



Air Source Heat Pumps

Innovative Heating Solutions
for a Sustainable Future

www.ebac.com





The next generation of home heating

As the UK moves towards a greener future, the demand for energy-efficient and sustainable heating solutions is increasing rapidly.

At Ebac, we're proud to introduce a high-quality air source heat pump solution that has been designed with energy and cost efficiency at the forefront.

Our commitment to innovation and sustainability has been at the core of our business for over 50 years. We believe that by designing and developing cutting-edge products and technology, we can help improve the lives of British homeowners while also contributing to a more sustainable future.

Our air source heat pumps are designed with the highest quality components and rigorously tested to ensure maximum efficiency, reliability and longevity.

Our products are created in Britain specifically for British homes, and we are proud that we are able to offer exceptional product and after-sales support from the very people that design and manufacture the product at our site in County Durham.

Commitment to innovation, sustainability and quality will continue to drive Ebac in the years to come, and we look forward to working with installers to help create a more sustainable future for all.



John Elliott MBE DL.
Founder and Chairman of Ebac





Air Source Heat Pump

9kW

5kW



White + Grey

Ebac 9kW: **H1D09WG-GB** Ebac 5kW: **H1A05WG-GB**

9kW

5kW



Graphite + Black

Ebac 9kW: **H1D09GB-GB** Ebac 5kW: **H1A05GB-GB**



Features & Benefits

✓ **High efficiency performance**
Extra large coils to improve performance and efficiency and high performance fan to maximise air flow.

✓ **Leading control system**
An easy to use control system provides convenient diagnostics and is compatible with a variety of major smart thermostats, including Homely.



✓ **Patent-pending defrost system**
An innovative new defrost system from Ebac helps customers save over £1,300 in running costs.

✓ **Quiet**
Durable and robust steel casing, combined with the optimized design, ensures a quiet and unobtrusive operation.

✓ **Aesthetically different**
With a sleek and unobtrusive design that offers a fresh take on the look of the traditional heat pump.

✓ **5kW & 9kW outputs available**
A range of outputs to suit different needs, with options available in both 5kw & 9kw.

✓ **Designed for the UK**
Designed and manufactured in the UK for the British climate.



✓ **Easy installation**
Providing the convenience of floor or wall mounting with optional brackets. In addition, installers can benefit from product training and first-class technical support.

✓ **Market leading 7-year warranty***
7-year manufacturer's Parts & Labour warranty ensures reliable and efficient heating for years to come.

* following completion of the Ebac AWHP training course.



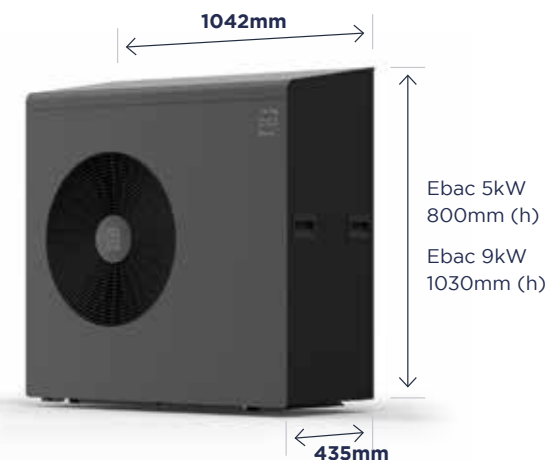
Technical specification

| | | Ebac 5kW | Ebac 9kW |
|--|----------------------------------|----------------|----------------|
| OPERATING AMBIENT TEMPERATURE RANGE | | -20°C - +35°C | -20°C - +35°C |
| SOUND DATA (EN 12102) | Pressure Level at 1m (dBA) | 52 | 51 |
| | Power Level (dBA) | 64.5 | 64.1 |
| WATER DATA | Pipework Size (mm) | 28 | 28 |
| | Flow Rate Max / Min (l/min) | 40/10 | 40/10 |
| | Flow Temperature Max / Min (°C) | 60/15 | 60/15 |
| DIMENSIONS | Width (mm) | 1042 | 1042 |
| | Depth (mm) | 435 | 435 |
| | Height (mm) | 800 | 1030 |
| WEIGHT (KG) | | 90 | 115 |
| ELECTRICAL DATA | Electrical Supply | 220-240v, 50Hz | 220-240v, 50Hz |
| | Phase | Single | Single |
| | Nominal Running Current (MAX)(A) | 15 | 20 |
| | Fuse Rating MCB Sizes (A) | 20 | 25 |
| REFRIGERANT CHARGE (Kg/CO2) | R32 (GWP: 677) | 2.0 / 1.36 | 2.2 / 1.50 |

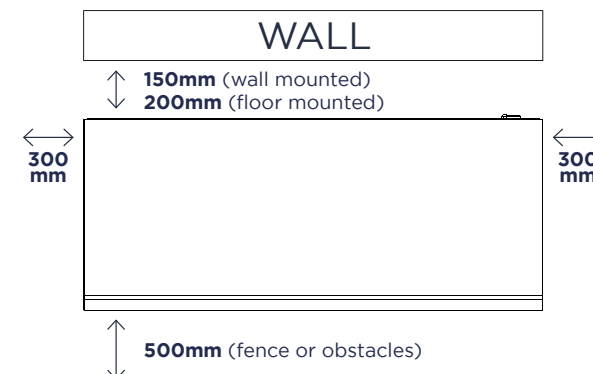
SCOP

| | | Ebac 5kW | Ebac 9kW | |
|---|-----------------------------------|-----------------------------------|----------|------|
| Space Heating (According to EN14825) | Flow Temperature 35°C | ERP Rating | A+++ | A+++ |
| | | Seasonal space Heating Efficiency | 184 | 190 |
| | | SCOP | 4.91 | 4.84 |
| | Flow Temperature 40°C | ERP Rating | A+++ | A+++ |
| | | Seasonal space Heating Efficiency | 170 | 175 |
| | | SCOP | 4.64 | 4.56 |
| | Flow Temperature 45°C | ERP Rating | A++ | A++ |
| | | Seasonal space Heating Efficiency | 155 | 160 |
| | | SCOP | 4.38 | 4.28 |
| | Flow Temperature 50°C | ERP Rating | A++ | A++ |
| | | Seasonal space Heating Efficiency | 142 | 145 |
| | | SCOP | 4.17 | 4.04 |
| Flow Temperature 55°C | ERP Rating | A++ | A++ | |
| | Seasonal space Heating Efficiency | 127 | 129 | |
| | SCOP | 3.96 | 3.80 | |

Dimensions



Distance from wall



5kW

Installers guide



| WATER OUTLET TEMPERATURE (°C) | | 30 | | 35 | | 40 | | 45 | | 50 | | 55 | | |
|-------------------------------|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | kWh | COP | kWh | COP | kWh | COP | kWh | COP | kWh | COP | kWh | COP | |
| MAX | AMBIENT TEMPERATURE (°C) | -15 | 3.91 | 2.52 | 3.89 | 2.39 | 3.89 | 2.21 | 3.61 | 2.14 | - | - | - | - |
| | | -10 | 5.00 | 2.55 | 5.00 | 2.40 | 5.00 | 2.23 | 5.00 | 2.16 | 3.89 | 1.99 | 3.89 | 1.81 |
| | | -7 | 5.72 | 3.07 | 5.60 | 3.02 | 5.40 | 2.69 | 5.20 | 2.34 | 5.00 | 2.28 | 4.50 | 2.23 |
| | | -5 | 5.92 | 3.39 | 5.72 | 3.32 | 5.65 | 2.99 | 5.62 | 2.65 | 5.00 | 2.52 | 4.75 | 2.47 |
| | | -3 | 6.30 | 3.71 | 6.05 | 3.62 | 5.91 | 3.28 | 5.86 | 2.95 | 5.03 | 2.76 | 5.00 | 2.71 |
| | | 0 | 6.81 | 4.03 | 6.52 | 3.93 | 6.30 | 3.58 | 6.22 | 3.26 | 5.37 | 3.00 | 5.00 | 2.96 |
| | | 2 | 7.00 | 4.35 | 6.67 | 4.23 | 6.39 | 3.88 | 6.28 | 3.57 | 5.44 | 3.23 | 5.00 | 3.20 |
| | | 7 | 8.78 | 4.67 | 8.33 | 4.53 | 7.78 | 4.17 | 7.56 | 3.87 | 6.17 | 3.47 | 5.72 | 3.44 |
| | | 12 | 9.44 | 4.99 | 8.89 | 4.83 | 8.22 | 4.47 | 7.94 | 4.18 | 6.61 | 3.71 | 5.89 | 3.68 |
| | | 15 | 9.61 | 5.31 | 9.17 | 5.05 | 8.39 | 4.69 | 8.22 | 4.31 | 6.83 | 4.08 | 6.11 | 3.97 |
| 20 | 9.72 | 5.92 | 9.33 | 5.59 | 8.50 | 5.21 | 8.33 | 4.83 | 7.11 | 4.55 | 6.22 | 4.04 | | |
| NOMINAL | AMBIENT TEMPERATURE (°C) | -15 | 3.91 | 2.52 | 3.89 | 2.39 | 3.89 | 2.21 | 3.61 | 2.14 | - | - | - | - |
| | | -10 | 5.00 | 2.55 | 5.00 | 2.40 | 5.00 | 2.23 | 5.00 | 2.16 | 3.89 | 1.99 | 3.89 | 1.81 |
| | | -7 | 5.00 | 3.10 | 5.00 | 3.04 | 5.00 | 2.72 | 5.00 | 2.35 | 5.00 | 2.28 | 4.50 | 2.23 |
| | | -5 | 5.00 | 3.55 | 5.00 | 3.43 | 5.00 | 3.10 | 5.00 | 2.72 | 5.00 | 2.55 | 4.60 | 2.39 |
| | | -3 | 5.00 | 4.00 | 5.00 | 3.82 | 5.00 | 3.48 | 5.00 | 3.09 | 5.00 | 2.82 | 4.70 | 2.55 |
| | | 0 | 5.00 | 4.46 | 5.00 | 4.22 | 5.00 | 3.86 | 5.00 | 3.46 | 5.00 | 3.09 | 5.00 | 2.70 |
| | | 2 | 5.00 | 4.91 | 5.00 | 4.61 | 5.00 | 4.23 | 5.00 | 3.82 | 5.00 | 3.35 | 5.00 | 2.86 |
| | | 7 | 5.00 | 5.36 | 5.00 | 5.00 | 5.00 | 4.61 | 5.00 | 4.19 | 5.00 | 3.62 | 5.00 | 3.02 |
| | | 12 | 5.00 | 5.81 | 5.00 | 5.42 | 5.00 | 4.99 | 5.00 | 4.56 | 5.00 | 3.89 | 5.00 | 3.74 |
| | | 15 | 5.00 | 6.65 | 5.00 | 6.11 | 5.00 | 5.59 | 5.00 | 5.02 | 5.00 | 4.57 | 5.00 | 4.10 |
| 20 | 5.00 | 6.85 | 5.00 | 6.25 | 5.00 | 5.73 | 5.00 | 5.17 | 5.00 | 4.68 | 5.00 | 4.19 | | |
| MIN | AMBIENT TEMPERATURE (°C) | -15 | 1.70 | 2.38 | 1.70 | 2.29 | 1.63 | 2.21 | 1.63 | 2.15 | - | - | - | - |
| | | -10 | 1.75 | 2.51 | 1.75 | 2.43 | 1.68 | 2.36 | 1.68 | 2.30 | 1.60 | 2.25 | 1.60 | 2.21 |
| | | -7 | 1.47 | 3.06 | 1.47 | 2.88 | 1.40 | 2.73 | 1.40 | 2.62 | 1.32 | 2.54 | 1.32 | 2.48 |
| | | -5 | 1.46 | 3.60 | 1.46 | 3.33 | 1.39 | 3.10 | 1.39 | 2.94 | 1.31 | 2.83 | 1.31 | 2.76 |
| | | -3 | 1.50 | 4.15 | 1.50 | 3.78 | 1.43 | 3.48 | 1.43 | 3.27 | 1.35 | 3.12 | 1.35 | 3.03 |
| | | 0 | 1.63 | 4.69 | 1.63 | 4.23 | 1.56 | 3.85 | 1.56 | 3.59 | 1.48 | 3.41 | 1.48 | 3.31 |
| | | 2 | 1.79 | 5.24 | 1.79 | 4.68 | 1.72 | 4.22 | 1.72 | 3.91 | 1.64 | 3.70 | 1.64 | 3.58 |
| | | 7 | 1.96 | 6.25 | 1.96 | 5.34 | 1.89 | 4.45 | 1.89 | 4.02 | 1.81 | 3.83 | 1.81 | 3.65 |
| | | 12 | 2.20 | 7.12 | 2.20 | 6.48 | 2.13 | 6.01 | 2.13 | 5.35 | 2.05 | 4.82 | 2.05 | 4.31 |
| | | 15 | 2.28 | 7.49 | 2.28 | 6.82 | 2.21 | 6.38 | 2.21 | 5.71 | 2.13 | 5.05 | 2.13 | 4.53 |
| 20 | 2.45 | 7.72 | 2.45 | 7.03 | 2.38 | 6.51 | 2.38 | 5.90 | 2.30 | 5.12 | 2.30 | 4.67 | | |

* Performance data includes defrost

9kW

Installers guide



| WATER OUTLET TEMPERATURE (°C) | | 30 | | 35 | | 40 | | 45 | | 50 | | 55 | | |
|-------------------------------|--------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | kWh | COP | kWh | COP | kWh | COP | kWh | COP | kWh | COP | kWh | COP | |
| MAX | AMBIENT TEMPERATURE (°C) | -15 | 7.00 | 2.62 | 7.00 | 2.45 | 7.00 | 2.27 | 6.50 | 2.13 | - | - | - | - |
| | | -10 | 9.00 | 2.74 | 9.00 | 2.60 | 9.00 | 2.42 | 9.00 | 2.20 | 7.00 | 2.11 | 7.00 | 2.00 |
| | | -7 | 10.30 | 3.03 | 10.00 | 2.88 | 10.00 | 2.68 | 10.00 | 2.44 | 8.50 | 2.30 | 8.10 | 2.19 |
| | | -5 | 10.60 | 3.32 | 10.40 | 3.15 | 10.30 | 2.94 | 10.30 | 2.68 | 9.00 | 2.50 | 9.00 | 2.38 |
| | | -3 | 11.40 | 3.62 | 10.90 | 3.43 | 10.70 | 3.20 | 10.70 | 2.91 | 9.10 | 2.69 | 9.00 | 2.57 |
| | | 0 | 12.00 | 3.91 | 11.50 | 3.70 | 11.20 | 3.46 | 11.00 | 3.15 | 9.50 | 2.89 | 9.00 | 2.76 |
| | | 2 | 12.60 | 4.20 | 12.00 | 3.98 | 11.50 | 3.72 | 11.30 | 3.39 | 9.80 | 3.08 | 9.00 | 2.95 |
| | | 7 | 15.80 | 4.66 | 15.00 | 4.32 | 14.00 | 4.09 | 13.60 | 3.81 | 11.10 | 3.53 | 10.30 | 3.30 |
| | | 12 | 17.00 | 4.98 | 16.00 | 4.85 | 14.80 | 4.48 | 14.30 | 4.18 | 11.90 | 3.70 | 10.60 | 3.62 |
| | | 15 | 17.30 | 5.29 | 16.50 | 5.02 | 15.10 | 4.70 | 14.80 | 4.33 | 12.30 | 4.05 | 11.00 | 3.96 |
| 20 | 17.50 | 5.91 | 16.80 | 5.62 | 15.30 | 5.24 | 15.00 | 4.87 | 12.80 | 4.56 | 11.20 | 4.04 | | |
| NOMINAL | AMBIENT TEMPERATURE (°C) | -15 | 7.00 | 2.62 | 7.00 | 2.45 | 7.00 | 2.27 | 6.50 | 2.13 | - | - | - | - |
| | | -10 | 9.00 | 2.74 | 9.00 | 2.60 | 9.00 | 2.42 | 9.00 | 2.20 | 7.00 | 2.11 | 7.00 | 2.00 |
| | | -7 | 9.00 | 3.20 | 9.00 | 3.04 | 9.00 | 2.77 | 9.00 | 2.49 | 9.00 | 2.30 | 7.50 | 2.15 |
| | | -5 | 9.00 | 3.66 | 9.00 | 3.49 | 9.00 | 3.12 | 9.00 | 2.78 | 9.00 | 2.50 | 9.00 | 2.31 |
| | | -3 | 9.00 | 4.12 | 9.00 | 3.93 | 9.00 | 3.47 | 9.00 | 3.08 | 9.00 | 2.69 | 9.00 | 2.46 |
| | | 0 | 9.00 | 4.58 | 9.00 | 4.38 | 9.00 | 3.82 | 9.00 | 3.37 | 9.00 | 2.89 | 9.00 | 2.62 |
| | | 2 | 9.00 | 5.04 | 9.00 | 4.82 | 9.00 | 4.17 | 9.00 | 3.66 | 9.00 | 3.08 | 9.00 | 2.77 |
| | | 7 | 9.00 | 5.25 | 9.00 | 4.99 | 9.00 | 4.61 | 9.00 | 4.13 | 9.00 | 3.52 | 9.00 | 2.96 |
| | | 12 | 9.00 | 5.75 | 9.00 | 5.31 | 9.00 | 4.92 | 9.00 | 4.50 | 9.00 | 3.81 | 9.00 | 3.68 |
| | | 15 | 9.00 | 6.70 | 9.00 | 6.12 | 9.00 | 5.61 | 9.00 | 5.03 | 9.00 | 4.63 | 9.00 | 4.15 |
| 20 | 9.00 | 6.91 | 9.00 | 6.33 | 9.00 | 5.74 | 9.00 | 5.20 | 9.00 | 4.71 | 9.00 | 4.24 | | |
| MIN | AMBIENT TEMPERATURE (°C) | -15 | 3.25 | 3.62 | 3.02 | 3.31 | 2.98 | 3.04 | 2.94 | 2.68 | - | - | - | - |
| | | -10 | 3.15 | 3.84 | 3.07 | 3.45 | 3.03 | 3.10 | 3.00 | 2.73 | 3.00 | 2.51 | 2.95 | 2.30 |
| | | -7 | 2.64 | 4.08 | 2.55 | 3.75 | 2.55 | 3.38 | 2.50 | 3.01 | 2.50 | 2.69 | 2.48 | 2.44 |
| | | -5 | 2.63 | 4.33 | 2.55 | 4.05 | 2.55 | 3.66 | 2.50 | 3.28 | 2.49 | 2.87 | 2.47 | 2.59 |
| | | -3 | 2.71 | 4.57 | 2.62 | 4.35 | 2.62 | 3.95 | 2.57 | 3.56 | 2.56 | 3.04 | 2.54 | 2.73 |
| | | 0 | 2.84 | 4.82 | 2.75 | 4.65 | 2.75 | 4.23 | 2.70 | 3.83 | 2.69 | 3.22 | 2.66 | 2.88 |
| | | 2 | 2.83 | 5.06 | 2.75 | 4.95 | 2.75 | 4.51 | 2.70 | 4.11 | 2.68 | 3.40 | 2.65 | 3.02 |
| | | 7 | 2.71 | 6.10 | 2.58 | 5.65 | 2.55 | 5.13 | 2.55 | 4.60 | 2.52 | 4.13 | 2.50 | 3.42 |
| | | 12 | 2.70 | 7.14 | 2.52 | 6.46 | 2.50 | 5.99 | 2.48 | 5.37 | 2.45 | 4.91 | 2.45 | 4.32 |
| | | 15 | 2.85 | 7.65 | 2.69 | 6.92 | 2.67 | 6.31 | 2.60 | 5.84 | 2.60 | 5.28 | 2.55 | 4.73 |
| 20 | 3.04 | 8.13 | 2.95 | 7.25 | 2.95 | 6.71 | 2.90 | 6.04 | 2.87 | 5.54 | 2.86 | 5.01 | | |

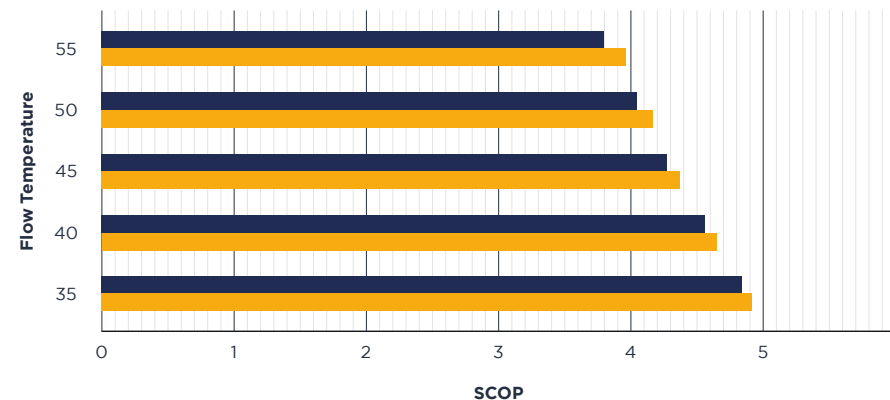
* Performance data includes defrost



Efficiency is key

COP (Coefficient of performance) is a ratio of the input power vs. output power at a single point in time i.e. instantaneous reading. For example a COP of 5 means for 1 kW of electricity in the heat pump produces 5kW of heat.

The SCOP (Seasonal Coefficient of performance) is the COP efficiency prorated over the heating season at the typical conditions from October to April, as set out by the MCS methodology. The data is then input into the official MCS calculator from which the SCOP is calculated. This method is standard across all heat pump manufacturers.



Intuitive control system for ease of use

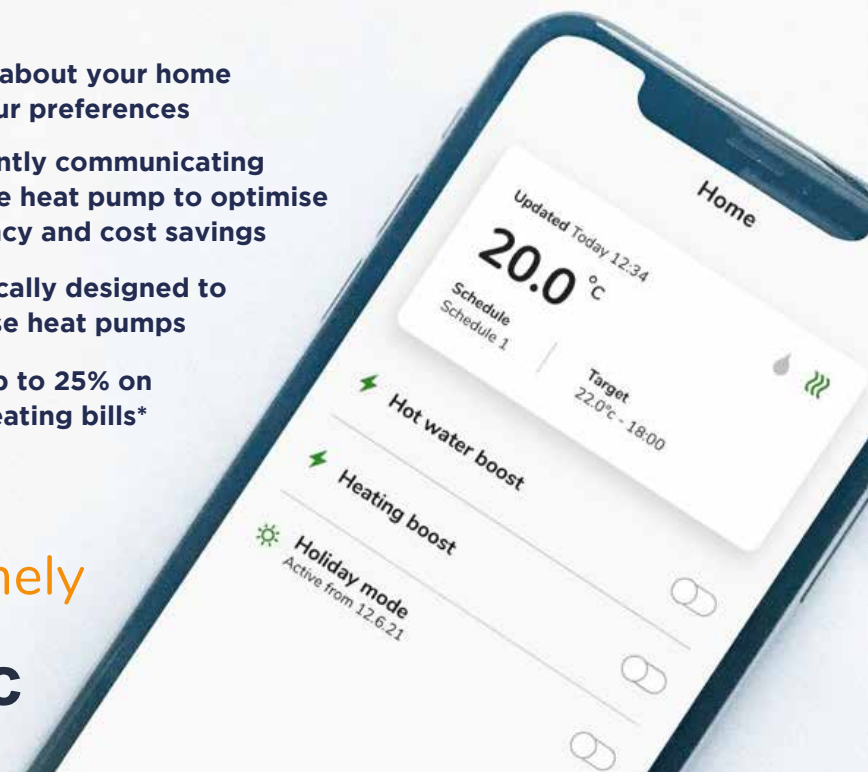
Easy to use, intelligent and accurate.

The Ebac control system allows quick, hassle free configuration allowing for a quick commissioning and should a fault occur, simple diagnosis.

Compatible with a range of Smart home systems, such as Homely via Modbus Control, the Ebac controller can be configured to meet the needs and preferences of the consumer.

* Based on real customer data. Compared with a heat pump set using widely recommended industry default weather compensation parameters. Savings relate to space heating only.

- ✓ **Learns about your home and your preferences**
- ✓ **Constantly communicating with the heat pump to optimise efficiency and cost savings**
- ✓ **Specifically designed to optimise heat pumps**
- ✓ **Save up to 25% on your heating bills***





Patent-pending defrost system

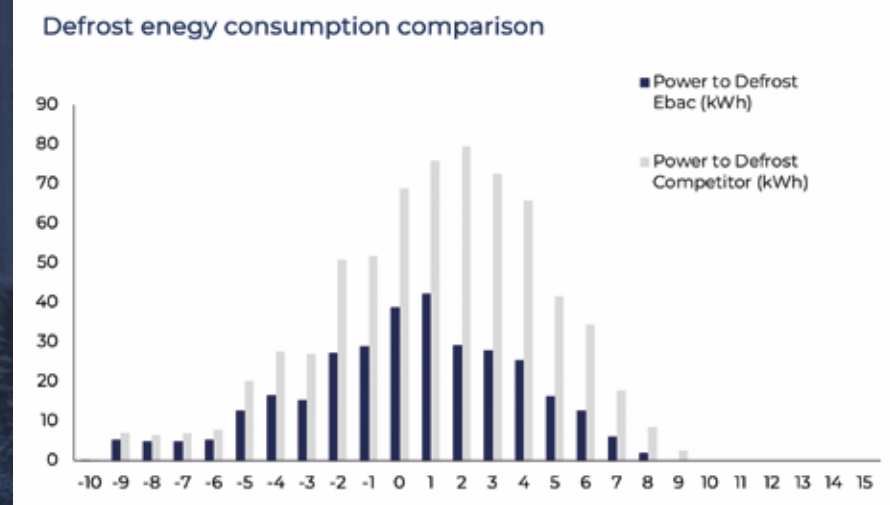
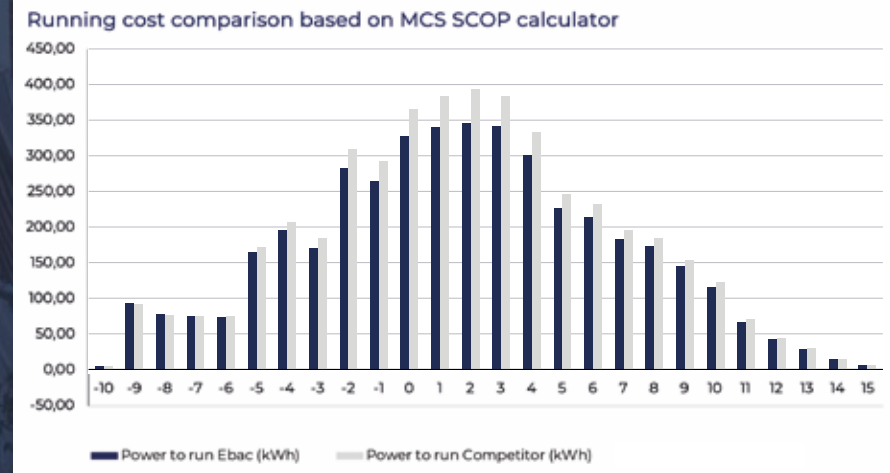
Ebac's defrost system saves up to £1,300 (*£130 annual saving over ten years)

In cold weather conditions, ice can build up on the heat exchanger of the heat pump, which can reduce its efficiency and performance. To prevent this, air source heat pumps are equipped with a defrost system.

The traditional method of defrosting a heat pump system is a process called "Reverse Cycle". This energy intensive method extracts heat from the water circulating around the home and heats up the heat pump heat exchanger in order to defrost.

After analysing the climate conditions in the UK and other brands of heat pumps and using Ebac discovered a revolutionary approach to defrost operation something not currently used by any other heat pump manufacturer in the world. Using in-house design expertise, Ebac developed a Passive defrost method. This works by using energy in the surrounding ambient air to defrost the evaporator coil down to 3°C ambient air temperature.

Ebac has enhanced the overall performance of their units at lower temperatures, reducing the need for the energy-intensive defrost system to operate as frequently, where the reverse cycle method is required Ebac has optimised this cycle to ensure excessive heat is not produced. Only enough heat to thaw the frost is required, any additional heat is wasteful and on some systems plumes of steam are generated during defrost, this is unnecessary.





About Ebac

Manufacturing innovative solutions for British homes for over 50 years.

Since 1972, Ebac has been developing air treatment products for customers all over the world. From commercial and residential applications to complex projects in critical climates around the Globe.

Working with major businesses such as the Government, the London Underground and in 1991, developing a ventilation system to support the British Army Field Hospital during the Gulf War. By choosing an Ebac home ventilation system you can be rest assured that you're installing one of the most efficient systems on the market.



£26m
Turnover

24/7
Production facilities

225
Employees

400,000 sq ft
Unit production capacity

4.5/5 Stars
TrustPilot

Vertically Integrated
Plastic moulding to finished goods

50 Years
Continuous manufacturing

92
Global patents



Working in partnership with Ebac

Ebac have been manufacturing innovative air treatment solutions with focus on quality, performance and energy efficiency for over 50 years.



Technical support

All of our products are designed and manufactured from our facility in County Durham meaning if you have any questions or queries, you can speak directly to the team who designed the product!

Ongoing after-sales care

Whether your looking for technical support, a part replacement or just some advice - the UK customer care team is on hand to support from enquiry to after-care.

Trusted manufacturer

With 50 years of manufacturing and air treatment experience, Ebac are experts in the control of excess moisture within homes across the UK.

Leading customers

Ebac have advised major businesses such as the Government, London Underground & British Army in air treatment.

Why Ebac

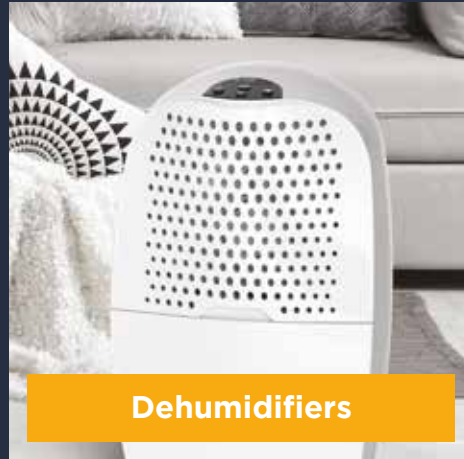
- 1 Leading British manufacturer
- 2 UK based technical and customer support teams
- 3 Industry leading product design
- 4 Responsive and collaborative working
- 5 Focused on quality and sustainability
- 6 Long-term customer relationships

A global customer base





Products we manufacture



Click to view our other great products



If you have any further questions please call our friendly team on **0345 805 0000** or go to **Ebac.com**