

### COMPRESSOR DEFINITION

|                           |                               |
|---------------------------|-------------------------------|
| Designation               | NT 6222GK                     |
| Nominal Voltage/Frequency | 200-240 V 50 Hz / 230 V 60 Hz |
| Engineering Number        | 922CN09                       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |   |                                   |           |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor             |                                   |           |
| 2 Refrigerant                      | R-404A  |                                   |           |
| 3 Nominal voltage and frequency    | 200-240 / 50                                  | [ V / Hz ]                        |           |
| 4 Application type                 | Medium Back Pressure (Commercial Compressors) |                                   |           |
| 4.1 Evaporating temperature range  | -20°C to 10°C                                 | (-4°F to 50°F)                    |           |
| 5 Motor type                       | CSIR  |                                   |           |
| 6 Starting torque                  | HST - High starting torque                    |                                   |           |
| 7 Expansion device                 | Capillary tube or Expansion valve             |                                   |           |
| 8 Compressor cooling               | Operating voltage range                       |                                   |           |
|                                    |   | 50 Hz                             | 60 Hz     |
| 8.1 LBP (32°C Ambient temperature) | -   | -                                 | -         |
| 8.2 LBP (43°C Ambient temperature) | -   | -                                 | -         |
| 8.3 HBP (32°C Ambient temperature) | -   | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -   | -                                 | -         |
| 9 Maximum condensing temperature   |   |                                   |           |
| 9.1 Operating                      | 25.2  | [kgf/cm <sup>2</sup> ] (358 psig) | / °C - °F |
| 9.2 Peak                           | 28.3  | [kgf/cm <sup>2</sup> ] (402 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |                                  |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation      | 1             | [hp]                             |
| 2 Displacement                | 17.39         | [cm <sup>3</sup> ] (1.061 cu.in) |
| 2.1 Bore [mm]                 | 34.120        |                                  |
| 2.2 Stroke [mm]               | 19.030        |                                  |
| 3 Lubricant charge            | 450           | [ml] (15.22 fl.oz.)              |
| 3.1 Lubricants approved       |               |                                  |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 |                                  |
| 4 Weight (with oil charge)    | 17.4          | [kg] (38.36 lb.)                 |
| 5 Nitrogen charge             | -             | [kgf/cm <sup>2</sup> ]           |

### C - ELECTRICAL DATA

|  |  |                                    |
|--|--|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | Current Relay                                    |                                    |
| 2.1 Starting device                          | MTRPH-60-59                                      |                                    |
| 3 Start capacitor                            | 130-156(250)                                     | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0750/G6   |                                    |
| 6 Start winding resistance                   | 10.10  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 1.75   | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 37.00  | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | -  | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CCC - IMQ - IRAM - UL                            |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                             |                               |  |                           |                                      |       |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS:<br>@200V50Hz |          |      | ASHRAEHBP46<br>Fan          |                               | Evaporating temperature<br>(Condensing temperature |                           | 7.2°C (44.96°F)<br>54.4°C (129.92°F) |       |
| Cooling capacity<br>+/- 5%    |          |      | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                            | EFFICIENCY RATE<br>+/- 7% |                                      |       |
| [Btu/h]                       | [kcal/h] | [W]  | [W]                         | [A]                           | [kg/h]   | [Btu/Wh]                  | [kcal/Wh]                            | [W/W] |
| 8494                          | 2140     | 2489 | 1192                        | 7.10                          | 69.93  | 7.13                      | 1.80                                 | 2.09  |

### E - PERFORMANCE - CURVES

|                               |       |                            |                 |      |                                       |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       |                            | ASHRAE46<br>Fan |      | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                 |      | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]        | [W]  | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 4033                       | 1016            | 1182 | 637                                   | 4.63                          | 25.64                   | 6.31                      | 1.59      | 1.85  |
| -15                           | (+ 5) | 5000                       | 1260            | 1465 | 699                                   | 4.89                          | 31.93                   | 7.15                      | 1.80      | 2.10  |
| -10                           | (+14) | 6186                       | 1559            | 1813 | 758                                   | 5.14                          | 39.71                   | 8.17                      | 2.06      | 2.39  |
| -5                            | (+23) | 7589                       | 1912            | 2224 | 813                                   | 5.37                          | 49.06                   | 9.35                      | 2.36      | 2.74  |
| 0                             | (+32) | 9211                       | 2321            | 2699 | 863                                   | 5.59                          | 60.09                   | 10.68                     | 2.69      | 3.13  |
| +5                            | (+41) | 11050                      | 2785            | 3238 | 909                                   | 5.80                          | 72.88                   | 12.16                     | 3.06      | 3.56  |
| +10                           | (+50) | 13108                      | 3303            | 3841 | 951                                   | 6.00                          | 87.52                   | 13.78                     | 3.47      | 4.04  |

|                               |       |                            |                 |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       |                            | ASHRAE46<br>Fan |      | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                 |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]        | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 3352                       | 845             | 982  | 676                                    | 4.79                          | 23.44                   | 4.98                      | 1.26      | 1.46  |
| -15                           | (+ 5) | 4228                       | 1066            | 1239 | 755                                    | 5.12                          | 29.81                   | 5.61                      | 1.41      | 1.65  |
| -10                           | (+14) | 5276                       | 1330            | 1546 | 830                                    | 5.44                          | 37.46                   | 6.35                      | 1.60      | 1.86  |
| -5                            | (+23) | 6496                       | 1637            | 1904 | 902                                    | 5.76                          | 46.49                   | 7.19                      | 1.81      | 2.11  |
| 0                             | (+32) | 7888                       | 1988            | 2311 | 970                                    | 6.07                          | 57.00                   | 8.12                      | 2.05      | 2.38  |
| +5                            | (+41) | 9451                       | 2382            | 2769 | 1034                                   | 6.38                          | 69.08                   | 9.13                      | 2.30      | 2.68  |
| +10                           | (+50) | 11187                      | 2819            | 3278 | 1095                                   | 6.68                          | 82.81                   | 10.22                     | 2.58      | 3.00  |

|                               |       |                            |                 |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       |                            | ASHRAE46<br>Fan |      | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                 |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]        | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 2587                       | 652             | 758  | 709                                    | 4.91                          | 20.33                   | 3.64                      | 0.92      | 1.07  |
| -15                           | (+ 5) | 3385                       | 853             | 992  | 807                                    | 5.33                          | 26.81                   | 4.18                      | 1.05      | 1.23  |
| -10                           | (+14) | 4308                       | 1086            | 1262 | 902                                    | 5.75                          | 34.38                   | 4.77                      | 1.20      | 1.40  |
| -5                            | (+23) | 5357                       | 1350            | 1570 | 993                                    | 6.17                          | 43.14                   | 5.39                      | 1.36      | 1.58  |
| 0                             | (+32) | 6531                       | 1646            | 1914 | 1082                                   | 6.59                          | 53.18                   | 6.04                      | 1.52      | 1.77  |
| +5                            | (+41) | 7831                       | 1973            | 2295 | 1168                                   | 7.01                          | 64.58                   | 6.72                      | 1.69      | 1.97  |
| +10                           | (+50) | 9257                       | 2333            | 2712 | 1251                                   | 7.44                          | 77.45                   | 7.40                      | 1.87      | 2.17  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@200V60Hz |       | ASHRAE46<br>Fan            |          |      | (Condensing temperature 35°C (+95°F) ) |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 4996                       | 1259     | 1464 | 741                                    | 4.55                          | 31.70                   | 6.74                      | 1.70      | 1.97  |
| -15                           | (+ 5) | 6134                       | 1546     | 1797 | 807                                    | 4.80                          | 39.17                   | 7.61                      | 1.92      | 2.23  |
| -10                           | (+14) | 7509                       | 1892     | 2200 | 876                                    | 5.06                          | 48.24                   | 8.58                      | 2.16      | 2.51  |
| -5                            | (+23) | 9121                       | 2298     | 2673 | 946                                    | 5.33                          | 59.01                   | 9.64                      | 2.43      | 2.82  |
| 0                             | (+32) | 10969                      | 2764     | 3214 | 1019                                   | 5.62                          | 71.58                   | 10.76                     | 2.71      | 3.15  |
| +5                            | (+41) | 13054                      | 3290     | 3825 | 1093                                   | 5.93                          | 86.09                   | 11.94                     | 3.01      | 3.50  |
| +10                           | (+50) | 15375                      | 3874     | 4505 | 1170                                   | 6.25                          | 102.62                  | 13.14                     | 3.31      | 3.85  |

| TEST CONDITIONS:<br>@200V60Hz |       | ASHRAE46<br>Fan            |          |      | (Condensing temperature 45°C (+113°F) ) |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%             | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                     | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 4247                       | 1070     | 1244 | 801                                     | 4.75                          | 29.75                   | 5.30                      | 1.34      | 1.55  |
| -15                           | (+ 5) | 5230                       | 1318     | 1532 | 883                                     | 5.07                          | 36.87                   | 5.93                      | 1.49      | 1.74  |
| -10                           | (+14) | 6420                       | 1618     | 1881 | 966                                     | 5.40                          | 45.56                   | 6.64                      | 1.67      | 1.95  |
| -5                            | (+23) | 7816                       | 1970     | 2290 | 1051                                    | 5.75                          | 55.91                   | 7.44                      | 1.87      | 2.18  |
| 0                             | (+32) | 9419                       | 2374     | 2760 | 1137                                    | 6.11                          | 68.04                   | 8.28                      | 2.09      | 2.43  |
| +5                            | (+41) | 11229                      | 2830     | 3290 | 1225                                    | 6.49                          | 82.06                   | 9.17                      | 2.31      | 2.69  |
| +10                           | (+50) | 13246                      | 3338     | 3881 | 1315                                    | 6.89                          | 98.08                   | 10.07                     | 2.54      | 2.95  |

| TEST CONDITIONS:<br>@200V60Hz |       | ASHRAE46<br>Fan            |          |      | (Condensing temperature 55°C (+131°F) ) |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%             | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                     | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 3512                       | 885      | 1029 | 836                                     | 4.89                          | 27.62                   | 4.20                      | 1.06      | 1.23  |
| -15                           | (+ 5) | 4340                       | 1094     | 1272 | 940                                     | 5.30                          | 34.37                   | 4.62                      | 1.16      | 1.35  |
| -10                           | (+14) | 5345                       | 1347     | 1566 | 1045                                    | 5.72                          | 42.64                   | 5.11                      | 1.29      | 1.50  |
| -5                            | (+23) | 6527                       | 1645     | 1913 | 1151                                    | 6.15                          | 52.55                   | 5.67                      | 1.43      | 1.66  |
| 0                             | (+32) | 7886                       | 1987     | 2311 | 1258                                    | 6.60                          | 64.21                   | 6.27                      | 1.58      | 1.84  |
| +5                            | (+41) | 9422                       | 2374     | 2761 | 1366                                    | 7.07                          | 77.71                   | 6.91                      | 1.74      | 2.02  |
| +10                           | (+50) | 11135                      | 2806     | 3263 | 1474                                    | 7.55                          | 93.18                   | 7.55                      | 1.90      | 2.21  |

### F - EXTERNAL CHARACTERISTICS

|                         |  |
|-------------------------|--|
| 1 Base plate            | Universal                                      |
| 2 Tray holder           | No   |
| 3 Connectors            |  |
| 3.1 SUCTION             | 12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010") |
| 3.1.1 Material          | Steel  |
| 3.1.2 Shape             | ROTOLOCK(Ex. thr. 1"-14UNS-2A)                 |
| 3.2 DISCHARGE           | 6.42 +0.08/+0.00 [mm] (0.253" +0.003"/+0.000") |
| 3.2.1 Material          | Copper   |
| 3.2.2 Shape             | Vertical                                       |
| 3.3 PROCESS             | 6.42 +0.08/+0.00 [mm] (0.253" +0.003"/+0.000") |
| 3.3.1 Material          | Copper   |
| 3.3.2 Shape             | Vertical                                       |
| 3.4 Oil cooler (Copper) | No [mm]  |
| 3.5 Connector sealing   | Rubber Plugs                                   |