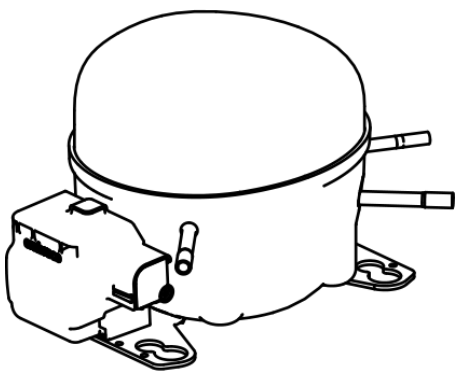
# COMPRESSOR TECHNICAL DATA

## EMY6170Z



**ENGINEERING CODE**
513301855

**REFRIGERANT**
R-134a

**POWER SUPPLY**
220-240 V 50 Hz

**APPLICATION**
HBP

**MOTOR TYPE**
CSIR

**STANDARD**
ASHRAE

**COOLING CAPACITY**
795 W

**EFFICIENCY**
2.6 W/W

## DATA

### GENERAL DATA

| | |
|---|---|
| **Model** | EMY6170Z |
| **Type** | Hermetic Reciprocating |
| **Technology** | ON/OFF |
| **Compressor Application** | HBP |
| **Expansion Device** | Capillary Tube or Expansion Valve |
| **Compressor Cooling** | Fan/220 |
| **HP** | 1/4 |
| **Starting Torque** | HST |
| **Plant** | BRAZIL |

### ELECTRICAL DATA

| | |
|---|---|
| **Start Winding Resistance** | 13.75 Ω at 25°C |
| **Run Winding Resistance** | 13.0 Ω at 25°C |
| **Locked Rotor Amperage (LRA) 50Hz** | 10 A |
| **Rated Load Amperage (LMBP) at 50 Hz** | 1.7 A |
| **Rated Load Amperage (HBP) at 50 Hz** | 1.9 A |

## MECHANICAL DATA

| | |
|---|---|
| **Displacement** | 7.51 $cm^3$ |
| **Oil Charge** | 150 ml |
| **Oil Type** | ESTER |
| **Oil Viscosity** | ISO22 |
| **Weight** | 7.7 Kg |

## ELECTRICAL COMPONENTS

| | |
|---|---|
| **Start Capacitor** | 53-64 µf/330 V |
| **CSR CSIR BOX** | No |
| **Starting Device Type** | RELAY |
| **Starting Device Description** | MTRPH-0025-77* |
| **Overload Protection** | 4TM319KDBYY |

# PERFORMANCE

## TESTED CONDITIONS

| | |
|---|---|
| **Tested Refrigerant** | R-134a |
| **Tested Application** | HBP |
| **Tested Standard** | ASHRAE |
| **Tested Cooling** | Fan |
| **Tested Voltage** | 220 V |
| **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 |
|---|---|---|---|---|---|---|
| 54.4 | 7.2 | 795 | 2.6 | 306 | 1.73 | 17.58 |

Test Condition: Subcooling 8.3 K, Return Gas 35 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

## PERFORMANCE CURVE

Condensing Temperature 35ºC

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|---|---|---|---|---|---|
| -15 | 453 | 2.69 | 168 | 1.35 | 8.36 |
| -10 | 576 | 3.10 | 186 | 1.39 | 10.67 |
| -5 | 723 | 3.52 | 206 | 1.43 | 13.44 |
| 0 | 891 | 3.99 | 223 | 1.47 | 16.64 |
| 5 | 1079 | 4.57 | 236 | 1.52 | 20.26 |
| 10 | 1286 | 5.33 | 241 | 1.58 | 24.29 |

Test Condition: Subcooling 8.3 K, Return Gas 35 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

## PERFORMANCE CURVE

### Condensing Temperature 45ºC

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|---|---|---|---|---|---|
| -15 | 366 | 1.99 | 184 | 1.37 | 7.30 |
| -10 | 467 | 2.30 | 203 | 1.41 | 9.34 |
| -5 | 590 | 2.61 | 226 | 1.47 | 11.86 |
| 0 | 735 | 2.92 | 251 | 1.53 | 14.83 |
| 5 | 898 | 3.25 | 276 | 1.60 | 18.24 |
| 10 | 1080 | 3.64 | 297 | 1.68 | 22.08 |

Test Condition: Subcooling 8.3 K, Return Gas 35 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

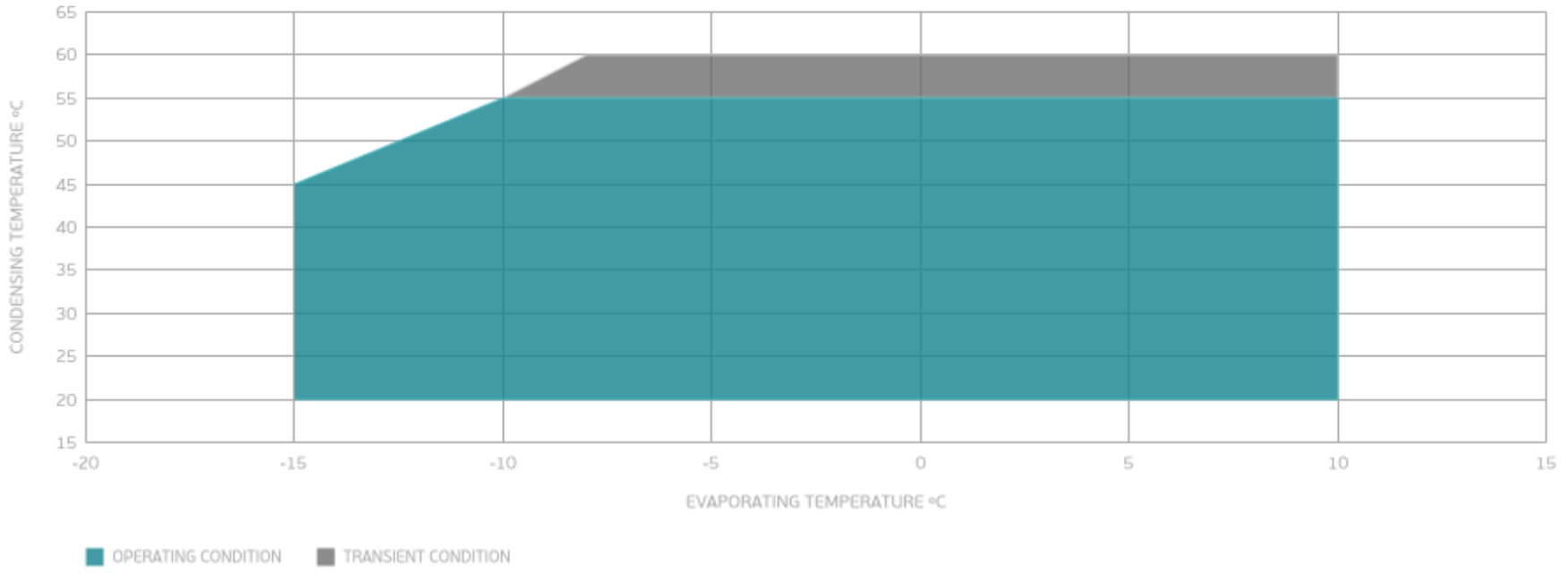
## PERFORMANCE CURVE

### Condensing Temperature 55ºC

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|---|---|---|---|---|---|
| -10 | 364 | 1.73 | 210 | 1.45 | 7.95 |
| -5 | 462 | 1.98 | 233 | 1.52 | 10.13 |
| 0 | 580 | 2.22 | 261 | 1.60 | 12.79 |
| 5 | 717 | 2.45 | 293 | 1.69 | 15.91 |
| 10 | 871 | 2.69 | 324 | 1.79 | 19.47 |

Test Condition: Subcooling 8.3 K, Return Gas 35 ºC. Data generated in accordance to EN 12900:2013 polynomial equation and tolerance guidelines.

## ENVELOPE




# External

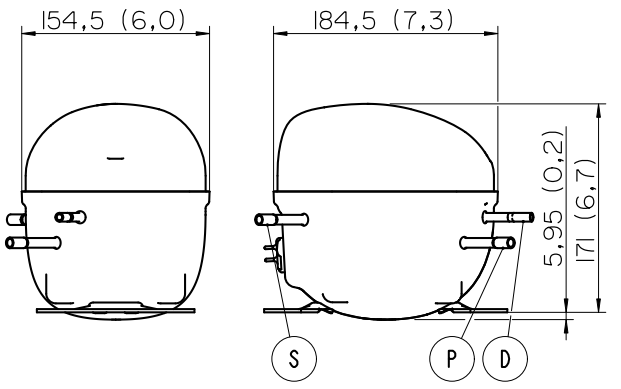
## EXTERNAL CHARACTERISTICS

| | |
|---|---|
| **Base Plate** | SMALL |
| **Tray Holder** | YES |

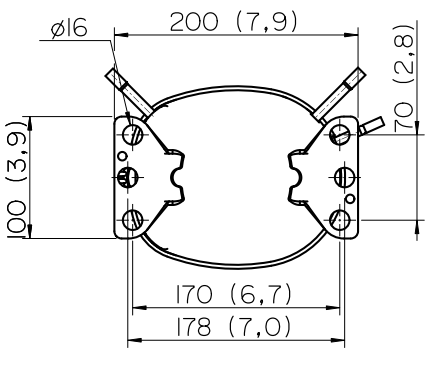
| Connector | Internal Diameter | Shape | Material |
|---|---|---|---|
| **Suction** | 6.1 mm | SLANTED 42º UP + 45° TO BACK | COPPER |
| **Discharge** | 4.94 mm | SLANTED 0° UP + 45° TO BACK | COPPER |
| **Process** | 6.1 mm | SLANTED 45° UP + 45° TO BACK | COPPER |

## EXTERNAL DIMENSIONS

### SHELL




### BASE




### FENCE