

SPRSUN R290 DC inverter heat pump



SPRSUN R290 DC inverter Heat Pump Monoblock type for HEATING/COOLING /HOT WATER



Multiple Modes for
Comfortable Use



Stable Running
Ambient



Max. Outlet Water
Temperature



Built-in
Water Pump



High Energy
Efficiency



Reduced
Noise



CAREL
Controller

Freon	R290							
Working ambient	Minus 25C to 45C							
Model No.	CGK030V4P	CGK040V4P	CGK050V4P	CGK060V4P	CGK-030V4P	CGK-040V4P	CGK-050V4P	CGK-060V4P
Power Supply	220-240V/50hz/60hz/1				380-420/50hz/60hz/3			
Heating Capacity (A7W35)	9KW	11KW	15KW	18KW	9KW	11KW	15KW	18KW
Energy label	A+++/A++							
Working mode	Heating + Hot water + Cooling							
Max water outlet	70C-75C							
Built in	Grundfos Inverter Water Pump							
With functions	Wifi, cascade , linkage , RS485 ,SG function							

Features of the R290 DC inverter heat pump



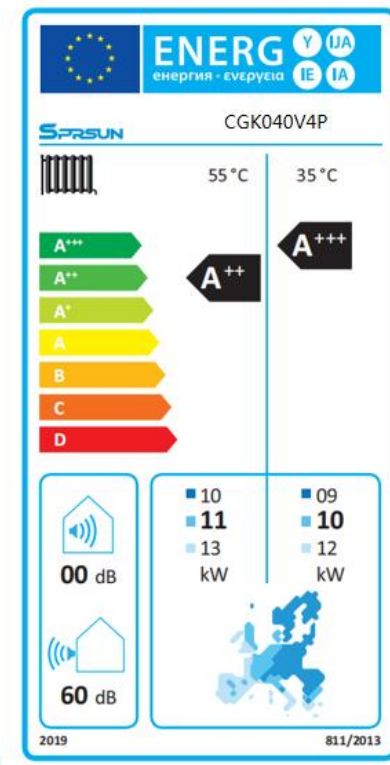
- 1: Panasonic R290 dedicated DC inverter compressor
 - 2: DC frequency conversion motor;
 - 4: Environmentally friendly refrigerant R290;
 - 5: Built-in Grundfos frequency conversion water pump;
 - 6: Built-in power statistics module;
 - 7: Built-in vortex flow sensor;
 - 8: Carel full DC inverter controller kit;
 - 9: Carel 4.3-inch touch screen;
 - 10: One machine with five functions (single hot water/cooling + hot water/heating + hot water/single heating/single cooling);
 - 11: Efficient asymmetric plate heat exchanger (water side);
 - 12: Evaporator efficient defrosting flow design (maintain good defrosting performance at low temperature);
 - 13: All-round noise reduction processing (3P noise is at 60db sound power, which is 3-4 decibels lower than 3P Zhike R32);
 - 14: The operating environment temperature is -25~45°C, and the maximum water outlet is 75°C (set at 70°C);
- Executive standard: EN14825:2022, EN12102:2022, EN14511-3:2022, EN14511-4:2022;

Features of the R290 DC inverter heat pump



- Highest efficiency A+++ Energy label

A+++ energy consumption makes it possible to consume less energy, helping households to reduce their energy bills, and to consume different amounts of energy for different needs, making it more energy efficient than other heat pumps; SG grid function helps to store energy for more energy efficiency.



Features of the R290 DC inverter heat pump



- Super High quality components**

Compressor : Panasonic Rotary inverter compressor only for R290

Controller : Carel Touch screen controller

PCB board : Carel Brand

Inverter : Carel Brand

Pressure sensor : Carel brand

Electronic expansion valve : Carel brand (anti-explosion)

Inverter water pump : Grundfos brand (anti -explosion)

AC contactor : Schneider brand (anti -explaosion)



Standard Materials

Name	Description	Picture	Name	Description	Picture	Name	Description	Picture
Condenser	Plate Heat Exchanger		Evaporator	Hydropilic Aluminium foil and internal thread copper pipe heat exchanger		High Pressure Sensor	CAREL 0-4.5MPa	
Compressor	Panasonic Rotary Compressor		Expansion Valve	CAREL Electronic expansion valve		Low Pressure Sensor	CAREL 0-3.45MPa	
4-way valve	SANHUA		DC Fan	WOLONG DC Fan		Package	corrugated board case / plywood case	
Controller	Carel Touch screen Controller		water pump	Grundfos		Flowmeter		

Features of the R290 DC inverter heat pump



- **Full Inverter Control Technology**

It is equipped with Panasonic DC frequency conversion compressor, Wolong DC Fan motor and Grundfos DC water pump to produce higher efficiency for heating /cooling /hot water even under lower temperature

- **Lower Noise Technology**

The pressure noise can be around **43db -48db** in 1 meter , and sound power noise can be around **60db**

(1) The service cabin is surrounded by the 20mm thickness noise-reducing material wave cotton for noise reduction.



(1)

(2)The compressor adopts Double-layer cotton clothes



(2)

(3)Chassis damping design for the compressor and insulation cotton underneath



(3)

(4) Spiral injection molded grille, good for flow diversion and noise reduction



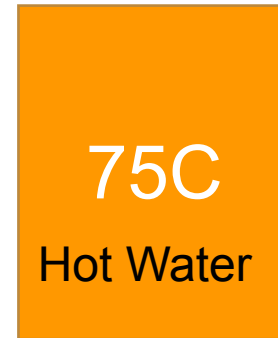
(4)

Features of the R290 DC inverter heat pump



- **Stable running -25C Ambient temperature**

Under low ambient temperature, the performance, heating ability and operational stability of normal heat pumps will be limited. SPRSUN R290 DC INVERTER heat pump can operate stably and efficiently even under lower temperature of -25C maintaining a high COP and outputting 75°C hot water



Features of the R290 DC inverter heat pump



- **Smart control of the Carel system**

Carel touch screen display is built with below smart features compared to previous versions :

(1) Multiple languages

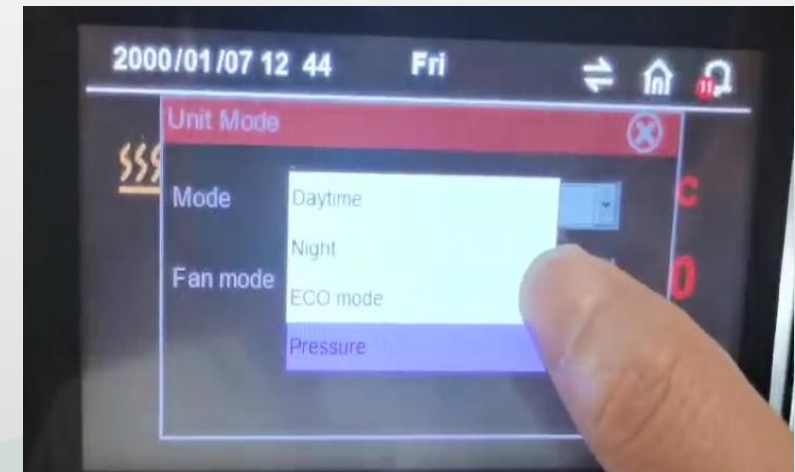
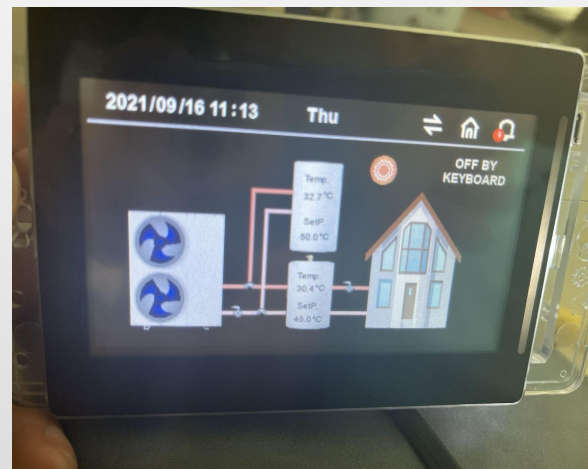
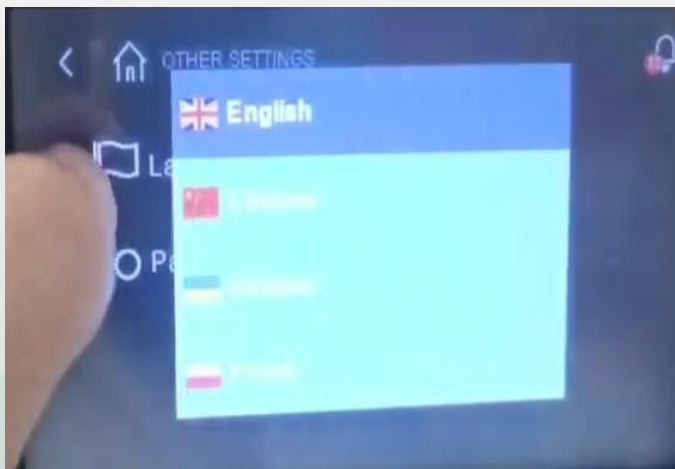
(2) Input power , current , voltage curve checking

(3) Energy consumption curve checking

(4) Support multiple functions : RS485 , linkage , cascade, remote wifi app ,ECO mode,Night mode

(5) PID Inteleigent auto -defrosting , 3 period of the defrosting setting

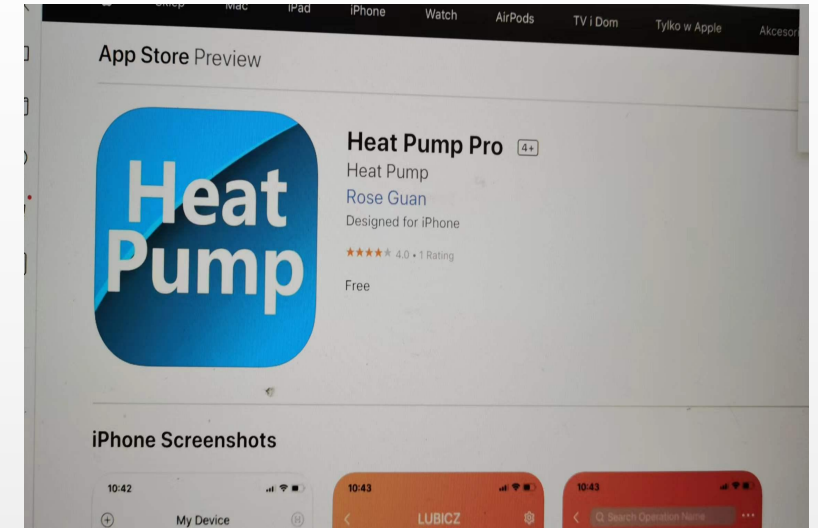
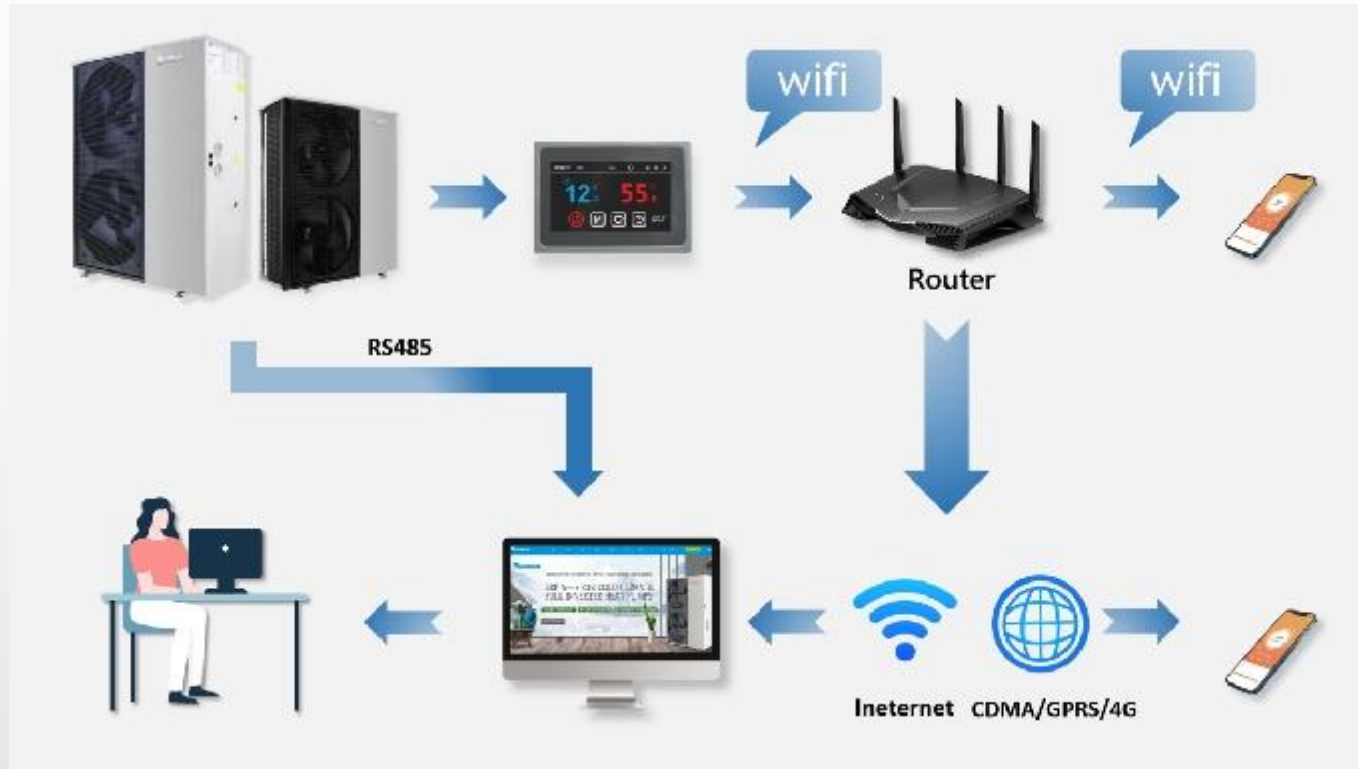
(6) SG functions is ready ,



Features of the R290 DC inverter heat pump



- **Smart control of the Carel system**
Remote wifi app and IOT platform



Features of the R290 DC inverter heat pump

SPRSUN

Reliable and safety structure

(1) The shutters are opened on the middle partition; The convection holes are opened on the chassis to increase the air convection in the compressor chamber to avoid explosive concentration due to the leakage of the refrigerant in the fluorine circuit.

(2) The exhaust pipe is **thickened** for avoiding leakage risk
The main valve and pressure sensor are reinforced with plastic fixing blocks to avoid leakage risk.

(3) There is **no pressure gauge** in the whole machine, and the needle valve is hard-sealed to reduce the risk of refrigerant leakage.

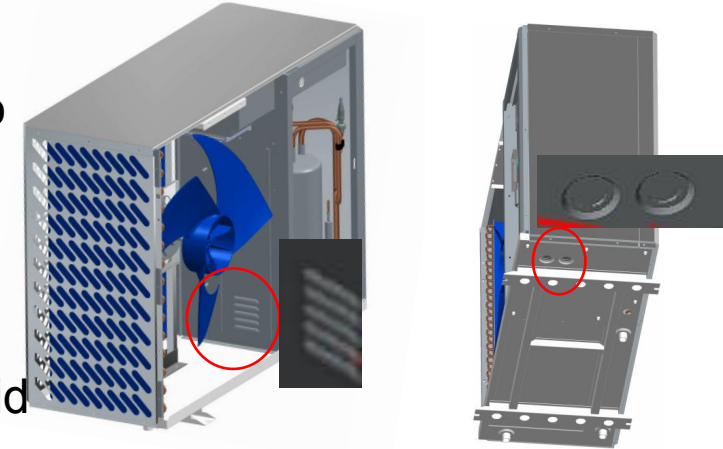
(4) Water pump built in is **anti-explosion**

(5) Electronic expansion valve is **anti-explosion**

(6) AC contactor built in is **anti-explosion**

(7) Water flow sensor is used instead of the water flow switch, which can detect the actual water flow and can check from the display directly.

(8) Ambient sensor have be located away from the coil fins for avoiding mistaken defrosting, not defrosting



Features of the R290 DC inverter heat pump



(9) Built-in water pump, water inlet/outlet , and the service pannel from the rear panel , which is convenient for engineering installation.

(10)Efficient asymmetric plate heat exchanger (water side)

(11) Evaporator efficient defrosting flow design (maintain good defrosting performance at low temperature);

(12)The chassis is punched with a large boss, and the external threaded joint is welded, which is convenient for taking over the diversion and drainage

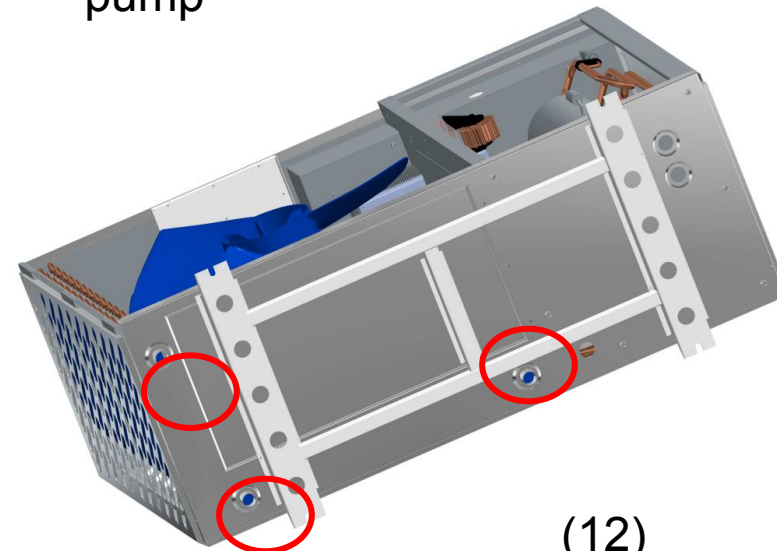


water pump

(9)

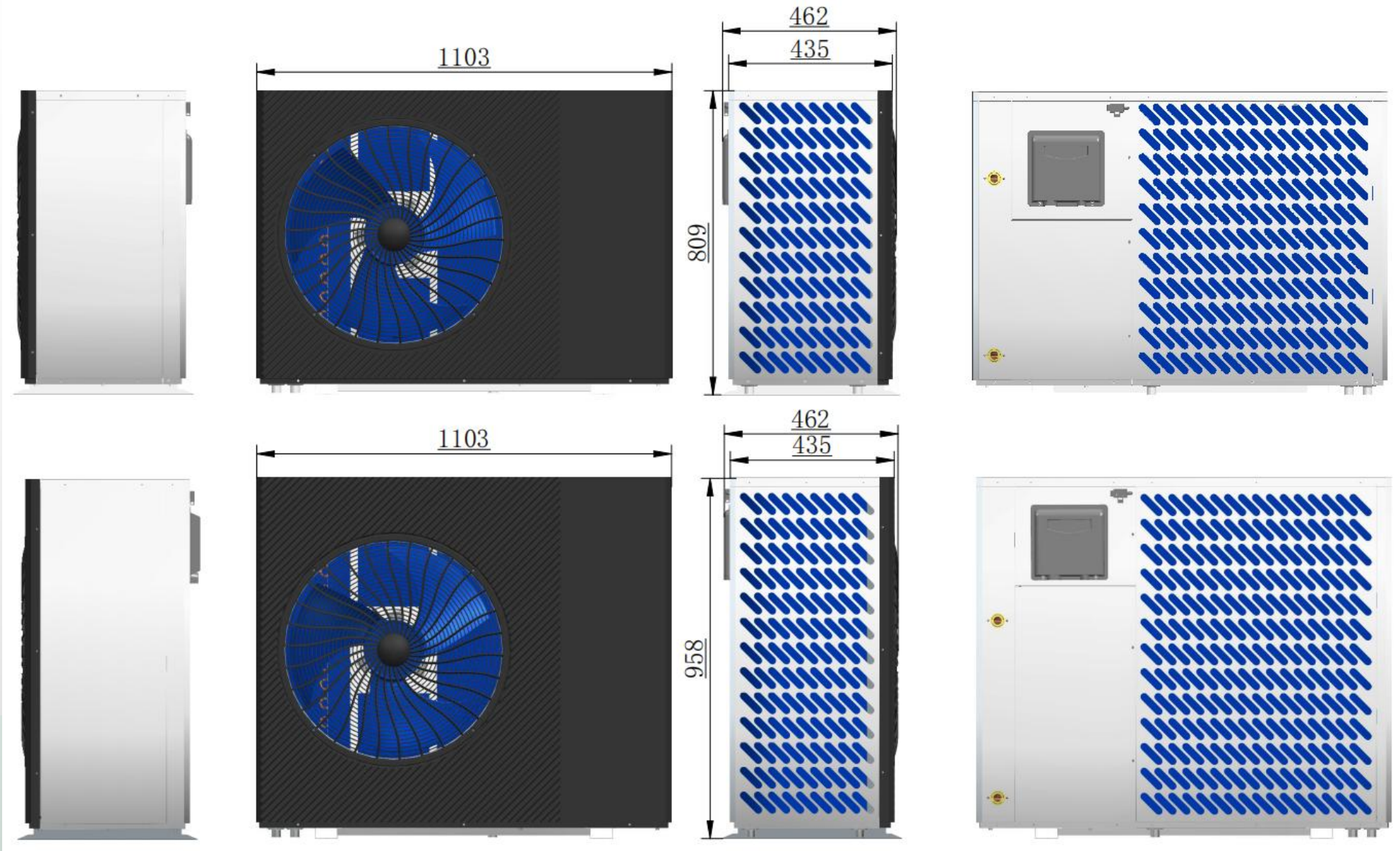


outlet



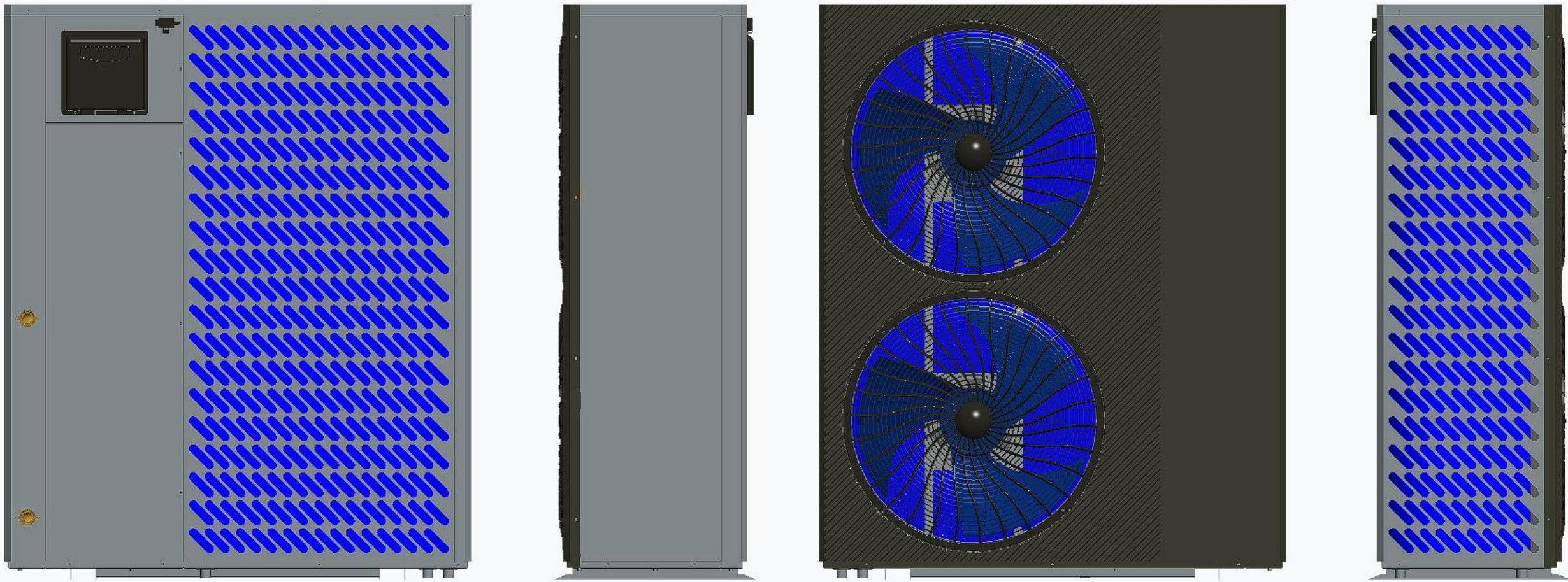
(12)

Design for 9kw, 11kw



Design for 15kw,18kw

SPRSUN



外型尺寸：长1103mm x 高1360mm x 深475mm

SPRSUN R290 DC inverter heat pump

SPRSUN



THANK YOU

NEW EMPLOYEE INDUCTION TRAINING PPT TEMPLATE

