

### COMPRESSOR DEFINITION

|                           |                               |
|---------------------------|-------------------------------|
| Designation               | NT 6217Z                      |
| Nominal Voltage/Frequency | 200-240 V 50 Hz / 230 V 60 Hz |
| Engineering Number        | 212BN06                       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |   |                                   |           |
|--|---|-----------------------------------|-----------|
| 1 Type                                     | Hermetic reciprocating compressor           |                                   |           |
| 2 Refrigerant                              | R-134a                                      |                                   |           |
| 3 Nominal voltage and frequency            | 200-240 / 50                                | [ V / Hz ]                        |           |
| 4 Application type                         | High Back Pressure (Commercial Compressors) |                                   |           |
| 4.1 Evaporating temperature range          | -15°C to 10°C                               | (5°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 pressures/temperature |   |                                   |           |
| 9.1 Operating (gauge)                      | 16.2  | [kgf/cm <sup>2</sup> ] (230 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 20.6  | [kgf/cm <sup>2</sup> ] (293 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 3/4+          | [hp]                                       |
| 2 Displacement                | 20.44         | [cm <sup>3</sup> ] (1.247 cu.in)           |
| 2.1 Bore [mm]                 | 36.990        |  |
| 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            | [kg] (37.48 lb.)                           |
| 5 Nitrogen charge             | 0.2 to 0.3    | [kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig) |

### C - ELETRICAL 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                          | MTRP-55  |                                    |
| 3 Start capacitor                            | 88-108(330)                                      | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0590/G9   |                                    |
| 6 Start winding resistance                   | 10.40  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 2.40   | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 25.00  | [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             | IMQ - IRAM                                       |                                    |

### 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<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>rate<br>+/- 5%                         | EFFICIENCY RATE<br>+/- 7% |                                      |       |
| [Btu/h]                       | [kcal/h] | [W]  | [W]                            | [A]                              | [kg/h]   | [Btu/Wh]                  | [kcal/Wh]                            | [W/W] |
| 6357                          | 1602     | 1863 | 773                            | 4.68                             | 41.22  | 8.22                      | 2.07                                 | 2.41  |

### E - PERFORMANCE - CURVES

|                               |       |                            |          |      |                                |                                       |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|---------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       | ASHRAE46<br>Fan            |          |      |                                | (Condensing temperature 35°C (+95°F)) |                            |                           |           |       |
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |      | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%      | Gas flow<br>rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                            | [A]                                   | [kg/h]                     | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -15                           | (+5)  | 3237                       | 816      | 949  | 403                            | 3.09                                  | 17.51                      | 8.03                      | 2.02      | 2.35  |
| -10                           | (+14) | 3994                       | 1006     | 1170 | 449                            | 3.27                                  | 21.67                      | 8.92                      | 2.25      | 2.61  |
| -5                            | (+23) | 4986                       | 1256     | 1461 | 494                            | 3.45                                  | 27.16                      | 10.09                     | 2.54      | 2.96  |
| 0                             | (+32) | 6203                       | 1563     | 1817 | 541                            | 3.65                                  | 33.94                      | 11.47                     | 2.89      | 3.36  |
| +5                            | (+41) | 7634                       | 1924     | 2237 | 587                            | 3.84                                  | 42.01                      | 12.99                     | 3.27      | 3.81  |
| +10                           | (+50) | 9270                       | 2336     | 2716 | 635                            | 4.05                                  | 51.32                      | 14.59                     | 3.68      | 4.27  |

|                               |       |                            |          |      |                                |  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       | ASHRAE46<br>Fan            |          |      |                                | (Condensing temperature 45°C (+113°F)) |                            |                           |           |       |
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |      | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%       | Gas flow<br>rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                            | [A]                                    | [kg/h]                     | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -15                           | (+5)  | 2925                       | 737      | 857  | 443                            | 3.23                                   | 17.09                      | 6.61                      | 1.67      | 1.94  |
| -10                           | (+14) | 3553                       | 895      | 1041 | 493                            | 3.43                                   | 20.83                      | 7.20                      | 1.81      | 2.11  |
| -5                            | (+23) | 4393                       | 1107     | 1287 | 547                            | 3.66                                   | 25.86                      | 8.02                      | 2.02      | 2.35  |
| 0                             | (+32) | 5435                       | 1370     | 1592 | 603                            | 3.90                                   | 32.16                      | 8.99                      | 2.27      | 2.64  |
| +5                            | (+41) | 6667                       | 1680     | 1954 | 663                            | 4.17                                   | 39.68                      | 10.06                     | 2.53      | 2.95  |
| +10                           | (+50) | 8081                       | 2036     | 2368 | 727                            | 4.46                                   | 48.42                      | 11.14                     | 2.81      | 3.26  |

|                               |       |                            |          |      |                                |  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@200V50Hz |       | ASHRAE46<br>Fan            |          |      |                                | (Condensing temperature 55°C (+131°F)) |                            |                           |           |       |
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |      | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%       | Gas flow<br>rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                            | [A]                                    | [kg/h]                     | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -15                           | (+5)  | 2570                       | 648      | 753  | 481                            | 3.40                                   | 16.38                      | 5.34                      | 1.35      | 1.57  |
| -10                           | (+14) | 3103                       | 782      | 909  | 537                            | 3.62                                   | 19.85                      | 5.78                      | 1.46      | 1.69  |
| -5                            | (+23) | 3825                       | 964      | 1121 | 598                            | 3.88                                   | 24.57                      | 6.39                      | 1.61      | 1.87  |
| 0                             | (+32) | 4725                       | 1191     | 1385 | 665                            | 4.18                                   | 30.51                      | 7.11                      | 1.79      | 2.08  |
| +5                            | (+41) | 5793                       | 1460     | 1698 | 738                            | 4.52                                   | 37.66                      | 7.86                      | 1.98      | 2.30  |
| +10                           | (+50) | 7019                       | 1769     | 2057 | 817                            | 4.90                                   | 45.98                      | 8.57                      | 2.16      | 2.51  |

### F - EXTERNAL CHARACTERISTICS

|                         |                  |      |                          |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate            | Universal        |      |                          |
| 2 Tray holder           | No               |      |                          |
| 3 Connectors            |                  |      |                          |
| 3.1 SUCTION             | 9.6 +0.07/+0.00  | [mm] | (0.378" +0.003"/+0.000") |
| 3.1.1 Material          | Copper           |      |                          |
| 3.1.2 Shape             | Slanted 42°      |      |                          |
| 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             | Straight         |      |                          |
| 3.3 PROCESS             | 9.6 +0.07/+0.00  | [mm] | (0.378" +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     |      |                          |