


APPROVALS




 **ENGINEERING CODE**  
862KA51

 **APPROVED REFRIGERANT**  
R-290


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

 **STANDARD CONDITIONS**  
ASHRAE

 **APPLICATION**  
LBP

 **COOLING CAPACITY**  
644 W

 **EFFICIENCY**  
1.46 W/W

 **MOTOR TYPE**  
CSIR

 **STARTING TORQUE**  
HST

DATA

General Data

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Type                              | Hermetic reciprocating            |
| Technology Type                   | On-Off                            |
| Displacement                      | 13.54 cm <sup>3</sup>             |
| Compressor Cooling                | Fan                               |
| Fan Air Flow                      | 520 m <sup>3</sup> /h             |
| Expansion Device                  | Capillary Tube or Expansion Valve |
| Horse Power                       | 3/4 hp                            |
| Max Condensing Pressure Operating | 18.07 bar                         |
| Max Condensing Pressure Peak      | 20.17 bar                         |
| Power Supply                      | 220-240 V 50 Hz                   |
| Evaporating Temperature Range     | -40 °C to -10 °C                  |

Electrical Data

|                             |                  |
|-----------------------------|------------------|
| Motor type                  | CSIR             |
| Starting Torque             | HST              |
| Start Winding Resistance    | 19.29 Ω at 25° C |
| Run Winding Resistance      | 5.98 Ω at 25° C  |
| Locked Rotor Amperage (LRA) | 17.5 A           |

## Mechanical Data

|  |                        |
|--|------------------------|
| Maximum Recommended Refrigerant Charge | 150 g                  |
| Oil Charge                             | 350 ml                 |
| Oil Type Configuration                 | Polyolester            |
| Oil Type Viscosity                     | ISO22                  |
| Pressurization                         | Without dry air charge |
| Weight                                 | 12 Kg                  |
| Free Internal Volume                   | 2.1 L                  |

## Electrical Components

|                  | Description                |
|------------------|----------------------------|
| Start Capacitor  | 64-77 7F / 330V            |
| Starting Device  | Current relay   MTRP-49-65 |
| Motor Protection | External 3/4" T0056/G6     |

## External Characteristics

| Base Plate  | European          |             |
|-------------|-------------------|-------------|
| Tray Holder | No                |             |
| Height      | 200 mm            |             |
| Connector   | Internal Diameter | Shape       |
| Suction     | 8.1 mm            | Slanted 42° |
| Discharge   | 6.1 mm            | Straight    |
| Process     | 6.1 mm            | Slanted 42° |

## PERFORMANCE

## Rated Points

| Condensing Temperature | Evaporating Temperature | Cooling Capacity | Power Consumption | Current | Gas Flow Rate | Efficiency |
|------------------------|-------------------------|------------------|-------------------|---------|---------------|------------|
| 54.40°C                | -23.30°C                | 644 W            | 440 W             | 2.55 A  | 6.51 kg/h     | 1.46 W/W   |

Test Condition: ASHRAE, Fan, Return Gas 32.2°C, Evaporation -23.30°C, Condensing 54.40°C, Ambient 32.2°C, Liquid 32.2°C. Data in accordance to ASHRAE guideline polynomial curve.

## Performance Curve Data

### Condensing Temperature 35°C

| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -40                        | 318                | 257     | 1.93      | 3.16               | 1.24           |
| -35                        | 408                | 294     | 2.03      | 4.09               | 1.39           |
| -30                        | 522                | 330     | 2.14      | 5.26               | 1.58           |
| -25                        | 661                | 366     | 2.26      | 6.69               | 1.8            |
| -20                        | 824                | 402     | 2.39      | 8.38               | 2.05           |
| -15                        | 1012               | 437     | 2.52      | 10.33              | 2.31           |
| -10                        | 1224               | 473     | 2.66      | 12.56              | 2.59           |

Test Condition: ASHRAE, Fan, LBP. Data in accordance to ASHRAE guideline polynomial curve.

### Condensing Temperature 45°C

| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -35                        | 386                | 312     | 2.11      | 3.85               | 1.24           |
| -30                        | 495                | 354     | 2.24      | 4.98               | 1.4            |
| -25                        | 628                | 397     | 2.38      | 6.35               | 1.58           |
| -20                        | 784                | 440     | 2.54      | 7.96               | 1.78           |
| -15                        | 962                | 485     | 2.72      | 9.82               | 1.98           |
| -10                        | 1164               | 531     | 2.9       | 11.94              | 2.19           |

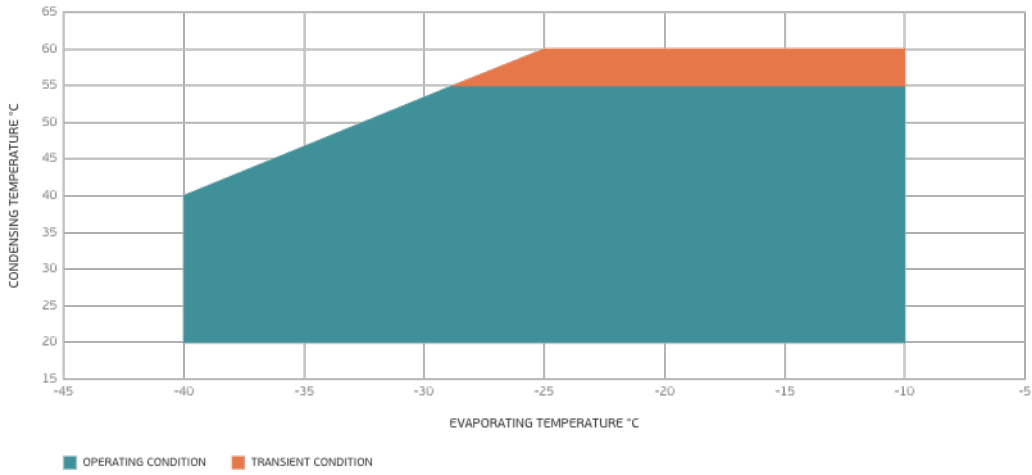
Test Condition: ASHRAE, Fan, LBP. Data in accordance to ASHRAE guideline polynomial curve.

### Condensing Temperature 55°C

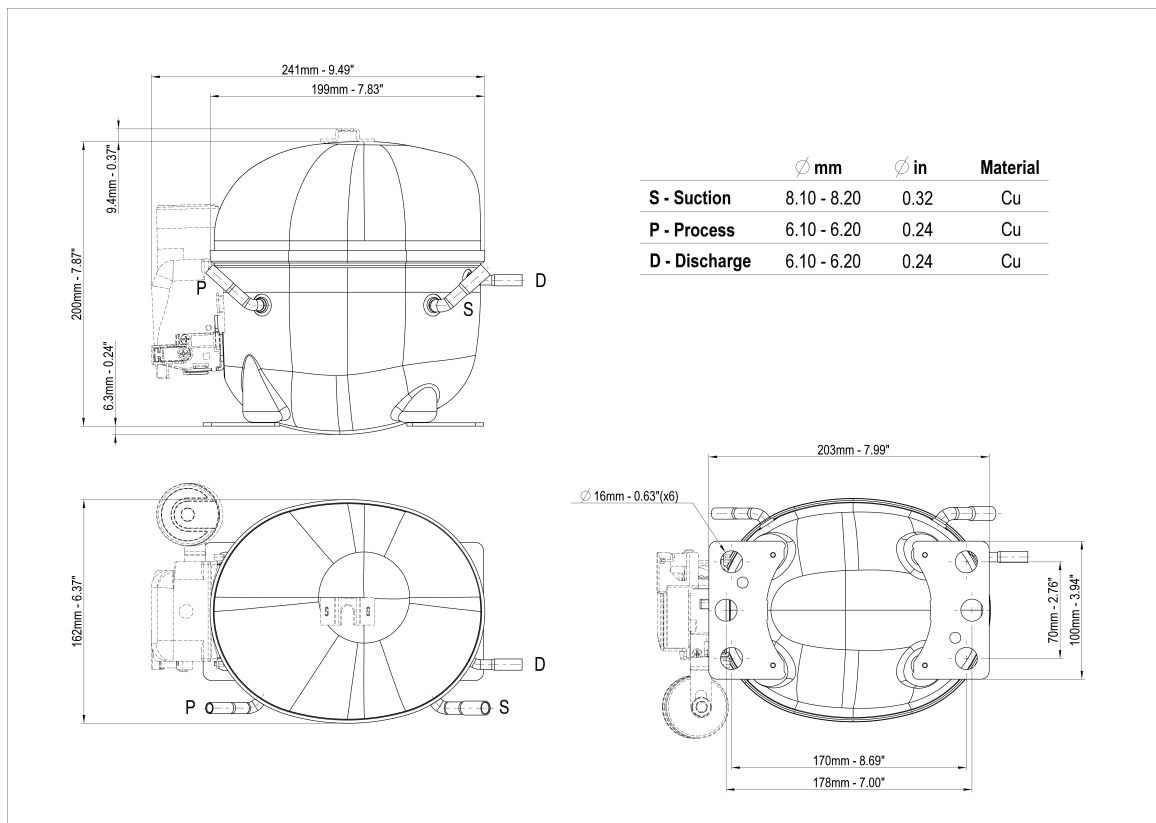
| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -30                        | 463                | 372     | 2.32      | 4.64               | 1.24           |
| -25                        | 593                | 423     | 2.5       | 5.98               | 1.4            |
| -20                        | 744                | 477     | 2.69      | 7.55               | 1.56           |
| -15                        | 916                | 533     | 2.91      | 9.35               | 1.72           |
| -10                        | 1110               | 591     | 3.14      | 11.39              | 1.88           |

Test Condition: ASHRAE, Fan, LBP. Data in accordance to ASHRAE guideline polynomial curve.

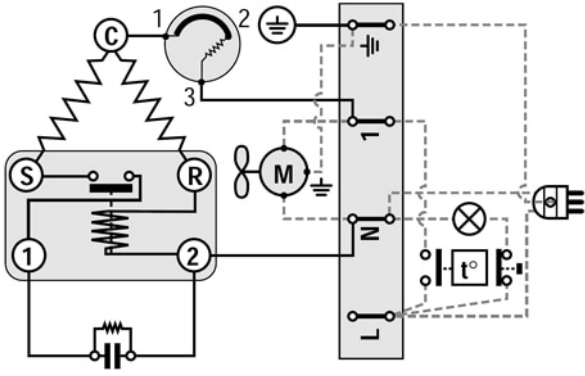
## Operating Envelope



## External Dimensions



## Wiring Diagram



## Assembly Instructions

