

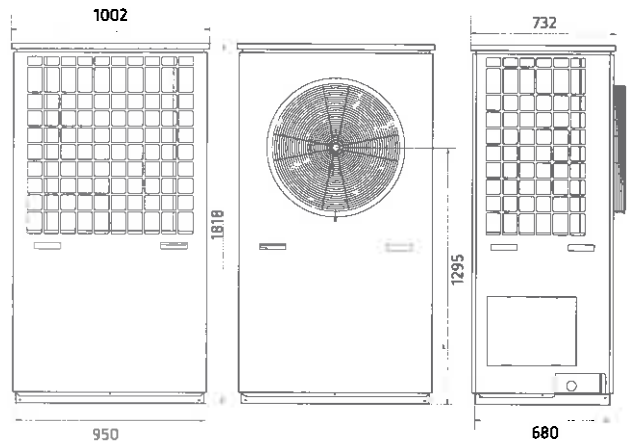
ErP A++

DATA SHEET CAERNARFON

Air Source Heat Pump

Product Name	Caernarfon	
Model Number	CAER410AMOD1	
ERP Rating	A++	
(Air 7°C/Water 35°C)*	Rated Output (kW)	7.2
	Power Consumption (kW)	1.5
	Rated COP	4.7
(Air 2°C/Water 35°C)**	Rated Output (kW)	13.2
	Power Consumption (kW)	4.1
	Rated COP	3.2
(Air -7°C/Water 35°C)**	Rated Output (kW)	12.1
	Power Consumption (kW)	4.5
	Rated COP	2.7
Domestic Hot Water Temperature (°C)	65	
Weight (kg)	230	
Heat Pump Voltage / Frequency	230V AC 50Hz	
Max Running Current (A) Compressor / Booster	34/27	
Max Electrical Power (kVA) Compressor / Booster	8.3/8.1	
Sound Power Level @ 1m (dB)**	69	
Minimum Operating Temperature (°C)	-20	
Maximum Operating Temperature (°C)	30	

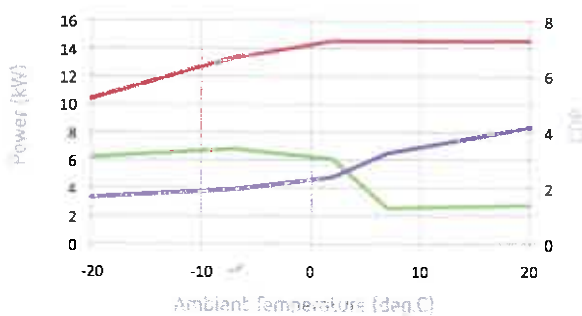
* Test results as per BS EN14511 ** Data supplied by BRE



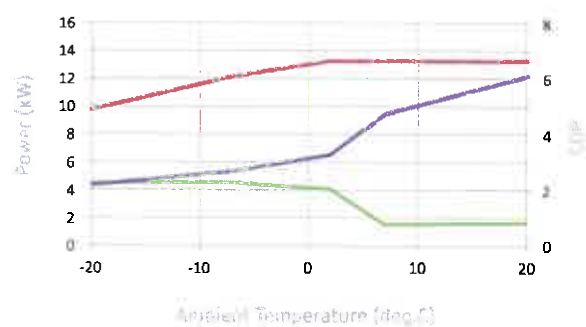
Model	H	W	D
Caernarfon	1818	1002	732

All sizes in mm

Caernarfon Performance at 55°C Outlet Temperature



Caernarfon Performance at 35°C Outlet Temperature



Power Output (kW) Power Input (kW) COP

Global Energy
Systems

GREAT BRITISH ENERGY. NATURALLY

1 Mark chettoe
033 33444414.

THE CAERNARFON IS IDEAL FOR...

DOMESTIC NEW BUILDS

The variable output of the Caernarfon 8-18kW air source heat pump offers complete heating and domestic hot water solutions for even the largest new build properties. With run costs savings of up to 70% and the Renewable Heat Incentive available to self-builders, the Caernarfon is an ideal solution for new builds.

Integrating a Caernarfon air source heat pump in a new build project could not be easier. Our specifiers and engineers will recommend suitable heat emitters for each room. The Caernarfon is designed to work equally effectively with under floor or radiator based systems with an A++ ERP rating. Requiring only an electric power supply, the use of a Caernarfon simplifies utility connections and future energy bills.



DOMESTIC RETRO FITS

Offering our highest heat output from a single electricity supply, and inverter control to vary the heat pump output, the Caernarfon 8-18kW air source heat pump has been engineered with British houses in mind. Working equally well with under floor heating or radiators, the Caernarfon offers the flexibility to work with existing systems.

Able to offer full heating and domestic hot water supply to large, retro fit properties, the Caernarfon is an ideal choice for renovation projects. Through bespoke software, written by Global Energy Systems, the Caernarfon can either work bivalently with an existing boiler or replace it completely in line with RHI guidelines.

POOLS

Swimming pools, with their potential need for year round, low grade heat, are an ideal match for air source heat pumps. The Caernarfon 8-18kW air source heat pump, with its inverter technology and 55 °C output, is a perfect match for pool water, space heating and domestic hot water combinations.

Able to work as a standalone unit, bivalently with boilers or in parallel with other units, the Caernarfon can be used for any scale of installation. Eligible for the Renewable Heat Incentive for Non-Domestic pools, the Caernarfon can offer excellent savings. The heat for domestic pools, when part of a wider heating system, can benefit from the savings of the Caernarfon but is not counted for the RHI.



SMALL COMMERCIAL

The Caernarfon 8-18kW air source heat pump offers the flexibility to deliver heat through existing radiators, under floor or fan convectors based heating systems. It has been specifically designed for the UK climate with a broad range of uses.

Able to deliver space heating to single, large spaces such as workshops or halls, heat to hotel or residential rooms and domestic hot water to legionella standards, the Caernarfon is an ideal choice. Able to work as a standalone unit, bivalently with boilers or in parallel with other units, the Caernarfon can be used for any scale of installation.

MULTIPLE UNITS

As heat loads increase, multiple Caernarfon air source heat pumps can be used together to offer solutions to very large heat loads. Suitable for large warehouses, workshops, hotels, pools or offices, the Caernarfon is an ideal choice.

Software developed by Global Energy Systems to work with our own air source heat pumps will ensure that the load is managed across the season and across the multiple heat pumps, offering an optimal solution.



For more information visit www.globalenergysystems.co.uk or call +44 (0) 3333 444 414





Savings

Electric	LPG	Oil
£5,000	£2,800	£2,400

Based on 36,363 kWh annual heat demand.
All savings estimates correct at time of publication.
RH! payments assumed.

For more information visit www.globalenergysystems.co.uk or call +44 (0) 3333 444 414





Residential

Revolutionary Heating & Hot Water Technology

Reliable Air Source Heat Pumps. Cut your bills and earn RHI

Air Source Heat Pumps are a very reliable low cost method of heating a residential property. Our system easily connects to your existing central heating system and gives you comfortable heating along with plenty of domestic hot water.

Global Energy Systems have developed our unique Air Source Heat Pump to work in temperatures as low as -20°C, whilst supplying high grade hot water up to 70°C. One of our unique features allows you the ability to run your central heating system at the same time as heating hot water. Our customers enjoy feeling the benefits of warmth whilst saving up to 65% on their bills compared to Oil and LPG running costs.

Global Energy Systems have also developed an easy to use colour touch screen interface with a remote link which connects each system to our Head Office. Customers now have the ability to log on to their systems and see their running costs, as well as making any changes to their heating and hot water requirements. This unique system allows the homeowner the ability to log on with a computer or mobile phone whilst you are away from your home.

Key Benefits

- ✓ Reduce your heating bills by up to 65% and earn Renewable Heat Incentive for 20 years
- ✓ Operates hot water and heating at the same time
- ✓ Built-in remote monitoring service
- ✓ Check your system, data costs, graphs and statistics online
- ✓ Colour touch-screen controller with time scheduler
- ✓ 0% CO₂ emissions with solar panels
- ✓ Easy to install and retrofit to existing systems

Our Air Source Heat Pumps are perfect for...

Rural properties



Under floor heating



Heating with radiators



Hot water on demand



Swimming pools



Hot tubs



Heat Pump Range

9kW London

15kW Stirling

23kW Edinburgh

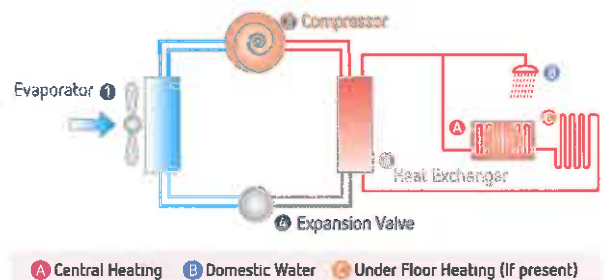
45kW York

RHI
Now
Available

How it Works

Air Source Heat Pumps

The commonest form of heat pump is a fridge; the heat that you feel on the back of a fridge is produced by the same process as is used in an air source heat pump. A refrigerant that boils at -40°C is pumped through an evaporator (see 1 in the diagram), a fan draws the air across the evaporator and the refrigerant boils, taking energy out of the air which will be used for your heating and hot water. This newly boiled gas, along with the energy that it has harvested, is then pressurised by a compressor (see 2 in the diagram), forcing its temperature up and creating useable heat for your property. The heat is then transferred into your heating and hot water system through a heat exchanger (see 3 in the diagram) and travels off to your radiators and/or under floor system and hot water cylinder. The now cooled refrigerant is allowed to expand again, drops in pressure and returns to a liquid ready to start the process again (see 4 in the diagram).



Heat and Power System Combined with Solar PV

Great British Engineering

Built here in the UK each Eco Air Boiler is a masterpiece of Great British engineering. Built under precision engineering conditions and individually tested, each heat pump leaves with our seal of approval.

Global Energy Systems' design team have created a high performance heat pump that sets us apart from the air conditioning unit driven market. Designed and built as a heat pump the Eco Air Boiler is made to be different from the rest.



A quality engineered air source heat pump built in the United Kingdom

The Eco Air Boiler Difference

The simple reliability of a fridge has been re-engineered by Global Energy Systems for the Eco Air Boiler range. Uniquely able to offer domestic hot water at up to 70°C whilst also providing central heating, the Eco Air Boiler has been designed to be most effective in the UK's cool, damp climate. The heat exchangers, compressor, evaporator and layout of the heat pump have all been engineered for many years of reliable, renewable energy.

Global Energy Systems supply complete, integrated systems with heat pumps, cylinders and sensors optimised to work together, all controlled through our own software and touch screen. Each heat pump is connected remotely to our head office allowing its performance to be monitored and optimised and you to access your heating bills and settings on line.

A Quality Masterpiece Through Innovation Delivering Tomorrow's Technology Today



Reliable Air Source Heat Pumps. Cut your bills and earn RHI

Global Energy Systems prides itself on a AAA rating, manufacturing and customer service

The Eco Air Boiler Features

- ✓ Designed for the UK climate down to -20°C
- ✓ Produces domestic hot water at up to 70°C
- ✓ High mounted evaporator to prevent cold air recirculation
- ✓ High speed defrosts with start/stop sensor
- ✓ Data link for real time monitoring
- ✓ Personal energy portal with bills and usage
- ✓ Remote internet control function
- ✓ Unique performance optimisation service
- ✓ SAP Appendix Q listed for building regulations
- ✓ British designed and built
- ✓ Simultaneous hot water and heating
- ✓ Coefficient of performance of 3.0 at -7°C
- ✓ Built for 25 years of reliable, renewable energy
- ✓ Touch screen controller with simple controls
- ✓ All electronic components in sealed enclosures
- ✓ Integrated, complete system from one source
- ✓ Designed to work with radiators and underfloor heating systems
- ✓ Ideal for replacing Oil/LPG/Electric or Gas boilers
- ✓ MCS accredited for grants and subsidies
- ✓ Ideal for use with solar PV for free heating
- ✓ Eligible for Renewable Heat Incentive

*Note not all features are available on all heat pumps.

The Eco Air Boiler System

Eco Air Boiler



Products Available

9kW • London
15kW • Stirling
23kW • Edinburgh
45kW • York

A range of heat pumps suitable for all sizes of properties

Eco Store



High performance water cylinders optimised for our heat pumps. Options for all hot water and heating systems.

Eco Touch



Easy to use, touch screen controller with thermostat control, 7 day scheduler, holiday mode and software to integrate with existing heating systems. Offers full system status information on screen.

Eco Link



Live data link offering monitoring and optimisation of your heat pump by our engineers. Eco Link also offers you the ability to control your heating and view fuel usage on your personal web page, accessible through phones or computers.

For more information visit www.globalenergysystems.co.uk or call +44 (0) 3333 444 414

