



# PRODUCT GUIDE

[www.kensaheatpumps.com](http://www.kensaheatpumps.com)



# Kensa Shoebox & Shoebox Twin

The world's smallest & quietest ground source heat pump



✓ 3kW - 6kW

✓ Single Phase

✓ Space saving

✓ Silent

✓ RHI eligible

✓ Water to 65°C



- The Kensa Shoebox series features the quietest and smallest ground source heat pump on the market.
- Available in a 3kW single compressor model and 6kW twin compressor model, the award-winning Kensa Shoebox series is an efficient, practical and affordable heating solution engineered to provide both heating and hot water in new build and retrofit multi-dwellings and starter homes.
- Designed to displace gas combination boilers as the default choice for smaller properties, the Shoebox is the first ground source heat pump solution that can be comfortably installed inside any home due to its low sound levels, output and size.

## Small in size, big in space, time & cost savings

### Install inside the home

The Kensa Shoebox is designed to fit in the under-sink kitchen cupboard in individual flats and apartments, providing a discreet and independent heating solution.

### Quick and low cost install

The Kensa Shoebox is easy for any plumber to install, plus when paired with a micro district ground source heat network permits lower cost and quicker ground works due to a smaller number of shallower boreholes, resulting in more efficient project delivery.

### RHI Eligible

When paired with Kensa's micro heat network approach to district heating, Shoebox installations benefit from the non-Domestic Renewable Heat Incentive for 20 years. Individual Shoebox installations that are retrofit or self build and do not feature district heating receive the Domestic Renewable Heat Incentive (RHI Phase 2) for 7 years.

# Kensa Evo

An evolutionary new ground source heat pump series



✓ 7kW - 13kW

✓ Water to 60°C

✓ Low noise

✓ Efficient

✓ RHI eligible

✓ Single phase



- New for 2017 the ERP A++ rated Evo series delivers heating and hot water efficiencies of MCS SCOPs to 4.7 at 35°C along with industry leading noise reduction.
- Offering a 15 per cent gain in efficiency in order to minimise running costs and maximise income via the Renewable Heat Incentive.

## Featuring Kensa custom-built controls unique to ground source heat pumps.

- In-built sensors and probes enable remote commissioning and live status readings via a unique control board, featuring an intuitive touch screen that facilitates parameter settings and pre-empts system irregularities.
- The ergonomic steel casing has been designed with a focus on ease of installation, whilst providing stylish protection.
- With cross head screws in its unique bevelled front panel, the Evo's electrical component and wiring terminals are easily accessible.
- Curved cut outs, vertical and horizontal pipe exit points and rear connections offer installation flexibility.

# Kensa Twin Compact & Hybrid



✓ 12kW - 30kW

✓ Water to 60°C

✓ Single Phase

✓ Three Phase

✓ High Temperature

✓ RHI eligible



- Fitted with two compressors, Kensa's Twin Compact and Hybrid series provides greater heat output for larger domestic and small to medium sized commercial applications.
- Uniquely, the Twin Compact series goes up to 30kW, including a 24kW single phase model; the largest single phase ground source heat pump on the market.
- Twin Compact models are capable of providing heating and hot water or cooling, and are also available in High Temperature models for the benefit of retrofit applications and high heat demands.
- The Hybrid series blends the efficiency of a standard Twin Compact with a High Temperature Twin Compact. This results in efficient space heating and higher water temperatures, without the need for direct electric hot water top-up.

## The largest single phase ground source heat pump

The Twin Compact series includes a 24kW single phase model; the largest available on the market, providing a wider array of applications.

# Kensa Commercial Plant Room



✓ 20 kW– 75kW

✓ Modular

✓ Three Phase

✓ High Temperature

✓ RHI eligible

✓ BMS suitable



## Heavy weight class

- Modular combinations for greater flexibility to meet your commercial heating needs.
- The Commercial Plant Room heat pump range is comprised of modular three phase Kensa ground source heat pumps, designed to fit together to provide tailored outputs for high heat demand, providing a greater flexibility to match the heat pump output to the load of a commercial building.
- Plant Room models are available in a range of sizes from 20kW – 75kW modules, which can be modified to provide cooling as well as heating; so one single system can satisfy a building's heating and cooling requirements.

### Modular adaptability

With multiple units, it is possible to provide heating and cooling to different parts of a building simultaneously via a Building Management System (BMS).

The multiple unit approach also offers a degree of redundancy in the unlikely event of a problem with one of the units.

### Easy interface

Kensa Plant Rooms have been specified to allow straightforward interface with a building's heating distribution system, such as fan coils, underfloor, and air handling units.

### Refreshing solution

Upon request Kensa Plant Rooms can be designed as reverse cycle modules which can provide heating or cooling.

# Technical specifications

|                              | Shoebox                  |                 |
|------------------------------|--------------------------|-----------------|
| Phase                        | Single                   |                 |
| Nominal thermal kW rating    | 3                        | 6               |
| MCS Approved                 | ✓                        | ✓               |
| Co-efficient of Performance* | 4.05                     | 3.84            |
| Performance 35°C             | A+                       | A+              |
| Performance 55°C             | A+                       | A+              |
| Max flow temperature °C**    | 65                       |                 |
| Rated voltage                | 220 - 240 V / 50 - 60 Hz |                 |
| Starting current amps ***    | 30                       | 34              |
| H x W x D (mm)               | 530 x 475 x 370          | 560 x 605 x 565 |

|                              | Evo                      |      |      |
|------------------------------|--------------------------|------|------|
| Phase                        | Single                   |      |      |
| Nominal thermal kW rating    | 7                        | 9    | 13   |
| MCS Approved                 | ✓                        | ✓    | ✓    |
| Co-efficient of Performance* | 4.42                     | 4.25 | 4.03 |
| Performance 35°C             | A++                      | A++  | A++  |
| Performance 55°C             | A++                      | A++  | A++  |
| Max flow temperature °C**    | 62                       |      |      |
| Rated voltage                | 220 - 240 V / 50 - 60 Hz |      |      |
| Starting current amps ***    | 18.2                     | 28.7 | 41.3 |
| H x W x D (mm)               | 1160 x 555 x 575         |      |      |

|                              | Twin Compact       |      |      |                    |      |      | High Temp                | Hybrid |     |      |
|------------------------------|--------------------|------|------|--------------------|------|------|--------------------------|--------|-----|------|
| Phase                        | Single             |      |      | Three              |      |      | Single                   |        |     |      |
| Nominal thermal kW rating    | 16                 | 20   | 24   | 20                 | 24   | 30   | 12                       | 17     | 15  | 21   |
| MCS Approved                 | ✓                  | ✓    | ✓    | ✓                  | ✓    | ✓    | ✓                        | ✓      | ✓   | ✓    |
| Co-efficient of Performance* | 4.14               | 4.16 | 4.14 | 4.15               | 4.18 | 4.15 | 4.16                     | 4.15   | 4.5 | 4.14 |
| Performance 35°C             | A++                | A+   | A+   | A++                | A+   | A+   | A++                      | A++    | A++ | A+   |
| Performance 55°C             | A+                 | A+   | A+   | A+                 | A+   | A+   | A+                       | A+     | A+  | A+   |
| Max flow temperature °C**    | 55                 |      |      |                    |      |      | 65                       |        |     |      |
| Rated voltage                | 240 V / 50 - 60 Hz |      |      | 400 V / 50 - 60 Hz |      |      | 220 - 240 V / 50 - 60 Hz |        |     |      |
| Starting current amps ***    | 44                 | 44   | 48   | 55                 | 68   | 79   | 42                       | 42     | 52  | 60   |
| H x W x D (mm)               | 900 x 900 x 570    |      |      |                    |      |      |                          |        |     |      |

|                              | Plant Room         |      |      |      |      |      |      | HT |
|------------------------------|--------------------|------|------|------|------|------|------|----|
| Phase                        | Three              |      |      |      |      |      |      |    |
| Nominal thermal kW rating    | 25                 | 30   | 40   | 45   | 60   | 70   | 25   |    |
| MCS Approved                 | ✓                  | ✓    | ✓    | ✓    | ✗    | ✗    | ✓    |    |
| Co-efficient of Performance* | 4.08               | 4.19 | 4.17 | 4.17 | 3.98 | 4.05 | 4.17 |    |
| Performance 35°C             | A+                 | A+   | A+   | A+   | †    | †    | A+   |    |
| Performance 55°C             | A+                 | A+   | A+   | A+   | †    | †    | A+   |    |
| Max flow temperature °C**    | 50                 |      |      |      |      |      |      | 65 |
| Rated voltage                | 400 V / 50 - 60 Hz |      |      |      |      |      |      |    |
| Starting current amps ***    | 57                 | 75   | 89   | 101  | 112  | 140  | 140  |    |
| H x W x D (mm)               | 1750 x 800 x 900   |      |      |      |      |      |      |    |

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

\* The COP figure quoted is calculated as per EN14511. \*\* By increasing the flow temperature from the heat pump the efficiency of the unit will drop and the COP decreases.

\*\*\* Kensa heat pumps incorporate smart starts as standard to limit the starting current of the compressors. † Units are currently being ErP tested and will be available when complete.

For full details on our entire product range visit [www.kensaheatpumps.com](http://www.kensaheatpumps.com)

# Accessories



## Antifreeze

### Efficient heat transfer

Readily biodegradable, Thermax DTX is an ethylene glycol substance that has been tested and classified as Non Toxic by an EPA certified laboratory.

The Thermax DTX product incorporates synergistic inhibitors and biocides to prevent scale, corrosion and biological growth, and has high heat transfer and low viscosity characteristics. It can also be mixed with standard mono ethylene glycol to top up existing ground arrays.



## Buffer tanks & Cylinders

### Design flexibility

Buffer vessels are available in a range of sizes to create a store of energy for space heating. Kensa has partnered with a leading Cylinder Manufacturer to design and produce buffer vessels designed for use with heat pumps. Featuring a 100l compact unit for space saving.

Stainless steel mains pressure cylinders featuring enhanced surface area coils designed specifically for heat pumps and 3 bar operation provide a store of mains pressure water on demand to support the heat pump system. Also available in twin coil units.



## Manifolds

### Above and below ground

Available in a range of sizes, featuring quality water resistant components, Kensa manufacture above ground manifolds to provide ease of installation and adaptability.

Subterranean manifolds are manufactured from tough, water-resistant polyethylene and are available in a range of sizes with differing numbers of inlets and outlets with control valves, flow meters and fill and bleed ports.



## Slinkies

### Quick and easy installation

Kensa manufacture slinkies in 30m, 40m and 50m lengths. Featuring a unique pre-coiled assembly, Kensa slinkies ensure quick and easy installation.

Manufactured using black High Density Polyethylene pipe, with a pressure rating of PE80, Kensa slinkies are durable and leak tested prior to dispatch.

All slinkies are supplied with 25m of header pipe.

# Kensa Heat Pumps have started a heating revolution and we want you to be a part of it.

The Underground Movement aims to inspire the adoption of ground source heat pumps across the UK by educating end users and potential installers about their significant benefits, and encouraging people to dig deeper and know their sources when it comes to heat pump technology.

## Kensa Approved Installations



Kensa's Underground Network of approved installers delivers quality and professional installations in accordance with stringent Kensa specifications and MCS standards.

Join the Underground Movement at  
[www.kensaheatpumps.com/goingunderground](http://www.kensaheatpumps.com/goingunderground)

## GET IN TOUCH

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