


MODEL

**EMT6165GK**
**embraco**  
*Nidec*
**APPROVALS**


**ENGINEERING CODE**  
 912GA67



**APPROVED REFRIGERANT**  
 R-404A


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


**STANDARD CONDITIONS**  
 ASHRAE


**APPLICATION**  
 MBP


**COOLING CAPACITY**  
 512 W (MBP)


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


**MOTOR TYPE**  
 CSIR


**STARTING TORQUE**  
 HST
**DATA****General Data**

|                               |                                   |
|-------------------------------|-----------------------------------|
| Type                          | Hermetic reciprocating            |
| Technology Type               | On-Off                            |
| Displacement                  | 5.19 cm <sup>3</sup>              |
| Compressor Cooling            | Fan/NotControlled/220             |
| Expansion Device              | Capillary Tube or Expansion Valve |
| Horse Power                   | 1/3 hp                            |
| Power Supply                  | 220-240 V 50 Hz                   |
| Evaporating Temperature Range | -20 °C to 10 °C                   |

**Electrical Data**

|                 |      |
|-----------------|------|
| Motor type      | CSIR |
| Starting Torque | HST  |

**Mechanical Data**

|                        |        |
|------------------------|--------|
| Oil Charge             | 180 ml |
| Oil Type Configuration | ESTER  |
| Oil Type Viscosity     | ISO22  |
| Weight                 | 7.8 Kg |

## Electrical Components

|                  | Description      |
|------------------|------------------|
| Motor Protection | T0571/G6         |
| Start Capacitor  | 53-64 Uf / 330 V |
| Starting Device  | Relay   MTRP-38* |

## External Characteristics

| Tray Holder | Yes               |                    |
|-------------|-------------------|--------------------|
| Connector   | Internal Diameter | Shape              |
| Suction     | 6.1 mm            | Slanted 42°/Copper |
| Discharge   | 4.86 mm           | Straight/Copper    |
| Process     | 6.1 mm            | Slanted 42°/Copper |

## PERFORMANCE

## Rated Points

| Condensing Temperature | Evaporating Temperature | Cooling Capacity | Power Consumption | Gas Flow Rate | Efficiency |
|------------------------|-------------------------|------------------|-------------------|---------------|------------|
| 54.40°C                | -6.70°C                 | 512 W            | 315 W             | 14.01 kg/h    | 1.62 W/W   |

Test Condition: ASHRAEMB46, Fan/NotControlled/220, 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                        | 523                | 219     | 11.36              | 2.39           |
| -15                        | 644                | 236     | 14.06              | 2.73           |
| -10                        | 791                | 253     | 17.38              | 3.12           |
| -5                         | 962                | 270     | 21.30              | 3.56           |
| 0                          | 1156               | 288     | 25.82              | 4.02           |
| 5                          | 1371               | 305     | 30.94              | 4.5            |
| 10                         | 1605               | 321     | 36.64              | 4.99           |

Test Condition: ASHRAEMB46, Fan/NotControlled/220, 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                        | 405                | 229     | 9.71               | 1.77           |
| -15                        | 497                | 252     | 11.99              | 1.97           |
| -10                        | 612                | 275     | 14.87              | 2.23           |
| -5                         | 749                | 298     | 18.35              | 2.51           |
| 0                          | 906                | 322     | 22.42              | 2.82           |
| 5                          | 1082               | 346     | 27.06              | 3.13           |
| 10                         | 1273               | 370     | 32.28              | 3.44           |

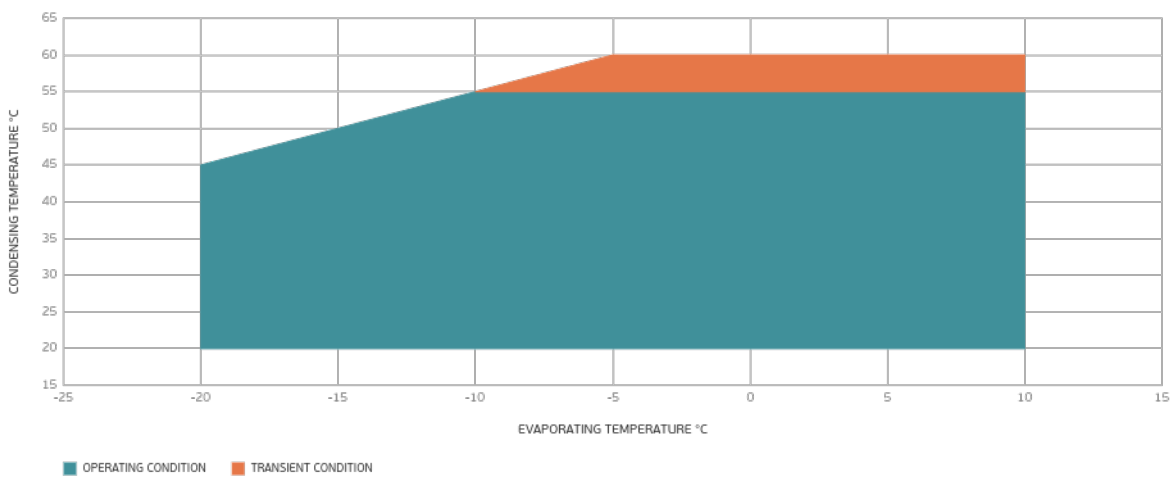
Test Condition: ASHRAEMB46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Condensing Temperature 55°C

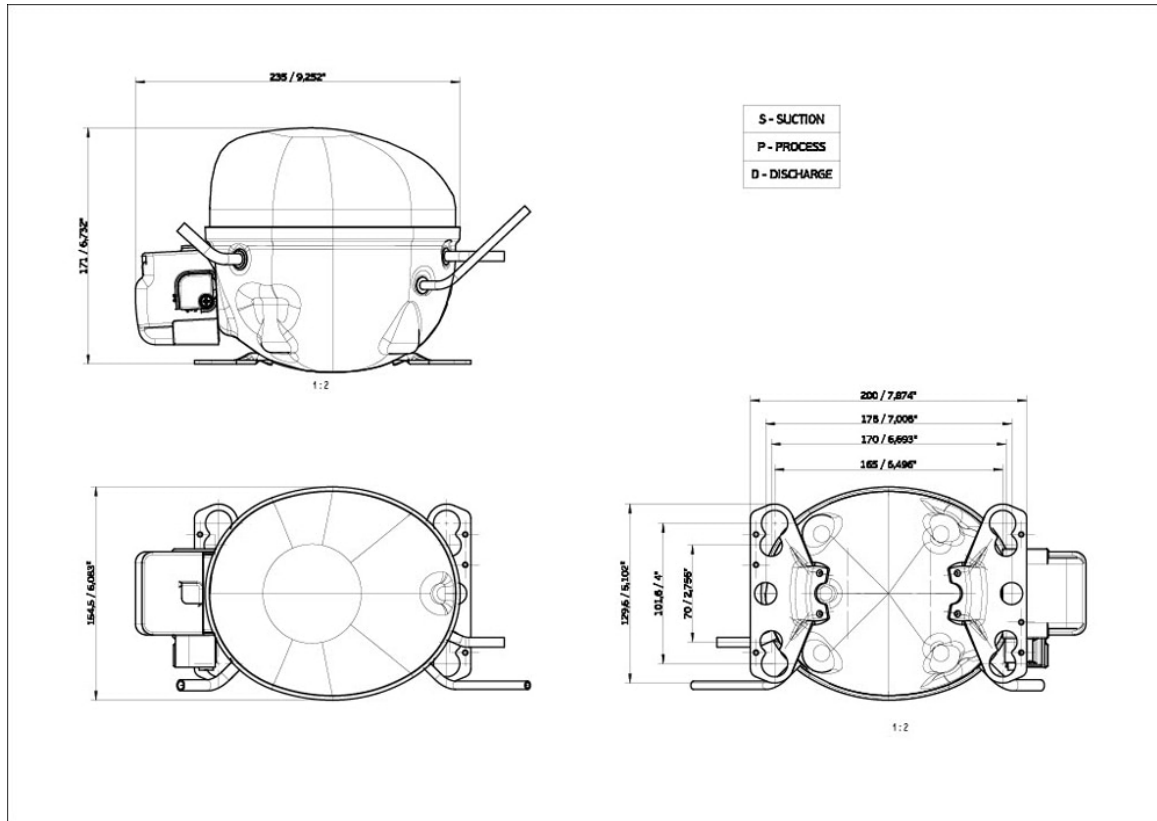
| Evaporating Temperature °C | Cooling Capacity W | Power W | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|--------------------|----------------|
| -20                        | 291                | 246     | 7.84               | 1.18           |
| -15                        | 354                | 272     | 9.60               | 1.3            |
| -10                        | 437                | 298     | 11.96              | 1.47           |
| -5                         | 540                | 325     | 14.89              | 1.66           |
| 0                          | 660                | 353     | 18.40              | 1.87           |
| 5                          | 795                | 381     | 22.47              | 2.09           |
| 10                         | 945                | 409     | 27.10              | 2.31           |

Test Condition: ASHRAEMB46, Fan/NotControlled/220, Return Gas 35°C, Ambient 35°C, Subcooling 8.3K. Data are an indication of performance based simulation.

### Operating Envelope



## External Dimensions



## Wiring Diagram

SM28-4

