

ES Air/Water Heat Pumps

ES 8–15 kW R290 Monobloc Series

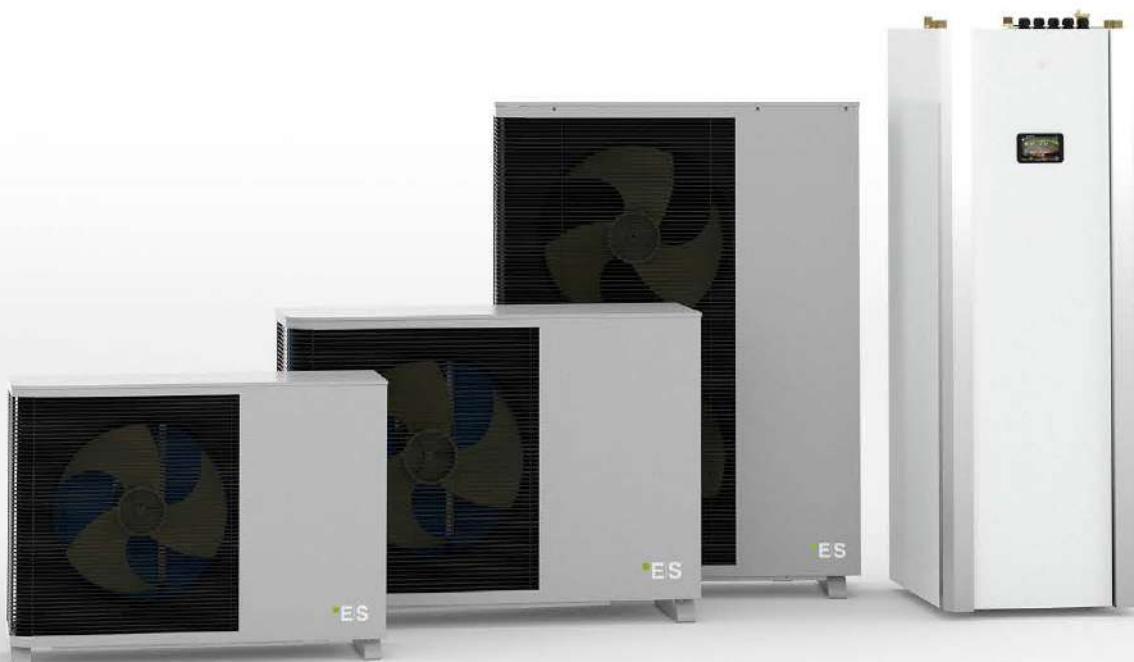
Economic and effective air-to-water heat pump, designed for a Nordic climate

- 8, 12 and 15 kW heating capacity
- 250-liter domestic hot water storage tank
- A+++ heating efficiency
- Environmentally friendly refrigerant: GWP 3
- User-friendly touch display
- Internet connectivity, monitor your heating through your mobile
- High heating water output temperatures: up to 70°C
- Two different temperature zones
- Automatic restart in case of power failure
- Operates in conditions down to -25°C
- Low noise outdoor unit
- Anti-freeze protection device
- Control for back-up heating systems
- Monobloc, no F-gas certification required
- Built in backup heater for heating/hot water
- High quality components
- Short payback time
- KEYMARK certified



User-friendly touch screen interface

The interface enables quick adjustment of all temperature settings directly from the front page. The software also supports variable temperature settings (curve) for both heating and cooling.



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ES Air/Water heat pumps ES M R290 series converts energy from the outdoor air to heat and domestic hot water.

By utilizing the energy from outdoor air, you can reduce your energy bills in an eco-friendly way. ES M R290 is designed to replace or supplement an existing heat source or for new installations and will typically reduce your energy consumption from 60–80%. The indoor unit has a stylish design to fit into a modern home. All connections are easily accessible at the top of the unit. Provides maximum energy savings and quiet operation. All ES M R290 series are rated A+++ when used in low temperature systems and A++ in high temperature systems.

Control system

The unit is a complete heating/cooling/hot water central within 60x65 cm floor area. The built-in 250 liter tank provides enough hot

water for most households. Large tap profile and high efficiency reduces the cost of a shower by 60–70%. It has safety valve kit, 11 liter expansion, power full class A water pump that can run most villa heating systems, thermostatic hot water mixing valve. Weather compensated water temperature setting combined with internal room sensor provides you with all needed temperature control suitable for most buildings.

Increase your savings

The control system automatically changes between operation mode based on your settings. You can optimize the running based on your household logistics, like store more hot water when electricity prices are low, lower the temperature when no one are home in different periods every day, 7 days a week. It is also preserved for utility operation from your network provider, that can control the

heat pump and balance the available power in the network.

Simple and cost-effective installation

A monobloc system has a closed refrigerant circuit and a heat exchanger. The outdoor unit can be connected directly to the heating system – no refrigeration technicians needed during installation. The automatic and self-learning defrost function, combined with the nanocoated evaporator, reduces defrosting time to a minimum and increases the efficiency. Different heating systems require different temperatures, e.g. floor heating and radiators. ES M R290 have the possibility to set two heating curves if you have two different heating systems in your home. If the temperature drops, the heat pump changes the operating status and starts the production of hot water. If additional power is required, the integrated electric heaters will be used as back-up.

		ES M8 R290	ES M12 R290	ES M15 R290
Min/max heating capacity (1)	kW	3.1–9.5	3.8–12	5.6–16.5
El. power input in heating min/max (1)	W	585/2,089	900/3,065	1,120/4,170
COP min/max (1)	W/W	4.55/5.1	3.92/4.8	3.98/5.05
Min/max heating capacity (2)	kW	2.7/9.0	3.7/ 11.0	5.3/15.5
El. power input in heating min/max (2)	W	725/2,400	1,100/3,350	1,370/4,770
COP min/max (2)	W/W	3.75/4.0	3.28/3.7	3.25/3.85
SCOP – Average climate, low temperature	W/W	4,73	4,72	4,72
Min/max cooling capacity (3)	kW	2.4 / 8.0	5.0/10.2	6.9/13.2
El. power input in cooling min/max (3)	W	765/2,100	1,400/2,840	1,540/3,650
E.E.R. min/max (3)	W/W	3.80/4.0	3.6/3.9	3.65/4.4
Energy class, average, low temp.		A+++	A+++	A+++
Defrost upon demand			Yes	
Heating cable for defrosting			Yes	
DHW tank	Type/volume	SUS316 Steel, DHW storage type/250 liter		
Compressor pre-heat			Yes	
Electronic expansion valve			Yes	
ErP approved circulation pump	Manufacturer	Wilo		Grundfos
	Type	Para 25-130/9-87/IPWM1		UPMXL GEO 25-125 130P PWM
	ErP classification	≤ 0.21		< 0.23
	Flow sensor	HuBa TYPE-236 DN25 G1-1/2		
Compressor	Manufacturer	Highly		
	Manufacturer	Nidec		
Fan	Quantity	pcs	1	2
	Airflow	m³/h	3,150	3,300
	Rated power	W	62	62
Sound power level	Outdoor unit	dB (A)	57	56
	Manufacturer		Kelvion	
Plate heat exchanger	Water press. drop	kPa	8	15
	Piping connection	Inch	G1"	G1"
			G1"	G1-1/4"
Residual current device and overvoltage protection			Required	
Power supply, grounded	Outdoor unit	V/N/Hz	230/1/50	230/1/50
	Type	kg	R290/0.7	R290/0.9
Refrigerant	GWP (global warming potential)	GWP	3	
	Outdoor unit	mm	1,165 × 885 × 370	1,165 × 885 × 370
Dimensions (WxDxH)	Indoor unit	mm	600 × 1,780 × 680	
	Outdoor unit	kg	126	135
Net weight	Indoor unit	kg	125	
	Article number indoor/outdoor		120316/120702	120316/120703
			120316/120704 or 120707	

* Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C. ** Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 18°C and ambient temperature 35°C. *** Measured according to standard EN 12102.

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