

M THERMAL

ARCTIC SERIES

Why Midea?

Midea are the world's No 1 Manufacturer of HVAC Products. In 2018 Forbes Global named Midea as the world's 253rd largest business as a result of $40bn sales. With a European market share of over 20%, Midea now manufacture 1 in every 5 air conditioning systems sold into Europe, and in 2019, HVAC total global sales output reached over 40 million systems. Midea are so confident in their products reliability that they are offering the industries 1st 10 Year Warranty to our Mi-Pro Installation Partners

*UPTO 10 YEAR WARRANTY

Nothing says you are confident in the quality of your heat pump, more than a 10 year warranty, only available from Freedom Heat Pumps

INCREDIBLE VALUE

Midea have come to the market with a single purpose of realising as much market share as possible. This is very evident in the incredibly low pricing available.

ON BOARD INTERNET

Internet connectivity as standard provides the means to monitor your heat pump, and your heating system from anywhere in the world, helping prevent you arriving to a cold home

R32 REFRIGERANT

With a global warming potential of 675 (two-thirds less than R410a) R32 is better for the environment

SO SO QUIET

Engineered to be no noisier than 35db(A) at 3m, the Midea M Thermal range need never bother your neighbours ever again.

SUPER EFFICIENT

503%* efficiency at a 35 degree flow temperature puts this heat pump in a class clearly of its own!

*MHC-V8

Full T's and C's for 10 Year Warranty At Launch

www.mideaxfreedom.co.uk



	Output -2/50	Dimensions (mm) W	H	D	SCOPs 35°C	50°C	Weight	Refrigerant
MHC-V4	5.1kW	1295	792	400	4.66	3.56	98kg	R32
MHC-V6	5.7kW	1295	792	400	4.77	3.72	98kg	R32
MHC-V8	7.25kW	1385	945	410	5.03	3.67	121kg	R32
MHC-V10	8kW	1385	945	410	5.03	3.78	121kg	R32
MHC-V12	11kW	1385	945	410	4.67	3.68	144kg	R32
MHC-V16	13kW	1385	945	410	4.49	3.59	144kg	R32

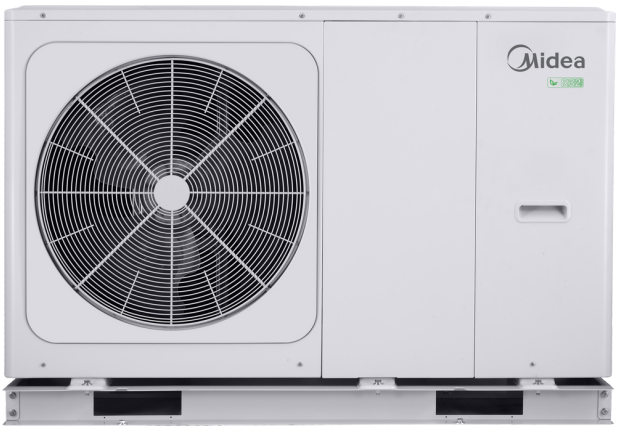
MHC-V4 & MHC-V6





MHC-V8 - MHC-V16





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Air Source Heatpumps



Air source heat-pump systems are perfectly suited to all types of properties currently not on the mains Gas grid and where there is insufficient ground to have a ground source heat-pump. There are minimal levels of insulation that are required for the heat-pump to operate effectively and the higher the insulation levels the more efficiently the heat-pump will operate.

Over 15 years of installing air source heatpumps we have installed many different manufacturers and whilst we are not tied to any particular supplier we do recommend units from Samsung and Midea for most air source heatpump applications. These units are very reliable, quiet and efficient and will work well with both underfloor and appropriately sized radiators plus provide all the hot water required. There is now independent testing of efficiency of all heatpumps sold in the EU measuring the seasonal coefficient of performance (SCOP) which is the measure of efficiency of the heatpump all year round. This shows that the Samsung and Midea heatpumps outperform all other mainstream heatpump manufacturers as well as providing excellent reliability and quiet operation. We select the best heatpump between these 2 manufacturers based upon the size of the heatpump required.

We can provide several options for the control of your heating system including the ability to connect it to the internet to allow remote control and monitoring of the heating system if preferred. We can also link it up to all home automation systems or Building management systems if required.

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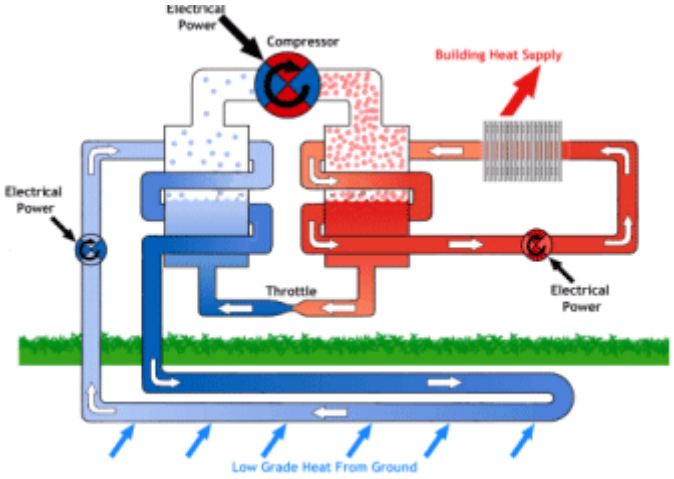
Air and ground Source Heatpumps

Heat-pumps have been in common use for over 150 years and are most commonly found in fridges and freezers. As the name suggests they are used to pump heat from one source to another, they are exceptionally reliable (when was the last time your fridge failed?) with a much longer life expectancy compared to a combustion boiler, very quiet and can be very efficient when correctly specified and installed.

All heat pumps follow the following format, where a brine circuit (contains antifreeze) flows through a ground or water source collector then transfers it's low grade heat to a refrigerant gas (R32) through a heat exchanger. In the case of an air source the air is blown through a fin coil radiator with the refrigerant gas in it. This boils the gas which is then compressed by the compressor before being passed through a heat exchanger where the water that circulated around your heating system is heated by the hot gas. This then passes through an expansion valve to condense the refrigerant to a low pressure and the cycle repeats. On the Mastertherm heatpump both the speed of the compressor, the brine pump and the domestic circulation pump is adjusted to control the output of the heat-pump.



The heat-pump efficiency will vary depending upon the source temperature (ground or air) and the circulating water temperature, the warmer the source and the cooler the circulating water temperature needs to be then the more efficient the heat-pump will be.

With both ground and air source heat-pumps there is a massive difference between different manufacturers of heatpumps in terms of efficiency, noise and reliability. We will design the heating system to get the most out of the heat-pump within the constraints of the property. On the surface heat-pumps can appear complicated and confusing and are often installed with control systems (provided by the heat-pump manufacturers) that are so difficult to use that the heat-pump is left in a default state running at a low efficiency. We offer several different solutions to control the heatpump depending upon your requirements from simple thermostats all the way to our Smartgrid connected thermostat that will ensure the heatpump mainly runs when the wholesale price of electricity is low. Some of the thermostat options can be connected to the internet so that adjustments can be made from your smartphone/tablet.