



Kensa Evo Heat Pump Series

Features & Benefits

- Available in 7kW, 9kW, 13kW, 15kW and 17kW
- 15% gain in efficiency*
- Increases RHI income*
- ERP A++ rated series
- Increased SCOP performance*
- 60°C domestic hot water
- Significantly reduced noise outputs*
- Custom built control panel
- Designed for easy installation

Product Description

The ERP A++ rated [Evo series](#) delivers heating and hot water efficiencies of SCOPs up to 4.7 at 35°C along with significantly reduced noise outputs, packaged in a contemporary contoured gunmetal and gloss-white finish, punctuated by a custom built control panel unique to the Kensa series.

Performance: Each model in the Kensa Evo series has optimised sized stainless steel heat exchangers, which allows the compressor to respond more efficiently, increasing SCOP performance and delivering up to 60°C domestic hot water.

Appearance: The ergonomic steel casing has been designed with a focus on ease of access, whilst providing sturdy yet stylish protection from ageing and wear and tear.

Installation: The Evo has been designed to be easy to handle and install. With cross head screws in its unique bevelled front panel, the Evo's electrical component and wiring terminals are easily accessible.

The heat pump has four rear water connections, two for the ground collectors and two for the



property's heating distribution system. The connections consist of four 28mm straight brass fittings designed with tight tolerances, ensuring compatibility with easy to install push fittings.

The external side panels feature a curved cut-out offering the installer an extra level of flexibility to install the Evo according to the demands of the site, with vertical and horizontal pipework exit points from the sides and top of the unit.

Controls: Kensa has developed its own control board which is the brain of the new Evo heat pump. The customer interface is an intuitive touch screen that facilitates commissioning and parameter settings, and provides live status readings supported by LED light indicators.

The custom built software also permits the control board to pre-empt system irregularities using warning safety levels, which may previously have resulted in a fault if left unchecked. This pro-active system will ultimately reduce costs and call outs and enable better diagnostics and system resolution, aided by Kensa's technical support and UK wide installation network.

* against equivalent Kensa compact units



Single Phase					
Nominal thermal kW rating	7	9	13	17	15
Part No.	K070-S1H	K090-S1H	K130-S1H	K170-S1H	K150-S3H
MCS Approved	BBA0055/ 41	BBA0055/ 42	BBA0055/ 43	BBA0055/ 44	BBA0055/39
Performance data—rated heating output at B0/W35 BS EN14511					
Power consumption	1.7	2.16	3.2	4.6	3.8
Coefficient of performance*	4.42	4.35	4.13	3.81	4.18
Immersion heater output	Kensa heat pumps do not feature back-up electric immersion heaters**				
Brine (primary) based on 0°C in, -4°C out					
Design flow rate kg/min	29.1	28.4	39.2	50.6	42.8
Pressure drop kPa at design flow rate	12	11	17	29.2	20.6
Max inlet temperature °C	15				
Min temperature °C (Outlet)	-5 (at standard settings)				
Heating water (secondary) based on 30°C in, 35°C out					
Design flow rate l/min	22.4	28.5	37.9	51.3	45.9
Pressure drop kPa at design flow rate	4	5.7	10.1	28.3	13.6
Max flow temperature °C***	62		55		63
Electrical Values @B0/W35					
Rated Voltage	220 – 240 V / 50-60 Hz				380-420V / 50-60 Hz
Power supply rating amps	25	25	40	50	16
Rated current (max) amps	17.4	21.8	32.7	37	12
Typical running current @ B0/W35 amps	8.8	12.7	16.4	22	7.3
Starting current amps****	18.2	28.7	41.3	45	74



Single Phase					
Nominal thermal kW rating	7	9	13	17	15
Refrigerant circuit					
Process medium	R407C				
Fill volume kg	1.9	1.9	2	2.1	2
Compressor type	Scroll				
Dimensions					
H x W x L (mm)	1145 x 600 x 575				
Dry weight kg (Approx)	153	154	167	167	170
Operating pressure					
Brine circuit min (primary) bar g	Settable at commissioning				
Heating water circuit min (secondary) bar g	Settable at commissioning				
Low pressure reset bar g	Settable at commissioning				
Connection sizes					
Primary IN and OUT (brass stubs) mm	28				
Heating flow and return (brass stubs) mm	28				
Performance (based on Average Climate) at 35°C					
ErP rating	A++	A++	A++	A++	A++
SCOP	4.72	4.64	4.40	4.06	4.47
Seasonal space heating energy efficiency	180%	178%	168%	155%	171%
Performance (based on Average Climate) at 55°C					
ErP rating	A++	A++	A++	A+	A++
SCOP	3.67	3.62	3.48	3.16	3.58
Seasonal space heating energy efficiency	139%	137%	131%	118%	135%
Sound Power Level					
Sound Power Level (dB)	49.4	56.1	49.7	56.2	49.2

* The COP figure quoted is calculated as per EN14511.

** In-built immersion heaters will increase running costs and CO₂ emissions as they use direct electricity, because of this Kensa heat pumps do not include them.

*** By increasing the flow temperature from the heat pump the efficiency of the unit will drop and the COP decreases.

**** Kensa Evo heat pumps incorporate smart starts as standard to limit the starting current of the compressors. For full details on how the starting currents are calculated please contact Kensa.

Note: Design flowrates are for a ground temperature of 0 and -4°C and a load temperature of 30°C and 35°C

The 17kW is sold complete with a hot water cylinder immersion control box to ensure a higher than 60C DHW temperature