

EMT heat pump

Datasheet

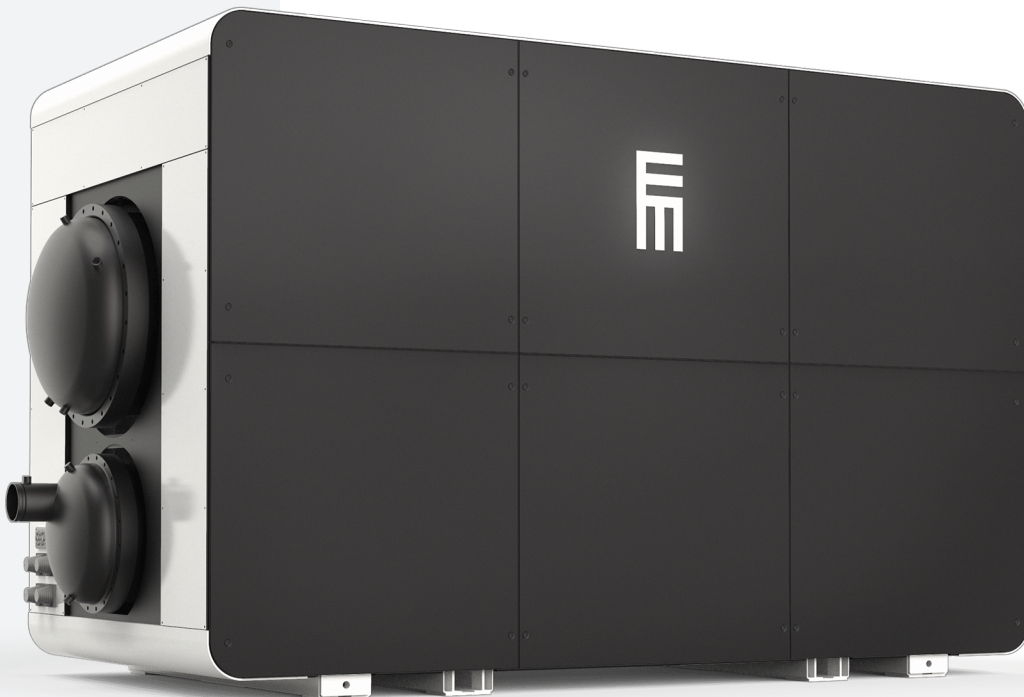
EMT-2285-1-4-FT (R1234ze)

EMT-2285-1-7-FT (R515B)

This Energy Machines™ model contains two oil-free centrifugal turbocompressors and a refrigerant circuit. The compressor is classified as a non-positive displacement compressor.

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 | 694 kW | Heating power | 711 kW |
| Cooling power | 505 kW | Cooling power | 551 kW |
| COP | 3.68 | COP | 3.44 |

COP = Coefficient of performance

Design parameters

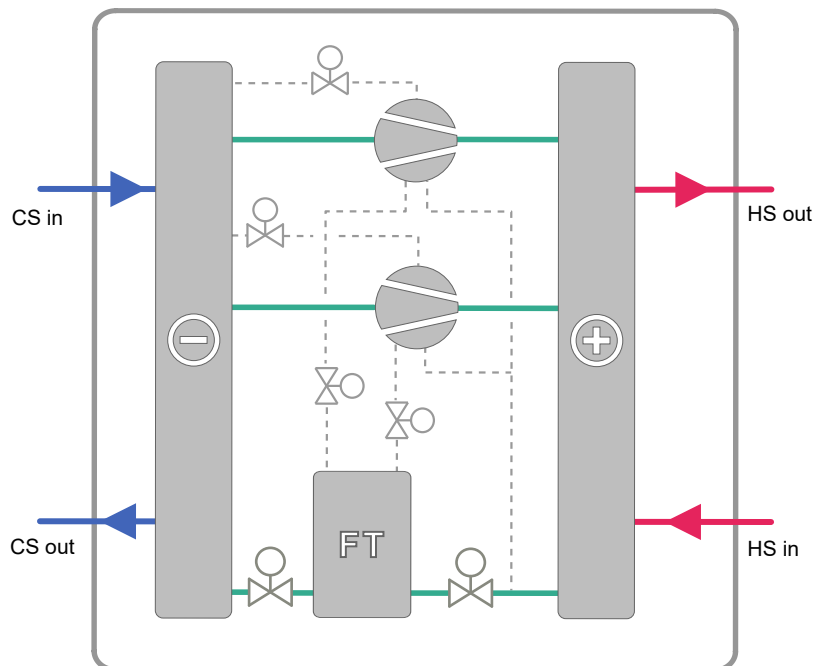
| Winter (Heating mode) | | Summer (Cooling mode) | |
|------------------------|-------------|------------------------|-------------|
| Heated fluid (in/out) | 57°C / 63°C | Heated fluid (in/out) | 37°C / 43°C |
| Chilled fluid (in/out) | 12°C / 7°C | Chilled fluid (in/out) | 12°C / 7°C |

Chilled fluid= water, Heated fluid= water.

Pressure drop at rated flow

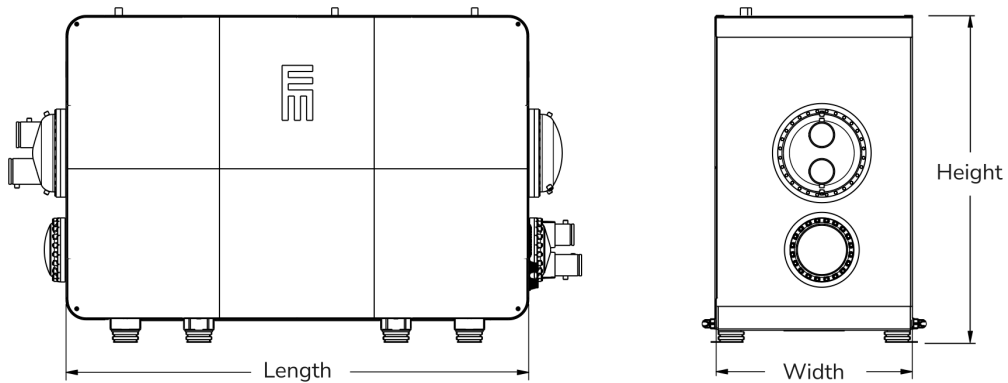
| Winter (Heating mode) | | Summer (Cooling mode) | |
|-----------------------|----------------------|-----------------------|----------------------|
| Heated fluid | 34.3 kPa / 27.63 l/s | Heated fluid | 38.2 kPa / 28.31 l/s |
| Chilled fluid | 41.8 kPa / 24.13 l/s | Chilled fluid | 48.8 kPa / 26.33 l/s |

Flow diagram



Specifications

| Refrigerant | | | Dimensions | |
|-------------|---------|-------|-------------------------|--------------------------|
| Type | R1234ze | R515B | Length / Width / Height | 3040mm / 1290mm / 2140mm |
| GWP value | 1.37 | 288 | Weight (dry/comm.) | ~ 3500 kg / 4000 kg |
| Charge | N/A kg | | | |



| Electricity | |
|--------------------|---------------------------|
| Rated power supply | 400 VAC / 50 Hz / 3 phase |
| Rated power input | 200 kW |
| Rated current | 300 A |
| Fuse | 400 A |

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