



Model: NT6220GK  
Code: 922BN04

**embraco** POWER IN.  
CHANGE ON

|                                       |                               |
|---------------------------------------|-------------------------------|
| Type:                                 | On-off                        |
| Voltage [V] / Frequency [Hz] / Phases | 200-240 V 50 Hz / 230 V 60 HZ |
| Refrigerant:                          | R-404A                        |
| Application:                          | MBP                           |

|                  |                      |
|------------------|----------------------|
| Motor type:      | HST                  |
| Starting torque: | 3/4                  |
| HP:              | 14.5 cm <sup>3</sup> |
| Displacement:    |                      |

### OPERATING CONDITION : ARI HBP

|                   |         |              |         |              |        |
|-------------------|---------|--------------|---------|--------------|--------|
| Evaporation Temp. | 7.2 °C  | Return Temp. | 18.3 °C | Superheating | 11.1 K |
| Condensing Temp.  | 54.4 °C | Liquid Temp. | 54.4 °C | Subcooling   | 0.0 K  |

|                         |                          |                       |                   |
|-------------------------|--------------------------|-----------------------|-------------------|
| <b>Cooling capacity</b> | <b>Power consumption</b> | <b>Mass flow rate</b> | <b>Efficiency</b> |
| 1,803.52 W              | 811.92 W                 | 68.40 kg/h            | 2.22 W/W          |

### APPLICATION

|  |                                   |                            |             |
|--|-----------------------------------|----------------------------|-------------|
| Evaporating temperature range:           | -20 to 10 °C                      | Cooling type:              | Fan Cooling |
| Permanent operating temperature (peak) : | 55 (60) °C                        | Air Flow                   | --          |
| Expansion device:                        | Capillary tube or Expansion valve | Maximum motor temperature: | 130 °C      |

### ELECTRICAL DATA

|   |                |   |               |
|---|----------------|---|---------------|
| Start winding resistance at 25°C (77°F):          | 12.16 Ω +/- 8% | Run winding resistance at 25°C (77°F):          | 1.86 Ω +/- 8% |
| FLA - full load amperage L/MBP [A] 50 Hz / 60 Hz: | 4.6 / -        | LRA (A) 50 Hz / 60 Hz:                          | 31 / -        |
|   |                | FLA - full load amperage HBP [A] 50 Hz / 60 Hz: | - / -         |

### MECHANICAL DATA

|       |          |               |                      |
|-------|----------|---------------|----------------------|
| Bore: | 34.12 mm | Stroke:       | 7.94 mm              |
|       |          | Displacement: | 14.5 cm <sup>3</sup> |

### OTHER INFORMATION

|                 |                   |                  |        |
|-----------------|-------------------|------------------|--------|
| Weight:         | 17 kg             | Oil charge:      | 450 ml |
| Lubricant type: | Polyolester ISO22 | Nitrogen charge: | Yes    |

### EXTERNAL SETTINGS

| -                   | Shape     | Material     | Diameter [mm] |
|---------------------|-----------|--------------|---------------|
| Suction connector   | Vertical  | Copper       | 9.60          |
| Discharge connector | Vertical  | Copper       | 6.42          |
| Process connector   | Vertical  | Copper       | 6.42          |
| Base plate:         | Universal | Tray holder: | No            |

### PERFORMANCES AT STANDARD CHECK-POINTS

| Checkpoint  | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|-------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|             | +/-5%            | +/-5%             | +/-5%         | +/- 7%             | 5% *                 | +/- 7%             |
|             | W                | W                 | kg/h          | W/W                | W                    | W/W                |
| EN12900 HBP | 1,863.39         | 766.40            | 63.36         | 2.43               | 2,311.51             | 3.02               |
| EN12900 MBP | 1,107.67         | 634.41            | 33.27         | 1.75               | 1,446.90             | 2.28               |

\* Calculations performed considering isentropic compression and a housing loss of 10%. This is an estimated heat amount discarded in the discharge pipe and the condenser combined.

**CONDENSING TEMP. 35 °C****(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

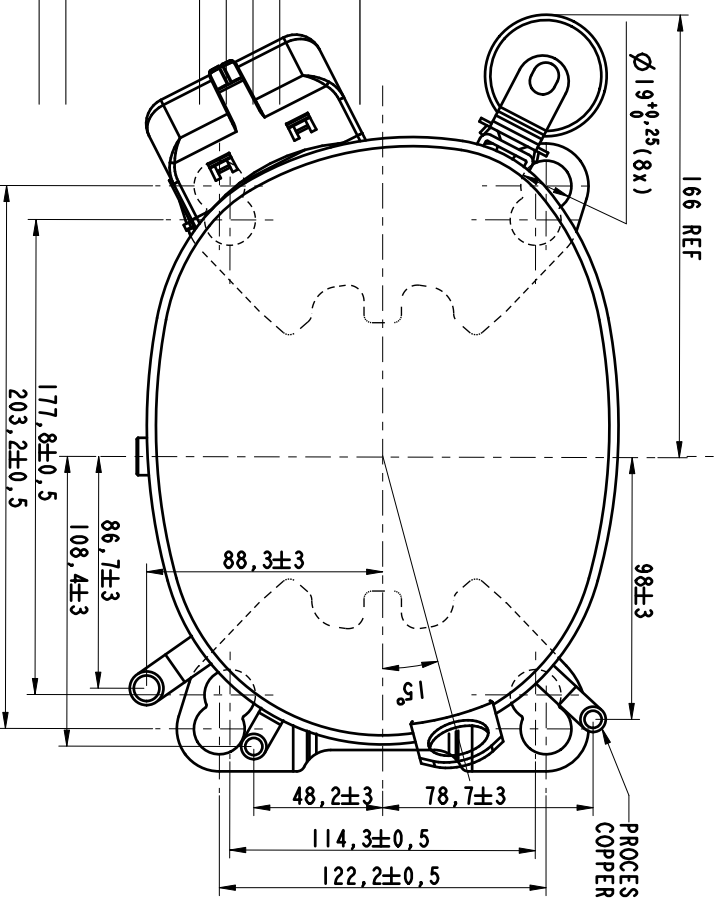
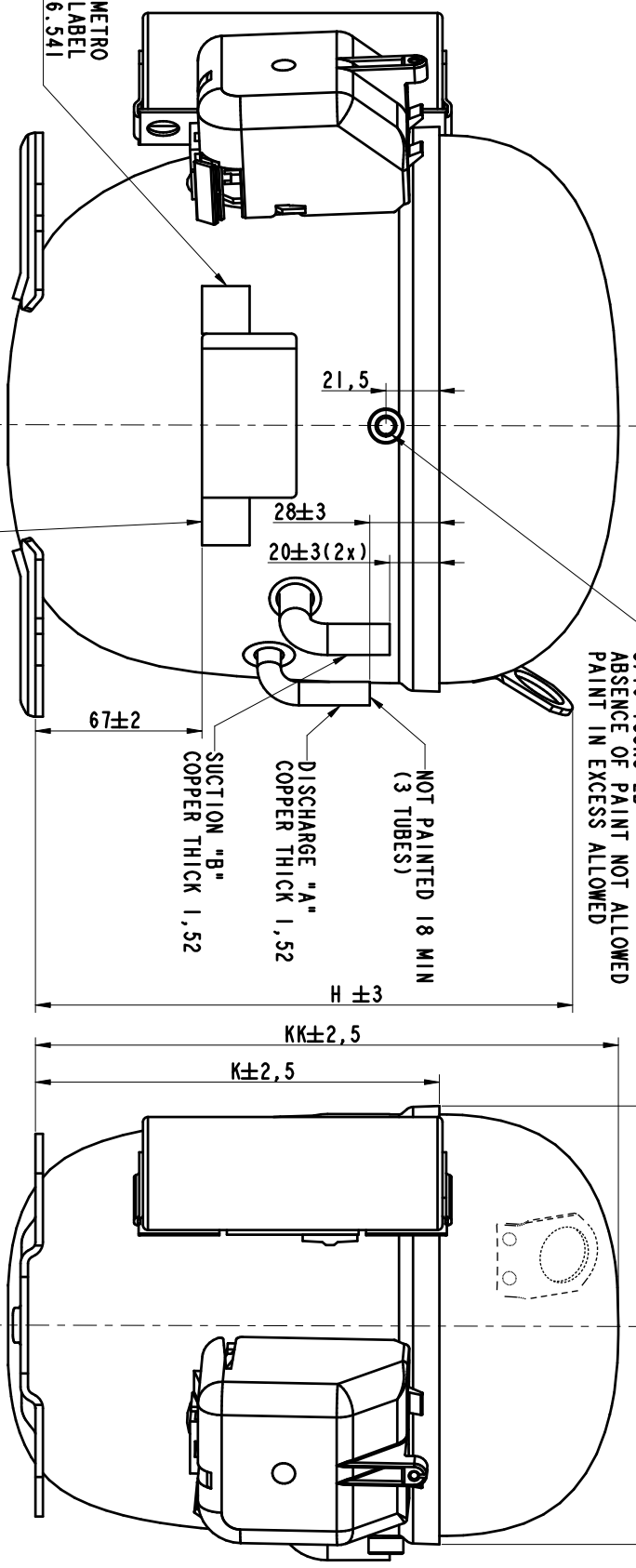
| Evaporating temperature<br>°C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|-------------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                               | +/-5%<br>W       | +/-5%<br>W        | +/-5%<br>kg/h | +/- 7%<br>W/W      | 5% *<br>W            | +/- 7%<br>W/W      |
| -20.00                        | 873.31           | 488.91            | 20.99         | 1.79               | 1,127.21             | 2.31               |
| -15.00                        | 1,114.48         | 530.21            | 26.96         | 2.10               | 1,398.88             | 2.64               |
| -10.00                        | 1,399.42         | 566.63            | 34.09         | 2.47               | 1,709.91             | 3.02               |
| -5.00                         | 1,731.17         | 590.45            | 42.54         | 2.93               | 2,061.14             | 3.49               |
| 0.00                          | 2,114.27         | 592.40            | 52.47         | 3.57               | 2,455.15             | 4.14               |
| 5.00                          | 2,554.66         | 562.42            | 64.15         | 4.54               | 2,896.02             | 5.15               |
| 10.00                         | 3,059.95         | 491.48            | 77.92         | 6.23               | 3,389.38             | 6.90               |

**CONDENSING TEMP. 45 °C****(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

| Evaporating temperature<br>°C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|-------------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                               | +/-5%<br>W       | +/-5%<br>W        | +/-5%<br>kg/h | +/- 7%<br>W/W      | 5% *<br>W            | +/- 7%<br>W/W      |
| -20.00                        | 711.19           | 503.48            | 19.24         | 1.41               | 978.43               | 1.94               |
| -15.00                        | 911.16           | 555.05            | 24.82         | 1.64               | 1,216.37             | 2.19               |
| -10.00                        | 1,154.62         | 607.44            | 31.71         | 1.90               | 1,497.20             | 2.46               |
| -5.00                         | 1,441.87         | 652.09            | 39.98         | 2.21               | 1,817.86             | 2.79               |
| 0.00                          | 1,775.30         | 678.07            | 49.79         | 2.62               | 2,178.25             | 3.21               |
| 5.00                          | 2,158.90         | 671.98            | 61.36         | 3.21               | 2,580.28             | 3.84               |
| 10.00                         | 2,598.21         | 618.31            | 75.02         | 4.20               | 3,027.51             | 4.90               |

**CONDENSING TEMP. 55 °C****(SUBCOOLING : 0 K, RETURN TEMP.: 32 °C)**

| Evaporating temperature<br>°C | Cooling capacity | Power consumption | Gas flow rate | Cooling Efficiency | Heating capacity +/- | Heating Efficiency |
|-------------------------------|------------------|-------------------|---------------|--------------------|----------------------|--------------------|
|                               | +/-5%<br>W       | +/-5%<br>W        | +/-5%<br>kg/h | +/- 7%<br>W/W      | 5% *<br>W            | +/- 7%<br>W/W      |
| -20.00                        | 572.39           | 516.32            | 17.96         | 1.11               | 852.22               | 1.65               |
| -15.00                        | 719.06           | 570.81            | 22.74         | 1.26               | 1,036.08             | 1.82               |
| -10.00                        | 911.87           | 633.96            | 29.11         | 1.44               | 1,272.81             | 2.01               |
| -5.00                         | 1,147.05         | 696.24            | 37.03         | 1.65               | 1,552.54             | 2.23               |
| 0.00                          | 1,423.99         | 745.41            | 46.58         | 1.91               | 1,870.69             | 2.51               |
| 5.00                          | 1,744.14         | 765.72            | 57.94         | 2.28               | 2,225.88             | 2.91               |
| 10.00                         | 2,110.50         | 737.27            | 71.42         | 2.86               | 2,618.80             | 3.55               |



| ECM    | REVISION         | LO   | BY  | APP | DATE       |            |
|--------|------------------|--|-----|-----|------------|------------|
| -      | ADDED HANGER TAB | -  | -   | -   | 21.11.2005 |            |
| 507590 | 1                | RELEASED                                     | PV  | VP  | 16.03.2006 |            |
| 513311 | 2                | ADDED SHELL 842.04<br>ADDED NT2160U, NT2170U | TAB | AP  | RR         | 12.03.2009 |
| 517385 | 3                | PROCESS TUBE CHANGED                         | TAB | LF  | JK         | 13.05.2011 |
| 305537 | 4                | ADDED NOTE ABOUT IMMETRO LABEL               | C6  | DG  | MG         | 31.07.2013 |
| 34220  | 5                | ADDED MODEL NT2170V                          | TAB | LF  | MG         | 06.06.2014 |

| 234                          | 162.5 | 216 | 6.42-6.5<br>X23 DEEP | 9.6-9.67<br>X22 DEEP | 6.42-6.5<br>X23 DEEP | 923.04    | NT21926K<br>NT21806K                         |
|------------------------------|-------|-----|----------------------|----------------------|----------------------|-----------|--|
| 220                          | 148.5 | 202 | 6.42-6.5<br>X23 DEEP | 9.6-9.67<br>X22 DEEP | 6.42-6.5<br>X23 DEEP | 922.04    | NT21686K<br>NT21786K<br>NT62226K<br>NT62176K |
| KK                           | K     | H   | A                    | B                    | C                    | SHELLTYPE | MODELS                                       |
| MATERIAL :                   |       |     |                      |                      |                      |           |  |
| CODE :                       |       |     |                      |                      |                      |           |  |
| DRAWN : P. VALERO 01.04.2005 |       |     |                      |                      |                      |           |  |
| APP. : VALERO 01.04.2005     |       |     |                      |                      |                      |           |  |
| ECM :                        |       |     |                      |                      |                      |           |  |
| NAME                         |       |     | embraco              |                      |                      |           |  |
| NT EXTERNAL VIEW             |       |     | CSIR PIN FUSITE      |                      |                      |           |  |
| GEN. TOL. :                  |       |     | ANG. TOL. :          |                      |                      |           |  |
| SCALE :                      |       |     | 1:2                  |                      |                      |           |  |
| REPLACE                      |       |     | No.                  |                      |                      |           |  |
| 1.960.883                    |       |     |                      |                      |                      |           |  |

THIS MATERIAL IS SPECIFICALLY AND EXCLUSIVELY FOR EMBRACO EQUIPMENT AND ANY USE OUTSIDE OF THIS SCOPE IS PROHIBITED ON PAIN OF PERSECUTION.