

Air to Water Heat Pump



Solax Thermal R290 Series



High Performance

- Integrated with PV and ESS to maximize green energy self-consumption
- SCOP level: A+++
- Maximum leaving water temperature of 80°C



Eco-Friendly

- R290 natural refrigerant, low GWP and a low-carbon lifestyle
- Extremely quiet operation with low noise level



Flexibility

- Available in 5 capacity sizes (8 to 16 kW), suitable for renovations and large new buildings
- Highly interoperable, SG ready, Modbus TCP/RTU supported
- Heating + Cooling + Domestic Hot Water (DHW)



Intelligent Control

- Smart App control supports remote monitoring, operation, and OTA updates
- Brushless DC motor enables stepless speed regulation

Power supply		220 ~ 235 V / 1N~ / 50 Hz					380 ~ 415 V / 3N~ / 50 Hz				
Heating (A: 7 / 6°C W: 30 / 35°C)	Capacity	8.5 kW	10 kW	12.5 kW	14 kW	15.5 kW	8.5 kW	10 kW	12.5 kW	14 kW	15.5 kW
	COP	5.15	4.95	4.90	4.75	4.55	5.15	4.95	4.90	4.75	4.55
Heating (A: 7 / 6°C W: 47 / 55°C)	Capacity	8 kW	10 kW	12 kW	14 kW	16 kW	8 kW	10 kW	12 kW	14 kW	16 kW
	COP	3.45	3.25	3.25	3.15	3.10	3.45	3.25	3.25	3.15	3.10
Cooling (A: 35°C W: 23 / 18°C)	Capacity	8.5 kW	10 kW	12 kW	14 kW	15.5 kW	8.5 kW	10 kW	12 kW	14 kW	15.5 kW
	EER	5.20	4.70	4.70	4.50	4.35	5.20	4.70	4.70	4.50	4.35
Cooling (A: 35°C W: 12 / 7°C)	Capacity	8 kW	9 kW	12 kW	13 kW	14 kW	8 kW	9 kW	12 kW	13 kW	14 kW
	EER	3.40	3.20	3.10	3.05	2.75	3.40	3.20	3.10	3.05	2.75
Seasonal space heating energy efficiency class ^①	LWT at 35°C	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
	LWT at 55°C	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
SCOP ^②	LWT at 35°C	5.42	5.35	4.97	4.89	4.84	5.42	5.35	4.97	4.89	4.84
	LWT at 55°C	4.16	4.15	3.88	3.83	3.83	4.16	4.15	3.88	3.83	3.83
Electric heat power input		9 kW	9 kW	9 kW	9 kW	9 kW	9 kW	9 kW	9 kW	9 kW	9 kW
Compressor		Rotary DC inverter									
Outdoor fan	Motor type	Brushless DC motor									
	Number of fans	1	1	1	1	1	1	1	1	1	1
Throttle type		Electronic expansion valve									
Air side heat exchanger	Type	Finned tube									
Water side heat exchanger	Type	Plate type									
Refrigerant	Type / GWP	R290 / 3									
	Charged volume	1.1 kg	1.1 kg	1.5 kg	1.5 kg	1.5 kg	1.1 kg	1.1 kg	1.5 kg	1.5 kg	1.5 kg
Sound power level ^③		53 dB(A)	54 dB(A)	55 dB(A)	57 dB(A)	59 dB(A)	53 dB(A)	54 dB(A)	55 dB(A)	57 dB(A)	59 dB(A)
Dimensions (W × H × D)		1310 × 1050 × 465 mm									
Weight		140 kg	140 kg	150 kg	150 kg	150 kg	150 kg	150 kg	160 kg	160 kg	160 kg
Piping connection		G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"	G1 - 1/4"
Operation range	Heating	-25 ~ 35°C									
	Cooling	5 ~ 48°C									
	DHW	-25 ~ 46°C									
Water outlet		5 ~ 80°C									

① Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02

② Seasonal space heating energy efficiency class tests in average climate conditions

③ Sound power level test condition: EN12102-1

Indoor Unit



Control Unit

Includes a centralized control unit for space heating, cooling, and domestic hot water; suitable for households with existing or self-installed hydraulic circuits and domestic hot water tanks.



Hydraulic Unit

Includes a centralized control unit for space heating, cooling, and domestic hot water, plus a hydraulic distribution module; suitable for households with existing or self-installed domestic hot water tanks.



Hydraulic Integrated Unit

Fully integrated all-in-one system, featuring a centralized control unit for space heating, cooling, and domestic hot water, a hydraulic distribution module, and a built-in domestic hot water tank. Ideal for new installations or households requiring an upgrade in domestic hot water tank capacity.

*Terminal components such as underfloor heating systems, fan coil units, radiators, and associated piping must be provided separately by the user or installer.

Control Unit

STN1-C01

STN3-C01

Power supply	220 ~ 235 V / 1N~ / 50 Hz	380 ~ 415 V / 3N~ / 50 Hz
Rated current	0.05 A	
User interface	4 inch high-resolution touch panel	
Communication	WiFi / Ethernet / RS485	
Installation	Wall-mount	
Dimensions (W x H x D)	340 x 400 x 80 mm	
Weight	7.5 kg	

Hydraulic Unit

STN1-C02

STN3-C02

Power supply	220 ~ 235 V / 1N~ / 50 Hz	380 ~ 415 V / 3N~ / 50 Hz
Rated current	42 A	14 A
User interface	4 inch high-resolution touch panel	
Communication	WiFi / Ethernet / RS485	
Backup heater	Capacity combination	3.0 kW + 6.0 kW
	Power supply	220 ~ 235 V / 1N~ / 50 Hz
	Rated running current	42 A
Expansion tank size	8 L	
Piping connections (water)	(G1) / (G1-1/4)*	
Recommended circuit breaker	63 A	25 A
Installation	Wall-mount	
Dimensions (W x H x D)	420 x 700 x 265 mm	
Weight (empty)	35 kg	

*G1 connects to indoor water pipe, G1-1/4 connects to outdoor unit water outlet

Hydraulic Integrated Unit

STN1-C03

STN3-C03

Power supply		220 ~ 235 V / 1N~ / 50 Hz	380 ~ 415 V / 3N~ / 50 Hz
Rated current		42 A	14 A
User interface		4 inch high-resolution touch panel	
Communication		WiFi / Ethernet / RS485	
Backup heater	Capacity combination	3.0 kW + 6.0 kW	
	Power supply	220 ~ 235 V / 1N~ / 50 Hz	380 ~ 415 V / 3N~ / 50 Hz
	Rated running current	42 A	14 A
Expansion tank size		18 L + 8 L	
DHW tank size		190 L	
Piping connections (water)		(G1) / (G1-1/4)*	
Recommend circuit breaker		63 A	25 A
Installation		Floor stand	
Dimensions (W × H × D)		595 × 1875 × 700 mm	
Weight (empty)		180 kg	

*G1 connects to indoor water pipe, G1-1/4 connects to outdoor unit water outlet

Solution Diagram

