

APPROVALS



**ENGINEERING CODE**  
943NA19

**APPROVED REFRIGERANT**  
R-404A

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

**STANDARD CONDITIONS**  
ASHRAE

**APPLICATION**  
M/HBP

**COOLING CAPACITY**  
4080 W

**EFFICIENCY**  
2.6 W/W

**MOTOR TYPE**  
CSCR

**STARTING TORQUE**  
HST

DATA

General Data

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Type                              | Hermetic reciprocating            |
| Technology Type                   | On-Off                            |
| Displacement                      | 26.1 cm <sup>3</sup>              |
| Compressor Cooling                | Fan                               |
| 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                      | 220-240 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                 | Polyolester    |
| Oil Type Viscosity                     | ISO22          |
| Pressurization                         | Dry air charge |
| Weight                                 | 22.5 Kg        |
| Free Internal Volume                   | 3.9 L          |

## Electrical Components

|                  | Description                   |
|------------------|-------------------------------|
| CSR / CSIR Box   | yes                           |
| Start Capacitor  | 88-108 $\mu$ F / 330V         |
| Starting Device  | Potential relay   RVA3H3C-108 |
| Motor Protection | External 3/4" T0809/C9        |

## External Characteristics

| Base Plate  | Large             |                      |
|-------------|-------------------|----------------------|
| Tray Holder | No                |                      |
| Height      | 276 mm            |                      |
| Connector   | Internal Diameter | Shape                |
| Suction     | 12.77 mm          | ROTOLOCK 1"-14UNS-2A |
| Discharge   | 8 mm              | Slanted 65°          |
| Process     | 6.42 mm           | Vertical             |

## PERFORMANCE

## Rated Points

| Condensing Temperature | Evaporating Temperature | Cooling Capacity | Power Consumption | Current | Gas Flow Rate | Efficiency |
|------------------------|-------------------------|------------------|-------------------|---------|---------------|------------|
| 54.40°C                | 7.20°C                  | 4080 W           | 1567 W            | 7.13 A  | 114.43 kg/h   | 2.6 W/W    |

Test Condition: ASHRAE, Fan, Return Gas 35°C, Evaporation 7.20°C, Condensing 54.40°C, Ambient 35°C, Liquid 46.1°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 |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -20                        | 1706               | 866     | 4.39      | 36.96              | 1.97           |
| -15                        | 2177               | 953     | 4.63      | 47.41              | 2.28           |
| -10                        | 2759               | 1035    | 4.88      | 60.44              | 2.67           |
| -5                         | 3451               | 1111    | 5.13      | 76.18              | 3.11           |
| 0                          | 4253               | 1182    | 5.39      | 94.73              | 3.6            |
| 5                          | 5167               | 1248    | 5.64      | 116.22             | 4.14           |
| 10                         | 6190               | 1308    | 5.9       | 140.75             | 4.73           |

Test Condition: ASHRAE, Fan, M/HBP. 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 |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -20                        | 1424               | 870     | 4.38      | 34.02              | 1.64           |
| -15                        | 1846               | 982     | 4.76      | 44.39              | 1.88           |
| -10                        | 2360               | 1089    | 5.14      | 57.16              | 2.17           |
| -5                         | 2966               | 1191    | 5.52      | 72.43              | 2.49           |
| 0                          | 3665               | 1289    | 5.9       | 90.32              | 2.84           |
| 5                          | 4455               | 1383    | 6.29      | 110.96             | 3.22           |
| 10                         | 5337               | 1472    | 6.68      | 134.45             | 3.62           |

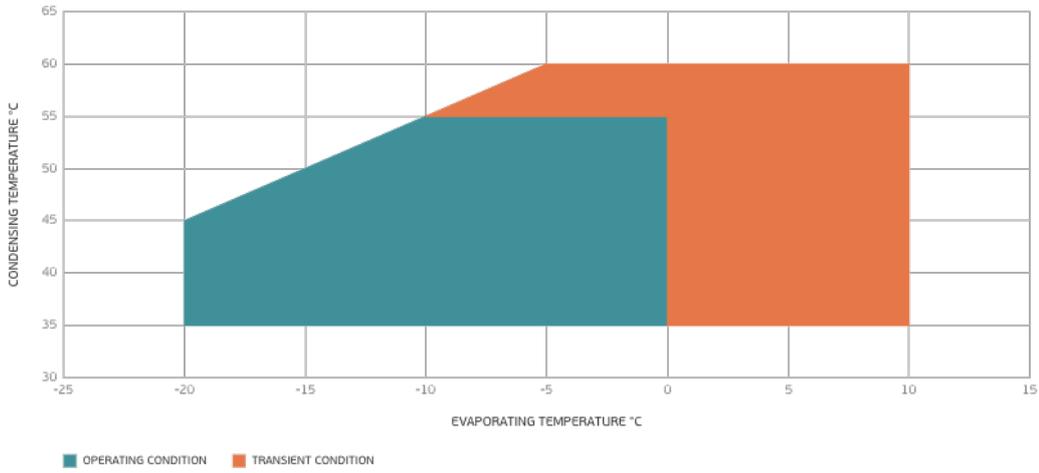
Test Condition: ASHRAE, Fan, M/HBP. Data in accordance to ASHRAE guideline polynomial curve.

### Condensing Temperature 55°C

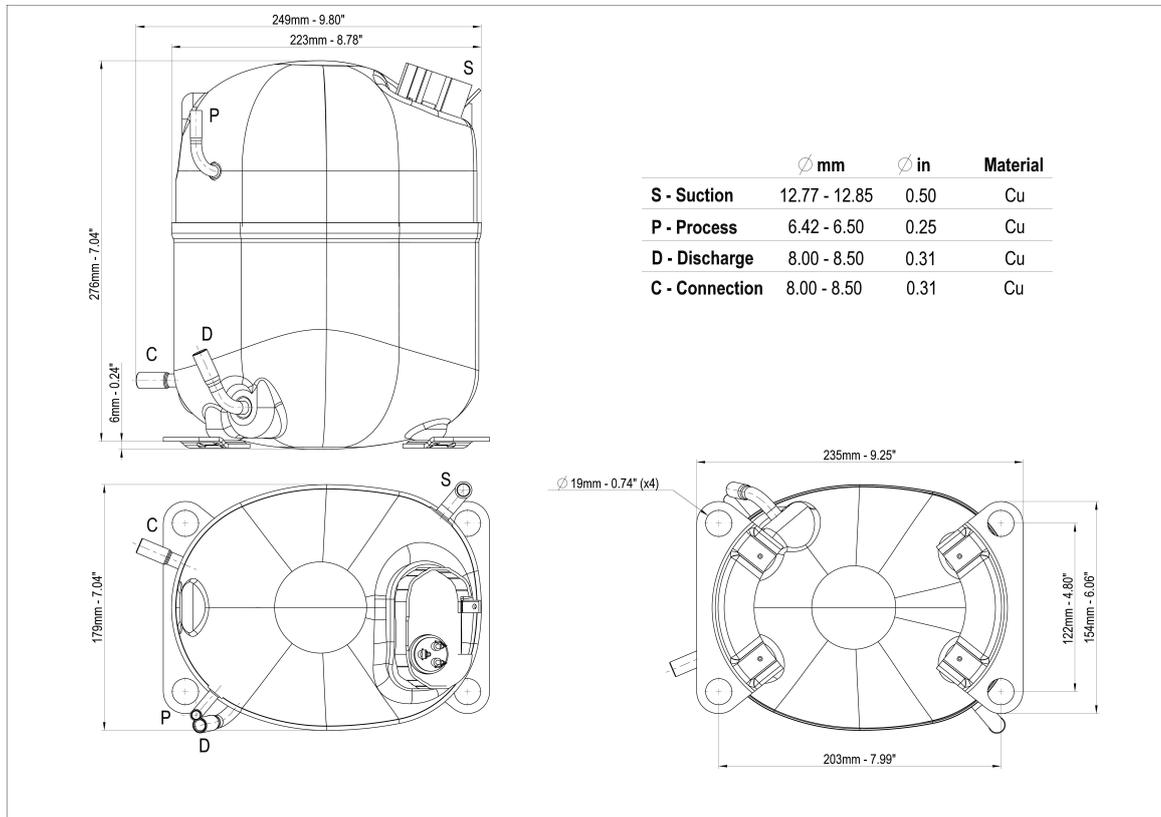
| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -10                        | 1945               | 1145    | 5.4       | 52.94              | 1.7            |
| -5                         | 2462               | 1275    | 5.91      | 67.65              | 1.93           |
| 0                          | 3052               | 1401    | 6.43      | 84.79              | 2.18           |
| 5                          | 3716               | 1524    | 6.94      | 104.48             | 2.44           |
| 10                         | 4453               | 1644    | 7.46      | 126.82             | 2.71           |

Test Condition: ASHRAE, Fan, M/HBP. Data in accordance to ASHRAE guideline polynomial curve.

## Operating Envelope

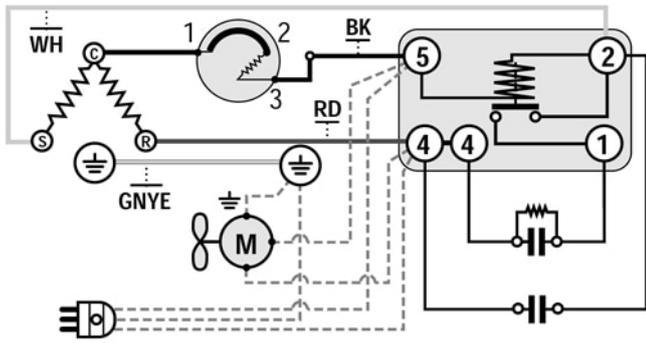


## External Dimensions



|                       | mm            | in   | Material |
|-----------------------|---------------|------|----------|
| <b>S - Suction</b>    | 12.77 - 12.85 | 0.50 | Cu       |
| <b>P - Process</b>    | 6.42 - 6.50   | 0.25 | Cu       |
| <b>D - Discharge</b>  | 8.00 - 8.50   | 0.31 | Cu       |
| <b>C - Connection</b> | 8.00 - 8.50   | 0.31 | Cu       |

## Wiring Diagram



## Assembly Instructions

