

• **EIS** ENERGY SAVE

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# RESIDENTIAL HEATING

## R290 air-to-water heat pumps



# Designed for Performance

## Built for Peace of Mind



### Green ECO-friendly refrigerant

The R290, or propane, is a natural refrigerant which is ECO-friendly and has a global warming potential (GWP) of 3. It has excellent properties for heating and cooling and ensures an efficient use of the energy in the ambient air.



### High efficiency heat pumps

Advanced technology and quality components from recognized manufacturers provide optimal performance, energy efficiency and low heating costs.



### Low noise units

Our heat pumps have an innovative blade design and use variable fan speed.



### Reliable and efficient technology

With software, we can limit the noise even further. The night-mode function allows you to restrict operation during the night.



### Control via internet

Connect your heat pump to the internet via cable or Wi-Fi and adjust the settings wherever you are. This works on any smart device or computer. Connectivity makes it possible to monitor and control heat pump performance, and optimize efficiency and operating costs.



### KEYMARK

Our heat pumps are KEYMARK certified and meet the highest European standards for quality and performance. The independent certification is based on third-party testing and stands for energy efficiency, transparency and a greener future.



### SG Ready

Our heat pumps are SG Ready labelled, which means they are optimized for smart grids. The label indicates that our solutions can be integrated with the energy systems of the future, contribute to optimized energy use, and support grid stability through intelligent charging management.



### MCS certification

Our heat pumps are MCS certified, showing that we comply with current standards for UK performance and safety requirements.

### Free apps

Our apps make it easy to control and monitor your heat pump. They are available for iOS and Android and provide instant access to smart and easy energy management.



# Residential Heating

## ES Heat Pumps

ES air-to-water heat pumps are both economical and efficient, user-friendly with an elegant design, designed in Sweden to meet the demands of the Nordic climate. By utilising the ambient air as a heat source, the system transfers heat to water through a refrigerant, making it ideal for space heating, domestic hot water, and even

cooling applications. These heat pumps deliver up to five times more heat energy than they consume in electricity, making them both cost-effective and environmentally friendly. With Built-in connectivity, users can easily control and monitor the system via their mobile phones, allowing for an even more optimised usage.



# Heating Solutions for Every Home

Our heat pump solutions combine Swedish engineering with the latest digital technology. High efficiency reduces both the energy costs and carbon footprint, contributing to a more sustainable climate. Our efficient and adaptable systems provide long-term sustainable heating for every home.

## Maximum energy savings with future-proofed systems

Whether you are heating your property with electricity, oil, wood, pellets, or district heating, our efficient heat pumps offer significant savings for your wallet and greatly reduce your carbon footprint. Our easily integrated heating systems are continuously improved with over-the-air updates, allowing you to adapt and enhance the system in the future according to your needs.

## Swedish engineering and design

Our heat pumps are designed to withstand the harsh Nordic climate. They are equipped with integrated multiple antifreeze systems for continuous operation during cold winter months. Each heat pump is designed with an intuitive and easy-to-use interface that simplifies commissioning and monitoring.

## Safe and easy to install

The refrigerant is environmentally friendly with a low carbon footprint. The "M" in the name stands for Monobloc, which means that the refrigerant circuit is factory sealed and kept only in the outdoor unit, to prevent any leakage of propane in the house, to make it safe for you and your family. The connection between the indoor unit and the outdoor unit is hydraulic. The installation can be easily carried out by a qualified plumber. The installation process is simple, fast and reliable due to new features in the controller.



New and better high resolution touch screen. The user-friendly interface helps you to quickly adjust settings directly on the display.



The Wireless Thermostat for the ES M R290 series is easy to install anywhere in your home, with up to two units for multi-zone control. It features an intuitive screen, child lock, and long battery life for hassle-free temperature management.

Indoor unit	DHW tank	Buffer tank	8 kW	12 kW	15 kW
100 liter	100 liter	Recommended	✓	✓	
250 liter	250 liter	Recommended	✓	✓	✓
Control Box	Recommended*	Recommended	✓	✓	✓
Hydro Box	Recommended*	Recommended	✓	✓	✓

\* If the installation requires domestic hot water.

### Indoor units for hybrid systems

Designed to operate seamlessly in hybrid systems alongside all kinds of heating systems, our tankless, dockable indoor units offer a perfect solution to modernize and improve the efficiency of an existing system with an existing water volume.

You can pair the indoor unit with an outdoor unit that matches the property's needs, while the heat pump control is conveniently located within the indoor unit. If your existing boiler is still functional, you can keep it as a backup, ensuring enhanced reliability and flexibility. The indoor unit can also be combined with any type of tank solution you prefer.



**Control Box**  
ES MCB  
Art. no. 120715

**Hydro Box**  
ES MHB  
Art. no. 202184



**250-liter**  
ES M250L ST  
Art. no. 202028  
Art. no. UK: 202181

**100-liter**  
ES M100L ST  
Art. no. 202163  
Art. no. UK: 202182

### All-in-One indoor units

For new buildings, or if the heating system is replaced in its entirety, an indoor unit with a domestic hot water tank is required, combined with an outdoor unit with an appropriate output for the property's needs. The indoor unit contains domestic hot water volume needed for the household along with backup heating. It is an integrated solution for both heating and hot water demands that saves on space and components.

### Gas boiler replacer

The 100-liter unit is designed for easy replacement of existing gas boilers. Its similar size makes the exchange simple, and the unit is prepared for wall mounting –just like many gas boilers. With its 100-liter capacity of stored domestic hot water, it can be sufficient even for a household of four people.

### Outdoor units, 8–15 kW

ES outdoor units are available in several different outputs. The appropriate output for the chosen indoor unit depends on the heating demand. This can most easily be determined by looking at the annual consumption of the property.

ES products are built with top-quality components, selected carefully to achieve a high-end product line with optimum performance and experience of comfort. We have carefully optimised the price-to-performance ratio, ensuring that you, as a user, benefit from a reliable and durable system that provides a consistent return on your investment.



**8 kW**  
ES M8 R290  
Art. no. 120702

**12 kW**  
ES M12 R290  
Art. no. 120703

**15 kW**  
ES M15 R290  
Art. no. 1 Ph: 120707  
Art. no. 3 Ph: 120704

# Introducing the Next Generation of ES Heat Pumps

## Innovately Designed for Efficiency and Convenience

At Energy Save, we are dedicated to providing cutting-edge technology to ensure our heat pumps are both reliable and user-friendly. The new ES M R290 series combines advanced control logic, hardware, and energy management tools, making installation and maintenance simpler while optimizing performance to meet your heating, cooling and domestic hot water needs.



### Easy installation

Our heat pumps are designed for hassle-free installation with minimal cabling. Thanks to template-based automatic processes and intuitive setup, both indoor and outdoor units can be installed quickly and efficiently. Paired with unified control via app, screen, or fleet manager, this makes for a seamless experience from start to finish.

### Updates and support

Stay ahead with over-the-air updates – no need for on-site visits or USB devices. Our open platform allows for continuous improvements, driven by feedback from users, distributors, and installers. This ensures smarter diagnostics, troubleshooting, and predictive maintenance, keeping your system running smoothly.

### Security and peace of mind

Built in Sweden with a focus on security and reliability, our heat pumps follow stringent EU standards. With top-tier hardware like high-resolution touch screens and wireless thermostats, combined with robust software featuring open API access, you can trust the ES system to provide long-lasting performance and complete peace of mind.

### Monitoring and optimized operation

ES heat pumps feature advanced energy management, monitoring efficiency, heat production, and consumption. Whether through internal or external certified metering, the system helps optimize energy use, ensuring both cost savings and environmental benefits.

### Sleek and modern design

The high-performance design is tailored for user convenience. With adjustable features, flexible accessories, and compatibility with up to two heating zones, the ES system adapts to your household's unique needs while maintaining a stylish, contemporary look.

# Decarbonize Today

An air-to-water heat pump acts as an environmentally friendly energy source right in your home. It captures energy from the outdoor air – even on the coldest days – and converts it into heating and hot domestic water for your household.

Think of it as harnessing the natural energy around us, a process that not only reduces cost but also helps protect our planet.



## ES Heat Pump Stand

All outdoor units in the ES R290 series come with low 'feet' that allow mounting on an optional ES heat pump stand, elevating the unit slightly above ground. Made from durable, weather-resistant material, the adjustable-width stand suits different heat pump sizes and features adjustable feet for leveling on uneven surfaces. One stand model fits the entire ES R290 range (8 kW to 15 kW) and matches the light grey color of the heat pumps. It can be complemented with the ES Drain Pan Kit.



Stand mounted on heat pump

### Heat pump stand outdoor unit, light grey

Model	OUS GEN 2.0
Name	ES Stand for outside unit ES M8/M12/M15-R290 and AW6/9/12/15/19-R32-S/M-V8
Article number	120711

## ES Drain Pan Kit

The drain pan kit collects condensation from the outdoor unit, directing it to a central drain to prevent ice buildup. Designed for easy installation with all ES R290 units, it is moulded from insulating EPP material for cold protection and fits the heat pump perfectly. The pan is mounted between the heat pump and its feet and can also be placed on the ground stand to elevate the unit. Available in two sizes, it fits all ES models. For cold climates, a self-regulating electric heating cable is recommended.



Drain pan mounted on heat pump.

### Drain pan outdoor unit

Model	DP M8/M12	DP M15
Name	ES Drain pan for outside units ES M8/M12 R290	ES Drain pan for outside units ES M15 1PH/3PH R290
Article number	120712	120714

## ES Wireless Thermostat Kit

The ES Wireless Thermostat Kit is specifically designed for the ES M R290 series and includes an ES Wireless Thermostat and an ES RF Gateway. This kit enables seamless wireless communication with your heat pump.

The ES RF Gateway connects to and is powered by the indoor unit, providing a fast and reliable connection between the heat pump and the ES Wireless Thermostat(s) in your home. Installation is straightforward, with the gateway's indicator clearly showing the signal quality.

By connecting a second Wireless Thermostat (available as an optional purchase), you can control two separate temperature zones in your home. Please note that two thermostats can be connected per system.

### Wireless thermostat kit

Model	WTK GEN 1.0
Name	ES Wireless thermostat kit (Thermostat and RF Gateway)
Article number	120720

### Wireless thermostat

Model	WT GEN 1.0
Name	ES Wireless thermostat (Thermostat)
Article number	120716



# Technical Data

## Outdoor Units

	Unit	ES M8 R290	ES M12 R290	ES M15 R290, 1 Ph	ES M15 R290, 3 Ph	
Article number		120702	120703	120707	120704	
ErP Energy efficiency class		A+++				
SCOP 35 °C (floor heating)		4.71	4.70	4.70	4.72	
<b>Heating mode</b>						
Heating capacity (1)	kW	3.1–9.5	3.8–12	5.8–16.7	5.6–16.5	
COP max– Coefficient of Performance (1)		5.10	4.80	4.80	5.05	
Min./max. input power (1)	W	585 / 2,089	900 / 3,065	1,231 / 4,250	1,120 / 4,170	
Max. temperature of heating water	°C	70				
Operating area heating	°C	-25 to +45				
<b>Cooling mode</b>						
Cooling capacity (2)	kW	2.4 / 8.0	5.0 / 10.2	6.6 / 13.5	6.9 / 13.2	
EER max. – Energy Efficiency Ratio (2)		3.80 / 4.00	3.60 / 3.90	3.60 / 4.38	3.65 / 4.40	
SEER value, 7°C / 18°C		3.83 / 6.22	3.61 / 6.36	n/a		
Min. temperature of cooling water	°C	+7				
Operating area cooling	°C	+20 to +45				
<b>Power supply</b>						
Outdoor unit	V/ph/Hz	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	400 / 3N / 50	
Defrost upon demand		Yes				
<b>Components</b>						
Electronic expansion valve		Yes				
ErP Circulating 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				
Fan	Manufacturer	Nidec				
	Quantity	pcs	1	2		
	Airflow	m³/h	3,150	3,300	6,300	
	Rated power	W	62	62	62 x 2	
<b>Refrigerant</b>						
Type / Mass of refrigerant	kg	R290 / 0.7	R290 / 0.9	R290 / 1.5		
Type of connection between indoor and outdoor unit		Hydraulic				
Dimensions of hydraulic pipe connectors	Inch	G1"		G1– 1/4"		
<b>Sound power level</b>						
Sound power level LwA – Outdoor unit (3)	dB(A)	53	54	57	57	
<b>Sound pressure level at a distance</b>						
1 m	dB(A)	49,02	48,02	49,02	52,02	
5 m	dB(A)	35,04	34,04	35,04	38,04	
10 m	dB(A)	29,02	28,02	29,02	32,02	
15 m	dB(A)	25,49	24,49	25,49	28,49	
<b>Net dimensions</b>						
Outdoor unit (WxDxH)	mm	1,207 × 437 × 903	1,207 × 437 × 995	1,142 × 428 × 1,492		
<b>Net weight</b>						
Outdoor unit	kg	123	138	187		

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

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

(3) Measured according to standard EN 12102.

# Technical Data

## Indoor Units

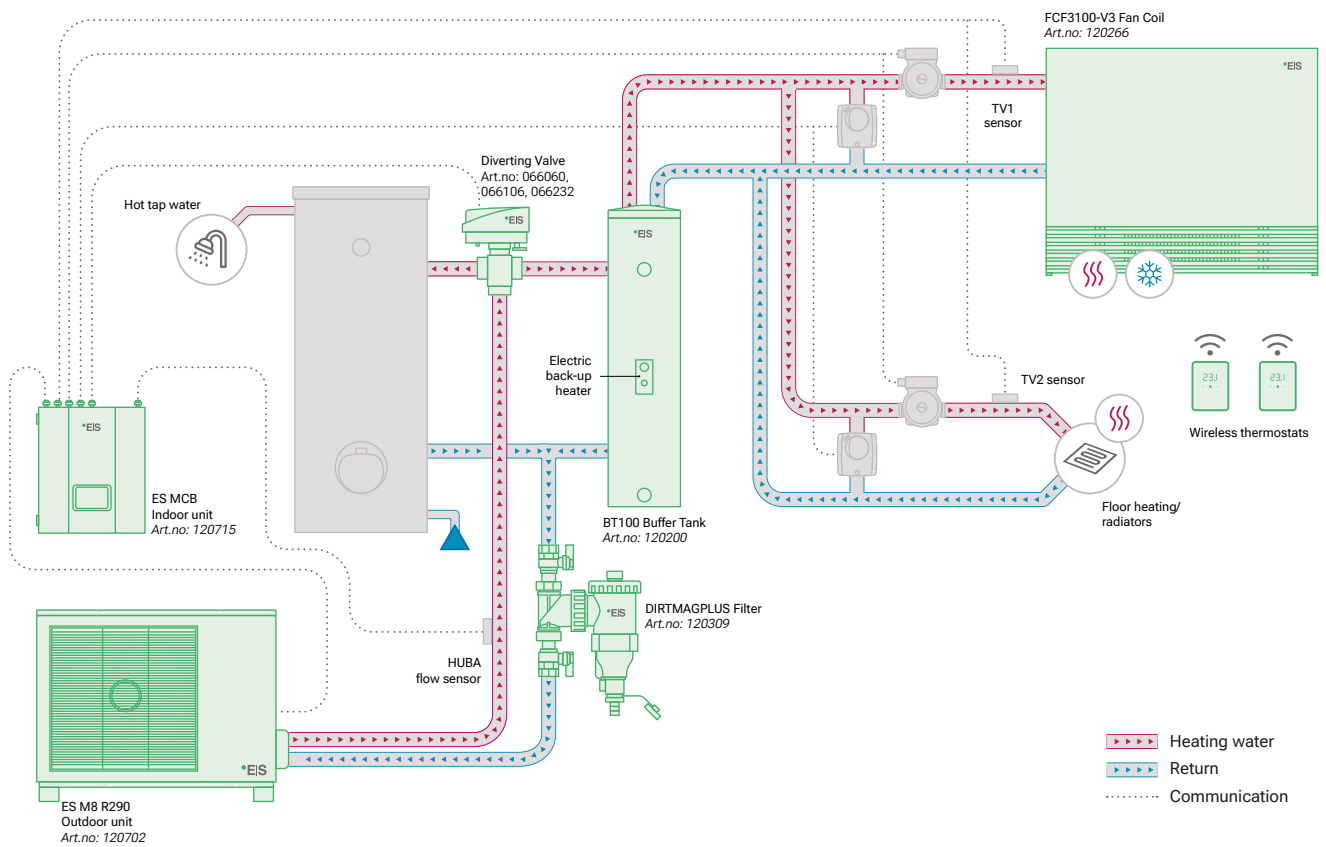
Unit		Control Box ES MCB	Hydro Box ES MHB	ES M 100L ST	ES M 250L ST
Article number		120715	202184	202163	202028
Article number, UK				202182	202181
ErP Energy efficiency class		/	/	A	A+ / A*
Hot tap water profile		/	/	M	L / XL**
<b>Domestic hot water tank</b>					
Type		/	/	SUS316 DUPLEX stainless steel, DHW storage type	
Volume	liter	/	/	100	250
Max. tank water pressure	bar	/	/	7	
<b>Power supply</b>					
Indoor unit	V/ph/Hz	230 / 1 / 50		400 / 3N / 50	
<b>Water connectors</b>					
Type of connection between indoor and outdoor unit		Hydraulic connection			
Dimensions of hydraulic pipe connectors	inch	G1"			
Min. system water safety valve	bar	3			
<b>User interface</b>					
Type / size		LCD touch screen / 5"			
Internet connection		Wi-Fi and Ethernet			
<b>Net dimensions</b>					
Indoor unit (WxDxH)	mm	380 × 115 × 480	400 × 260 × 800	500 × 500 × 1,100	600 × 670 × 1,720
<b>Net weight</b>					
Net weight	kg	9	27	75	127
<b>Serial integrated components</b>					
Electric heater, heating system	kW	/	3 × 3		
3-way diverting valve for DHW tank		/	Yes	Yes	Yes
Expansion vessel heating water	liter	/	14	/	10
Flow sensor		In the package		Pre-Installed	
Temperature sensor	TR1 – room temp. sensor	In the package			
	TR2 – room temp. sensor	In the package			
	TV1 – mixing circuit temp. sensor	In the package			
	TV2 – mixing circuit temp. sensor	In the package			
	THC – heating/cooling temp. sensor	In the package			
	TDW – DHW tank temp. sensor	In the package			Pre-Installed

\* ErP Energy efficiency class with 8 or 12 kW outdoor unit: A+. ErP Energy efficiency class with 15 kW outdoor unit: A.

\*\* Hot tap water profile with 8 or 12 kW outdoor unit: L. Hot tap water profile with 15 kW outdoor unit: XL.

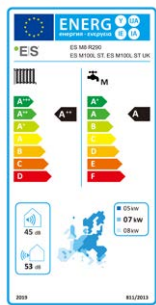
# Units in a System

## Monoblock system

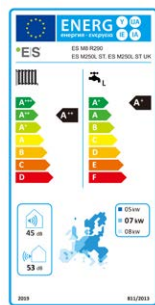


## Energy Labels

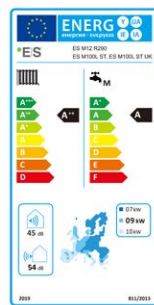
(Outdoor unit + Indoor unit)



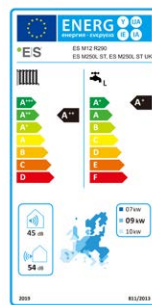
8 kW + 100 liter



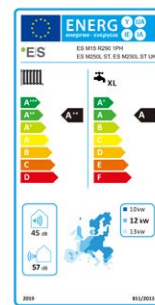
8 kW + 250 liter



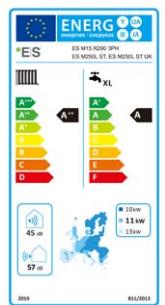
12 kW + 100 liter



12 kW + 250 liter



15 kW, 1 Ph + 250 liter



15 kW, 3 Ph + 250 liter

## Want to Know More?

ES Energy Save offers climate-smart and cost-effective heat pump systems for residential, commercial or temporary heating solutions.

Our strengths include Swedish engineering combined with a scalable production capacity. We have the ability to create value in fleet management, connectivity, control systems and application design.

Our hardware and software solutions are modular, scalable, prefabricated and can be integrated with existing systems.

### Benefits of our heat pump systems

- Able to convert energy from outdoor air, reducing your energy costs and contributing to a more sustainable climate.
- Economical and efficient.
- Developed in Sweden for the Nordic climate.
- Enable connectivity that allows you to control and monitor your pump via your mobile phone.
- Whether the property is heated by electricity, oil, wood, pellets or district heating, our efficient heat pumps provide the basis for significant savings.
- Our open and future-proof heating systems give you the ability to change and complement your system in the future according to your needs.

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### About Energy Save

ES Energy Save Holding AB (publ) is an innovative Swedish energy technology company that, through cost-effective and smart air-to-water heat pump systems, contributes to a sustainable energy transition in Europe. The company has been supplying heat pumps to the European market since 2009 and is listed on the Nasdaq First North Growth Market.

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