

**APPROVALS**



**ENGINEERING CODE**  
943RV19

**APPROVED REFRIGERANT**  
R-404A

**POWER SUPPLY**  
230 V 50 Hz

**STANDARD CONDITIONS**  
ASHRAE

**APPLICATION**  
MBP

**COOLING CAPACITY**  
2721 W (MBP)

**EFFICIENCY**  
1.62 W/W (MBP)

**MOTOR TYPE**  
CSCR

**STARTING TORQUE**  
HST

**DATA**

**General Data**

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Type                              | Hermetic reciprocating            |
| Technology Type                   | On-Off                            |
| Displacement                      | 32.67 cm <sup>3</sup>             |
| Compressor Cooling                | Fan/NotControlled/230             |
| Fan Air Flow                      | 800 m <sup>3</sup> /h             |
| Expansion Device                  | Capillary Tube or Expansion Valve |
| Horse Power                       | 1 1/2 hp                          |
| Max Condensing Pressure Operating | 24.71 bar                         |
| Max Condensing Pressure Peak      | 27.71 bar                         |
| Power Supply                      | 230 V 50 Hz                       |
| Evaporating Temperature Range     | -20 °C to 10 °C                   |

**Electrical Data**

|                          |                 |
|--------------------------|-----------------|
| Motor type               | CSCR            |
| Starting Torque          | HST             |
| Start Winding Resistance | 5.4 Ω at 25° C  |
| Run Winding Resistance   | 1.75 Ω at 25° C |

## Mechanical Data

|  |                |
|--|----------------|
| Maximum Recommended Refrigerant Charge | 800 g          |
| Oil Charge                             | 750 ml         |
| Oil Type Configuration                 | ESTER          |
| Oil Type Viscosity                     | ISO22          |
| Pressurization                         | Dry air charge |
| Weight                                 | 22.1 Kg        |
| Free Internal Volume                   | 3.9 L          |

## Electrical Components

|                  | Description          |
|------------------|----------------------|
| CSR / CSIR Box   | YES                  |
| Run Capacitor    | 25                   |
| Start Capacitor  | 130-156 Uf / 330 V   |
| Starting Device  | RVA3H3C-108          |
| Motor Protection | T0878/C9 OR MRA3764- |

## External Characteristics

| Base Plate  | Large             |                                      |
|-------------|-------------------|--------------------------------------|
| Tray Holder | No                |                                      |
| Height      | 276 mm            |                                      |
| Connector   | Internal Diameter | Shape                                |
| Suction     | 12.7 mm           | ROTOLOCK(Ex. thr. 1"-14UNS-2A)/Steel |
| Discharge   | 8 mm              | Slanted J/Copper                     |
| Process     | 6.42 mm           | Vertical/Copper                      |

## PERFORMANCE

## Rated Points

| Condensing Temperature | Evaporating Temperature | Cooling Capacity | Power Consumption | Gas Flow Rate | Efficiency |
|------------------------|-------------------------|------------------|-------------------|---------------|------------|
| 54.40°C                | -6.70°C                 | 2721 W           | 1677 W            | 74.36 kg/h    | 1.62 W/W   |

Test Condition: ASHRAEMBP46, Fan/NotControlled/230, Return Gas 35°C, Evaporation -6.70°C, Condensing 54.40°C, Ambient 35°C, Liquid 46.1°C, Subcooling 8.3K. Data are an indication of performance based simulation.

## Performance Curve Data

### Condensing Temperature 35°C

| Evaporating Temperature °C | Cooling Capacity W | Power W | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|--------------------|----------------|
| -20                        | 2132               | 1191    | 46.30              | 1.79           |
| -15                        | 2714               | 1320    | 59.28              | 2.06           |
| -10                        | 3393               | 1439    | 74.58              | 2.36           |
| -5                         | 4167               | 1547    | 92.28              | 2.69           |
| 0                          | 5035               | 1644    | 112.46             | 3.06           |
| 5                          | 5995               | 1732    | 135.23             | 3.46           |
| 10                         | 7046               | 1809    | 160.67             | 3.9            |

Test Condition: ASHRAEMBP46, Fan/NotControlled/230, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 45°C

| Evaporating Temperature °C | Cooling Capacity W | Power W | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|--------------------|----------------|
| -20                        | 1768               | 1212    | 42.41              | 1.46           |
| -15                        | 2274               | 1359    | 54.86              | 1.67           |
| -10                        | 2864               | 1503    | 69.58              | 1.91           |
| -5                         | 3538               | 1644    | 86.67              | 2.15           |
| 0                          | 4294               | 1780    | 106.21             | 2.41           |
| 5                          | 5131               | 1914    | 128.30             | 2.68           |
| 10                         | 6049               | 2044    | 153.02             | 2.96           |

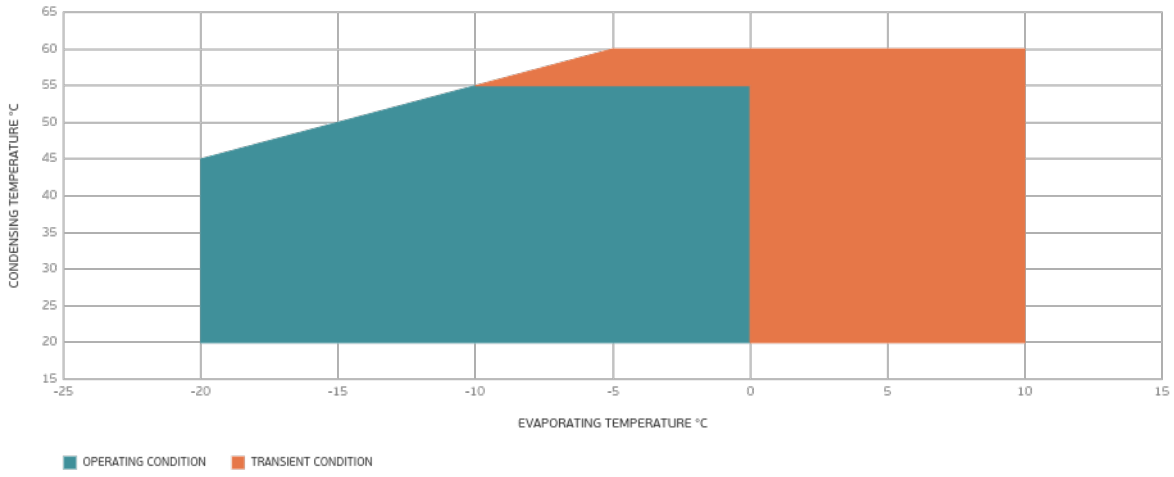
Test Condition: ASHRAEMBP46, Fan/NotControlled/230, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 55°C

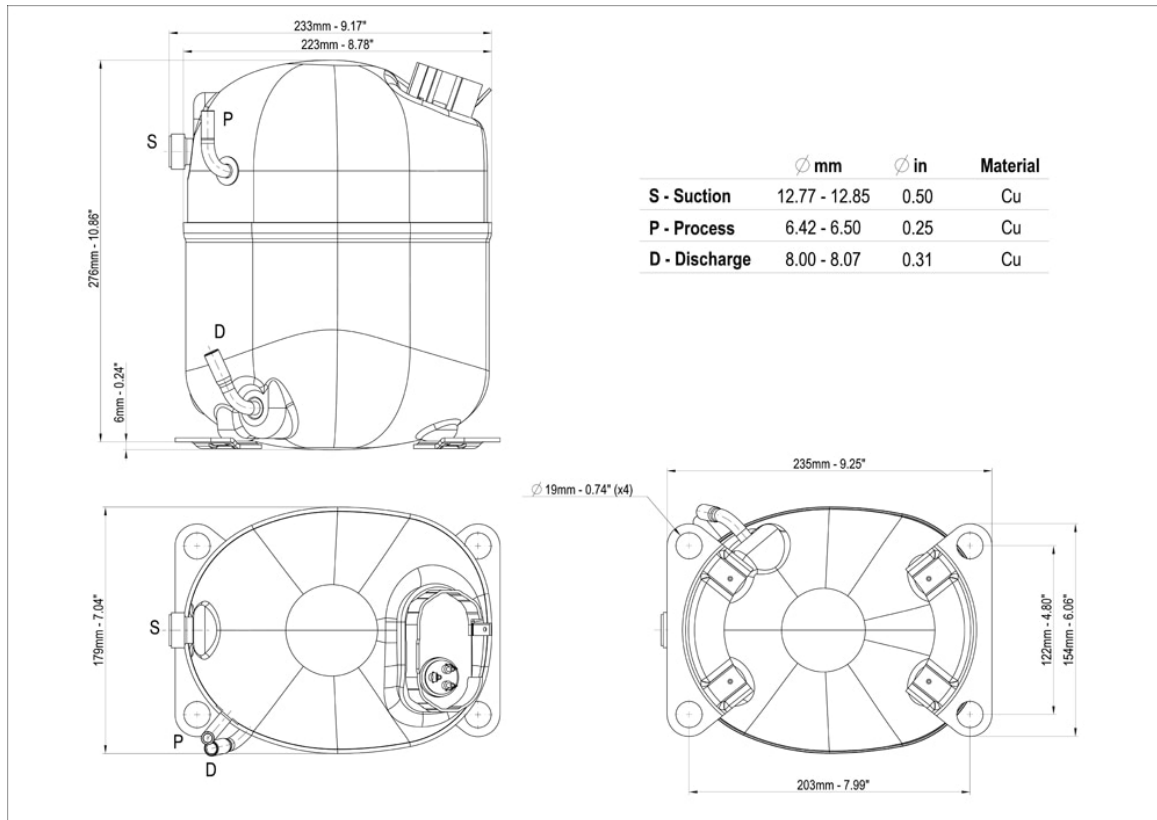
| Evaporating Temperature °C | Cooling Capacity W | Power W | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|--------------------|----------------|
| -10                        | 2324               | 1569    | 63.54              | 1.48           |
| -5                         | 2896               | 1739    | 79.91              | 1.66           |
| 0                          | 3539               | 1913    | 98.70              | 1.85           |
| 5                          | 4251               | 2091    | 120.00             | 2.03           |
| 10                         | 5032               | 2272    | 143.90             | 2.21           |

Test Condition: ASHRAEMBP46, Fan/NotControlled/230, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

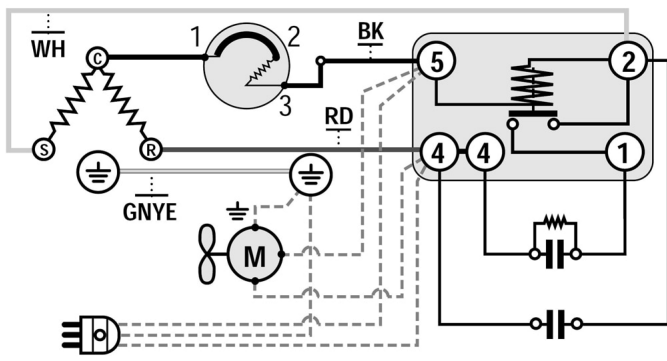
## Operating Envelope



## External Dimensions



## Wiring Diagram



## Assembly Instructions

