

R290 ULTIMATE SERIES



Space heating



- At outdoor temperature as low as -25°C
- Water Outlet temperature up to 65°C



Domestic hot water



- At outdoor temperature as low as -25°C
- Water Outlet temperature up to 75°C



Space cooling



- At outdoor temperature as low as -5°C
- Water Outlet temperature up to 5°C



Device features



Environmentally Friendly Refrigerant R290



Smart Grid Function



Twin Rotary Compressor



2 Heating Control Zones



Energy Efficiency Class At 35°C A+++



Energy Efficiency Class At 55°C A++



Operating Range Down To -25°C



Supply Water Temperature Of 75°C



Easy Installation And Maintenance



Outdoor Unit Drip Tray Heater



Compressor Crankshaft Heating Belt



Daily Operation Schedule



Silent Mode



Built-in Wi-Fi Module



Weather Operating Modes (Climate Curve)



Configurable Weekly Schedules



Vacation Mode



Maximum Water Outlet Temperature Of 75°C (in DHW Mode)



Multilingual menu



Integrated Temperature Sensor



Modbus Protocol



Dedicated Application

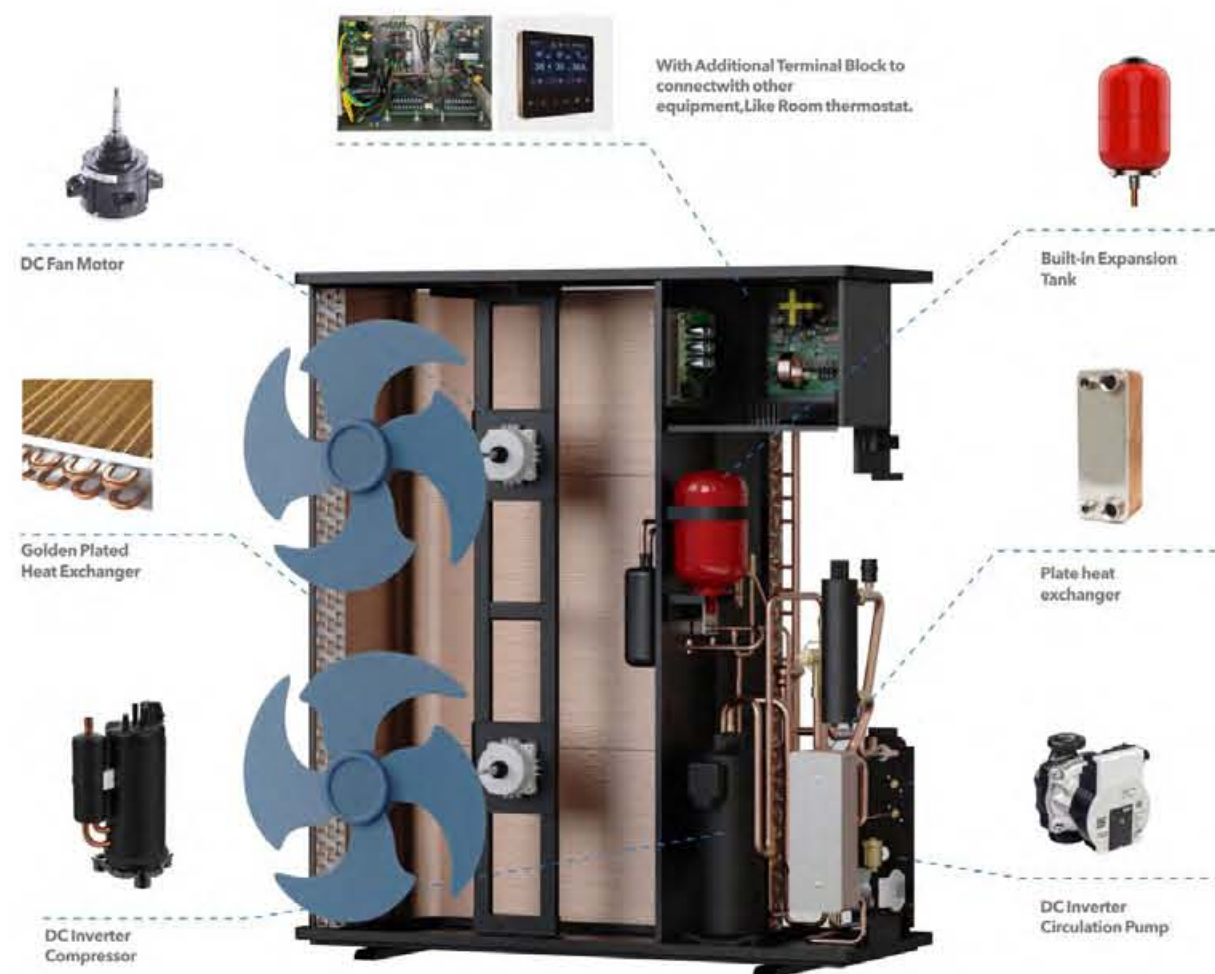


Disinfection



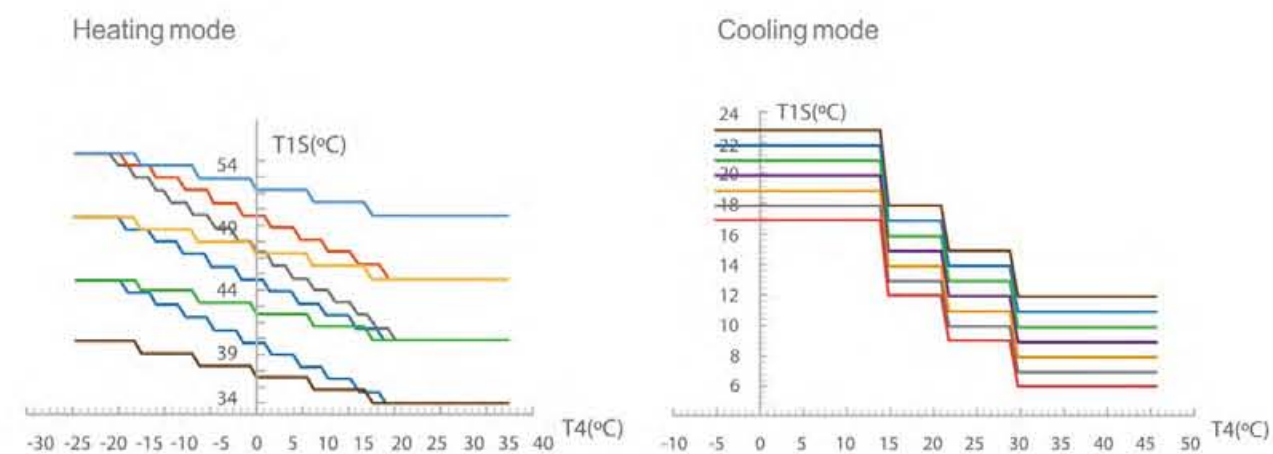
Prepared To Create A Cascade System

CORE FEATURES



CLIMATE CURVE FUNCTION

The control system allows automatic or manual adjustment of the heating curve depending on climatic conditions.



SMART GRID FUNCTION

The heat pump unit is capable of adjusting its capacity based on different electrical signals:

Heat pump controller is designed to work with the "Smart Grid". With this feature, the pump automatically turns on to store surplus energy from the photovoltaic (PV) system to make the most of the cheaper electricity tariff.



DUAL ZONE WATER TEMP

Two control zones

This function helps to easily set up temperature independently for two zones, for example, common spaces on the ground floor and bedrooms upstairs. Independent management and control of two zones will be helpful for combinations of underfloor heating and radiators.



TWIN ROTARY COMPRESSOR

Superior compressor capacity guarantees unprecedented level of efficiency. The unique design minimizes vibration during the operation of moving parts, thus effectively reducing noise levels. This state-of-the-art solution ensures many years of energy-efficient and trouble-free operation.



SILENT MODE

Two-step Silent mode provides greater comfort. Level 2 of the Silent mode can lower the noise level as you demand.



FEATURES

- Multiple user interface languages including English
- Integrated temperature sensor
- Integrated Wi-Fi module to support app control
- Support for Modbus and control via network
- Control of up to 16 units via the BMS
- Control of up to 16 units per controller in a cascade system
- Automatic address assignment



YOU CAN USE THE CONTROLLER TO:

- Check the heat pump operation status and mode
- Set temperature and operation mode
- Easily activate: vacation mode, home vacation mode, eco mode
- Set up schedule and timer
- Activate second temperature control zone
- Monitor system status
- Set the heating curve
- Display error codes
- Set language for messages
- Check operating parameters
- Set audible alarm
- Almost unaffected by ambient temperature

PARAMETER SPECIFICATIONS

Model	LWH-	F8HVLZPN9	F11HVLZPN9	F15HVLZPN9	F11HVZPN9	F15HVZPN9	F18HVZPN9
Usage: Supply hot water for bath, heating in winter and cooling in summer like as air conditioners.							
Power Supply		220~240V~/ 50Hz			380~415V/3N~/ 50Hz		
Refrigerant Type		R290					
[Space Heating] Ambient Temp. (DB/WB): 7°C/6°C, Water Temp. (Inlet/Outlet): 30°C/35°C							
Heating Capacity (kW)		3.50~8.25	4.50~11.35	6.00~15.12	4.58~11.36	6.08~15.10	6.79~17.98
Power Input (kW)		0.58~1.82	0.78~2.51	1.04~3.34	0.79~2.51	1.05~3.34	1.12~3.99
Heating Current Input Range(A)		2.65~8.27	3.43~12.20	4.54~15.18	2.08~6.60	2.76~8.78	2.94~10.5
COP		6.00~4.53	5.76~4.52	5.77~4.52	5.79~4.52	5.79~4.52	6.06~4.50
[Space Heating] Ambient Temp. (DB/WB): 7°C/6°C, Water Temp. (Inlet/Outlet): 50°C/55°C							
Heating Capacity (kW)		3.15~7.98	3.90~11.25	5.40~15.01	3.86~11.20	5.49~14.98	6.80~17.95
Power Input (kW)		0.68~2.55	0.85~3.66	1.17~5.03	0.86~3.65	1.21~5.00	1.47~6.10
Heating Current Input Range(A)		3.11~11.00	3.89~15.85	5.32~22.86	2.26~9.60	3.18~13.15	3.86~16.05
COP		4.63~3.13	4.59~3.07	4.62~2.98	4.48~3.06	4.53~2.99	4.62~2.94
[Space Cooling] Ambient Temp. (DB/WB): 35°C / -, Water Temp. (Inlet/Outlet): 12°C/7°C							
Cooling Capacity (kW)		1.53~5.96	2.43~7.80	2.98~10.25	2.47~7.86	2.80~10.38	3.84~12.60
Power Input (kW)		0.33~2.11	0.52~2.86	0.63~3.58	0.52~2.86	0.64~3.60	0.85~4.09
Cooling Current Input Range(A)		1.51~9.13	2.36~13.00	2.86~16.27	1.36~7.52	1.68~9.47	2.23~10.76
EER		4.64~2.82	4.67~2.72	4.73~2.86	4.75~2.74	4.38~2.88	4.54~3.08
[Hot Water] Ambient Temp. (DB/WB): 20°C/15°C, Water Temp. from 15°C to 55°C							
Heating Capacity (kW)		2.44~9.05	3.26~12.36	4.51~16.98	3.38~12.45	4.47~17.34	5.45~20.53
Power Input (kW)		0.33~1.95	0.44~2.74	0.61~3.66	0.45~2.73	0.61~3.87	0.73~4.35
Hot Water Current Input Range(A)		1.50~8.86	2.00~12.45	2.77~16.63	1.18~7.18	1.60~10.18	1.92~12.39
COP		7.39~4.64	7.41~4.51	7.39~4.64	7.51~4.56	7.33~4.48	7.46~4.71
Max. Power Input (kW)		4	5.5	7.5	5.5	7.5	9
Max. Running Current (A)		18.2	25	34.1	14.5	19.7	23.7
Rated Water Flow (m³/h)		1.38	1.89	2.58	1.89	2.58	3.1
Water Pressure Drop (kPa)		37	41	41	48	68	68
Expansion Tank (L)		3	3	5	3	5	
CO2 Equivalent (Ton)		0.0023	0.0029	0.0049	0.0029	0.0049	0.0052
Wi-Fi Function		Yes					
Refrigerant weight (KG)		1.05	1.2	1.5	1.2	1.5	1.6
Sound Pressure Level dB(A) at 1m		40~55	40~56	41~56	40~56	41~56	41~56
Sound power Level dB(A) at 1m		51~67	52~68	53~68	52~68	53~68	53~68
Operation Range (°C)		-25~45					
Max. Outlet Water Temp. (°C)		75					
Water Proof Class		IPX4					
Electricity Shock Proof		CLASS I					
Water Pipe Connection (inch)		G1"					
Net weight (kg)		120	136	150	150	160	175
Net Dimensions (L×W×H) (mm)		1159× 479×875		1339 × 529 × 1480	1159× 479×875		1339 × 529 × 1480