

# 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
- 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
- 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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### Converts energy from the outdoor air to heat and domestic hot water

By utilising the energy from outdoor air, you can reduce your energy bills in an eco-friendly way, and at the same time creating the perfect level of comfort for your home. ES M R290 is designed to replace or supplement an existing heat source or for new installations. The indoor unit has a stylish design to fit into a modern home. All connections are easily accessible at the top of the unit.

### Designed to provide maximum energy savings and quiet operation

By using components from leading suppliers (see table) and smart control, great energy savings and quiet operation are made possible. All ES M R290 series are rated A+++.

### Simple and cost-effective installation

In a monobloc system the outdoor unit has a

closed refrigerant circuit and a heat exchanger. The outdoor unit can be connected directly to the heating system, which means that no refrigeration technicians are needed during installation. The automatic and self-learning defrost function, combined with the nano-coated evaporator, reduces defrosting time to a minimum and increases the efficiency.

### Control your heating system

ES M R290 can be controlled locally or remotely via smartphone or computer. Make all the necessary settings for an efficient, trouble-free operation with the user-friendly touch display. Even when you are not at home you have full control of your heating system via your smartphone or computer.

### Two heating curves

ES M R290 uses a heat curve to provide a constant indoor temperature, regardless of the

outdoor temperature. When the outdoor temperature drops, the heat pump raises the temperature of the water to the heating system and vice versa when the outdoor temperature rises. 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. With two heating curves the possibilities to save even more energy is possible and, in some cases, costs on components that would otherwise have to be installed in the system.

### Upgrade your system with ES M R290

All, correct dimensioned, heat pump systems need back-up during the coldest days. ES M R290 is designed to operate in hybrid systems, together with all kinds of heating systems. If your existing boiler works – keep it 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		
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	6,300
	Rated power	W	62	62	62 x 2
Sound power level	Outdoor unit	dB (A)	57	56	57/60
	Manufacturer		Kelvion		SWEP
Plate heat exchanger	Water press. drop	kPa	8	15	23
	Piping connection	Inch	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	400/NA/50 / 230/NA/50
	Type	kg	R290/0.7	R290/0.9	R290/1.5
Refrigerant	GWP (global warming potential)	GWP	3		
	Outdoor unit	mm	1,165 × 885 × 370	1,165 × 885 × 370	1,085 × 1,450 × 390
Dimensions (WxDxH)	Indoor unit	mm	450 × 380 × 135		
	Outdoor unit	kg	126	135	172
Net weight	Indoor unit	kg	10		
	Article number indoor/outdoor		120315/120702	120315/120703	120315/120704 or 120707

(1) eating condition: water inlet/outlet temperature: 30 °C/35°C, Ambient temperature: DB 7 °C /WB 6 °C (2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7 °C /WB 6 °C. (3) Cooling condition: water inlet/outlet temperature: 23 °C/18°C, Ambient temperature: DB 35 °C /WB 34 °C

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