

Thermia Mega



Maximum performance and best all-round economy

Thermia Mega is a commercial heat pump designed as a beacon of best all-round economy. The result is a heat pump with an inverter-controlled compressor, a total output of up to 84 kW and the highest SPF on the market. You can connect 16 Mega^{XL} units together to achieve a total heating effect of up to 1344 kW.

Our inverter technology makes Mega an extremely flexible and versatile product, which can be installed and used in all types of property, whatever the conditions. Each solution can be tailored to meet your full heating, cooling and hot water needs.

The inverter technology, which continuously adjusts the heat pump's output to current demand, means that the heat pump can supply 100 per cent of your energy requirements. This in turn means that you will avoid having to pay for any expensive auxiliary heating. Thanks to the inverter control, you can also operate installations with different heating and hot water demands without the need for additional volume tanks. This will lower installation costs and reduce the space needed for the system. Hot gas exchangers as standard make hot water production extra cost-effective.

Our main aim when developing Mega was to create a powerful control system. Monitoring and control can be performed directly on the heat pump's newly designed colour touchscreen, as well as via a web interface, an upstream control system or via mobile.



Technical data Mega

800 mm 756 mm

Connections

- 1 Heat return (return line)
- 2 Heat supply (supply line) 3
- 4
- Hot gas exchanger (supply line) Hot gas exchanger (return line) Coolant out (from heat pump) 5
- 6 Coolant in (to heat pump)
- 7 Lead-ins for incoming supply
- 8 Lead-in for communication cables and sensor

= Flow direction



Mega			Mega ^L	Mega ^{xL}
Refrigerant	Type Amount Test pressure (low/high pressure) Design pressure	kg MPa MPa	R410A 5,7 3,0/4,3 4,3	R410A 8,7 3,0/4,3 4,3
Compressor	Type Oil		Scroll POE	Scroll POE
Electrical data 3-N	Mains power supply Rated power, compressor Rated power, circulation pumps	Volt kW kW	400 28,7 1	400 38,1 1
	Fuse	A	50	63
Performance	COP ¹ Heat factor ¹ Incoming power ¹ SCOP (Seasonal Coefficient of Performance)	kW kW	4,50 35,6 7,71 5,1 ²	4,71 52,0 11,0 5,3 ³
	Power range ⁴		14 - 54	21 - 84
Nominal flow ⁵	Cooling circuit Heating circuit	l/s l/s	2,31 0,83	3,34 1,29
External available pressure ⁶	Cooling circuit Heating circuit	kPa kPa	111,6 116	77 99
Internal pressure drop	Condenser Evaporator	kPa kPa	2,9 28,4	9,0 40,0
Max system pressure	Brine Heat transfer fluid	bar bar	6 6	6 6
Max/min temperature ⁷	Cooling circuit Heating circuit	℃ ℃	20/-10 65 ⁸ /20	20/-10 65 ⁸ /20
Max/min refrigerant circuit	Low pressure High pressure	MPa MPa	0.23 4.3	0.21 4.3
Sound power level 4, 9	-	dB (A)	54 - 61	55 - 63
Anti-freeze		Ethanol + water solution $-17^{\circ}C \pm 2^{10}$		
Weight		kg	430	550

B0/W35, according to EN14511 incl. circ. pump at a compressor speed of 3600 rpm.
 B0/W35, according to EN14825, Cold climate, Pdesign 55 kW.
 B0/W35, according to EN14825, Cold climate, Pdesign 73 kW.
 Compressor speed 150-0600 rpm.
 Nominal flow heat circuit Δ10K, cooling circuit Δ3K at 3600 rpm.

6) At nominal flow.
7) Please note that it is not possible to combine all brine temperatures with heat transfer fluid temperatures.
8) Minimum incoming brine temperature 5°C.
9) According to ENI2102 and ENISO 3741.
10) Always check local rules and regulations before using antifreeze.