

**EMT6144Z****ENGINEERING CODE**  
513306218**REFRIGERANT**  
R-134a**POWER SUPPLY**  
220-240 V 50 Hz**APPLICATION**  
HBP**MOTOR TYPE**  
CSIR**STANDARD**  
EN12900**COOLING CAPACITY**  
508 W**EFFICIENCY**  
2.44 W/W**DATA****GENERAL DATA**

|                               |                                   |
|-------------------------------|-----------------------------------|
| <b>Model</b>                  | EMT6144Z                          |
| <b>Type</b>                   | Hermetic Reciprocating            |
| <b>Technology</b>             | ON/OFF                            |
| <b>Compressor Application</b> | HBP                               |
| <b>Expansion Device</b>       | Capillary Tube or Expansion Valve |
| <b>Compressor Cooling</b>     | Fan/220                           |
| <b>HP</b>                     | 1/5                               |
| <b>Starting Torque</b>        | HST                               |
| <b>Plant</b>                  | BRAZIL                            |

**ELECTRICAL DATA**

|  |                 |
|--|-----------------|
| <b>Start Winding Resistance</b>            | 21.3 Ω at 25°C  |
| <b>Run Winding Resistance</b>              | 12.95 Ω at 25°C |
| <b>Locked Rotor Amperage (LRA) 50Hz</b>    | 8.5 A           |
| <b>Rated Load Amperage (LMBP) at 50 Hz</b> | 2.1 A           |
| <b>Rated Load Amperage (HBP) at 50 Hz</b>  | 2.3 A           |

## MECHANICAL DATA

|               |                      |
|---------------|----------------------|
| Displacement  | 5.19 cm <sup>3</sup> |
| Oil Charge    | 180 ml               |
| Oil Type      | ESTER                |
| Oil Viscosity | ISO22                |
| Weight        | 7.7 Kg               |

## ELECTRICAL COMPONENTS

|                      |                     |
|----------------------|---------------------|
| Start Capacitor      | 43-53 $\mu$ F/330 V |
| CSR CSIR BOX         | No                  |
| Starting Device Type | RELAY               |
| Overload Protection  | DRB180K52AXF        |

## EXTERNAL CHARACTERISTICS

| Base Plate  | SMALL EUEM        |                                |          |
|-------------|-------------------|--------------------------------|----------|
| Tray Holder | YES               |                                |          |
| Connector   | Internal Diameter | Shape                          | Material |
| Suction     | 6.1 mm            | SLANTED 42° UP + 45° TO BACK   | COPPER   |
| Discharge   | 4.94 mm           | SLANTED PARALLEL BP+24°TO BACK | COPPER   |
| Process     | 6.1 mm            | SLANTED 45° UP + 45° TO BACK   | COPPER   |

## PERFORMANCE

### TESTED CONDITIONS

|                         |         |
|-------------------------|---------|
| Tested Refrigerant      | R-134a  |
| Tested Application      | HBP     |
| Tested Standard         | EN12900 |
| Tested Cooling          | Fan     |
| Tested Voltage          | 220 V   |
| Tested Frequency        | 50 Hz   |
| Max Refrigerant Charge  | 250 g   |
| Refrigerant Temperature | Dew     |

## RATED POINTS

| Condensing Temperature °C | Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|---------------------------|----------------------------|--------------------|----------------|---------------------|-----------|--------------------|
| 50                        | 5                          | 508                | 2.44           | 208                 | -         | 12.75              |

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

## PERFORMANCE CURVE

Condensing Temperature 35°C

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|----------------------------|--------------------|----------------|---------------------|-----------|--------------------|
| -15                        | 267                | 2.07           | 129                 | -         | 5.64               |
| -10                        | 336                | 2.38           | 141                 | -         | 7.14               |
| -5                         | 417                | 2.70           | 154                 | -         | 8.91               |
| 0                          | 511                | 3.08           | 166                 | -         | 10.99              |
| 5                          | 620                | 3.55           | 174                 | -         | 13.43              |
| 10                         | 744                | 4.20           | 177                 | -         | 16.27              |

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

## PERFORMANCE CURVE

Condensing Temperature 45°C

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|----------------------------|--------------------|----------------|---------------------|-----------|--------------------|
| -15                        | 230                | 1.63           | 141                 | -         | 5.33               |
| -10                        | 291                | 1.90           | 153                 | -         | 6.79               |
| -5                         | 363                | 2.16           | 168                 | -         | 8.52               |
| 0                          | 448                | 2.42           | 185                 | -         | 10.58              |
| 5                          | 546                | 2.72           | 200                 | -         | 12.99              |
| 10                         | 657                | 3.09           | 213                 | -         | 15.81              |

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

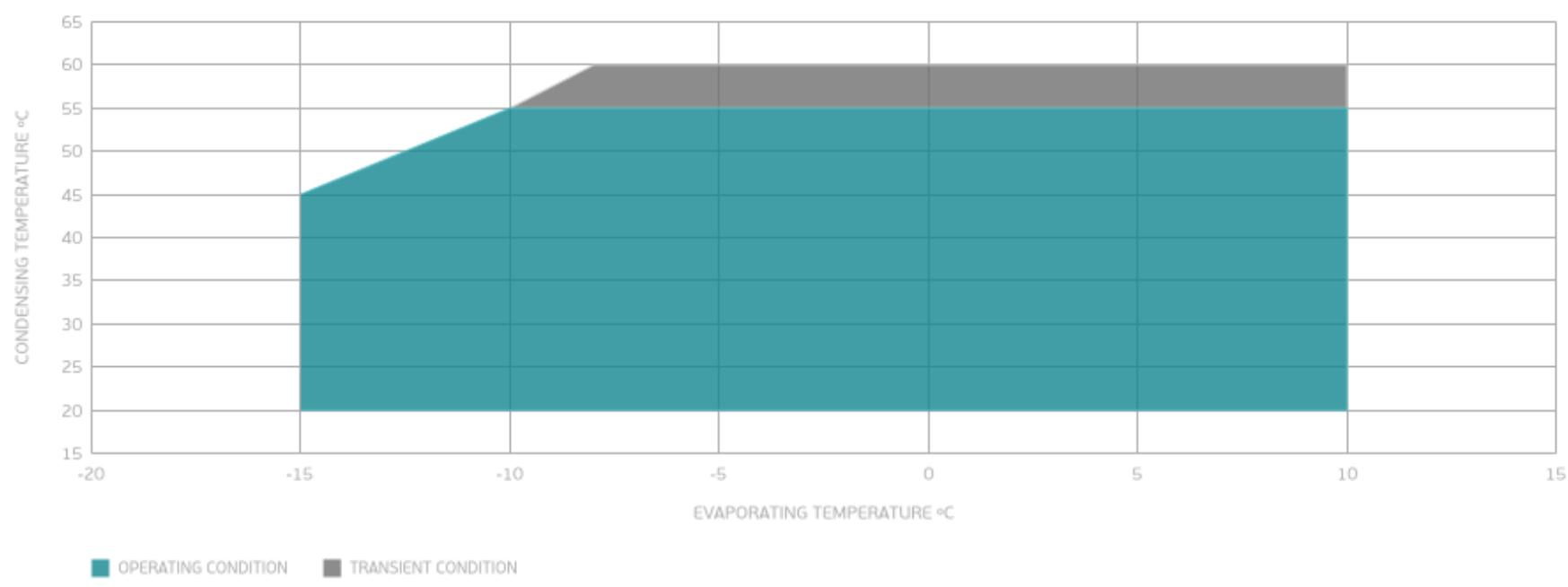
## PERFORMANCE CURVE

Condensing Temperature 55°C

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|----------------------------|--------------------|----------------|---------------------|-----------|--------------------|
| -10                        | 247                | 1.54           | 160                 | -         | 6.41               |
| -5                         | 310                | 1.78           | 175                 | -         | 8.10               |
| 0                          | 384                | 1.99           | 193                 | -         | 10.11              |
| 5                          | 470                | 2.21           | 213                 | -         | 12.49              |
| 10                         | 569                | 2.46           | 232                 | -         | 15.27              |

Test Condition: Subcooling 0 K, Return Gas 20 °C. Data are an indication of performance based simulation.

## ENVELOPE



## EXTERNAL DIMENSIONS

