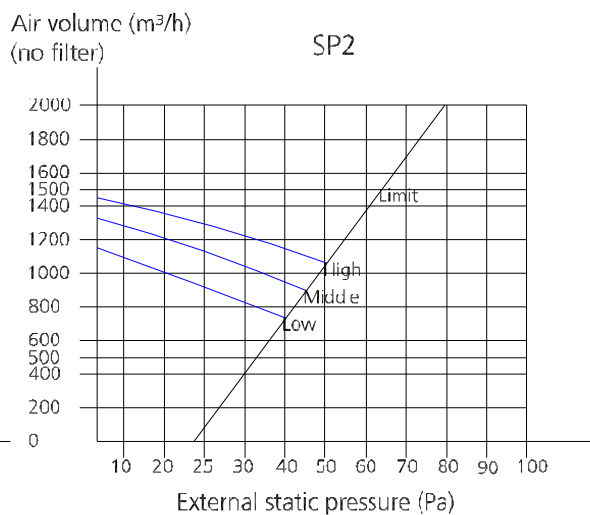
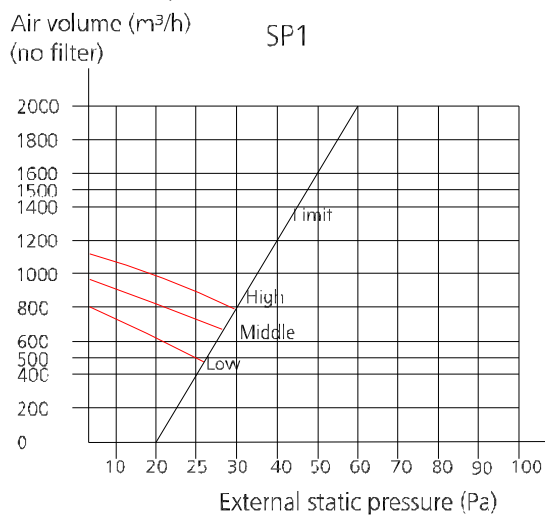
MTIU-07HWFNX-QRD0W, MTIU-09HWFNX-QRD0W

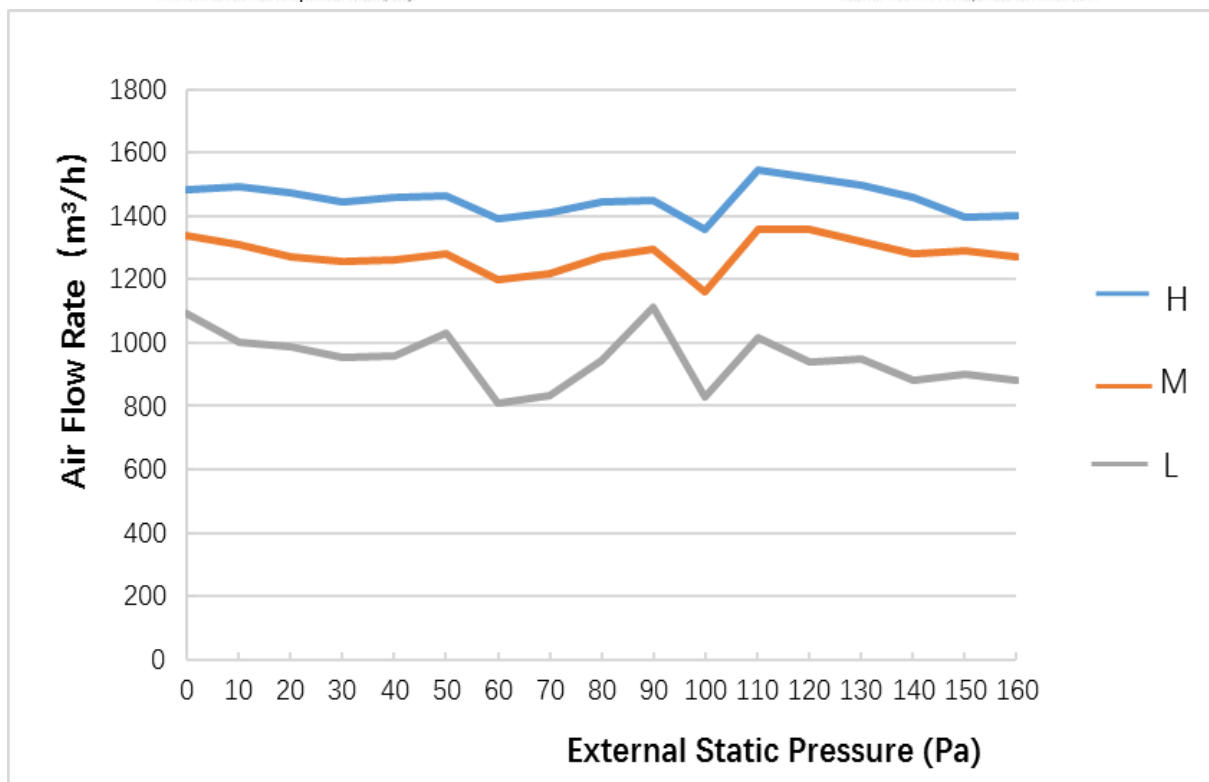
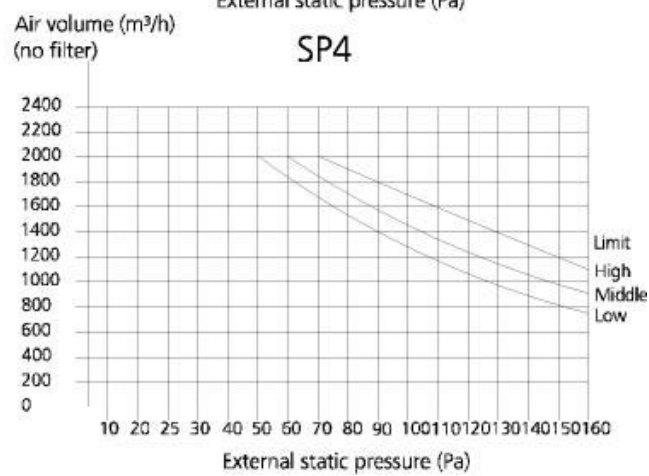
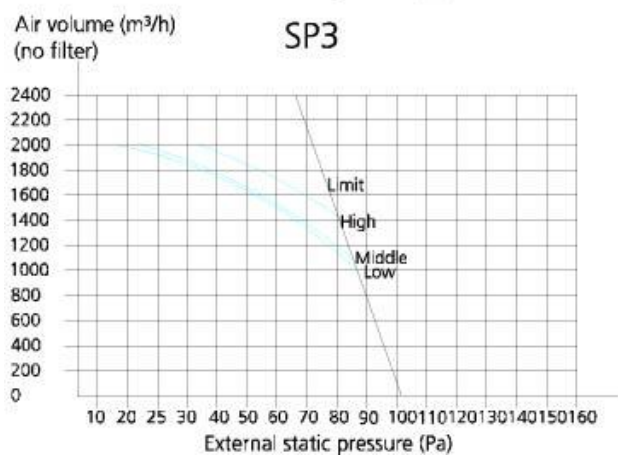
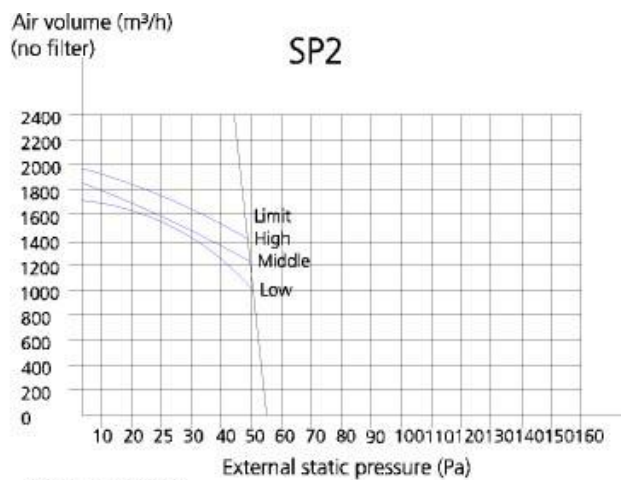
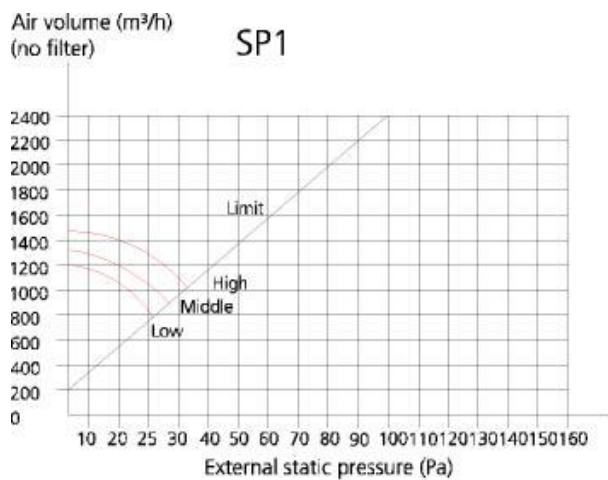


MTIU-12HWFNX-QRD0W



MTIU-18HWFN1-QRD0W





7. Operation temperature range

Temperature Mode	Cooling operation	Heating operation	Drying operation
Room temperature	17°C~32°C	0°C~30°C	17°C~32°C
Outdoor temperature	0°C~50°C	-15°C~24°C	0°C~50°C
	(-15°C~50°C: For the models with low temperature cooling system)		

CAUTION:

1. If the air conditioner is used beyond the above conditions, certain safety protection features may come into operation and cause the unit to operate abnormally.
2. The room relative humidity should be less than 80%. If the air conditioner operates beyond this figure, the surface of the air conditioner may attract condensation. Please set the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.
3. The optimum performance will be achieved during this operating temperature zone.

8. Electronic function

8.1 Abbreviation

T1: Indoor room temperature

T2: Indoor evaporator temperature

T2B: Coil temperature of indoor heat exchanger outlet(This sensor is located in outdoor unit)

T3: Coil temperature of outdoor heat exchanger

T4: Outdoor ambient temperature

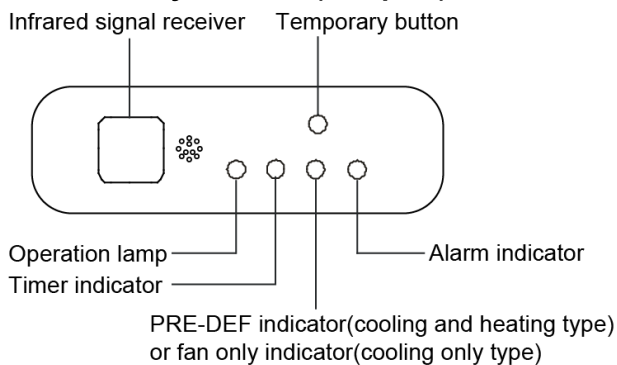
T5: Compressor discharge temperature

Ts: Setting temperature

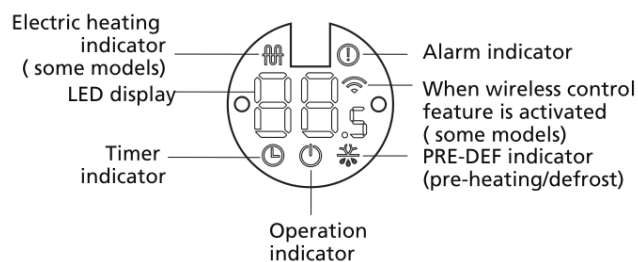
Tsc: Adjusted setting temperature

8.2 Icon explanation on indoor display board

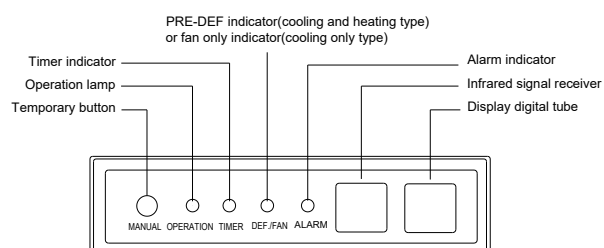
8.2.1 Four-way cassette (compact)



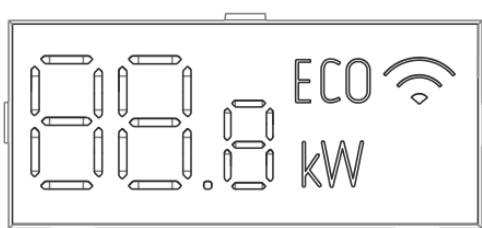
8.2.2 New Four-way cassette



8.2.3 A6 Duct



8.2.4 New Console



Display	Function
ECO	ECO function (available on select units only)
Wi-Fi icon	When Wireless Control feature is activated (some units)
88.8	Temperature value
ON (3s)	Timer ON is set.
OF (3s)	Timer OFF is set.
df	Defrost
CL	Active Clean
FP	Heating in room temperature under 8°C(46°F)

8.3 Main Protection

8.3.1 Three minutes delay at restart for compressor.

8.3.2 Sensor protection at open circuit and breaking disconnection.

8.3.3 Indoor fan delayed open function

----When system starts up, the louver will be active immediately, and the indoor fan will open 7s later.

----If the system runs in heating mode, the anti-cold wind function has priority.

8.3.4 Inverter module protection

The Inverter module has a protection function about current, voltage and temperature. If these protections happen, the corresponding code will display on indoor unit and the unit will stop working.

8.4 Operation Modes and Functions

8.4.1 Fan-only mode

(1) Outdoor fan and compressor stop.

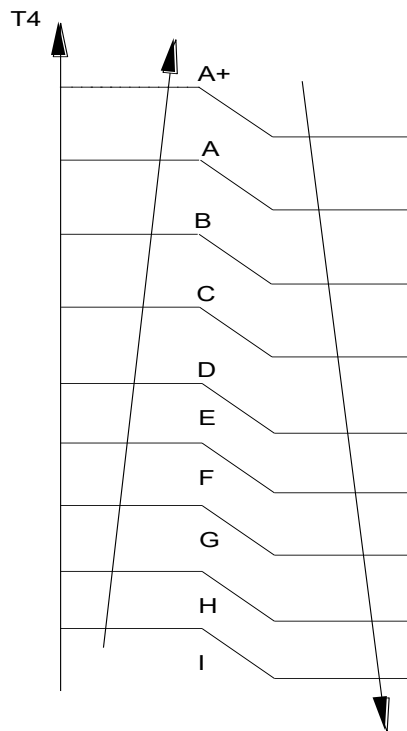
(2) Indoor fan can be set to high/med/low/auto or 1%-100%.

(3) The louver operates same as in cooling mode.

(4) Auto fan in fan-only mode, AC operates the same as auto fan in cooling mode with the temperature set at 24°C.

8.4.2 Cooling mode

8.4.2.1 Outdoor fan running rules



While A,B,C...means different fan speed of outdoor unit.

8.4.2.2 Indoor fan running rules

For MCA3U-18HRFNX-QRD0W,
MCA3U-07HRFNX-QRD0W(GA),
MCA3U-09HRFNX-QRD0W(GA),
MCA3U-12HRFNX-QRD0W(GA),
MCA3U-18HRFNX-QRD0W(GA),
MCD1-24HRFNX-QRD0W(GA),
MTIU-07HWFNX-QRD0W(GA),
MTIU-09HWFNX-QRD0W(GA),
MTIU-12HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W,
MTI-24HWFNX-QRD0W(GA),
MFA2U-09HRFNX-QRD0W(GA),
MFA2U-12HRFNX-QRD0W(GA),
MFA2U-17HRFNX-QRD0W(GA):

1) In cooling mode, the indoor fan operates continuously. The fan speed can be set to 1%-100%, or low, medium, high and auto.

2) Auto fan action in cooling mode:

Descent curve

- When T1-Tsc is lower than or equal to 3.5°C, fan speed reduces to 80%;
- When T1-Tsc is lower than or equal to 1°C, fan speed reduces to 60%;
- When T1-Tsc is lower than or equal to 0.5°C, fan speed reduces to 40%;

- When T1-Tsc is lower than or equal to 0°C, fan speed reduces to 20%;
- When T1-Tsc is lower than or equal to -0.5°C, fan speed reduces to 1%.

Rise curve

- When T1-Tsc is higher than 0°C, fan speed increases to 20%;
- When T1-Tsc is higher than 0.5°C, fan speed increases to 40%;
- When T1-Tsc is higher than 1°C, fan speed increases to 60%;
- When T1-Tsc is higher than 1.5°C, fan speed increases to 80%;
- When T1-Tsc is higher than 4°C, fan speed increases to 100%.

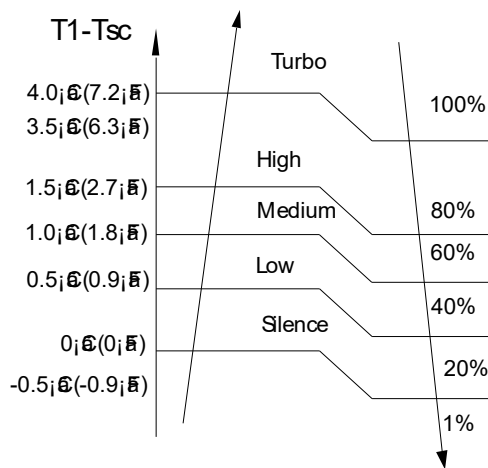
For other models:

In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low and auto. When the compressor is running, the indoor fan is controlled as below:

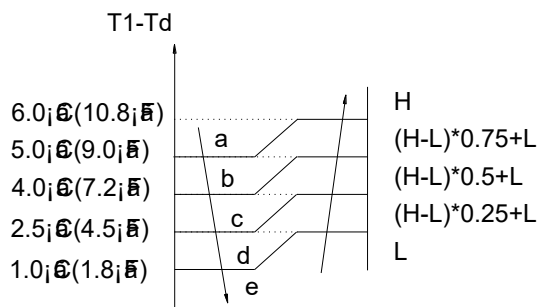
Setting fan speed	T1-Td °C(°F)	Actual fan speed
H	A	H+ (H+=H+G)
	B	H (=H)
	C	H- (H-=H-G)
M	D	M+ (M+=M+Z)
	E	M (M=M)
	F	M- (M-=M-Z)
L	G	L+ (L+=L+D)
	H	L (L=L)
	I	L- (L-=L-D)

The auto fan acts as below rules:

For MCA3U-18HRFNX-QRD0W,
MCA3U-07HRFNX-QRD0W(GA),
MCA3U-09HRFNX-QRD0W(GA),
MCA3U-12HRFNX-QRD0W(GA),
MCA3U-18HRFNX-QRD0W(GA),
MCD1-24HRFNX-QRD0W(GA),
MTIU-07HWFNX-QRD0W(GA),
MTIU-09HWFNX-QRD0W(GA),
MTIU-12HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W,
MTI-24HWFNX-QRD0W(GA),
MFA2U-09HRFNX-QRD0W(GA),
MFA2U-12HRFNX-QRD0W(GA),
MFA2U-17HRFNX-QRD0W(GA):



For other models:



8.4.2.3 Evaporator low temperature T2 protection

When $T_2 < 4^\circ\text{C}$ for 250s or $T_2 < 0^\circ\text{C}$, the indoor has no capacity demand and resume till $T_2 > 8^\circ\text{C}$

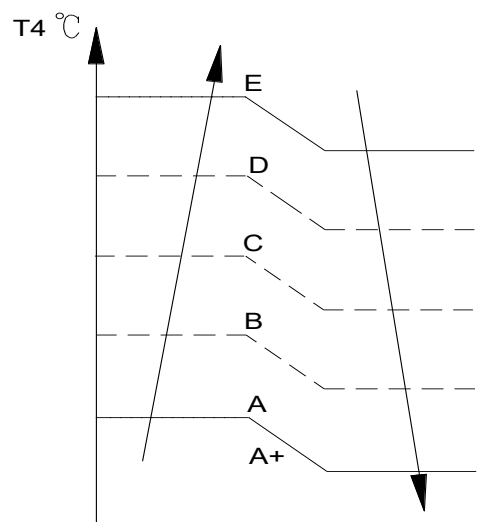
8.4.3 Dry mode

Indoor fan speed is fixed at breeze and can't be changed. The louver angle is the same as in cooling mode.

All protections are active and the same as that in cooling mode.

8.4.4 Heating mode

8.4.4.1 Outdoor fan running rules



8.4.4.2 Indoor fan running rules

For MCA3U-18HRFNX-QRD0W, MCA3U-07HRFNX-QRD0W(GA), MCA3U-09HRFNX-QRD0W(GA), MCA3U-12HRFNX-QRD0W(GA), MCA3U-18HRFNX-QRD0W(GA), MCD1-24HRFNX-QRD0W(GA), MTIU-07HWFNX-QRD0W(GA), MTIU-09HWFNX-QRD0W(GA), MTIU-12HWFNX-QRD0W(GA), MTIU-18HWFNX-QRD0W(GA), MTIU-18HWFNX-QRD0W, MTI-24HWFNX-QRD0W(GA), MFA2U-09HRFNX-QRD0W(GA), MFA2U-12HRFNX-QRD0W(GA), MFA2U-17HRFNX-QRD0W(GA):

1) In heating mode, the indoor fan operates continuously. The fan speed can be set to 1%-100%, or low, medium, high and auto.

2) Auto fan action in heating mode:

Rise curve

- When $T_1 - T_{sc}$ is higher than -1.5°C , fan speed reduces to 80%;
- When $T_1 - T_{sc}$ is higher than 0°C , fan speed reduces to 60%;
- When $T_1 - T_{sc}$ is higher than 0.5°C , fan speed reduces to 40%;
- When $T_1 - T_{sc}$ is higher than 1°C , fan speed reduces to 20%.

Descent curve

- When $T_1 - T_{sc}$ is lower than or equal to 0.5°C , fan speed increases to 20%;
- When $T_1 - T_{sc}$ is lower than or equal to 0°C , fan speed increases to 60%;

- When T1-Tsc is lower than or equal to -1.5°C, fan speed increases to 80%;
- When T1-Tsc is lower than or equal to -3°C, fan speed increases to 100%.

For other models:

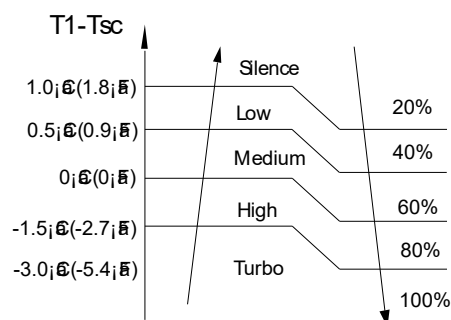
In heating mode, indoor fan can be selected as high, medium, low and auto. The anti-cold- wind function has the priority.

When the compressor is running, the indoor fan is controlled as below:

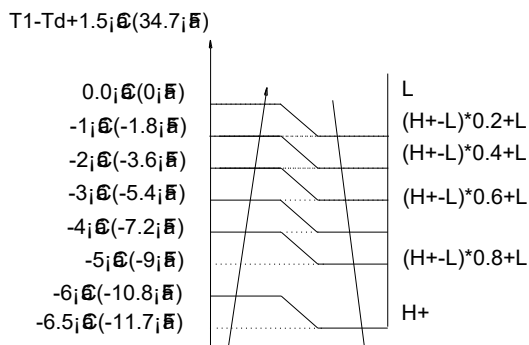
Setting fan speed	T1-Td°C	Actual fan speed
H		H- (H=H-G)
		H (=H)
		H+(H+=H+G)
M		M-(M=M-Z)
		M(M=M)
		M+(M+=M+Z)
L		L-(L=L-D)
		L(L=L)
		L+(L+=L+D)

Auto fan action in heating mode:

For MCA3U-18HRFNX-QRD0W,
MCA3U-07HRFNX-QRD0W(GA),
MCA3U-09HRFNX-QRD0W(GA),
MCA3U-12HRFNX-QRD0W(GA),
MCA3U-18HRFNX-QRD0W(GA),
MCD1-24HRFNX-QRD0W(GA),
MTIU-07HWFNX-QRD0W(GA),
MTIU-09HWFNX-QRD0W(GA),
MTIU-12HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W,
MTI-24HWFNX-QRD0W(GA),
MFA2U-09HRFNX-QRD0W(GA),
MFA2U-12HRFNX-QRD0W(GA),
MFA2U-17HRFNX-QRD0W(GA):



For other models:



8.4.4.3 Evaporator coil temperature protection

If T2>63°C, the indoor unit has no capacity demand and resume till 48°C.

8.4.4.4 Prevent Over-Heating

In heating mode, when the indoor unit has no capacity requirement due to indoor room temperature increased, the Indoor fan will run in super breeze. (Anti-cold wind function has the priority)

8.4.4.5 Defrosting mode:

Condition of defrosting:

AC will enter the defrosting mode according to the value of temp. of T3 and the value range of temp. change of T3 and also the compressor running time.

Condition of ending defrosting:

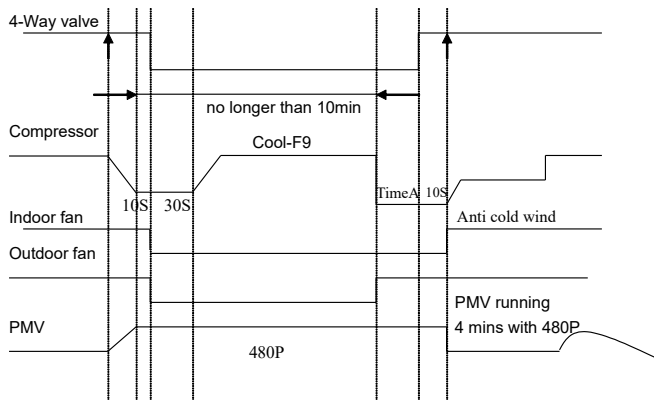
If any one of the following items is satisfied, the defrosting will finish and the machine will turn to normal heating mode.

----T3 rises to be higher than TCDE1°C.

----T3 keeps to be higher than TCDE2°C for 80 seconds.

----The machine has run for 10 minutes in defrosting mode.

Defrosting action:



8.4.5 Auto-mode

This mode can be chosen by remote controller and the setting temperature can be changed between 17~30°C.

In auto mode, the machine will choose cooling, heating or fan-only mode according to the difference between T1 and TS.

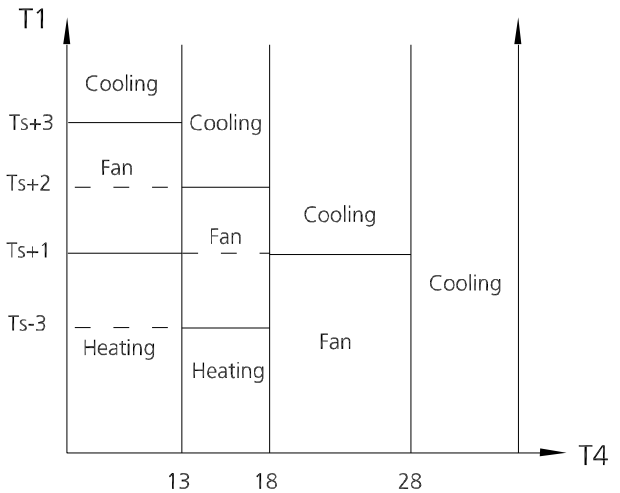
For MCA3U-18HRFNX-QRD0W,
MTIU-07HWFNX-QRD0W(GA),
MTIU-09HWFNX-QRD0W(GA)
MTIU-18HWFNX-QRD0W,
MTIU-12HWFNX-QRD0W(GA),
MTIU-18HWFNX-QRD0W(GA),
MTI-24HWFNX-QRD0W(GA):

T1-TS	Running mode
$T1-TS > 2^{\circ}\text{C}$	Cooling
$-3 \leq T1-TS \leq 2^{\circ}\text{C}$	Fan-only
$T1-TS < -3^{\circ}\text{C}$	Heating

For MCA3U-07HRFNX-QRD0W(GA),
MCA3U-09HRFNX-QRD0W(GA),
MCA3U-12HRFNX-QRD0W(GA),
MCA3U-18HRFNX-QRD0W(GA),
MCD1-24HRFNX-QRD0W(GA),
MFA2U-09HRFNX-QRD0W(GA),
MFA2U-12HRFNX-QRD0W(GA),
MFA2U-17HRFNX-QRD0W(GA):

This mode can be chosen by remote controller and the setting temperature can be changed between 16~30°C.

In auto mode, the machine selects cooling, heating or fan-only mode on the basis of T1, Ts and T4.



For other models:

T1-TS	Running mode
$T1-TS > 2^{\circ}\text{C}$	Cooling
$-2 \leq T1-TS \leq 2^{\circ}\text{C}$	Fan-only
$T1-TS < -2^{\circ}\text{C}$	Heating

Indoor fan will run at auto fan of the relevant mode.

The louver operates same as in relevant mode.

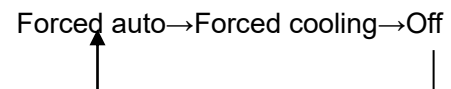
If the machine switches mode between heating and cooling, the compressor will keep stopping for 15 minutes and then choose mode according to T1-Ts.

If the setting temperature is modified, the machine will choose running function again.

8.4.6 Forced operation function

8.4.6.1 Enter forced operation function:

Press the touch button continually, the AC will run as below sequence:



When the machine is off, pressing the touch button will carry the machine to forced auto mode, after this, if pressing the button once again, the machine will turn into forced cooling mode.

In forced cooling mode, pressing touch button will turn off the machine.

8.4.6.2 In forced operation mode, all general protections and remote control are available.

8.4.6.3 Operation rules:

Forced cooling mode:

Indoor fan runs as breeze. After running for 30 minutes, the machine will turn to auto mode as 24°C setting temperature.

Forced auto mode:

The action of forced auto mode is the same as normal auto mode with 24°C setting temperature.

8.4.6.4 When there's indoor unit running in forced cooling, it is the master forced cooling unit. Other indoor units will run at forced cooling mode too and they will be the slave forced cooling units. The slave forced cooling units cannot quit forced cooling mode until the master forced cooling unit quit, and turn to cooling mode at low speed with 24°C setting temperature.

8.4.6.5 The slave forced cooling units will not be controlled by other signals.

8.4.7 Timer Function

8.4.7.1 Timing range is 24 hours.

8.4.7.2 Timer on. The machine will turn on automatically when reaching the setting time.

8.4.7.3 Timer off. The machine will turn off automatically when reaching the setting time.

8.4.8.4 Timer on/off. The machine will turn on automatically when reaching the setting "on" time, and then turn off automatically when reaching the setting "off" time.

8.4.7.5 Timer off/on. The machine will turn off automatically when reaching the setting "off" time, and then turn on automatically when reaching the setting "on" time.

8.4.7.6 The timer function will not change the AC current operation mode. Suppose AC is off now, it will not start up firstly after setting the "timer off" function. And when reaching the setting time, the timer LED will be off and the AC running mode has not been changed.

8.4.7.7 The setting time is relative time.

8.4.8 Sleep mode

8.4.8.1 The sleep function is available in cooling, heating or auto mode.

8.4.8.2. Operation process in sleep mode is as follow.

After pressing ECONOMIC or SLEEP button on controller, the machine will turn into sleep mode.

When cooling, The set temperature rise 1°C per hour (be lower than 30°C). Two hours later, the set temperature will maintain as a constant and the fan speed is kept at low speed.

When heating, The set temperature decrease 1°C per hour (be higher than 17°C). Two hours later, the set temperature will maintain as a constant and the fan speed is kept at low speed (Anti-cold function takes precedence over all).

When auto, After an hour running under economic mode, if it is under cooling mode the set temp will rise 1°C, if it is under heating mode the set temp will decrease 1°C, if it is under fan-only mode the set temp will be changeless; the condition will be the same after the air conditioner running under economic mode after 2 hours, and during the next time the set temp do not change.

8.4.8.3 Operation time in sleep mode is 7 hours. After 7 hours, the unit does not switch off.

8.4.8.4 Timer off and remote controller off signals have the priority compared with sleep function.

8.4.9 Auto-Restart function

The indoor unit is equipped with auto-restart function, which is carried out through an auto-restart module. In case of a sudden power failure, the module memorizes the setting conditions before the power failure. The unit will resume the previous operation setting (not including swing function) automatically after 3 minutes when power returns.

If the memorization condition is forced cooling mode, the unit will run in cooling mode for 30 minutes and turn to auto mode as 24°C setting temp.

If AC is off before power off and AC is required to start up now, the compressor will have 1 minute delay when power on. Other conditions, the compressor will have 3 minutes delay when restarts.

8.4.10 Drain pump control(Standard for cassette type)

Adopt the water-level switch to control the action of drain pump.

Main action under different condition :(every 5 seconds the system will check the water level one time)

1. When the A/C operates with cooling (including auto cooling) and forced cooling mode or dry mode, the pump will start running immediately and continuously, till stop cooling or dry or no capacity demand.
2. Once the water level increase and up to the control point, LED will alarm and the drain pump open and continue checking the water level. If the water level falls down below the control point (drain pump delay close 1 minute) and operate with the last mode. Otherwise the entire system stop operating (including the pump) and LED remain alarming after 3 minutes,

8.4.11 Follow me (optional)

- 1) If the indoor PCB receives the signal which results from pressing the FOLLOW ME button on remote controller, the buzzer will emit a sound and this indicates the follow me function is initiated. But when the indoor PCB receives signal which sent from remote controller every 3 minutes, the buzzer will not respond. When

the unit is running with follow-me function, the PCB will control the unit according to the temperature from follow-me signal, and the temperature collection function of room temperature sensor will be shielded, and the error detective function of room temperature sensor will be still invalid.

- 2) When the follow-me function is available, the PCB will not respond according to the setting temperature from follow-me signal every 3 minutes.
- 3) The PCB will take action to the mode change information from remote controller signal, and the follow-me function will be turned off. (if the wired remote controller does not initiate follow me function).
- 4) When the unit is running with follow-me function, if the PCB doesn't receive any signal from remote controller for 7 minutes or pressing FOLLOW ME button again, the follow-me function will be turned off automatically, and the temperature collection function of room temperature sensor will be available, the PCB will control the unit according to the room temperature detected from its own room temperature sensor and setting temperature.
- 5) When the indoor PCB receives the follow-me signal from wired remote controller, the control is the same as that from wireless remote controller, but buzzer will not emit a sound. When the PCB receives turning-off follow-me signal from wired remote controller, the unit will quit follow-me function at once. The follow-me function controlled by wired remote controller prevails that by wireless remote controller.

8.4.12 Mode conflict

The indoor units cannot work cooling mode and heating at same time.

Heating mode has a priority.

(1) Definition

	Cooling mode	Heating Mode	Fan	Off
Cooling mode	No	Yes	No	No
Heating Mode	Yes	No	Yes	No
Fan	No	Yes	No	No
Off	No	No	No	No

No: No mode conflict;

Yes: Mode conflict

(2) Unit action

- In case of one Indoor unit working in cooling mode or fan mode, and another indoor unit is set to heating mode, the indoor unit working in cooling mode or fan mode will change to off. The outdoor unit will change to heating mode after compressor stop 3 minutes. .
- In case of one Indoor unit working in heating mode, and another indoor unit is set to cooling mode or fan mode, the indoor unit setting to cooling mode or fan mode will change to stand by. The outdoor unit will continue working in heating mode.

If heating mode stops (not including the indoor unit in heating mode reaching the set temperature), 3 minutes after the outdoor unit restarts and works in cooling mode or fan-only mode.