

MODEL  
**NEK6213U**

**embraco**  
*Nidec*



#### APPROVALS



 **ENGINEERING CODE**  
863CA51

 **APPROVED REFRIGERANT**  
R-290

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

 **STANDARD CONDITIONS**  
EN12900

 **APPLICATION**  
MBP

 **COOLING CAPACITY**  
811 W (MBP)

 **EFFICIENCY**  
1.63 W/W (MBP)

 **MOTOR TYPE**  
CSIR

 **STARTING TORQUE**  
HST

#### DATA

### General Data

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Type                              | Hermetic reciprocating            |
| Technology Type                   | On-Off                            |
| Displacement                      | 12.11 cm <sup>3</sup>             |
| Compressor Cooling                | Fan/NotControlled/220             |
| Fan Air Flow                      | 520 m <sup>3</sup> /h             |
| Expansion Device                  | Capillary Tube or Expansion Valve |
| Horse Power                       | 1/2 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     | -20 °C to 10 °C                   |

### Electrical Data

|                          |                  |
|--------------------------|------------------|
| Motor type               | CSIR             |
| Starting Torque          | HST              |
| Start Winding Resistance | 20.88 Ω at 25° C |
| Run Winding Resistance   | 3.93 Ω at 25° C  |

Mechanical Data

|                                        |                        |
|----------------------------------------|------------------------|
| Maximum Recommended Refrigerant Charge | 150 g                  |
| Oil Charge                             | 350 ml                 |
| Oil Type Configuration                 | ESTER                  |
| Oil Type Viscosity                     | ISO22                  |
| Pressurization                         | Without dry air charge |
| Weight                                 | 11.6 Kg                |
| Free Internal Volume                   | 2.1 L                  |

Electrical Components

|                  | Description        |
|------------------|--------------------|
| Start Capacitor  | 53-64 Uf / 330 V   |
| Motor Protection | T0743/G6           |
| Starting Device  | Relay   MTRP-0050* |

External Characteristics

|             |                   |                    |       |
|-------------|-------------------|--------------------|-------|
| Base Plate  |                   | European           |       |
| Tray Holder |                   | No                 |       |
| Height      |                   | 206 mm             |       |
| Connector   | Internal Diameter |                    | Shape |
| Suction     | 8.1 mm            | Slanted 42°/Copper |       |
| Discharge   | 6.1 mm            | Straight/Copper    |       |
| Process     | 6.1 mm            | Slanted 42°/Copper |       |

PERFORMANCE

Rated Points

| Condensing Temperature | Evaporating Temperature | Cooling Capacity | Power Consumption | Current | Gas Flow Rate | Efficiency |
|------------------------|-------------------------|------------------|-------------------|---------|---------------|------------|
| 45.00°C                | -10.00°C                | 812 W            | 497 W             | 3.6 A   | 9.99 kg/h     | 1.63 W/W   |

Test Condition: EN12900MBP, Fan/NotControlled/220, Return Gas 20°C, Evaporation -10.00°C, Condensing 45.00°C, Ambient 35°C , Liquid 45°C, Subcooling 0K. Data in accordance to EN

12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

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                        | 618                | 397     | 3.31      | 6.84               | 1.55           |
| -15                        | 764                | 427     | 3.4       | 8.52               | 1.79           |
| -10                        | 940                | 455     | 3.49      | 10.53              | 2.07           |
| -5                         | 1146               | 481     | 3.57      | 12.91              | 2.39           |
| 0                          | 1383               | 504     | 3.66      | 15.70              | 2.74           |
| 5                          | 1653               | 526     | 3.74      | 18.93              | 3.14           |
| 10                         | 1956               | 546     | 3.82      | 22.63              | 3.58           |

Test Condition: EN12900MBP, Fan/NotControlled/220, Return Gas 20°C, Ambient 35°C , Subcooling OK. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

Condensing Temperature 45°C

| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -20                        | 531                | 421     | 3.37      | 6.46               | 1.26           |
| -15                        | 659                | 460     | 3.49      | 8.06               | 1.43           |
| -10                        | 812                | 497     | 3.6       | 9.99               | 1.63           |
| -5                         | 991                | 533     | 3.71      | 12.27              | 1.86           |
| 0                          | 1197               | 567     | 3.82      | 14.96              | 2.11           |
| 5                          | 1433               | 600     | 3.93      | 18.07              | 2.39           |
| 10                         | 1697               | 630     | 4.03      | 21.65              | 2.7            |

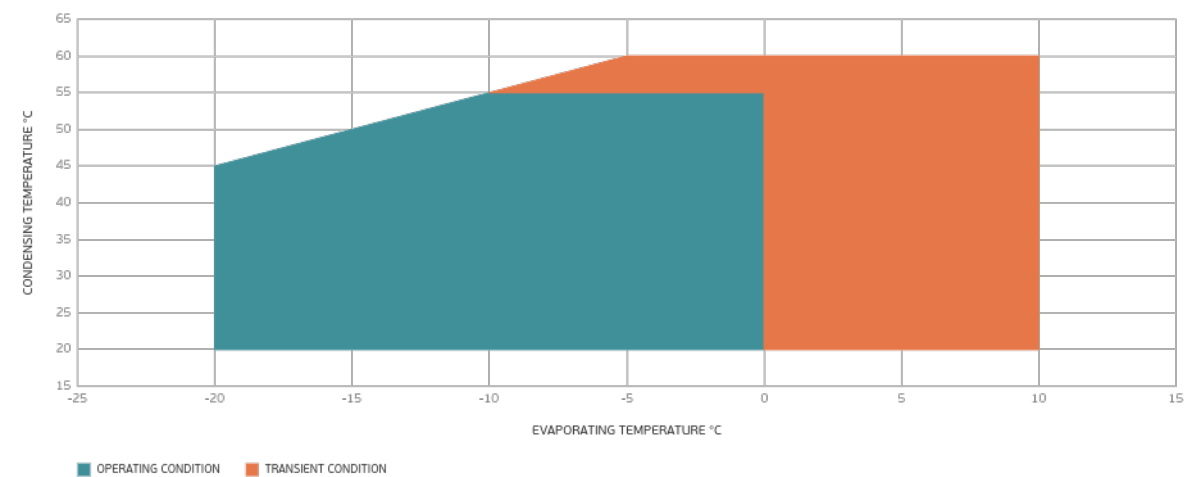
Test Condition: EN12900MBP, Fan/NotControlled/220, Return Gas 20°C, Ambient 35°C , Subcooling OK. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

Condensing Temperature 55°C

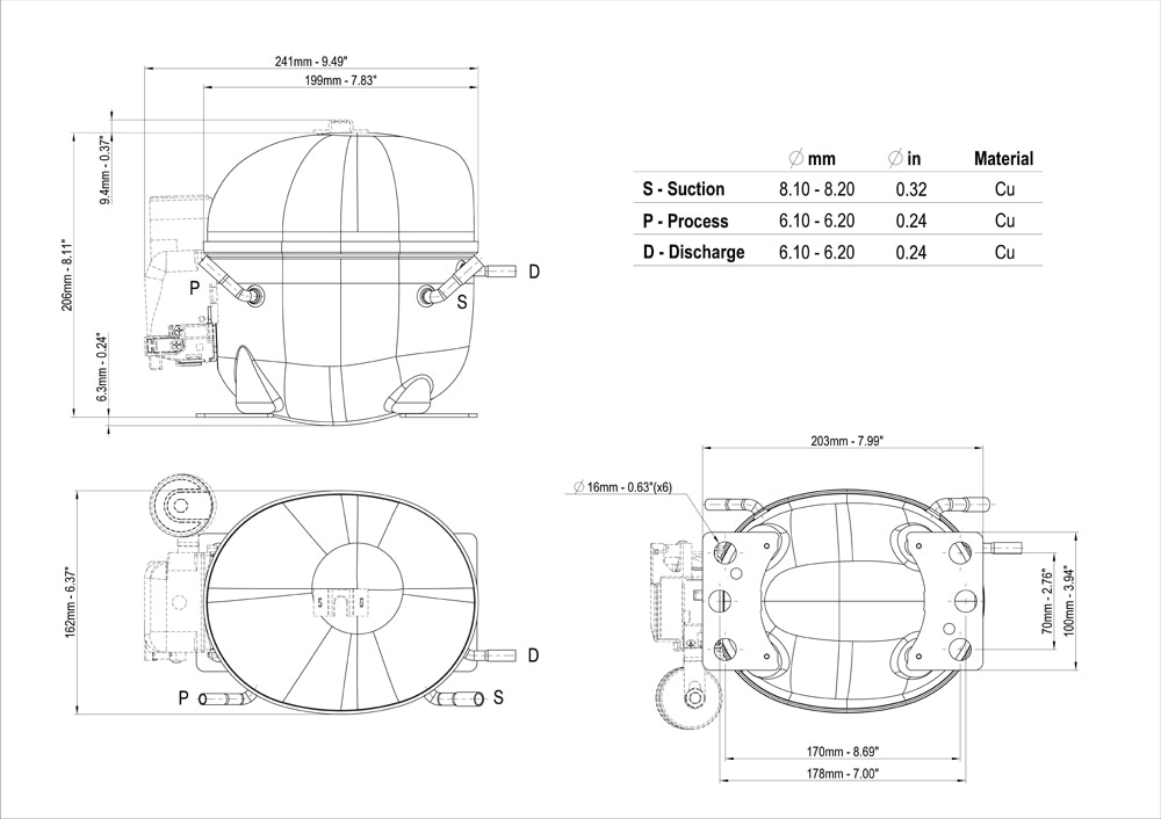
| Evaporating Temperature °C | Cooling Capacity W | Power W | Current A | Gas Flow Rate kg/h | Efficiency W/W |
|----------------------------|--------------------|---------|-----------|--------------------|----------------|
| -10                        | 677                | 545     | 3.74      | 9.30               | 1.24           |
| -5                         | 829                | 586     | 3.9       | 11.48              | 1.41           |
| 0                          | 1005               | 626     | 4.05      | 14.05              | 1.61           |
| 5                          | 1206               | 665     | 4.19      | 17.03              | 1.81           |
| 10                         | 1433               | 701     | 4.33      | 20.48              | 2.04           |

Test Condition: EN12900MBP, Fan/NotControlled/220, Return Gas 20°C, Ambient 35°C , Subcooling OK. Data in accordance to EN 12900:2013 and AHRI 540:2015 polynomial equation and uncertainty guidance.

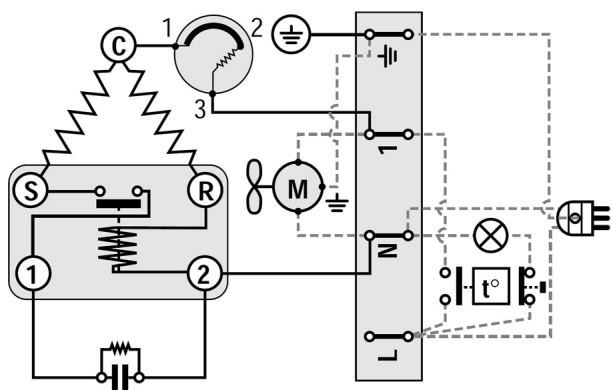
Operating Envelope



External Dimensions



## Wiring Diagram



## Assembly Instructions

