

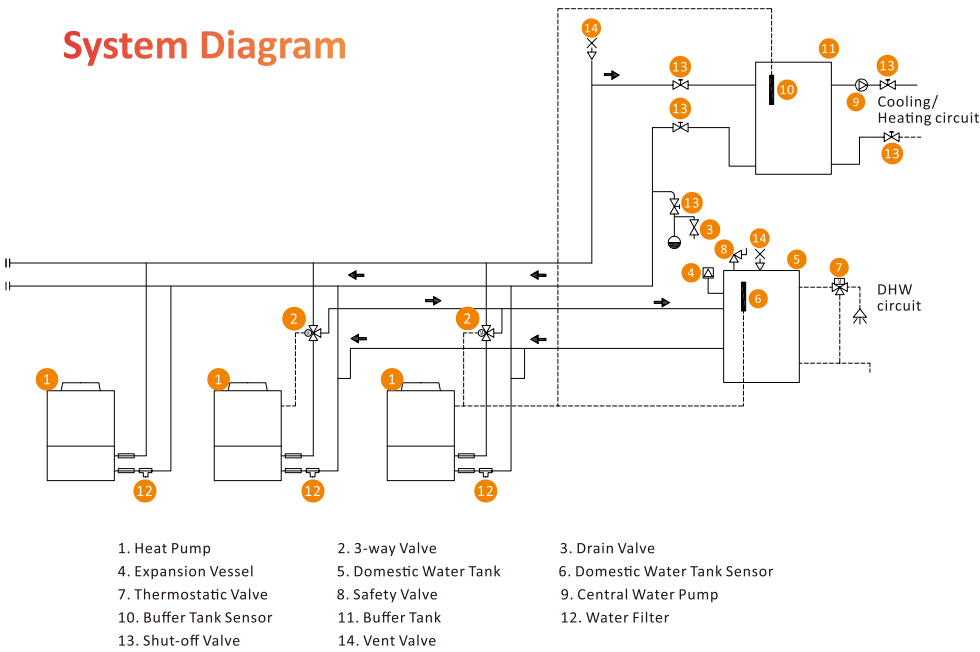
Application Scenarios

HPM-V450W/R3

Polestar series is a high-performance heat pump utilizing R290 natural refrigerant. Its cascade system offers wide-range capacity, making it ideal for large-scale commercial and industrial projects, including office building, hotel, factory, hospital, school, commercial building, etc.

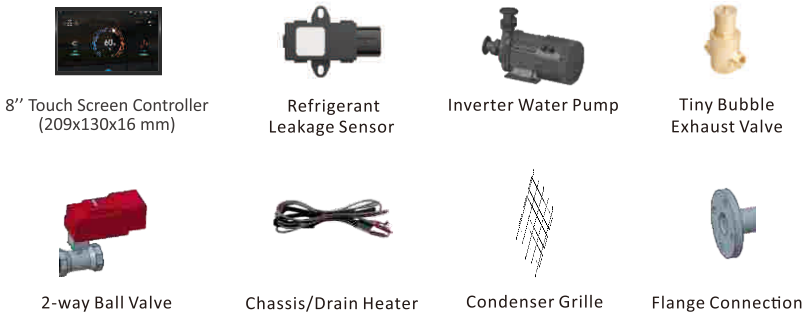


System Diagram



Note: The unit quantity for DHW production can be set from the wire controller.

Optional Parts



Specifications

Model No.			HPM-V450/SR3
Power supply		V/Ph/Hz	380~415V/3N/50Hz
Heating ¹	Capacity	kW	44
	Input	kW	10.75
	COP	W/W	4.1
Heating ²	Capacity	kW	44
	Input	kW	13.4
	COP	W/W	3.25
Heating ³	Capacity	kW	42
	Input	kW	15.2
	COP	W/W	2.8
Cooling ⁴	Capacity	kW	34
	Input	kW	12.6
	EER	W/W	2.7
Cooling ⁵	Capacity	kW	39
	Input	kW	10
	EER	W/W	3.95
SCOP(35) Average ⁶			4.6/A+++
SCOP(55) Average ⁶			3.5/A++
Sound Power Level ⁷		dB(A)	75
Sound Pressure Level(1m) ⁷		dB	59
Refrigerant	Type	/	R290
	GWP	/	3
Compressor	Type	/	Twin-Rotary
	Quantity	/	2
Fan motor	Type	/	EC motor
	Quantity	/	1
Water side heat exchanger	Type	/	Plate heat exchanger
	Material	/	316L
Water Pump (Optional)	Type	/	Built-in Inverter
	Quantity	/	1
	Rated/Max head	m	15/22
Net dimension(W×H×D)		mm	1195x980x2055
Packaged dimension(W×H×D)		mm	1250×1030×2180
Net/Gross weight		kg	390/403
Water Pipe connection		mm	Flange connection/DN50
Ambient temperature range	Cooling	℃	-5~48
	Heating	℃	-25~35
	DHW	℃	-25~43
Water outlet temperature range	Cooling	℃	5~25
	Heating	℃	25~75
	DHW	℃	20~70
Loading quantity (20GP/40HQ)		sets	10/21

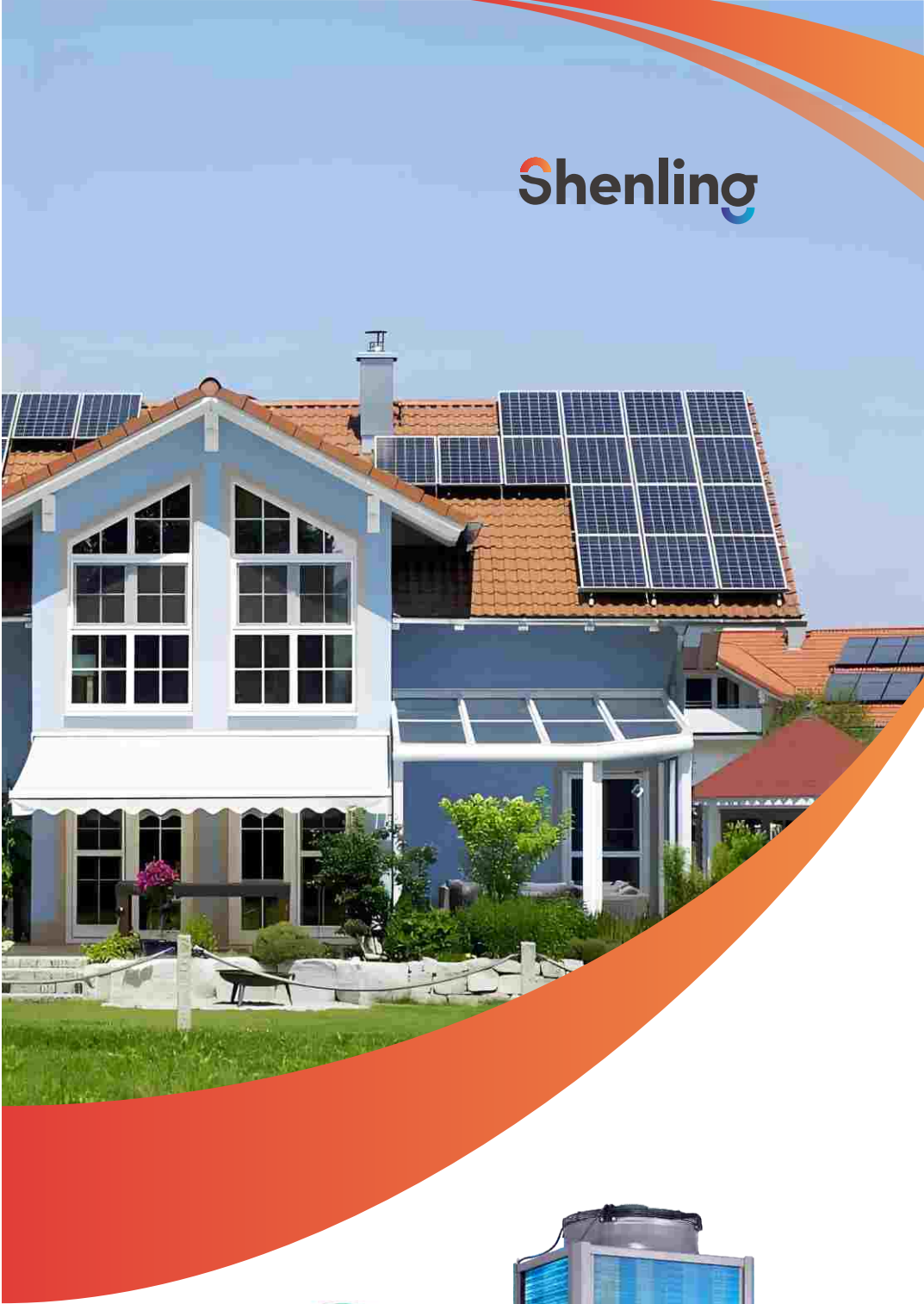
Notes:
1. Outdoor air temperature 7℃ DB, 6℃ WB; Water inlet 30℃, Water outlet 35℃;
2. Outdoor air temperature 7℃ DB, 6℃ WB; Water inlet 40℃, Water outlet 45℃;
3. Outdoor air temperature 7℃ DB, 6℃ WB; Water inlet 47℃, Water outlet 55℃;
4. Outdoor air temperature 35℃ DB; Water inlet 12℃, Water outlet 7℃;
5. Outdoor air temperature 35℃ DB; Water inlet 23℃, Water outlet 18℃;
6. Seasonal space heating energy efficiency class tests in average climate general conditions.
7. Testing standard: EN12102-1.
8. Relevant EU standards and legislation: EN14511; EN14825; (EU) No 811/2013; (EU) No 813/2013;
9. The parameters are subject to update without prior notice, please refer to the nameplate on the heat pump.

Green the Comfort

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Polestar
Air-to-Water Heat Pump

01 General Information

Polestar R290 Commercial Type

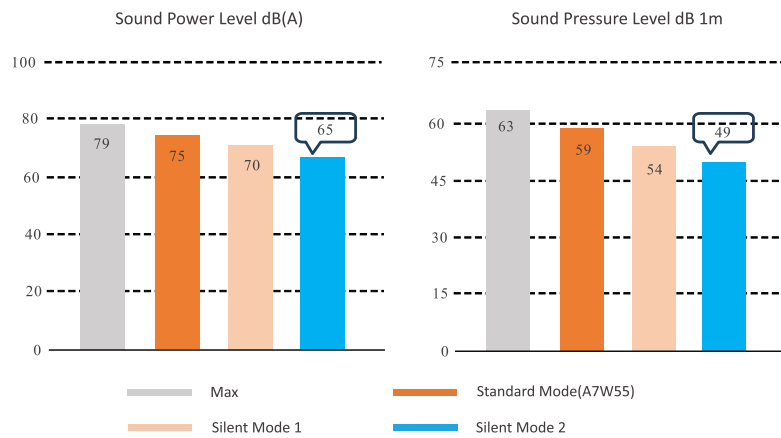
- Energy Class: **A+++** at 35°C **A++** at 55°C
- Application:



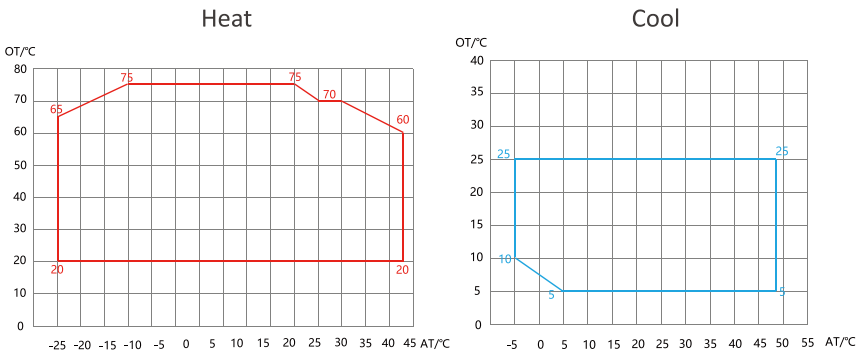
- Min. outside ambient temp. **-25°C**
- Max. water outlet temp. **75°C**
- 8" touch screen controller with Android system
- Smart weather curve
- Support WiFi & OTA
- Room management
- DHW management



02 Lower Noise Level



03 Wide Operation Range

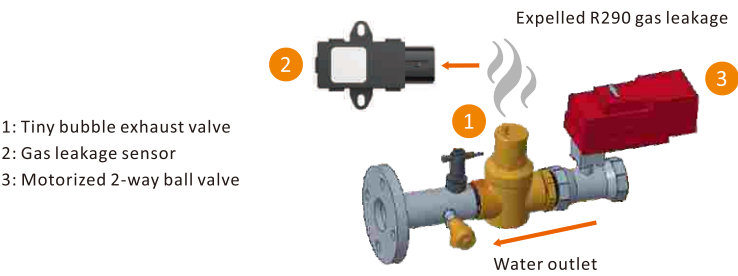


Note:
1. The maximum outdoor temperature for heating mode is 35°C, and for DHW mode, 43°C.
2. The value in the diagram is the heat pump water outlet temperature.

04 R290 Leakage Protection at Both Waterloop & Refrigerant Loop

In case of R290 leakage into water loop, R290 tiny bubbles will be swiftly captured and efficiently expelled by the exhaust valve, and meanwhile detected by the gas leakage sensor which is installed nearby, then the 2-way ball valve at outlet water loop will be activated and cut off water flow immediately.

Such precise and rapid actions can effectively prevent R290 gas flowing into the building or causing any accident, thus safety can be better ensured.



05 Modular Design Concept

Polestar series heat pump supports combination up to 16 units into a single system, offering extensive capacity up to 720 kW and versatile application scenarios.



06 Distinctive & High Reliability Components

Polestar series heat pump adopts twin-rotary DC inverter compressor, EC fan motor and stainless steel plate type heat exchanger, enhancing higher efficiency & performance with lower running vibration & noise, enabling sufficient durability and reliability, offering users more comforts.



07 Intelligent Control



8-inch Color Display

- ✓ Room Management
- ✓ Water Temp. Curve
- ✓ Fault Display
- ✓ OTA
- ✓ Silent Mode
- ✓ Timer
- ✓ System Management
- ✓ WiFi function

* Android system, support WiFi, RS485, etc.

8" Touch Screen Controller (209x130x16 mm)

4G DTU(OTA)

