

EMT heat pump

Datasheet

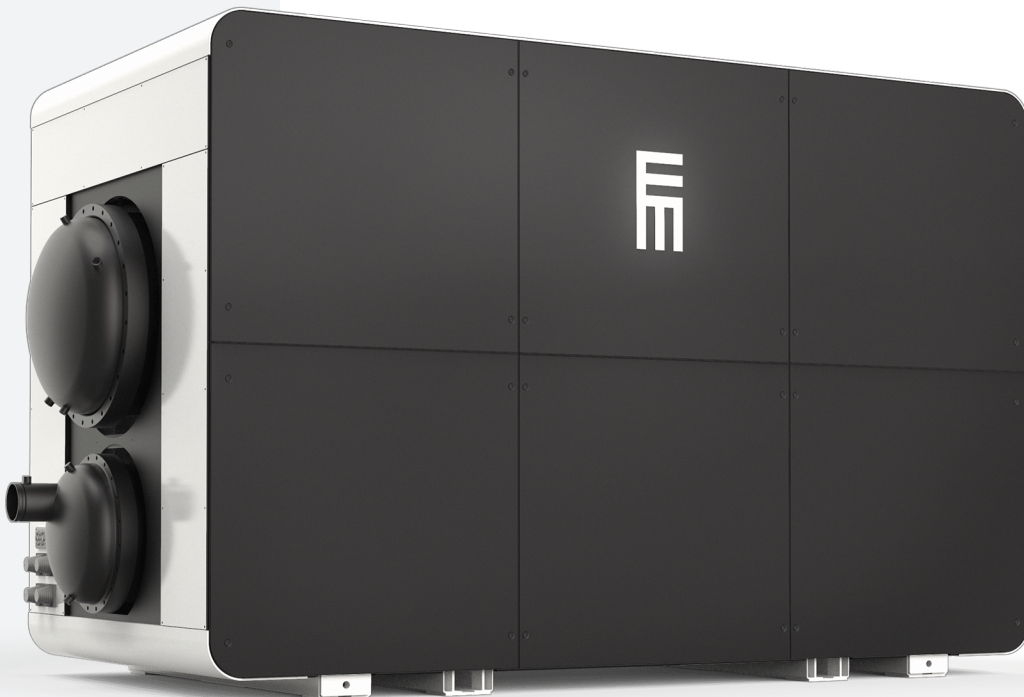
EMT-4285-1-4-FT (R1234ze)

EMT-4285-1-7-FT (R515B)

This Energy Machines™ model contains four oil-free centrifugal turbocompressors and one refrigerant circuit. The compressors are classified as non-positive displacement compressors.

This model is equipped with a flash tank, 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.



Performance

Winter (Heating mode)		Summer (Cooling mode)	
Heating power	1388 kW	Heating power	1422 kW
Cooling power	1011 kW	Cooling power	1102 kW
COP	3.68	COP	3.44

COP = Coefficient of performance

Design parameters

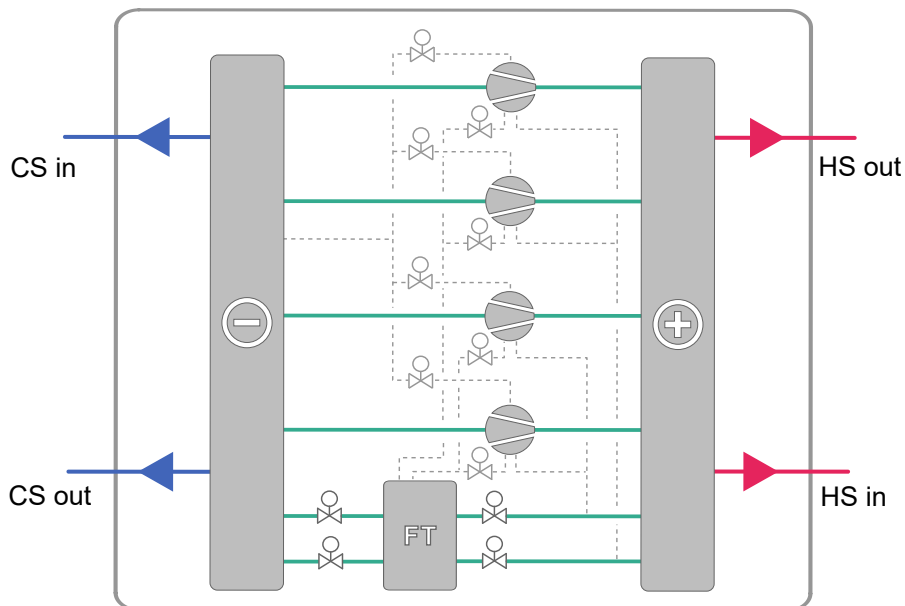
Winter (Heating mode)		Summer (Cooling mode)	
Heated fluid (in/out)	57°C / 63°C	Heated fluid (in/out)	37°C / 43°C
Chilled fluid (in/out)	12°C / 7°C	Chilled fluid (in/out)	12°C / 7°C

Chilled fluid= water, Heated fluid= water.

Pressure drop at rated flow

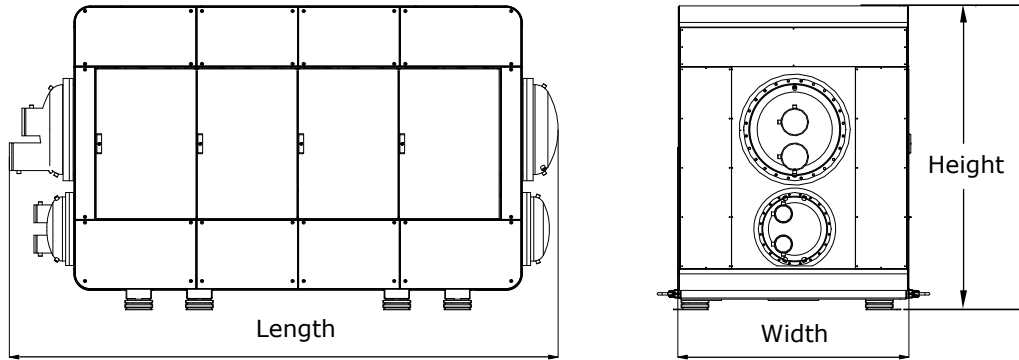
Winter (Heating mode)		Summer (Cooling mode)	
Heated fluid	31.3 kPa / 55.26 l/s	Heated fluid	34.9 kPa / 56.62 l/s
Chilled fluid	21.7 kPa / 48.3 l/s	Chilled fluid	25.4 kPa / 52.65 l/s

Flow diagram



Specifications

Refrigerant			Dimensions	
Type	R1234ze	R515B	Length / Width / Height	4350mm / 1830mm / 2406mm
GWP value	1.37	288	Weight (dry/comm.)	~ 8200 kg / 9000 kg
Charge	420 kg			



Electricity	
Rated power supply	400 VAC / 50 Hz / 3 phase
Rated power input	400 kW
Rated current	600 A
Fuse	800 A

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