

Heat Pump Datasheet

Models:	EMT-1490-1-4-ECO	EMT-1490-1-7-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
Options	Available with or without outer casing

Performance

Heating mode	
Heating capacity (kW)	589
Cooling capacity (kW)	457
COP	4.47

Cooling mode	
Heating capacity (kW)	645
Cooling capacity (kW)	515
COP	3.91

COP = Coefficient of performance

Design temperatures

Heating mode	
Heated fluid (in/out)	47°C / 53°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

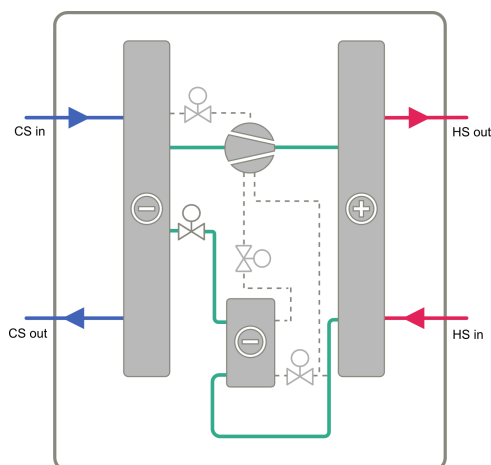
Chilled fluid = water, Heated fluid = water

Flow and pressure drop

Heating mode		
	Heated fluid	Chilled fluid
Flow (l/s)	23.45	21.83
Pressure drop (kPa)	17.3	14.2

Cooling mode		
	Heated fluid	Chilled fluid
Flow (l/s)	25.68	24.61
Pressure drop (kPa)	20.8	17.6

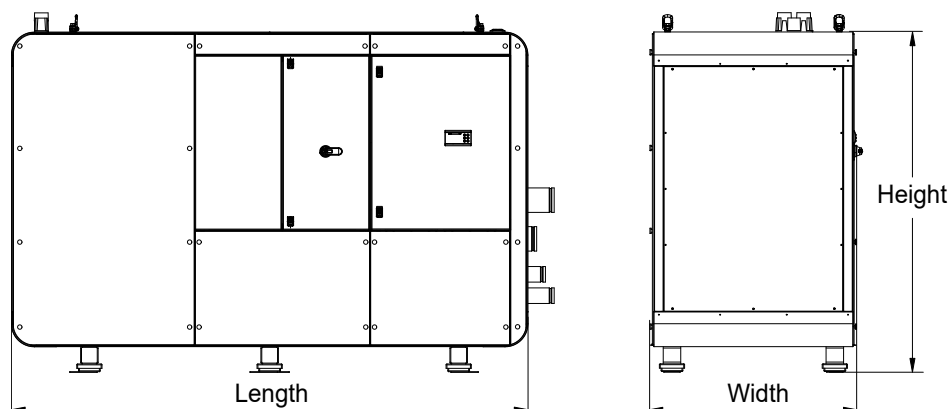
Chilled fluid = water, Heated fluid = water



Specifications

Electricity	
Power supply voltage (VAC)	400
Power supply frequency (Hz)	50
Power supply phase (ϕ)	3
Rated power input (kW)	133
Rated current (A)	210
Fuse (A)	250

Dimensions*	
Length (mm)	2950
Width (mm)	1210
Height (mm)	1945
Dry weight (kg)	2900
Commissioned weight (kg)	3300
*See dimensional drawings for clearance requirements	



Refrigerant		
Model	EMT-1490-1-4-ECO	EMT-1490-1-7-ECO
Type	R1234ze	R515B
GWP value	1.37	288
Charge (kg)		N/A

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