ENERGY MACHINES

Heat Pump Datasheet

Models:	EMT-1380-1-4-ECO	EMT-1380-1-7-ECO
Refrigerant:	R1234ze	R515B
Certification:	CE	CE
Safety class:	A2L	A1

This Energy Machines™ EMT model contains a refrigerant circuit with an oil-free centrifugal turbocompressor. It is classified as a non-positive displacement compressor.

This model is equipped with an economizer heat exchanger, increasing its energy efficiency. The machine's evaporator and condenser are shell-and-tube heat exchangers. The evaporator operates with a flooded evaporation technique.

These components work together to create a powerful and efficient machine.

The heat pump is available with or without the outer casing.



Characteristics

Model characteristics	
Energy source	Ground, water, or waste heat
Compressor type	Turbo
Capacity control	Frequency controlled
Special features	Economizer, oil-free
Option	Additional external casing available on request

Performance

Heating mode	
Heating capacity (kW)	476
Cooling capacity (kW)	348
COP	3.73

Cooling mode	
Heating capacity (kW)	495
Cooling capacity (kW)	388
COP	3.77

COP = Coefficient of performance

Design temperatures

Heating mode	
Heated fluid (in/out)	57°C / 63°C
Chilled fluid (in/out)	12°C / 7°C

Cooling mode	
Heated fluid (in/out)	37°C / 43°C
Chilled fluid (in/out)	12°C / 7°C

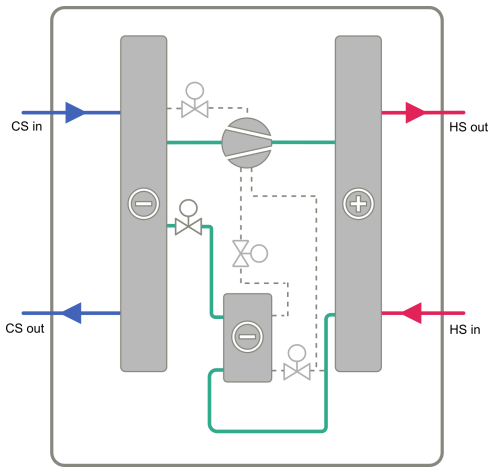
Chilled fluid = water, Heated fluid = water

Flow and pressure drop

Heating mode		
	Heated fluid	Chilled fluid
Flow (l/s)	18.95	16.63
Pressure drop (kPa)	17	27.4

Cooling mode		
	Heated fluid	Chilled fluid
Flow (l/s)	19.71	18.54
Pressure drop (kPa)	18.5	34

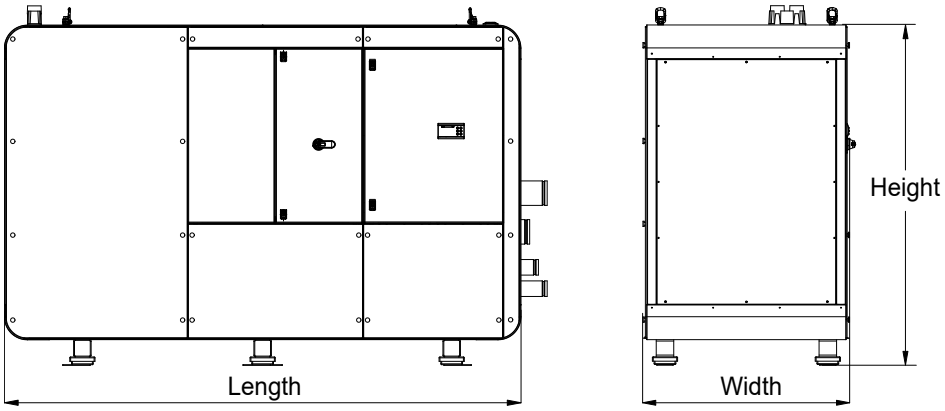
Chilled fluid = water, Heated fluid = water



Specifications

Electricity	
Power supply voltage (VAC)	400
Power supply frequency (Hz)	50
Power supply phase (ϕ)	3
Rated power input (kW)	130
Rated current (A)	210
Fuse (A)	250

Dimensions*	
Length (mm)	2950
Width (mm)	1210
Height (mm)	1945
Dry weight (kg)	2600
Commissioned weight (kg)	3000
**See dimensional drawings for clearance requirements*	



Refrigerant		
Model	EMT-1380-1-4-ECO	EMT-1380-1-7-ECO
Type	R1234ze	R515B
GWP value	1.37	293
Charge (kg)		N/A

Energy Machines has a policy of continuous product and data improvement and reserves the right to change design and specifications without notice. While Energy Machines strives for accuracy, it does not guarantee the completeness or correctness of the information provided.

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