Midea Solunar

Energy Saving

- ECOMASTER AI Algorithm
- Gear (via APP)
- 1W Standby
- Multi outdoor/indoor fan speed

IOT （APP）

- Energy Consumption Monitor
- Temp. Range Control
- Geolocation-LBS
- OTA
- Control (Alexa/Google/Yandex/Matter/Apple Watch…)

Comfort

- 8°C Heating
- 180° rotation louver
- Silent (IDU and ODU)
- Follow Me
- HeatFlash /CoolFlash
- Louver Position Memory Function
- Timer
- 3D Air Flow
- Auto Swing
- Anti-cold Air Function
- Sleep Mode
- Temperature Compensation
- Dehumidification
- Auto Defrosting
- Mute Operation
- AI Humidity Control

Health

- PrimeGuard
- I-Clean (IDU)
- Outdoor Fan Rotary Swing Clean
- High Density Filter
- Function Filter (cold-catalyst filter)
- Super Ionizer

Service

- Digital Display
- Self-diagnosis And Auto-protection
- Emergency Using Function
- Remote In Engineer Mode
- Easy Indoor PCB And Fan Motor Replacement

Safety and convenience

- Fire-proof Electric Box
- Uv-layer PCB For Anti-corrosion
- ○ Central Control Management (xye Ports)
- ○ Wired Controller
- 2-way Draining
- Auto Restart Function
- Refrigerant Leakage Detect
- Low Voltage Operation
- Unitary Installation Plate
- Manual Switch Button

● standard ○ optional

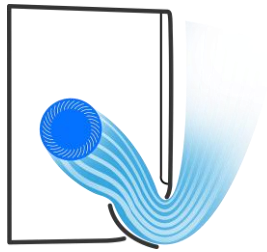
Innovation Design

01

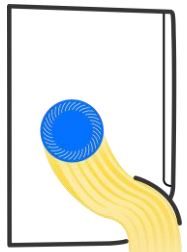
180°

Rotation

Flash Cooling & Heating In A
Precise Gentleness



0° Ceiling Flow



180° Waterfall Flow

0°

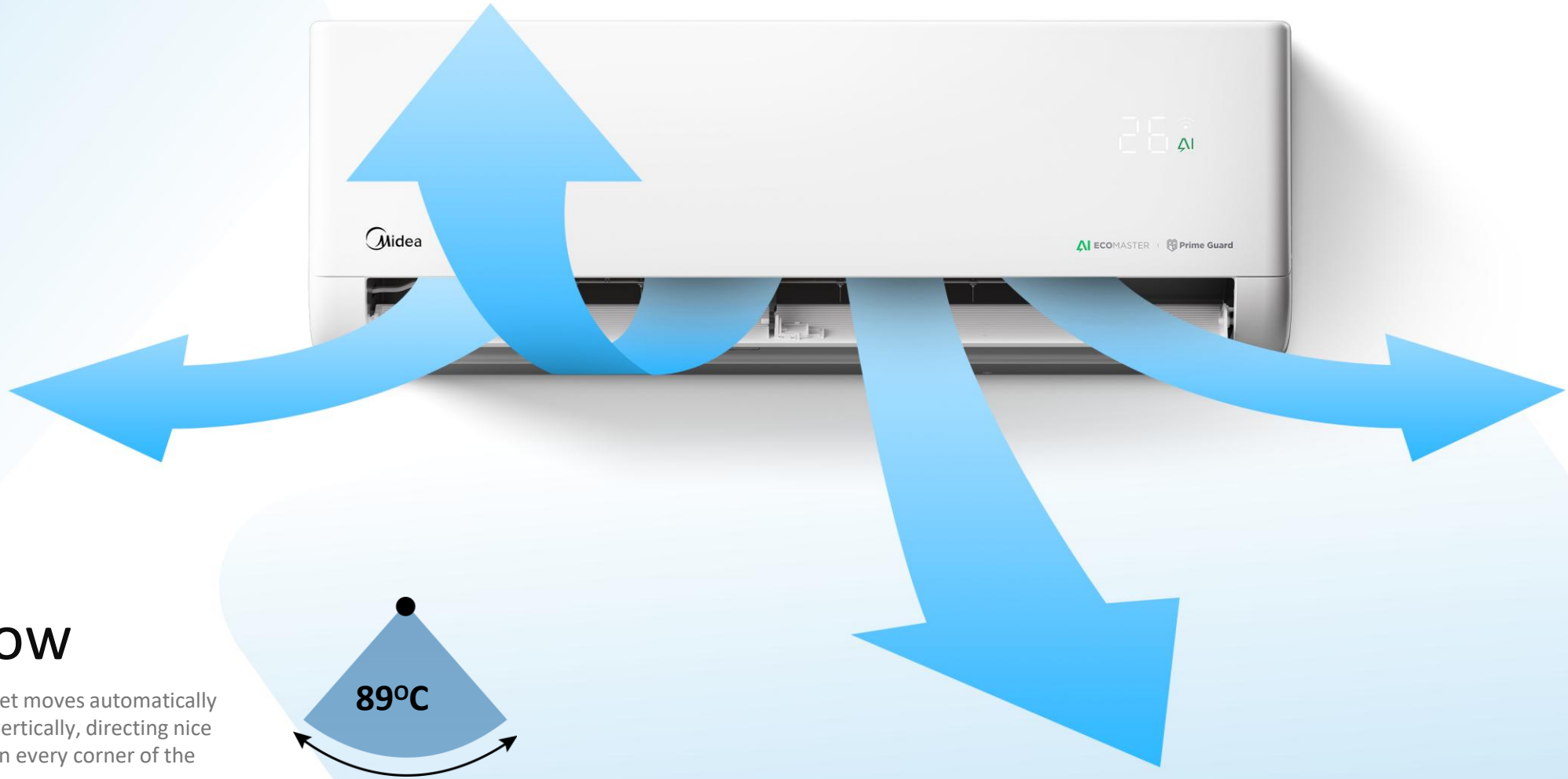
Ceiling Flow

Cooling Without Direct Wind Attack
Cool breeze settles down gently and embrace you in a tender way.

180°

Waterfall Flow

Immersive Heating From Toe To Head
Warm wind pours in quietly, imperceptible heating



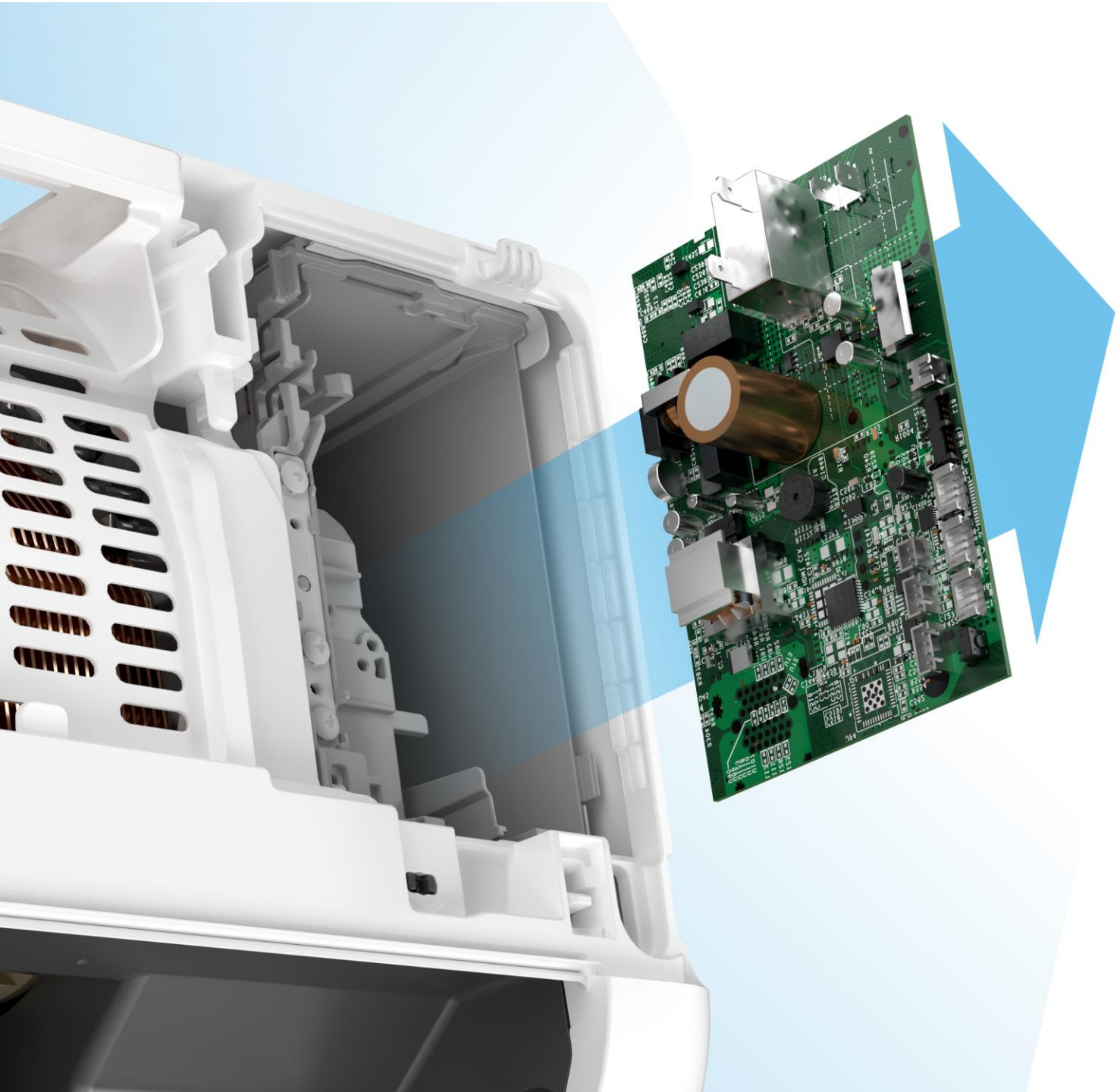
3D Airflow

The directional air-outlet moves automatically both horizontally and vertically, directing nice and cool airflow to fill in every corner of the room.

Horizontal

Installer Friendly

02



Pull-out PCB Design

Achieve PCB replacement without removing the panel frame.

Easy To Maintain

Remove the PCB Quickly

5 Steps

Improved process

The Easier Solution for PCB Replacement

NEW

1 Open the Front Panel

2 Remove ONE Screw from the Electronic Control Box

3 Take Away the Electronic Control Box Cover

4 Remove Wire Terminals

5 Pull Out the PCB

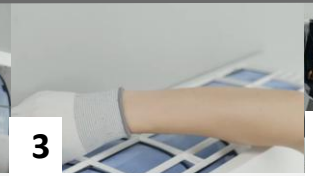
VS

8 Steps

Ordinary AC — **Entire frame had to be removed**

1 Open the Front Panel

2 Remove Screws from the Frame

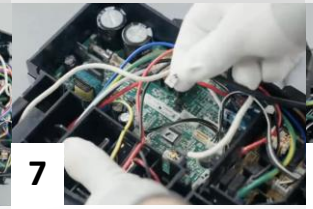


3 Unlock 3 Buckles /Slider Locks

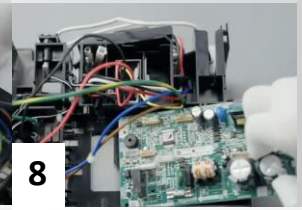
4 Remove the Front Frame

5 Remove Screws from the Electronic Control Box

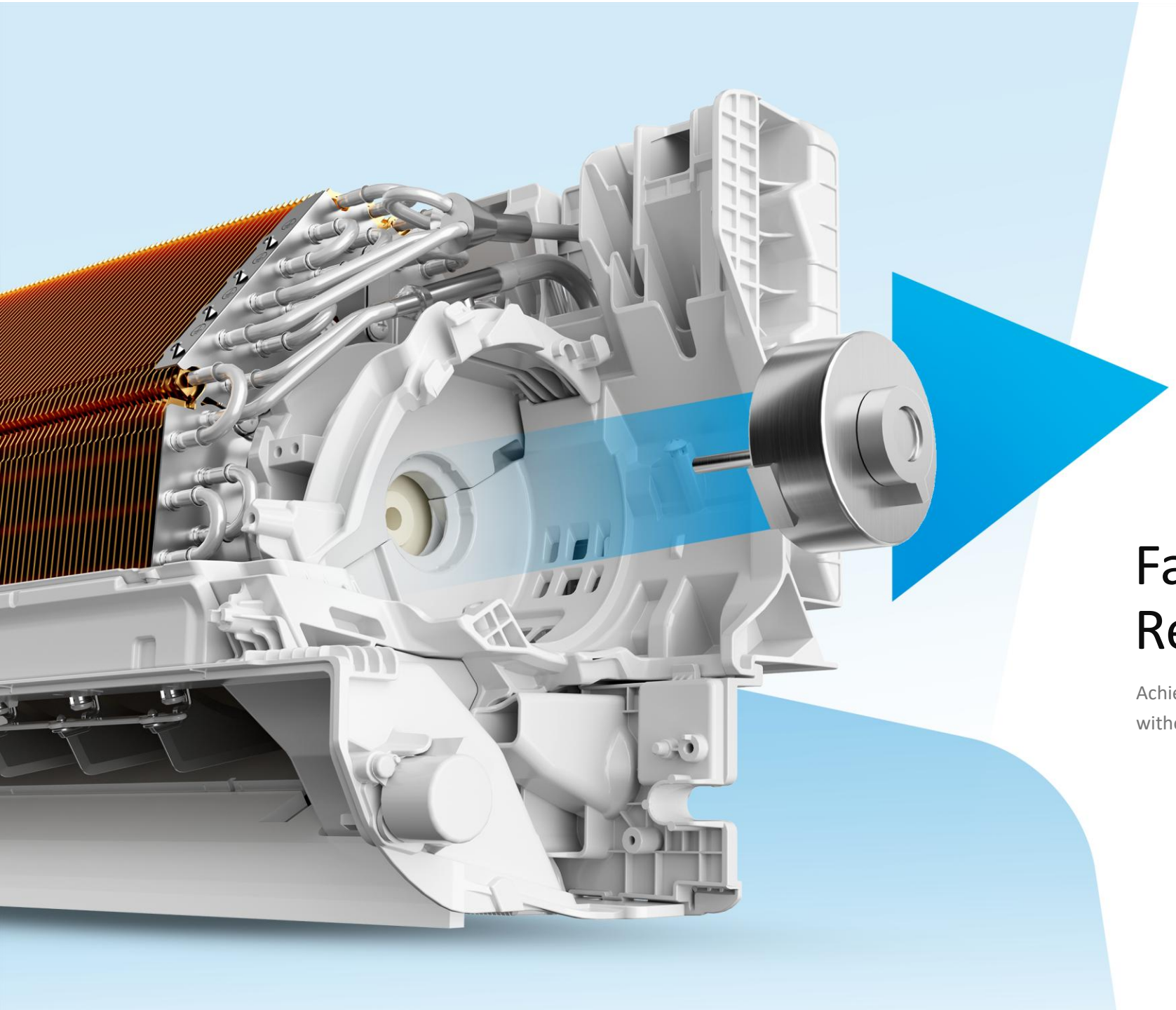
6 Take Away the Electronic Control Box Cover



7 Remove Wire Terminals



8 Pull Out the PCB



Fan Motor Repair Upgrade

Achieve motor replacement
without removing the evaporator.

Easy To Maintain

Fan Motor Repair

4 Steps

72% quicker

The Easier Solution for Fan Motor Replacement

NEW

1 Remove the Front Frame

2 Remove the Electronic Control Box

3 Take Away the Motor Bracket

4 Pull Out the Fan Motor

3min 20s

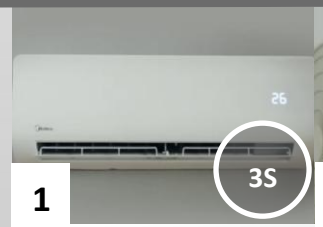
12min

VS

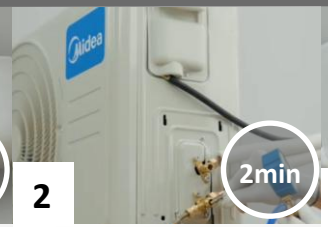
7 Steps

Previous AC

Evaporator Must be Removed



1 Turn On the AC

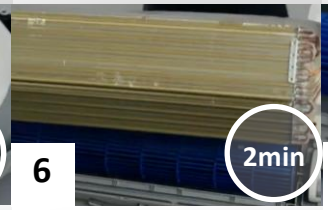


2 Recycle Refrigerant

3 Remove the IDU from the Wall

4 Remove the Front Frame

5 Remove the Electronic Control Box

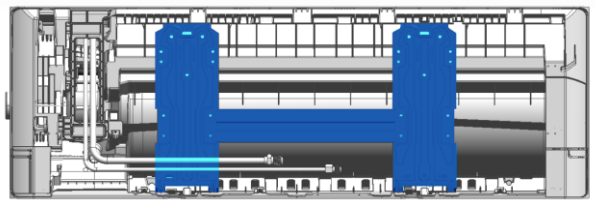


6 Remove the Evaporator

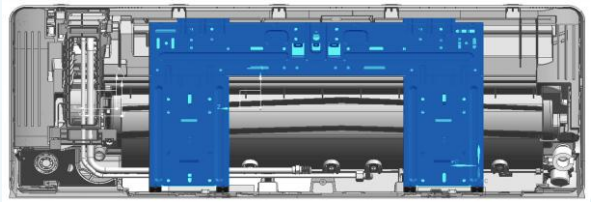
7 Pull Out the Fan Motor

Innovation Design- Friendly To Installer

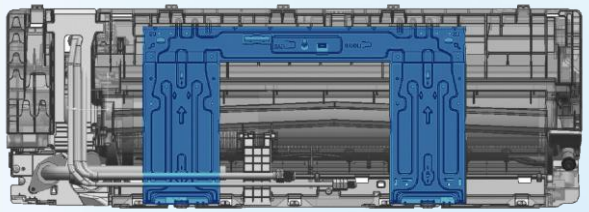
New design installation hole for stable fixing.
Upgraded wall plate structure for easier alignment of mounting locations.



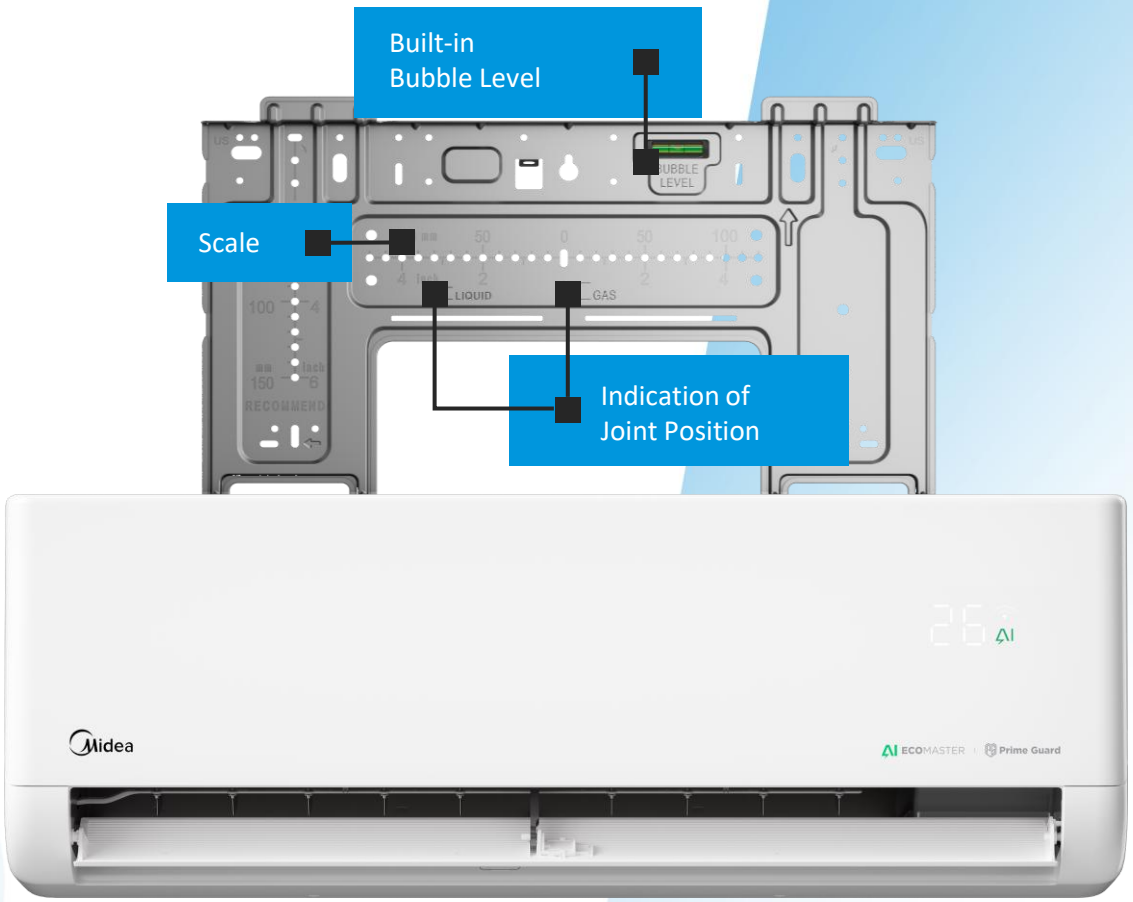
Forest
H-shaped installation plate

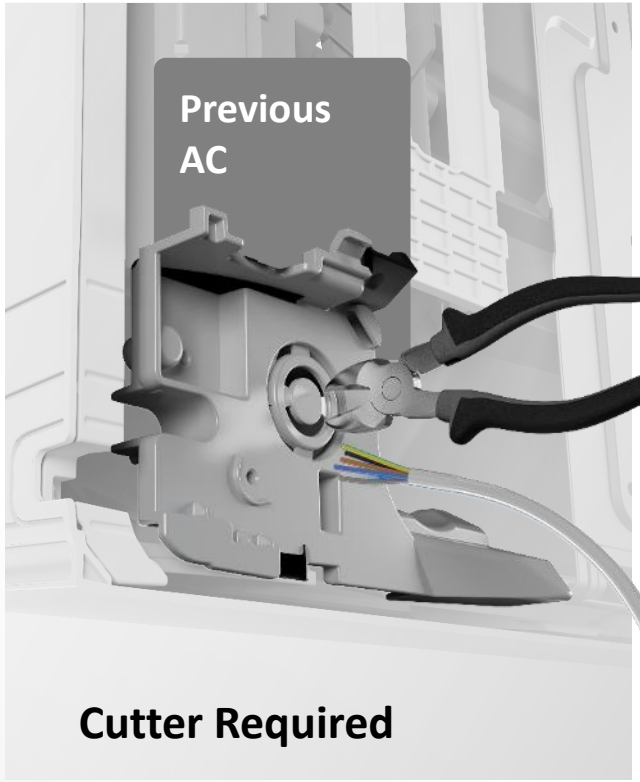


XTREME
π-shaped installation plate, Big Area



Solunar
Integral installation plate, Big Area





Wire Tunnel

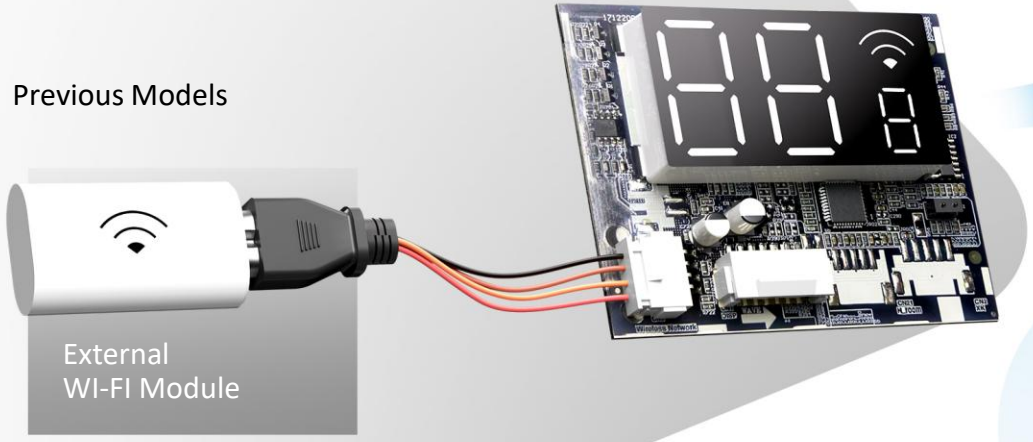
Easier Wiring

Wire Tunnel

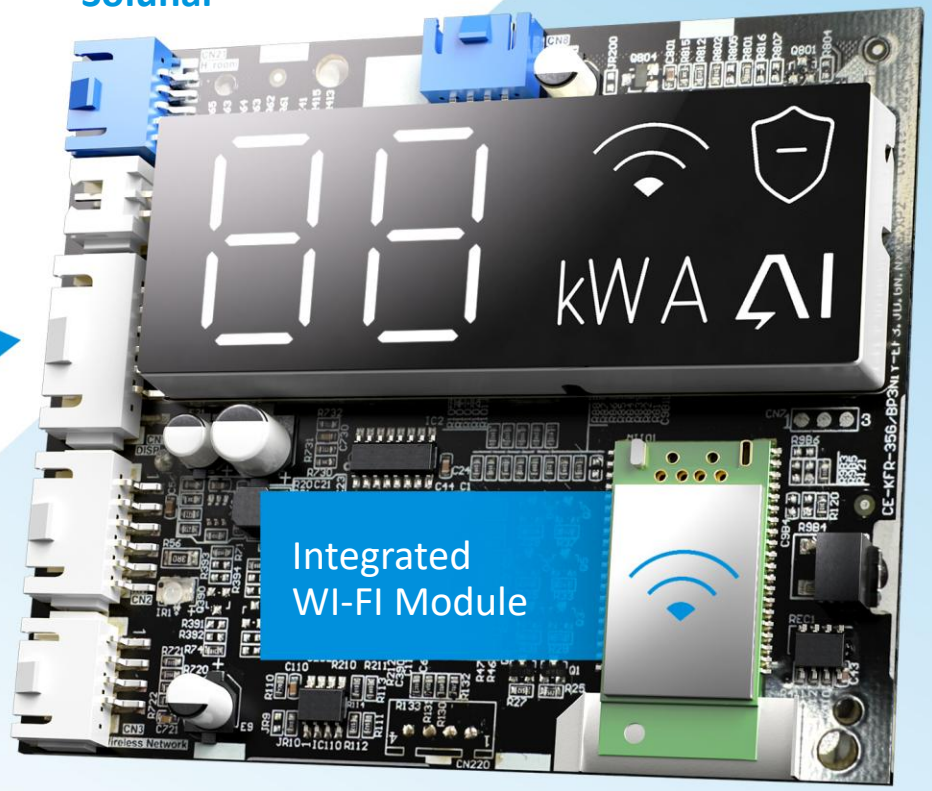
Toolless Wiring

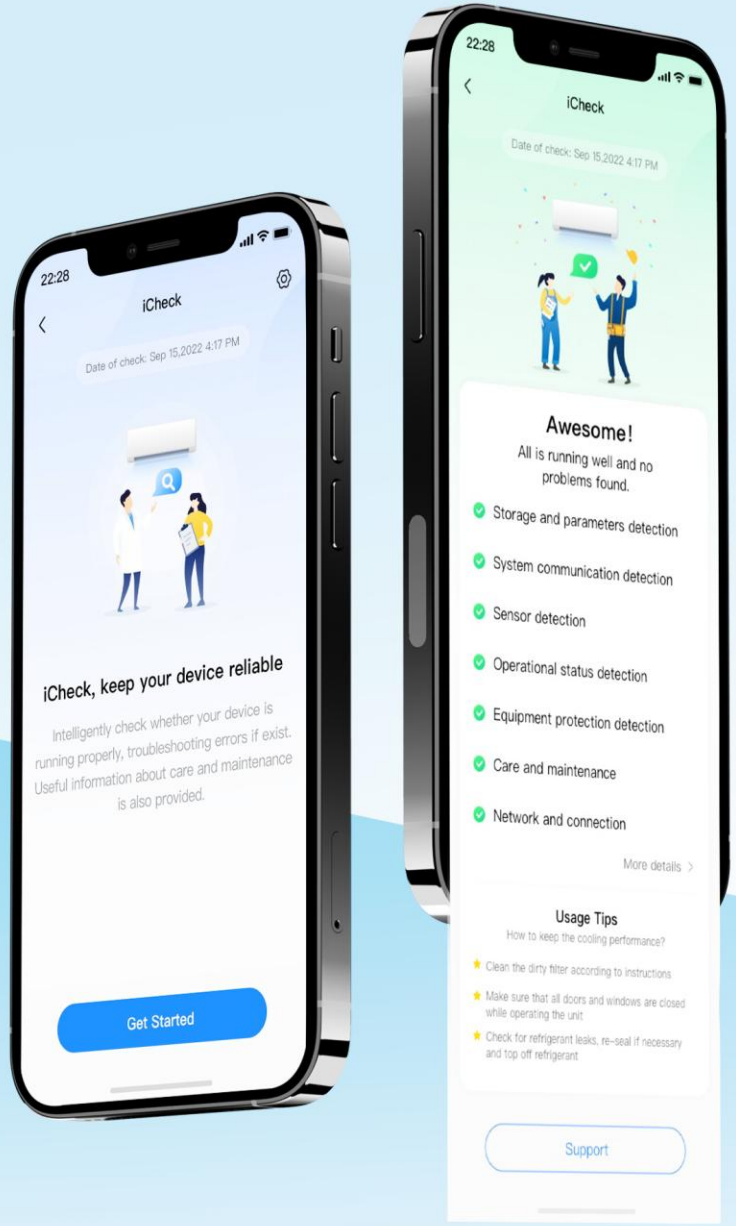
Integrated WI-FI Module

Previous Models



Solunar





iCheck

Intelligent check and diagnosis

- iCheck can intelligently inspect whether your appliances are running properly in 7 aspects, alerting you if issues occurred. After the check process, a report included detailed results and general maintenance tips will be accessible to users.
- Three methods are now supported for iCheck that users can run iCheck manually, set up a scheduled iCheck or enable the “Power-on iCheck ” option.

Key Features

03

Building User Mindset, Upgrading Midea Inverter

AI ECOMASTER

Smart Efficient

- Unique Heat Load Energy-saving Model: AI Algorithm Saves Over 30% Energy
- Electricity Detection, Visible Power Consumption, and Energy-saving Awareness

Prime Guard

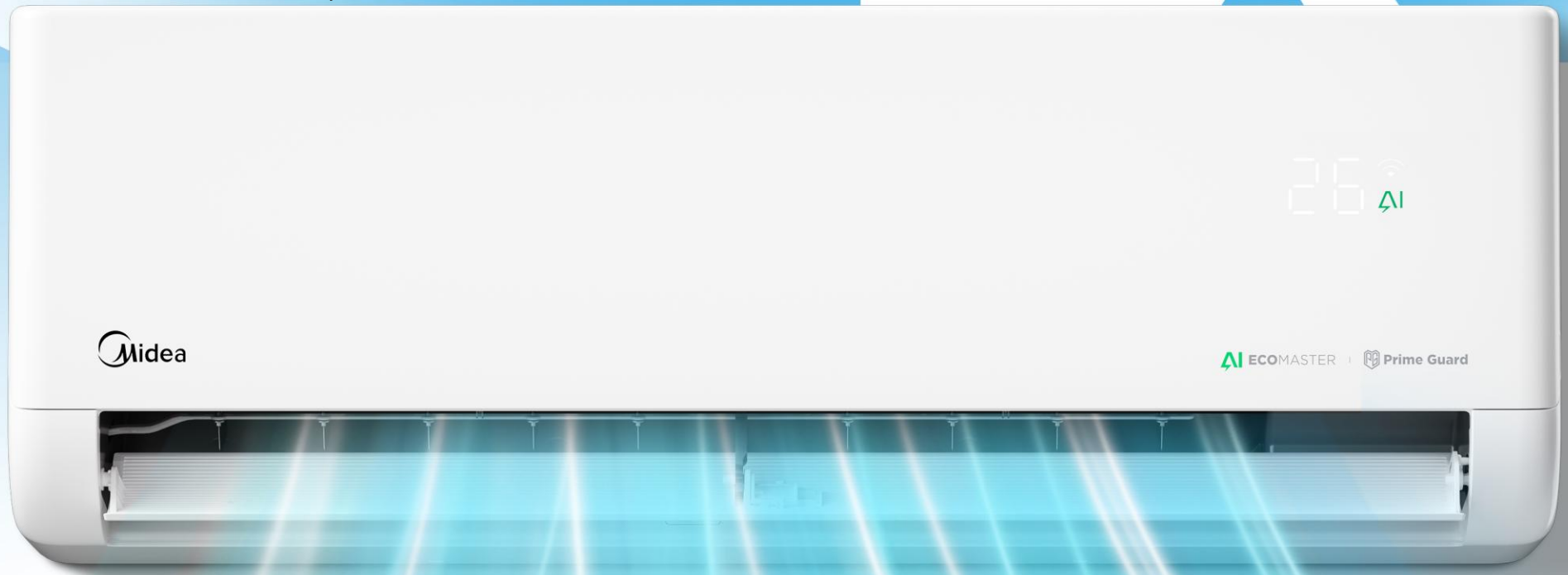
Reliable & Enjoy

- Economical and durable (reliable)
- Corrosion protection technology upgrade
- Wide voltage range (operating at 80-264V)

2+X

AUTO GEAR
BASF
LOW POWER
...

Differentiated demands from regions and localities



AI ECOMASTER

- The traditional inverter control algorithm adjusts the air conditioning operating parameters based on the past and current situation.
- By predicting the changes in indoor temperature, the air conditioning operating parameters can be adjusted in advance. The new algorithm changes from post-regulation to pre-regulation, which can greatly reduce problems such as over-temperature and inaccurate temperature control.

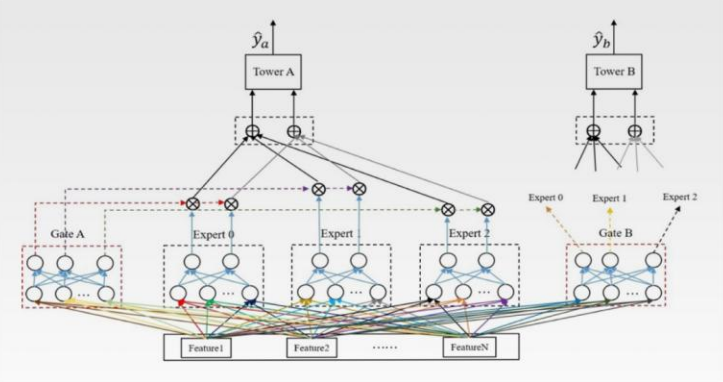
$$f(X_{11}, X_{12}, X_{13}, X_{21}, X_{22}, X_{23}, \ldots, X_{31}, X_{31}, X_{31} \ldots) = y(\text{Temp, Humidity, Fan Speed})$$

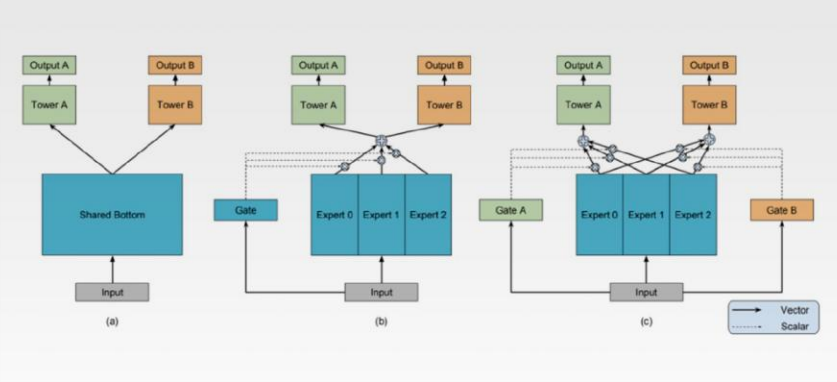
Controlled variable： Comp. Feq.、IDU fan RPM、ODU fan RPM

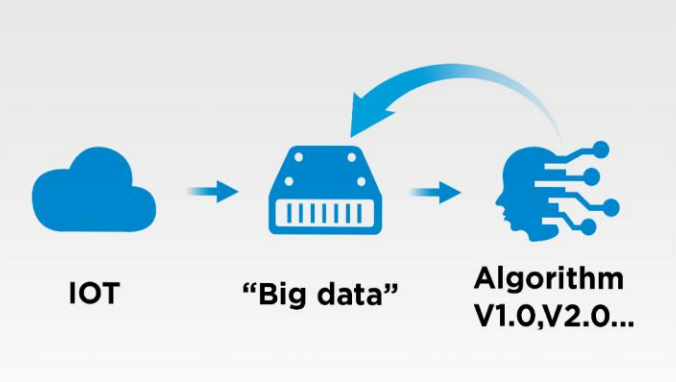
Parameter of operating： T1、T4、H、F_GA、Wi_GA etc.

Setting by user： Ts、fan speed setting、mode. Etc.

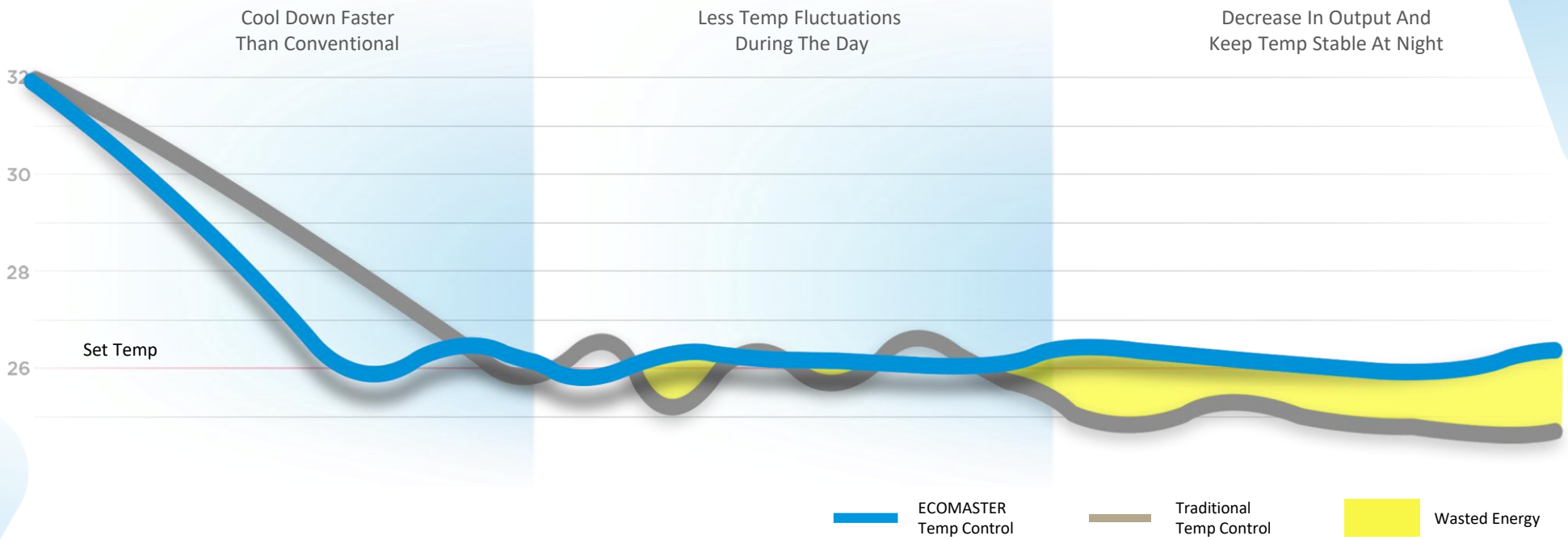
By adjusting the controllable variables, traction can be applied to change indoor temperature, humidity, and wind speed, achieving energy saving and comfortable control.







AI ECOMASTER



Perfectly Balance Efficiency & Comfort

ECOMASTER continues to function reliably even without an active Wi-Fi connection.

±0.3°C
Precise Temp Control

30%+
Extra Energy Saving

Verified by

One Click Full Control

Smart Control And Energy Monitor Within Your Fingertips

- Automatic delivery of periodic energy reports.
- Real time energy savings track.
- Tailor-made energy saving tips.

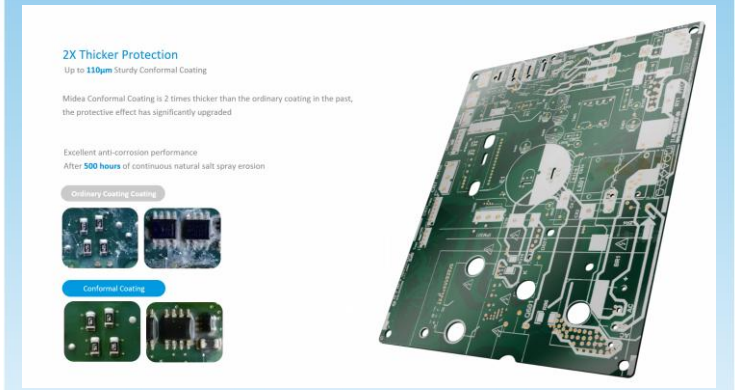
Smart Home

SmartHome Compatible

Prime Guard

Anti-corrosion

+



Electrical Design

+

Quality Control

Prime Guard

HYPER GRAPFINS™

Verified By Three Test Standards

20 to 50-year
-corrosion-resistance fin

Depended on the using industrial environment with salt contamination

After 240 hours UV test and 72 hours neutral salt spray (fog) test

0.02%
corrosion area

12.5X
corrosion resistance than blue coated fins

Stand Up to Neutral Salt Spray Test for

1500h

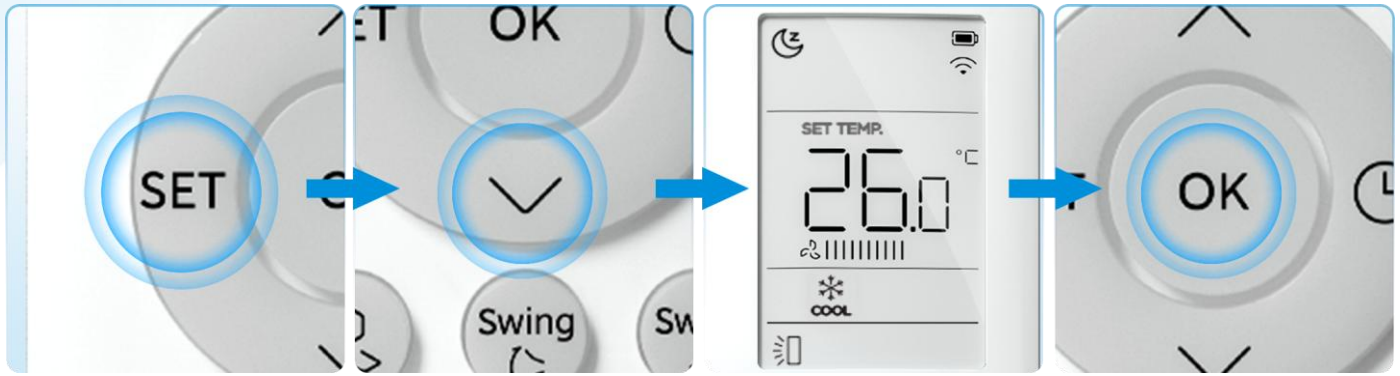
* The judgment standard of corrosion resistance is based on comparing the maximum corrosion area ratio of the rating number in JIS Z 2371-2015. Compared samples are Midea fins: Midea blue coated fins in HD2202-2/HW3308. Midea HYPER GRAPFINS in HMD011/HW3308.

AI Humidity Control

In cooling mode, this function can be activated by RC(AI control) or APP (low, medium and AI control).
After activating this function, the AC will control the T2/evaporator temperature by adjusting the compressor frequency and fan speed to keep the indoor under a comfortable humidity range.
Low relative humidity range: 40%~55%.
Medium relative humidity range: 55%~70%.

AI control:
a. T1<20℃, the relative humidity range is 55%~70%.
b. 20 ℃≤T1<22℃, the relative humidity range is 50%~65%.
c. 22 ℃≤T1≤26℃, the relative humidity range is 45%~60%.
d. 26℃<T120℃, the relative humidity range is 40%~55%.

RC



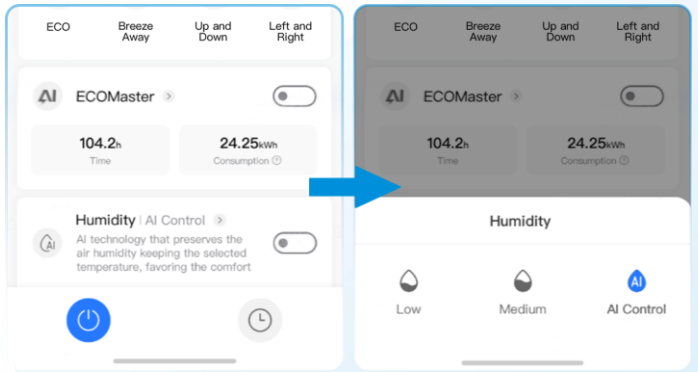
Press the SET button to enter the function setting

then press SET button or TEMP or A TEMP button to select the desired function.

The selected symbol will flash on the display area

press the OK button to confirm.

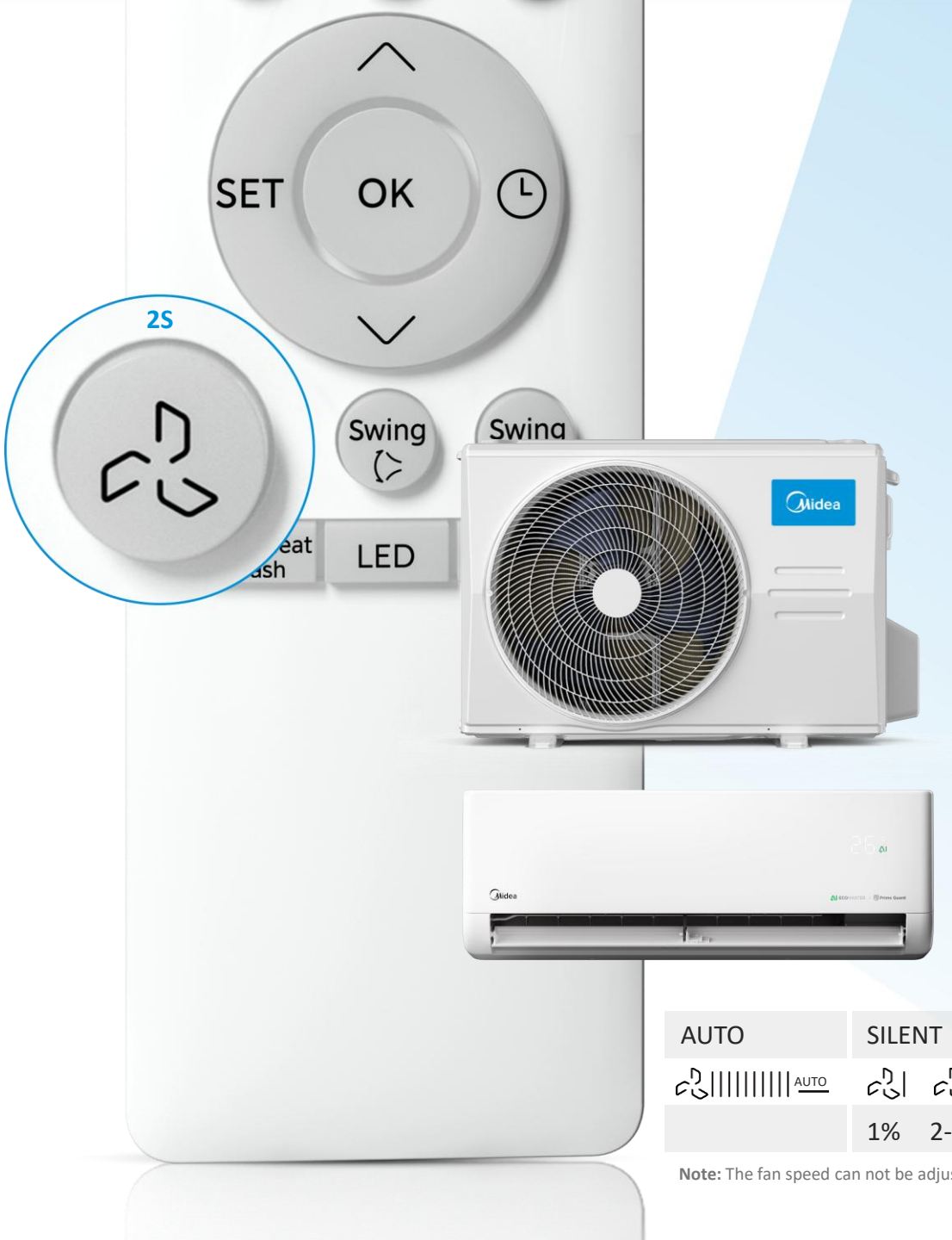
APP



- To cancel the selected function, just perform the same procedures as above.
- Press the SET button to scroll through operation functions as follows:
  Air magic/UV lamp*( ) > Follow Me ( ) > Active clean ( ) > Intelligent humidity control ( ) > AP mode*( ) > Sleep ( ) > Breeze away ( )
  [*]: Model dependent.

Silent Function

Keep pressing Fan button for more than 2 seconds to activate/disable silent function (some units).
Due to low frequency operation of compressor, it may result in insufficient cooling capacity.



Silent Mode

Outdoor unit silent operation

Long press the fan button to turn on the outdoor unit silent function, the outdoor unit will reduce the frequency and work silently, and the silence icon will light up on the LCD.

Indoor unit silent operation

The indoor unit can mute the indoor unit by adjusting the wind speed (up and down arrows) to wind speed 1%.

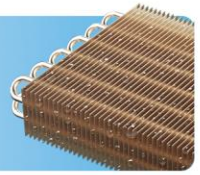
AUTO	SILENT		LOW	MED	HIGH	
AUTO						
	1%	2-20%	22-40%	41-60%	61-80%	81-100%

Note: The fan speed can not be adjusted in AUTO or DRY mode.

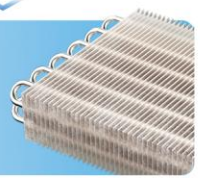
I-Clean Mode

Auto high temperature cleaning

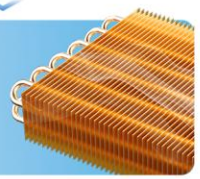
Switch on self-cleaning mode, water start frosting at low temperature.



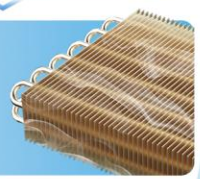
Then the dirt can be removed thoroughly by the strong cold expansion force.



The temperature began to rise, high temperature steam washing the IDU evaporator at 56°C for 30 minutes.

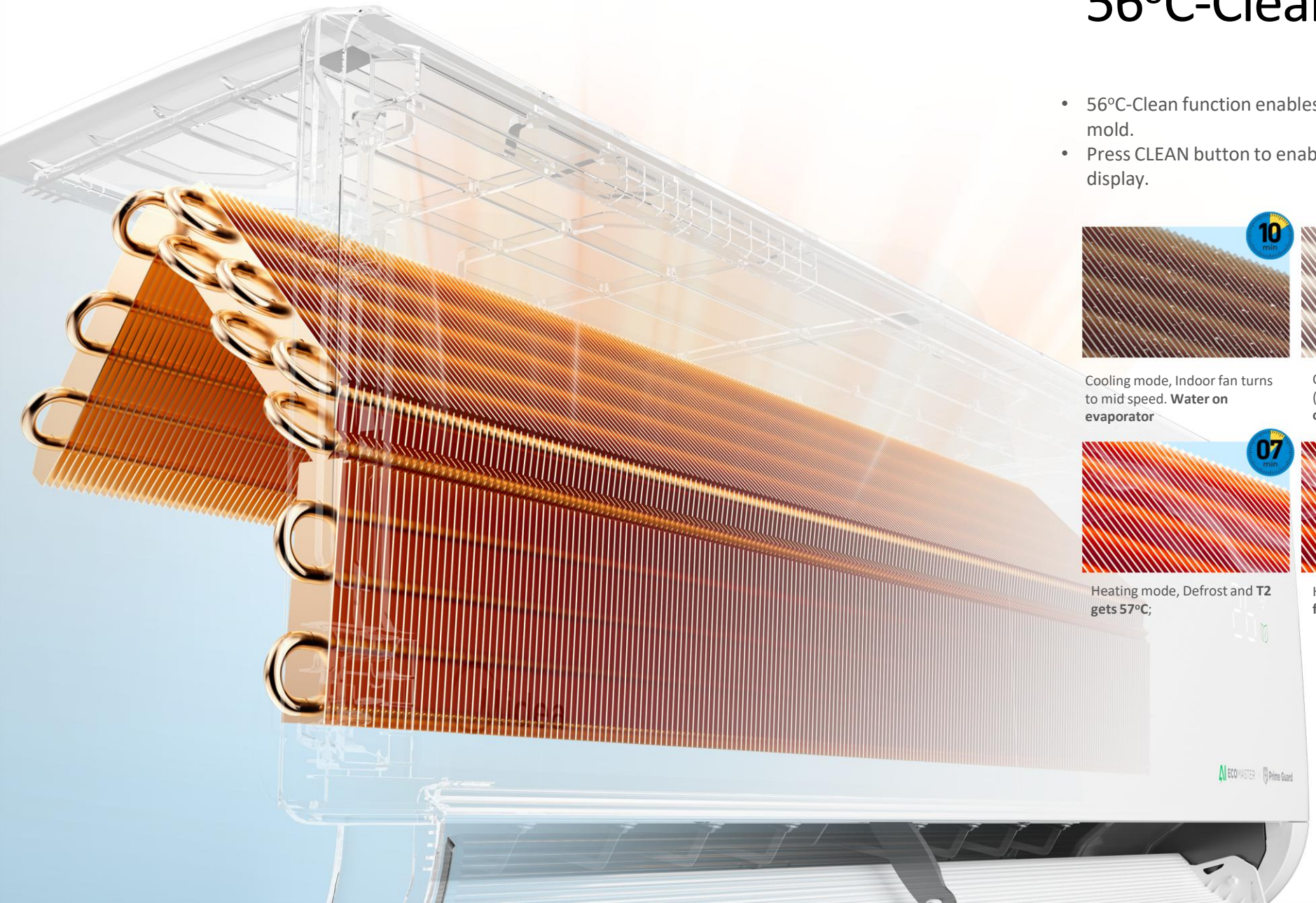


Condenser (When IDU is in heating mode, ODU will start frost at the same time) will be cleaned after defrost.

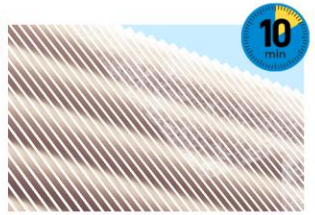


56°C-Clean function

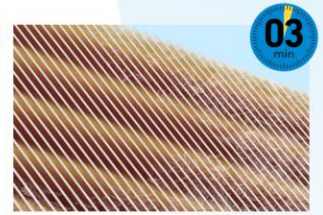
- 56°C-Clean function enables cleaning and drying the indoor coil to avoid mold.
- Press CLEAN button to enable i-clean function, “CL” will show in indoor display.



Cooling mode, Indoor fan turns to mid speed. **Water on evaporator**

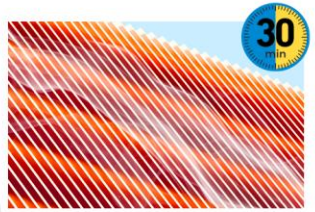


Cooling mode, Indoor fan stop (7m) and low speed (3m)**Frost on evaporator**

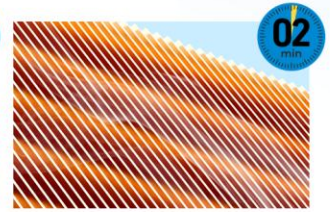


Turn off the unit and be **ready for heating mode**

Heating mode, Defrost and **T2 gets 57°C**;



Heating mode, **T2＞57°C steady for at least 30 mins**

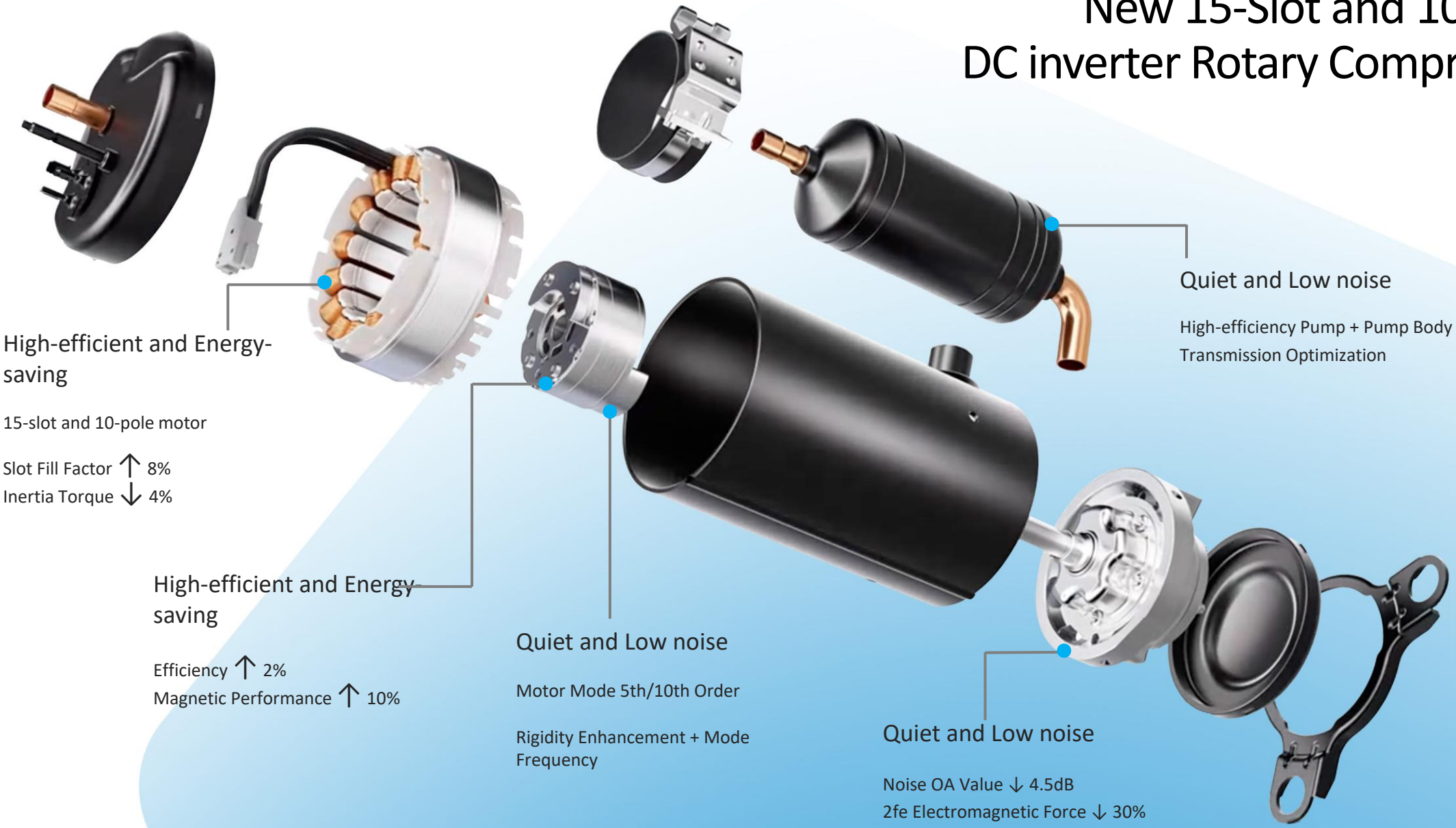


Fan mode, Indoor fan turns to **mid** speed

Intelligent Defrosting

The system can accurately determine the defrosting time and defrost and de-ice according to environmental requirements and changes in heating load to maintain stable operation of the unit.

New 15-Slot and 10-Pole DC inverter Rotary Compressor



High-efficient and Energy-saving

15-slot and 10-pole motor

Slot Fill Factor ↑ 8%
Inertia Torque ↓ 4%

High-efficient and Energy-saving

Efficiency ↑ 2%
Magnetic Performance ↑ 10%

Quiet and Low noise

Motor Mode 5th/10th Order

Rigidity Enhancement + Mode Frequency

Quiet and Low noise

High-efficiency Pump + Pump Body Transmission Optimization

Quiet and Low noise

Noise OA Value ↓ 4.5dB
2fe Electromagnetic Force ↓ 30%
Frequency Band Noise ↓ 7dB

Wideband Control

Open-source Self-developed Control Algorithm

Maximum Frequency ↑ 20Hz;
Maximum Load ↑ 10%;
Stability ↑5%