

## ES Air-to-Water Heat Pumps

# ES M R290 Series

### 8–15 kW with Hydro Box or Tank Unit

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

By utilising energy from outdoor air, you reduce your energy bills and CO<sub>2</sub> footprint while creating the perfect comfort level. The ES air-to-water heat pump can replace or supplement your existing heating system or be installed in new constructions.

#### New design for modern households

Our new heat pump has a new design that aligns with the interior of most modern households and features a responsive high-resolution touchscreen.

#### Optimised energy production and compliance

The ES M R290 series has a simple online registration and connection process. Its energy management features enable easy monitoring of consumption and production.

#### Update an existing system

The Hydro Box is a dockable indoor unit which can modernize and improve the efficiency of a heating system with an existing water volume. This way, you get an updated and more environmentally friendly heating system and keep your existing boiler as a backup.

#### Gas boiler replacer

The 100-liter indoor unit is developed for easy swap-out of existing gas boilers. It is the same size as many gas boilers and can be wall-mounted. The ES M R290 series can deliver water with an output temperature of up to 70°C, comparable with gas and oil boilers.

#### High performance and safe system

The ES M R290 series uses the refrigerant propane in a closed circuit in the outdoor unit, making it a safe solution. Powered by electricity, the heat pump adds energy from the outdoor air, providing a high price/performance ratio and short payback time.

#### Simple, fast and reliable installation and service

The monobloc system, along with the new features in the controller, makes the installation process much easier. The heat pump can be controlled locally or remotely via smartphone (end-user) or computer (installer), simplifying the service process.



The ES range of air-to-water heat pumps have 8, 12 and 15 kW heating capacity. Our indoor units with DHW-tanks come in either 100 or 250-liters where our 100-liter solution has been developed specifically as a gas boiler replacer. For hybrid systems, Hydro Box is a controller without a tank.

**Swedish Ingenuity**

- Developed in Sweden
- Components from leading brands
- Environmentally friendly R290 refrigerant with low GWP (3)
- Anti-freeze protection
- Automatic restart in case of power failure
- KEYMARK certified
- SG Ready
- Monobloc, no F-gas certification required

**Comfortable and Efficient**

- A+++ heating efficiency
- High price/performance ratio
- Short payback time
- Low-noise outdoor unit
- Two different temperature zones, supporting both heating and cooling
- High heating water output temperatures: up to 70 °C
- High performance cooling

**E-Readiness**

- Internet connection via cable or Wi-Fi
- End-user APP
- Fleet management system for control and support
- Electrical Grid Protection (EGP) functionality
- Control for backup heating systems
- Easy-to-use, high-resolution, high-sensitivity touchscreen

		ES M8 R290	ES M12 R290	ES M15 R290, 1 Ph	ES M15 R290, 3 Ph	
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	1,231/4,250	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	4.72/4.7		
Min/max cooling capacity (3)	kW	2.4 / 8.0	5.0/10.2	6.6/13.5	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	3.80/4.00	3.60/3.90	3.65/4.40	3.65/4.40	
Energy class, average, low temp.					A+++	
Defrost upon demand					Yes	
Heating cable for defrosting					Yes	
DHW tank	Type / volume	SUS316 Steel, DHW storage type / 100-liter or 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		
Compressor	Manufacturer				Highly	
	Manufacturer				Nidec	
Fan	Quantity	1			2	
	Airflow	3,150	3,300	6,300		
	Rated power	62	62	62 x 2		
Sound power level	Outdoor unit	57	56	57	60	
	Manufacturer	Kelvion			SWEP	
Plate heat exchanger	Water press. drop	8	15	23		
	Piping connection	Inch	G1"	G1"	G1-1/4"	
	Manufacturer				SWEP	
Residual current device and overvoltage protection		Required				
Power supply, grounded	Outdoor unit	V/Ph/Hz	230/1/50	230/1/50	230/1/50	400/3N/50
	Type	kg	R290/0.7	R290/0.9	R290/1.5	
Refrigerant	GWP (global warming potential)		3			
	Outdoor unit	mm	1,207 × 437 × 895	1,207 × 437 × 995	1,142 × 428 × 1492	
Dimensions (WxDxH)	Indoor unit, Hydro Box	mm	400 × 260 × 800			
	Indoor unit, 100 l	mm	500 × 500 × 1,100			
	Indoor unit, 250 l	mm	600 × 670 × 1,720			
	Outdoor unit	kg	123	138	187	
Net weight	Indoor unit, Hydro Box	kg	27			
	Indoor unit, 100 l	kg	75			
	Indoor unit, 250 l	kg	127			
	Outdoor unit		120702	120703	120707	120704
Article number, indoor units	Hydro Box				202184	
	100-liter	202163 • UK: 202182			/	
	250-liter				202028 • UK: 202181	

(3) Measured according to standard EN 12102.

(2) Cooling condition for heat pumps: water temperature in/out 12°C / 7°C, ambient temperature DB 35°C / WB 34°C.

(1) Heating conditions for heat pumps: water temperature in / out 30°C / 35°C, ambient temperature DB 7°C / WB 6°C.