



Residential Heat Pump —**EcoLITE Series**

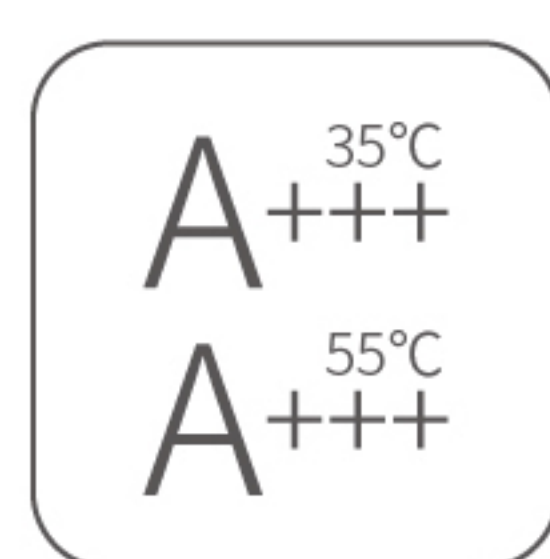


Residential Heat Pump

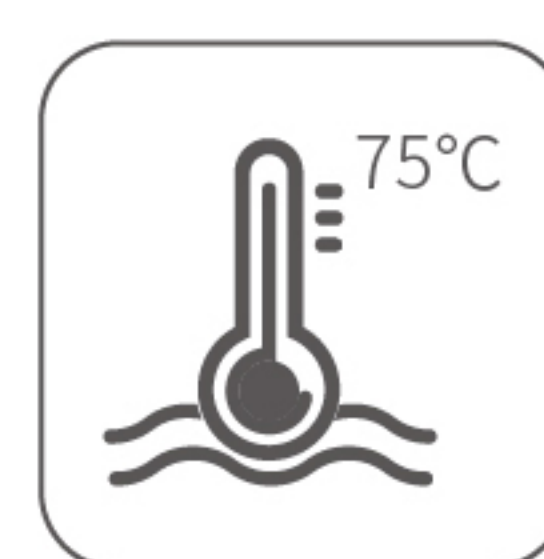
EcoLITE Series



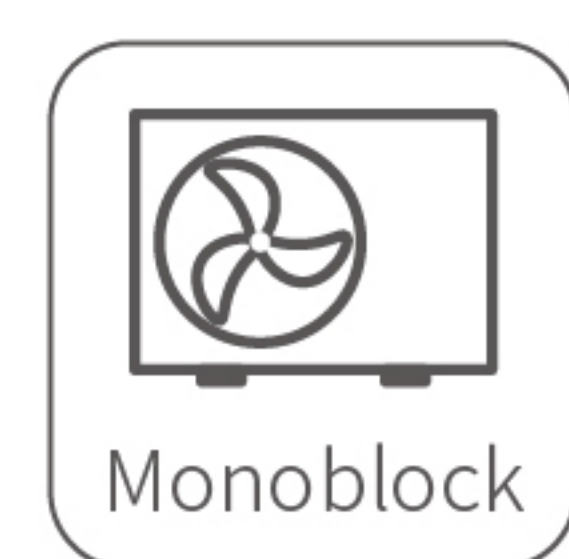
R290 ECO
refrigerant



A+++ energy
label



High water outlet
temperature 75°C



Easier installation, no
refrigerant piping
connections required

The EcoLITE is a highly cost-effective air-to-water heat pump with an outstanding A+++ energy efficiency rating at both 35° C and 55° C. It delivers energy savings, comfort, and easy installation, while providing comprehensive solutions for heating, cooling, and domestic hot water. With intuitive smart app features, users can connect remotely for device control and intelligent after-sales support, bringing exceptional convenience to everyday life.



High-Quality Components, Exceptional Performance

The EcoLITE is built with premium components to ensure an efficient, reliable, and quiet heating experience.



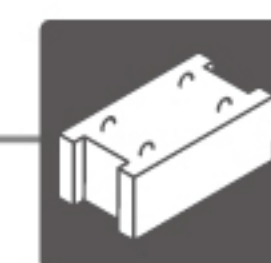
High-Efficiency, Low-Resistance Evaporator

Our unique design maximizes heat exchange for superior energy efficiency.



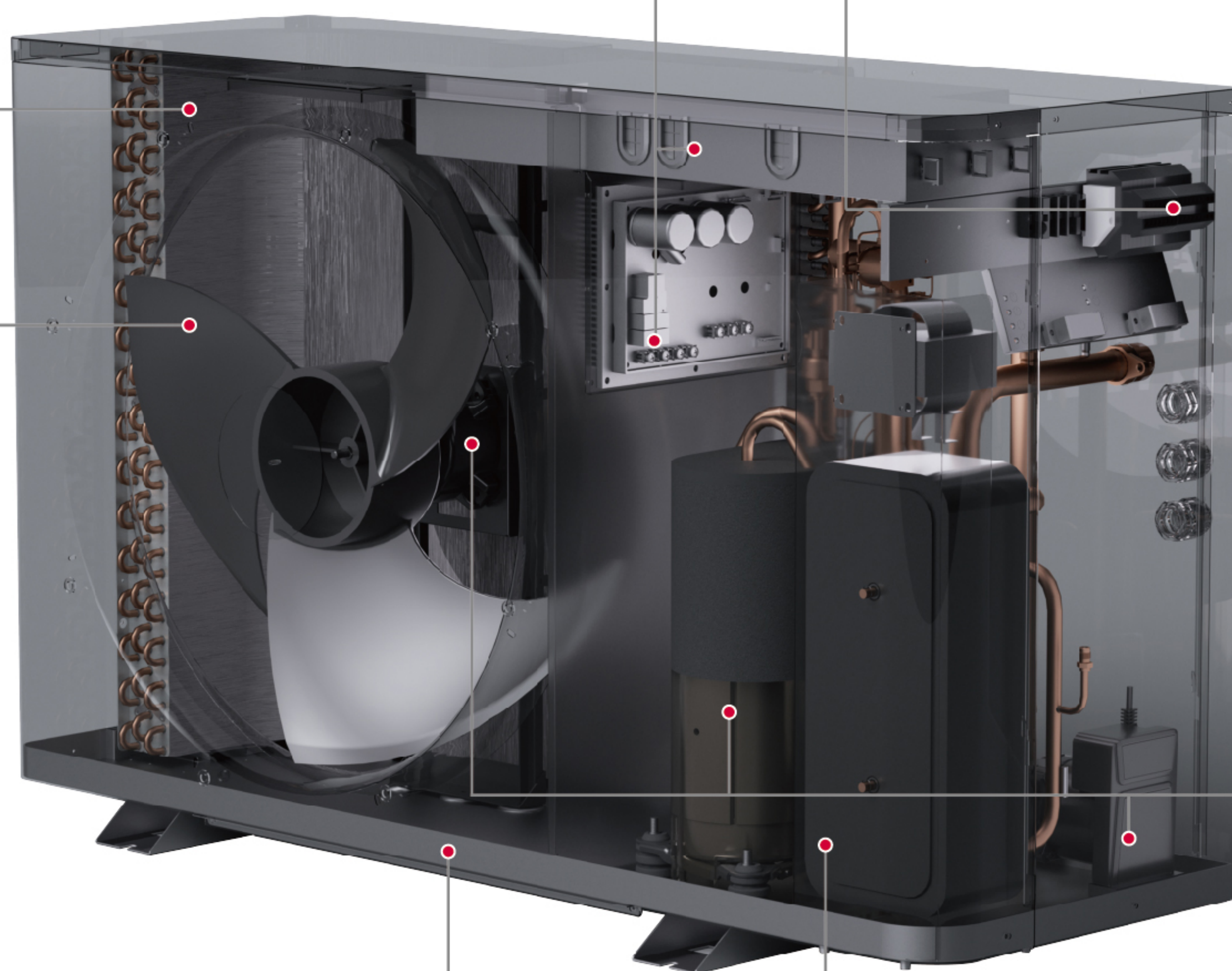
Reliable Electronic Control

We use stable and durable electronic components to guarantee long-term, reliable operation.



Side-Mounted Terminal Block

A convenient design that allows for quick and easy wiring.



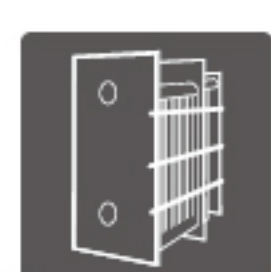
Large-Diameter, Low-Noise Fan

Optimized using CFD simulation to reduce air resistance and noise, providing you with a quieter home.



Smart Anti-Freeze Drip Tray

The built-in smart heating function prevents ice buildup, ensuring smooth drainage even in harsh winter conditions.



High-Quality Plate Heat Exchanger

Its compact size and high efficiency ensure stable and robust system performance.



Full DC Inverter Technology

Key system components are fully DC inverter-driven for high-efficiency performance throughout the year.

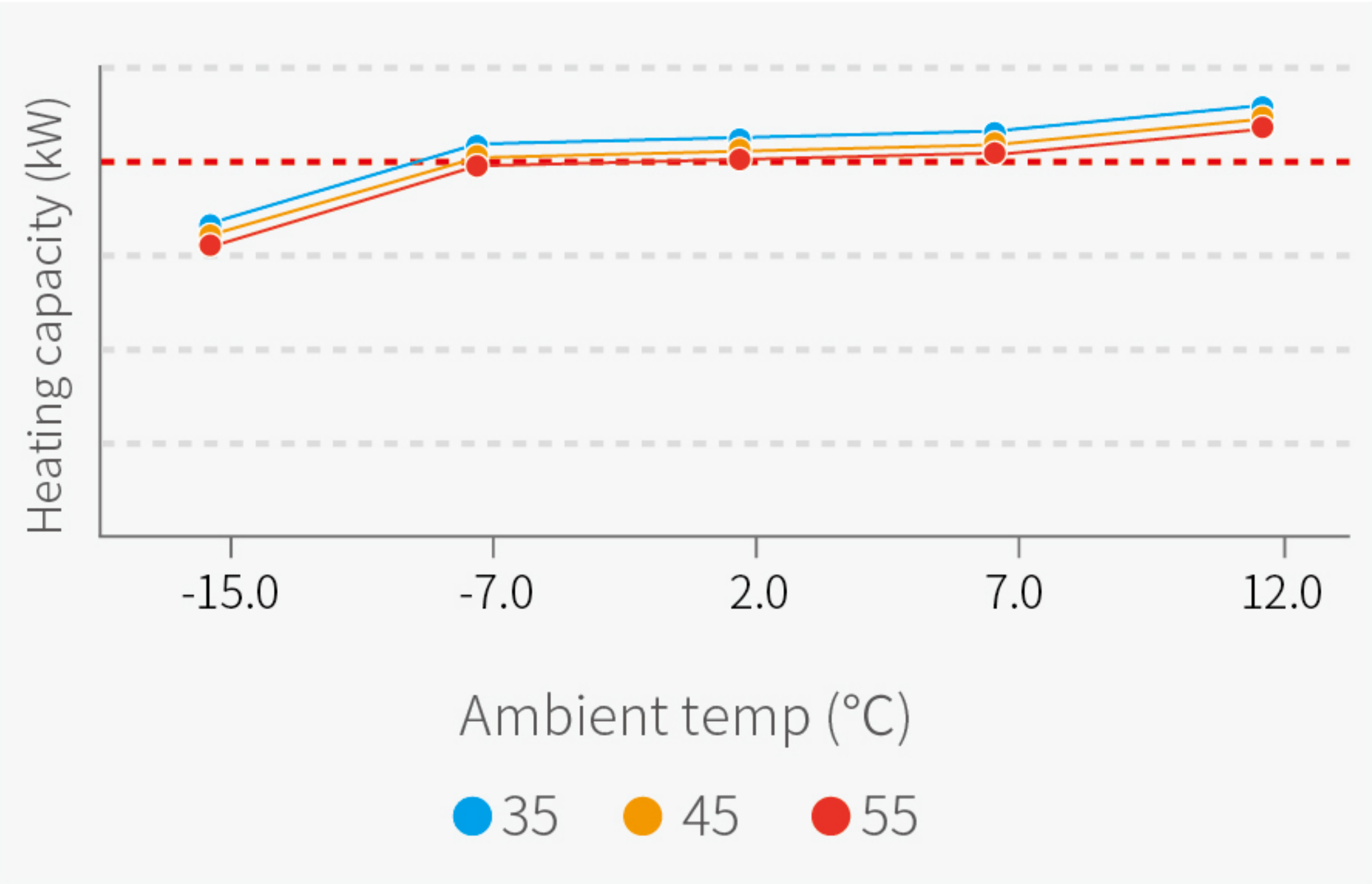
DC Inverter Compressor: Precisely adjusts heating output for maximum energy savings.

DC Inverter Fan Motor: Automatically adjusts speed based on operating conditions for quiet and efficient performance.

Built-in DC Inverter Pump: Simplifies installation and makes parallel unit connection easier.

Exceptional Performance in Extreme Conditions

Designed and tested for rigorous real-world scenarios and extreme conditions, EcoLITE ensures outstanding performance even at very low temperatures.



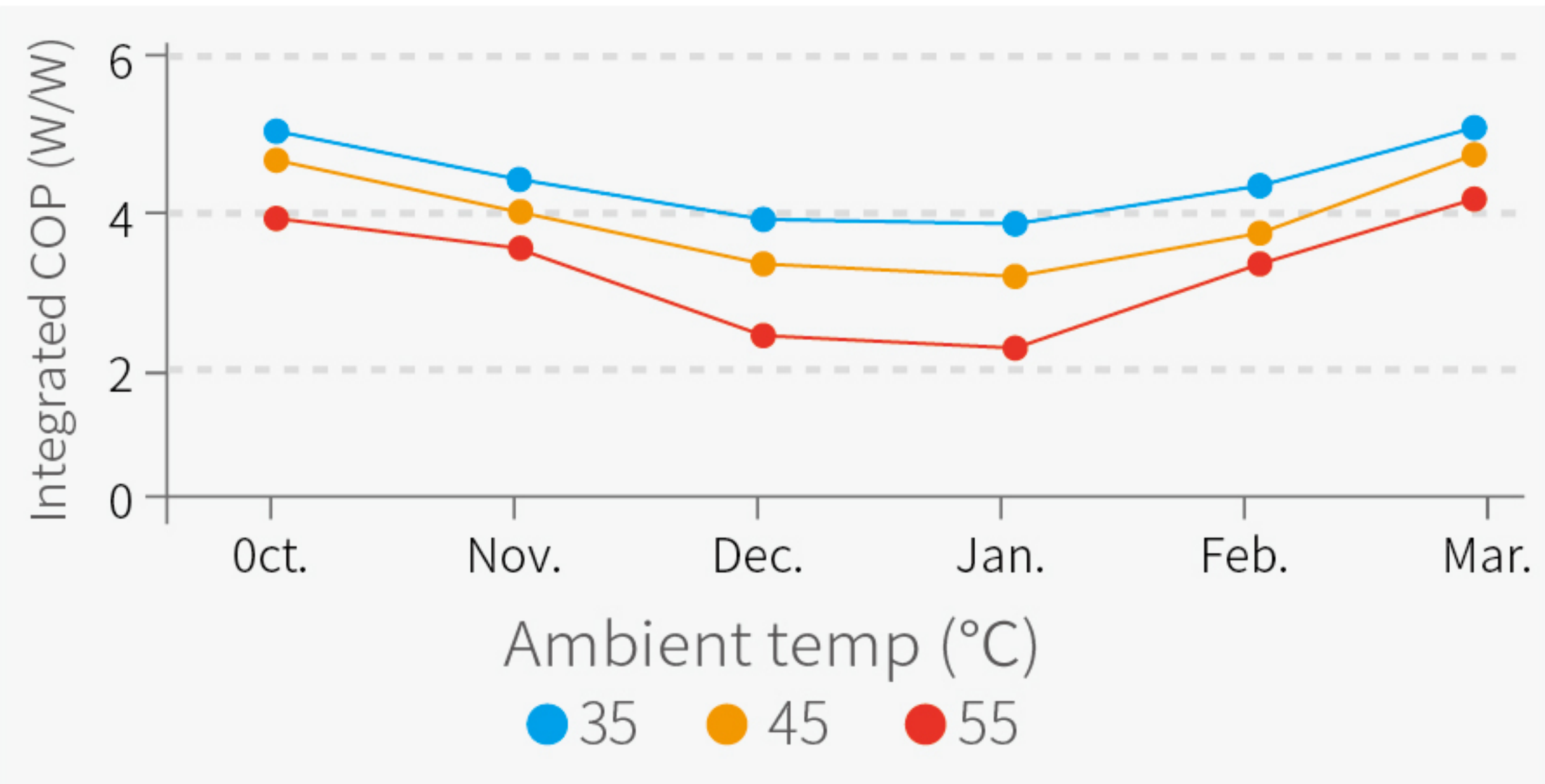
Integrated Solution for Total Home Comfort

EcoLITE offers an integrated solution capable of supporting dual-zone systems with multiple terminal units requiring different water temperatures, all while providing domestic hot water for complex application scenarios.



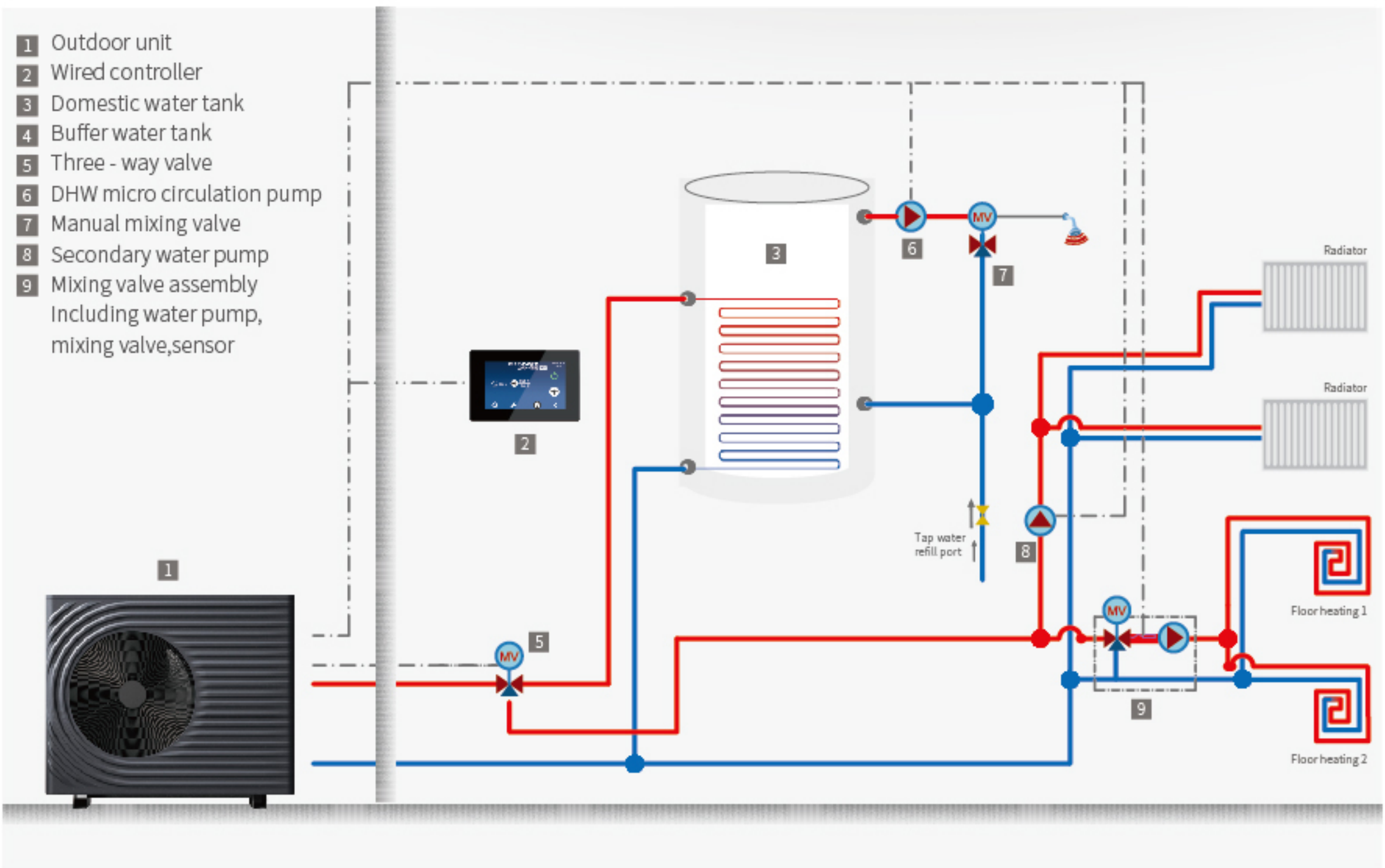
Industry-Leading Energy Efficiency

With a market-leading SCOP of up to 5.0, EcoLITE aligns with green energy trends, delivering significant cost savings for users.



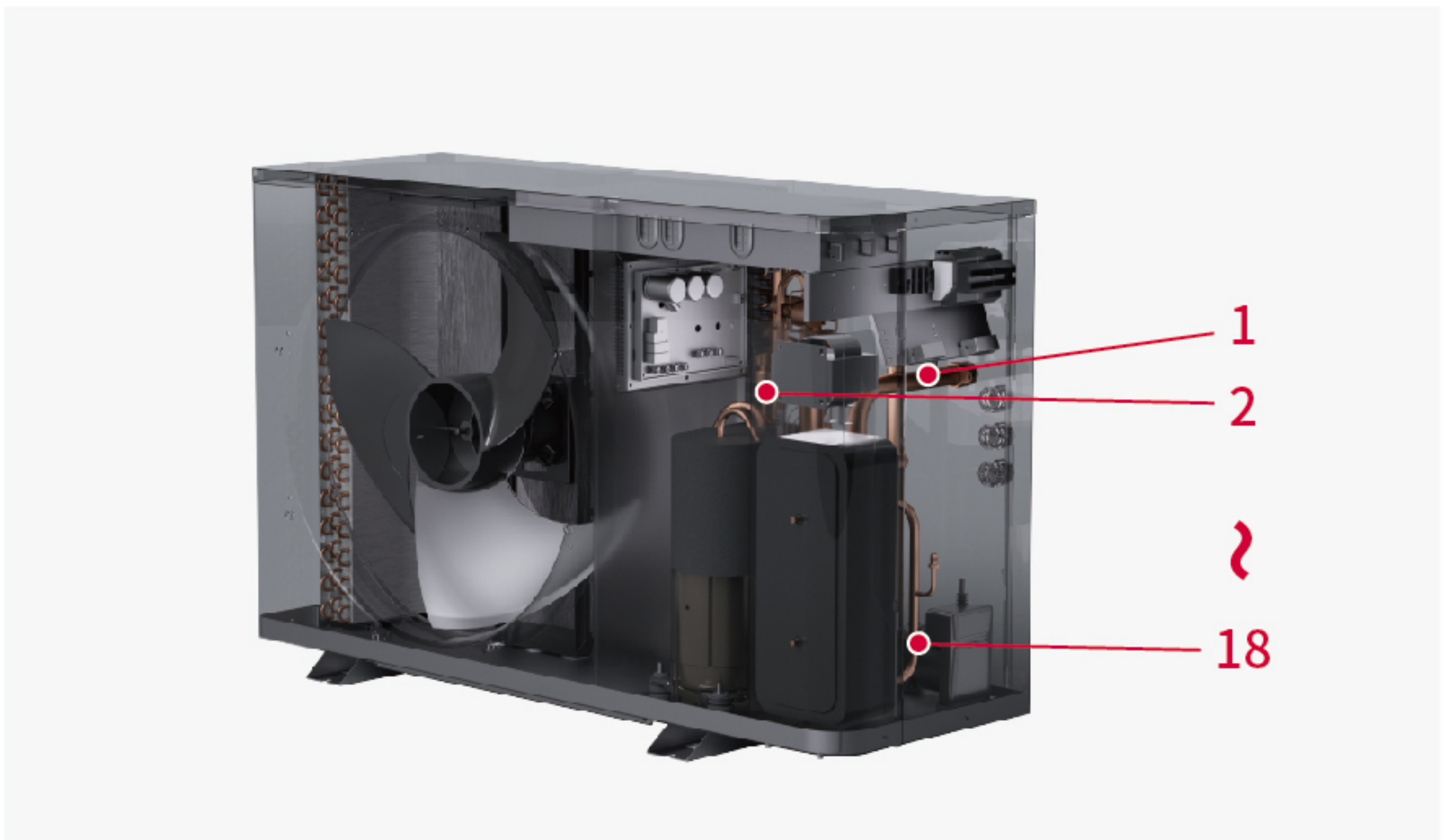
Intelligent Control for Cost Savings

Leveraging Amitime's unique real-time inverter control technology and steady-state operation design, EcoLITE dynamically adjusts its output based on system parameters and water temperature trends. Some installations can even eliminate the need for a buffer tank, significantly reducing initial investment costs.



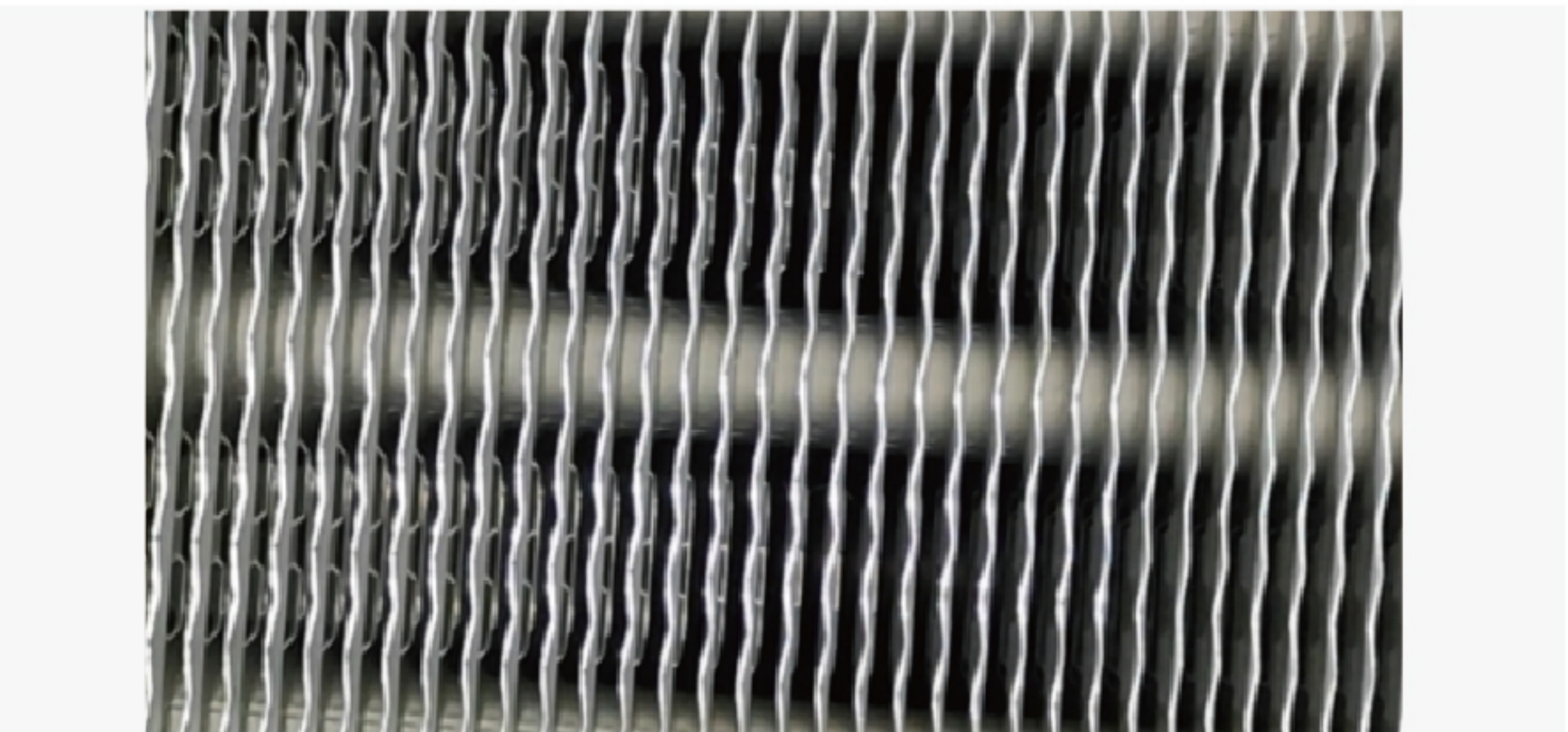
Precise Sensing for Stability and Reliability

Equipped with up to 18 high-precision sensors, EcoLITE continuously monitors the unit's operating status. Accurate sensing not only ensures real-time, on-demand adjustments but also forms a solid foundation for safe, stable, and reliable operation.



Innovative Fin Design for Enhanced Heat Exchange

Amitime's pioneering evaporator fin ripple design optimizes airflow contact, increasing heat exchange efficiency by 30% within the same footprint for superior thermal performance.



Amitime meticulously researches every noise source and pays close attention to every critical detail in our design process. We are committed to achieving ultimate quietness, providing you with a serene and enjoyable user environment.

Multi-layer noise reduction technology ensures outstanding quiet operation.

The Art of Silent Airflow

Low-Resistance, Wide-Fin Heat Exchanger

Reduces airflow resistance, thereby lowering fan noise.

Simulated Optimization

Eliminates internal air chamber vortexes, reducing airflow noise.

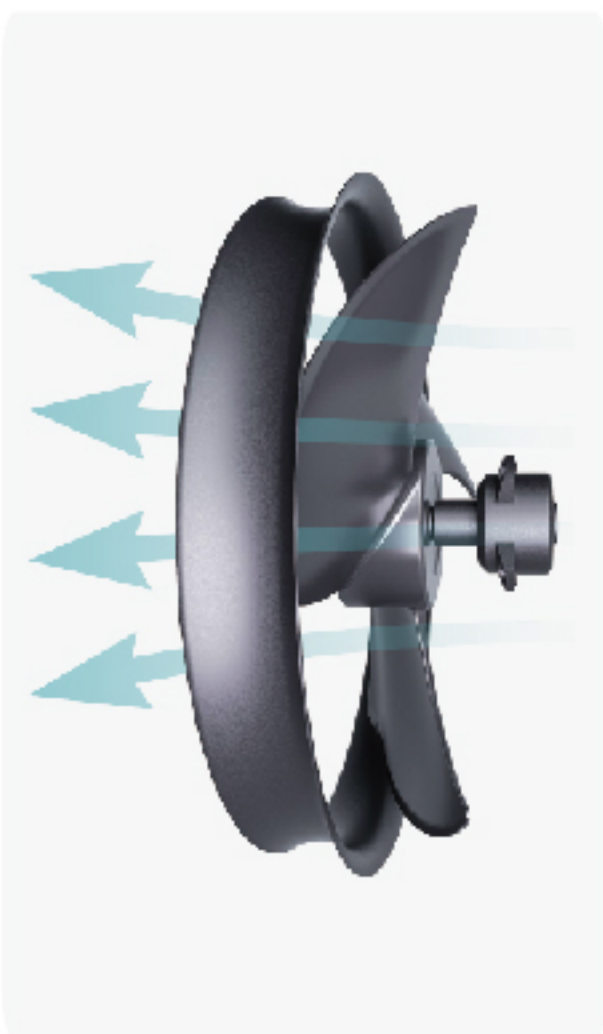


Anti-Resonance Motor Bracket (Reverse C-Type Design)

Follows airflow direction to minimize resonance.

High-Efficiency Low-Noise DC Motor

Specifically tuned to suppress low-frequency noise for smooth operation.

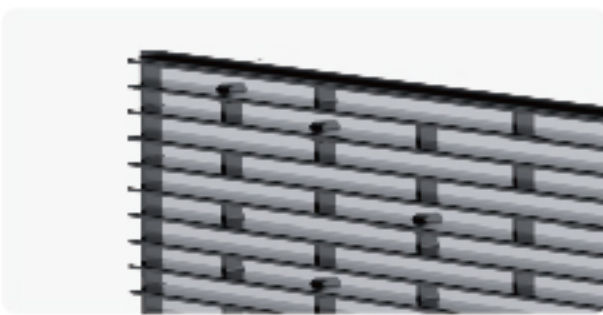


Large-Diameter, Sharp-Edged Silent Fan Blades

These blades are designed with sharp edges to cut high-speed airflow efficiently. This action effectively reduces air resistance and creates smoother, more orderly airflow, thereby significantly lowering noise.

Streamlined Airflow Path Design

Precisely matches the guide ring bell mouth with fan blades for smooth air guidance.



Biomimetic Grille Design

Further optimizes airflow and reduces noise.

Low-Noise Compressor Operation



Composite Acoustic Enclosure

Polyester fiber and butyl rubber composite material completely wraps the compressor, absorbing sound and damping vibration to effectively block full-spectrum noise from low to mid-high frequencies.

Vibration-Damping Rubber Feet

Further isolate vibration transmission and reduce structural noise.

EcoLITE Sound Pressure Level		at 1m	at 3m	at 5m
EcoLITE 08M	dB(A)	39	31	26
EcoLITE 12M	dB(A)	41	34	29
EcoLITE 15MT	dB(A)	42	35	30

Notes:

- 1. Noise values in the table are evaluated per EN 12102 (nominal A7/W55).
- 2. The picture below is an example for Model EcoLITE 08M.

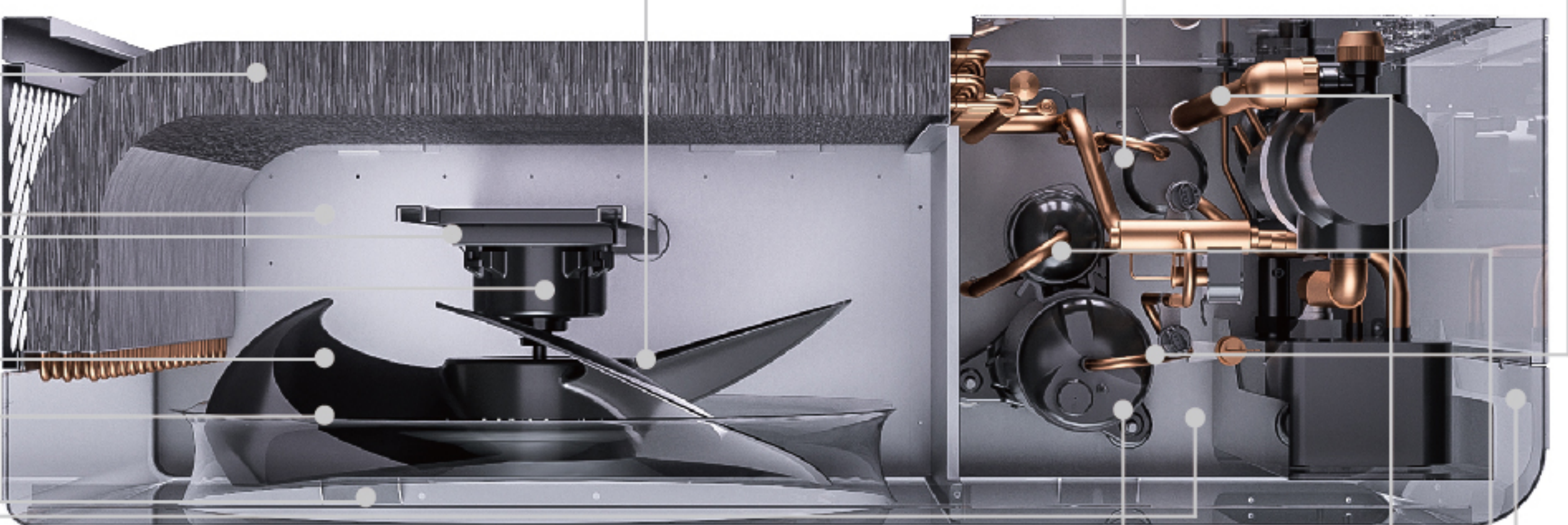
Noise Sources: **Fan and airflow**

Noise in air chamber area: 55 dB(A)

Noise Source: **Compressor**

Noise inside the chamber: 69 dB(A)

Noise near compressor: 51 dB(A)



46 dB(A)

42 dB(A)

39 dB(A)
at 1m distance

31 dB(A)
at 3m distance

26 dB(A)
at 5m distance

Comprehensive Quiet Operation

Optimized Expansion Valve

Eliminates abnormal "whistling" sounds caused by refrigerant flow.

Pipework Vibration Damping Design

Optimizes pipe layout to reduce vibration transmission.

360° All-Round Vibration & Sound Absorption

The unit's interior is lined with polyester fiber + PVC material, providing comprehensive absorption and suppression of noise.



Smart Noise Reduction Mode

Users can select and activate an active noise reduction function via the controller for a more personalized quiet experience.

Smart Cloud Connectivity & Remote Monitoring

Leveraging its built-in Wi-Fi module, the EcoLITE's touchscreen controller easily connects to the cloud server. This enables users to remotely monitor the device via a dedicated APP anytime, anywhere, offering unparalleled convenience and control.



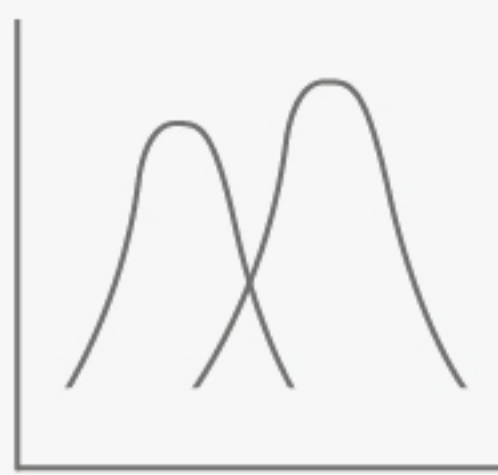
Connected Service, Elevated Support

Leverage advanced connectivity for smarter, more convenient after-sales service.



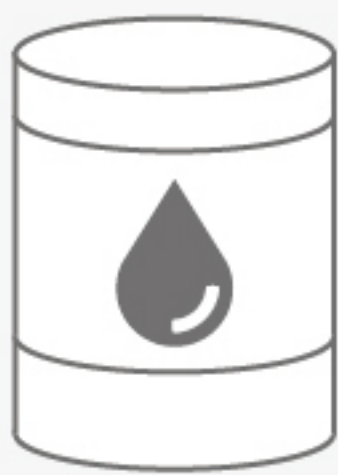
Smart Touch, Seamless Control

The EcoLITE features a user-friendly 4.3-inch TFT HD color touchscreen with a crisp 480*800 resolution. Its fast response and intuitive interface ensure a smooth user experience. With an integrated Wi-Fi module, your heat pump unlocks a range of smart functions, offering effortless control from anywhere.



Dual heating/cooling curves

Design the ideal temperature curves as you wish and precisely adjust the high and low temperature water systems



DHW storage

Timer and priority management for sanitary hot water, with anti-legionella function



ECO use for electric heater

Two-stage control and special logic to activate/stop electric heater, balancing comfort and energy saving



Real-time COP

Monitor power consumption, output, and COP in real time with clear energy efficiency data



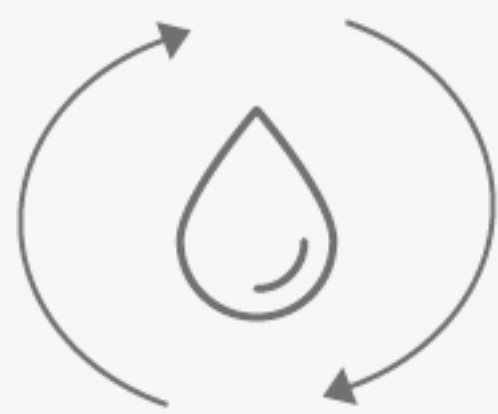
SG-Ready

Intelligently select the most cost-effective solution based on the signals provided by the power grid in peak and off-peak time



Multi-language support

Compatible with multiple European languages, ensuring easy understanding and operation for both technicians and end-users



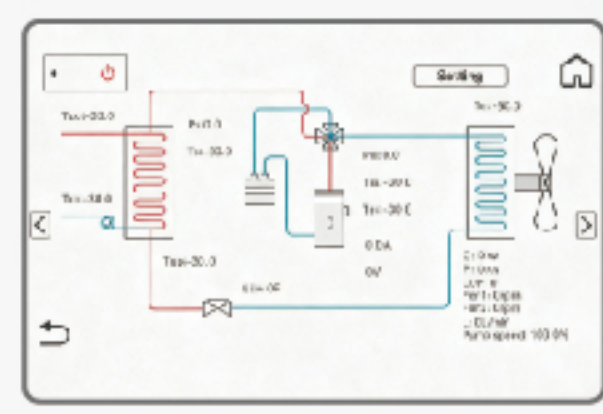
Smart defrosting

Sophisticated algorithms take into account ambient temperature, coil temperature and defrosting time



OTA upgrades

Support online upgrades for the heat pump's control program and EEPROM, keeping your device performing at its best



Intuitive system diagram

Clearly display all operating status parameters at a glance, enabling users to quickly grasp the device's performance and get started with ease

Technical Data

Model				EcoLITE 06M-FM	EcoLITE 08M-FM	EcoLITE 12M-FM	EcoLITE 15MT-FM
Seasonal Energy (According to EN14825)							
ErP Data	Energy Class-Heating (35°C/55°C)		-	A+++/A+++	A+++/A+++	A+++/A+++	A+++/A+++
	SCOP (35°C/55°C)		W/W	4.81/3.85	5/3.93	5.19/4.05	5.05/3.93
	Rated Heat Output (Prated) (35°C/55°C)		kW	5/4	7/6	10/9	14/13
	Seasonal Space Heating Efficiency (ηs) (35°C/55°C)		%	189/150	197/154	205/159	199/154
	Annual Energy Consumption (35°C/55°C)		kWh	2120/2301	2892/3155	4030/4405	5560/6671
	Sound Power Level		dB(A)	50	52	52	56
Nominal Capacity and Nominal Input							
Nominal Heating	Heating Capacity Min./Max.	A7/W35	kW	2.1/6.2	2.6/9.39	2.7/11.7	4.5/15.5
	Heating Power Input Min./Max.		kW	0.43/1.37	0.5/1.97	0.56/2.85	0.84/3.35
	COP		W/W	4.97/4.57	5.05/4.76	4.72/4.1	5.36/4.62
	Heating Capacity Min./Max.	A7/W45	kW	1.8/5.8	1.7/9.06	2.5/11.2	3/14.8
	Heating Power Input Min./Max.		kW	0.53/1.59	0.65/2.33	0.69/3.34	1.12/3.93
	COP		W/W	3.49/3.68	2.57/3.88	3.62/3.36	2.66/3.77
Nominal Cooling	Cooling Capacity Min./Max.	A35/W18	kW	2.8/5.5	3.8/7.7	4.6/13.5	9.7/16.5
	Cooling Power Input Min./Max.		kW	0.53/1.33	0.67/1.84	0.8/3.13	1.75/3.95
	EER		W/W	5.39/4.11	5.66/4.16	5.68/4.3	5.54/4.18
	Cooling Capacity Min./Max.	A35/W7	kW	0.8/3.58	2.6/6.1	3/9.7	5.3/12.1
	Cooling Power Input Min./Max.		kW	0.53/1.24	0.68/1.76	0.98/3.04	1.42/3.83
	EER		W/W	1.54/2.89	3.73/3.47	3.05/3.2	3.75/3.17
General Information							
Electrical Data	Power Supply		V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	380-415/50/3
Operation Limits	Ambient Temperature Range		°C	-25~43	-25~43	-25~43	-25~43
	Water Temperature Range (Heating)		°C	75/20	75/20	75/20	75/20
	Water Temperature Range (Cooling)		°C	25/7	25/7	25/7	25/7
Components	Refrigerant	Type/Amount	-/kg	R290/0.45	R290/0.85	R290/1	R290/1.4
	Compressor	Type		Twin-Rotary	Twin-Rotary	Twin-Rotary	Twin-Rotary
	Fan	Quantity		1	1	1	1
		Airflow	m³/h	2850	3280	5000	6500
		Rated Power	W	62	85	200	350
Water Side	Heat Exchanger	Type		Plate Heat Exchanger			
	Piping Connection			G1"	G1"	G1"	G1-1/4"
	Allowable Water Flow-Min./Rated/Max.		L/s	0.2/0.27/0.37	0.26/0.39/0.46	0.34/0.57/0.68	0.5/0.72/0.86
Physical Specifications	Net Dimensions (L*D*H)	Outdoor Unit	mm	1010*370*700	1151*397*727	1204*480*971	1295*465*1035
	Net Weight	Outdoor Unit	kg	73	95	120	143

Specifications are subject to change without prior notice. For the actual specifications, please refer to the label on the unit.

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