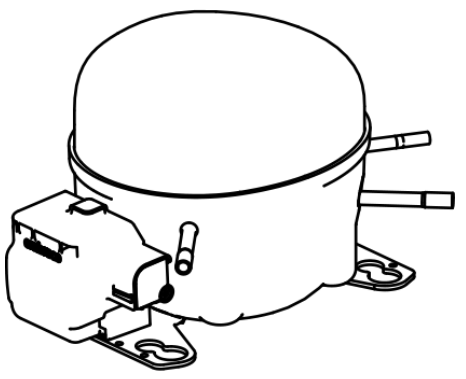
# COMPRESSOR TECHNICAL DATA

## EMC3121U



**ENGINEERING CODE**
711IA52

**REFRIGERANT**
R-290

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

**APPLICATION**
L/MBP

**MOTOR TYPE**
RSCR

**STANDARD**
EN12900

**COOLING CAPACITY**
442 W

**EFFICIENCY**
2.45 W/W

## DATA

### GENERAL DATA

| | |
|---|---|
| **Model** | EMC3121U |
| **Type** | Hermetic Reciprocating |
| **Technology** | ON/OFF |
| **Compressor Application** | L/MBP |
| **Expansion Device** | Capillary Tube |
| **Compressor Cooling** | Fan/220 |
| **HP** | 1/4 |
| **Starting Torque** | LST |
| **Plant** | SLOVAKIA |

### ELECTRICAL DATA

| | |
|---|---|
| **Start Winding Resistance** | 13.5 Ω at 25°C |
| **Run Winding Resistance** | 13.7 Ω at 25°C |

## MECHANICAL DATA

| | |
|---|---|
| **Displacement** | 5.54 $cm^3$ |
| **Oil Charge** | 150 ml |
| **Oil Type** | ESTER |
| **Oil Viscosity** | ISO10 |
| **Weight** | 8.2 Kg |

## ELECTRICAL COMPONENTS

| | |
|---|---|
| **Run Capacitor** | 5.0 µf/350 V |
| **CSR CSIR BOX** | No |
| **Starting Device Type** | PTC |
| **Starting Device Description** | MI2021 V230 |
| **Overload Protection** | AE15BU |

## EXTERNAL CHARACTERISTICS

| | |
|---|---|
| **Base Plate** | SMALL |
| **Tray Holder** | NO |

| 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 |

# PERFORMANCE

## TESTED CONDITIONS

| | |
|---|---|
| **Tested Refrigerant** | R-290 |
| **Tested Application** | MBP |
| **Tested Standard** | EN12900 |
| **Tested Cooling** | Fan |
| **Tested Voltage** | 220 V |
| **Tested Frequency** | 50 Hz |
| **Max Refrigerant Charge** | 150 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 |
|---|---|---|---|---|---|---|
| 45 | -10 | 442 | 2.45 | 181 | - | 5.45 |

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 |
|---|---|---|---|---|---|
| -35 | 164 | 1.60 | 103 | - | 1.80 |
| -30 | 211 | 1.86 | 113 | - | 2.32 |
| -25 | 270 | 2.15 | 126 | - | 2.98 |
| -20 | 341 | 2.46 | 138 | - | 3.78 |
| -15 | 422 | 2.80 | 151 | - | 4.70 |
| -10 | 513 | 3.18 | 161 | - | 5.75 |
| -5 | 612 | 3.61 | 169 | - | 6.90 |
| 0 | 718 | 4.14 | 174 | - | 8.15 |

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 |
|---|---|---|---|---|---|
| -35 | 142 | 1.30 | 109 | - | 1.71 |
| -30 | 183 | 1.50 | 122 | - | 2.21 |
| -25 | 234 | 1.72 | 136 | - | 2.84 |
| -20 | 295 | 1.95 | 151 | - | 3.60 |
| -15 | 365 | 2.19 | 167 | - | 4.47 |
| -10 | 442 | 2.45 | 181 | - | 5.45 |
| -5 | 526 | 2.73 | 193 | - | 6.52 |
| 0 | 616 | 3.05 | 202 | - | 7.69 |

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

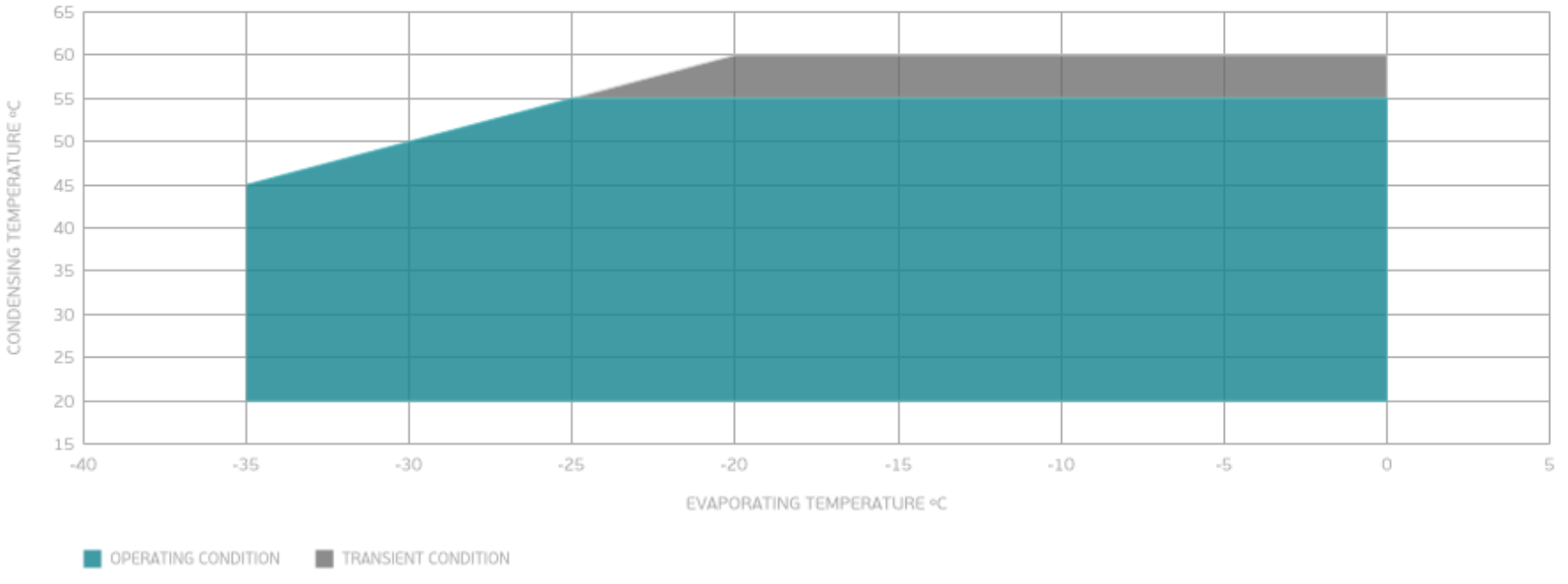
## PERFORMANCE CURVE

### Condensing Temperature 55°C

| Evaporating Temperature °C | Cooling Capacity W | Efficiency W/W | Power Consumption W | Current A | Gas Flow Rate kg/h |
|---|---|---|---|---|---|
| -25 | 192 | 1.40 | 137 | - | 2.59 |
| -20 | 244 | 1.58 | 155 | - | 3.31 |
| -15 | 303 | 1.75 | 173 | - | 4.14 |
| -10 | 368 | 1.93 | 191 | - | 5.05 |
| -5 | 438 | 2.12 | 207 | - | 6.06 |
| 0 | 510 | 2.32 | 220 | - | 7.14 |

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

## ENVELOPE




## EXTERNAL DIMENSIONS

