DEVELOPED IN SWEDEN

ES Air-to-Water Heat Pump

ES M40 R290

40 kW Monobloc

The heat pump converts energy from the outdoor air to heat and domestic hot water for your warehouse, residential, office or industrial building
By converting the energy from the outdoor air, you lower your energy cost in an environmentally friendly way at the same time you create the perfect indoor climate. The ES M R290 series is developed to replace or complete an existing heat source and for new production with demands for higher inlet temperatures.

ES M R290 series is developed to give biggest possible energy saving and quiet operation
Components from leading manufacturers and smart control enables big energy savings and quiet operation. All ES M R290 series are labelled A+++.

Top quality defrost – nano-coated outdoor evaporator unit
Large volumes of air circulate thru the outdoor unit and energy is collected from this air. This results in ice forming on the outdoor unit's heat exchanger. With the nano-coating the condensing water drains faster from the outdoor unit. When multiple outdoor units are installed, defrosting in cascade is possible, minimizing effect loss.

Complete heat control of your heating system
Connected to ES NordFlex, the heat pumps and your energy system can be controlled locally or remote via ES Cloud. On the user-friendly display, you can make all the necessary settings for an effective and problem free operation and at the same time control present status of your system. Even when you are not on site you have total control via remote access.

Keep your old boiler
All correctly designed heat pump systems need back up to manage the energy needs during the coldest days of the year. The ES M R290 series enables you to keep your current electric, oil, pellet, or wood boiler. If your present system works – keep it as backup. Under normal circumstances the heat pump capacity should be enough to provide approximately half of the necessary heat on the coldest days.

- The dockable solution means that the heat pump can be connected to the other heating device, which can deliver the heat demand alone.
- If the heat pump can deliver half of the heat demand on the coldest days, then it is usually capable of fulfilling 80–90% of the annual energy demand.

SG Ready · MCS CERTIFIED · KEYMARK certificate · A+++ · 5 years COMPRESSOR WARRANTY · >dB Low noise · R290 · ES CLOUD

ES ENERGY SAVE

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Swedish Ingenuity

- Developed in Sweden
- Economic and effective air-to-water heat pump, designed for a Nordic climate
- Monobloc, no F-gas certification required
- Components from leading brands
- Environmentally friendly R290 refrigerant with low GWP-value 3
- Cascade control of heat pumps – one operation panel can control up to 16 units
- SG Ready
- KEYMARK and MCS certified

Comfortable and Efficient

- High energy efficiency and stable performance, reaches A+++ energy level and COP up to 4.6
- Low noise solution with EC fan motor and improved air duct system
- Supply high water temperature up to 75 °C
- Four mixing circuits control for different temperature zones
- Heating/cooling curve control – automatically adjusted water temperature based on ambient temperature
- Enabling heating, cooling and DHW at the same time

E-Readiness

- Internet connection via LAN cable
- Fleet management system for control and support via ES Cloud
- Integration made easy – connect to BEMS or integrated with all kinds of additional heating sources
- Electrical Grid Protection (EGP) functionality
- Smart defrosting in cascade

			ES M40 R290
Min/max heating capacity (1)		kW	12.7/38.6
Min/max input power (1)		kW	2.8/12.3
COP min/max (1)		W/W	4.58/3.15
Min/max heating capacity (2)		kW	11.9/38.2
Min/max input power (2)		kW	3.3/12.8
COP min/max (2)		W/W	3.61/2.9
SCOP – Average climate (35°C/55°C)		W/W	4.6/3.5
Energy class – Heating (35°C/55°C)		–	A+++/A++
Min/max cooling capacity (3)		kW	12.1/34.2
Min/max input power (3)		kW	2.8/9.1
E.E.R min/max (3)		W/W	4.33/3.75
Min/max cooling capacity (4)		kW	4.5/25.1
Min/max input power (4)		kW	2.9/9.4
E.E.R min/max (4)		W/W	1.56/2.67
Ambient Temperature Range		°C	-25 to 43
Water temperature range (heating)		°C	75/20
Water temperature range (cooling)		°C	25/7
Sound power level, outdoor unit		dB(A)	71
Fan	Quantity		1
	Airflow	m^3/h	12500
	Rated power	W	1100
Water side	Heat Exchanger Manufacturer		Danfoss
	Heat Exchanger Typ		Plate Heat Exchanger
	Water Pressure Drop	kPa	85
	Piping Connection	Inch	G2"
Refrigerant	Type / Amount	- / kg	R290 / 4.2kg
Compressor	Type		Copeland Scroll
	Manufacturer		Copeland
Power supply		V/Hz/Ph	380/50/3
Net Dimension (L×D×H)	Indoor unit	mm	390x450x132
	Outdoor unit	mm	1170x970x1620
Net Weight	Indoor Unit	kg	10
	Outdoor Unit	kg	348
Article number	Outdoor Unit		120722
	Indoor Unit		120223

All data is subject to change without prior notice. We disclaim any liability for potential printing errors or inaccuracies.

(1) Heating conditions: water inlet/outlet temperature in/out: 35°C, Ambient temperature: 7°C. **(2)** Heating conditions: water inlet/outlet temperature in/ out: 45°C, Ambient temperature: 7°C. **(3)** Cooling conditions: water inlet/outlet temperature in/ out: 18°C, Ambient temperature: 35°C. **(4)** Cooling conditions: water inlet/outlet temperature in/ out: 7°C, Ambient temperature: 35°C.

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