

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | NE K6214Z       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 269JA92         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |   |                                   |           |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor           |                                   |           |
| 2 Refrigerant                      | R-134a                                      |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 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 - Hight 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                      | 14.2  | [kgf/cm <sup>2</sup> ] (202 psig) | / °C - °F |
| 9.2 Peak                           | 15.9  | [kgf/cm <sup>2</sup> ] (226 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1/2           | [hp]                                       |
| 2 Displacement                | 16.80         | [cm <sup>3</sup> ] (1.025 cu.in)           |
| 2.1 Bore [mm]                 | 31.190        |  |
| 2.2 Stroke [mm]               | 22.000        |  |
| 3 Lubricant charge            | 350           | [ml] (11.84 fl.oz.)                        |
| 3.1 Lubricants approved       |               |  |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 |  |
| 4 Weight (with oil charge)    | 11.6          | [kg] (25.57 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 | 220-240 V 50 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | Current Relay                      |                                    |
| 2.1 Starting device                          | MTRPH-0012-65                      |                                    |
| 3 Start capacitor                            | 72-88(330)                         | [μF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [μF(VAC minimum)]                  |
| 5 Motor protection                           | T0899/G6                           |                                    |
| 6 Start winding resistance                   | 10.63                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 3.13                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | -                                  | [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                   |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                             |                               |  |                           |                            |       |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|----------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |      | EN12900HBP_HH<br>Fan        |                               | Evaporating temperature<br>(Condensing temperature |                           | 5°C (41°F)<br>50°C (122°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] |
| 4488                          | 1131     | 1315 | 691                         | 4.47                          | 30.68  | 6.49                      | 1.64                       | 1.90  |

### E - PERFORMANCE - CURVES

|                               |       |                            |          |      |                             |                                       |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|---------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | EN12900HH<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] |
| -15                           | (+5)  | 2229                       | 562      | 653  | 416                         | 3.64                                  | 13.03                   | 5.34                      | 1.35      | 1.57  |
| -10                           | (+14) | 2837                       | 715      | 831  | 460                         | 3.76                                  | 16.65                   | 6.17                      | 1.55      | 1.81  |
| -5                            | (+23) | 3570                       | 900      | 1046 | 506                         | 3.88                                  | 21.04                   | 7.05                      | 1.78      | 2.07  |
| 0                             | (+32) | 4428                       | 1116     | 1297 | 555                         | 4.00                                  | 26.23                   | 7.98                      | 2.01      | 2.34  |
| +5                            | (+41) | 5410                       | 1363     | 1585 | 606                         | 4.12                                  | 32.25                   | 8.92                      | 2.25      | 2.62  |
| +10                           | (+50) | 6518                       | 1642     | 1910 | 659                         | 4.24                                  | 39.12                   | 9.88                      | 2.49      | 2.90  |

|                               |       |                            |          |      |                             |  |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | EN12900HH<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] |
| -15                           | (+5)  | 1937                       | 488      | 568  | 444                         | 3.72                                   | 12.35                   | 4.37                      | 1.10      | 1.28  |
| -10                           | (+14) | 2480                       | 625      | 727  | 493                         | 3.85                                   | 15.87                   | 5.04                      | 1.27      | 1.48  |
| -5                            | (+23) | 3135                       | 790      | 919  | 545                         | 3.98                                   | 20.16                   | 5.75                      | 1.45      | 1.69  |
| 0                             | (+32) | 3903                       | 984      | 1144 | 600                         | 4.13                                   | 25.24                   | 6.50                      | 1.64      | 1.90  |
| +5                            | (+41) | 4784                       | 1206     | 1402 | 659                         | 4.29                                   | 31.15                   | 7.26                      | 1.83      | 2.13  |
| +10                           | (+50) | 5779                       | 1456     | 1693 | 720                         | 4.46                                   | 37.91                   | 8.03                      | 2.02      | 2.35  |

|                               |       |                            |          |      |                             |  |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | EN12900HH<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] |
| -15                           | (+5)  | 1667                       | 420      | 489  | 465                         | 3.73                                   | 11.73                   | 3.59                      | 0.90      | 1.05  |
| -10                           | (+14) | 2138                       | 539      | 627  | 521                         | 3.90                                   | 15.11                   | 4.10                      | 1.03      | 1.20  |
| -5                            | (+23) | 2710                       | 683      | 794  | 582                         | 4.09                                   | 19.25                   | 4.65                      | 1.17      | 1.36  |
| 0                             | (+32) | 3383                       | 853      | 991  | 647                         | 4.31                                   | 24.18                   | 5.23                      | 1.32      | 1.53  |
| +5                            | (+41) | 4157                       | 1048     | 1218 | 716                         | 4.55                                   | 29.93                   | 5.81                      | 1.46      | 1.70  |
| +10                           | (+50) | 5033                       | 1268     | 1475 | 789                         | 4.81                                   | 36.54                   | 6.38                      | 1.61      | 1.87  |

### F - EXTERNAL CHARACTERISTICS

|                         |                  |      |                          |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate            | Universal        |      |                          |
| 2 Tray holder           | No               |      |                          |
| 3 Connectors            |                  |      |                          |
| 3.1 SUCTION             | 8.1 +0.10/+0.00  | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material          | Copper           |      |                          |
| 3.1.2 Shape             | Slanted 42°      |      |                          |
| 3.2 DISCHARGE           | 6.45 +0.10/+0.00 | [mm] | (0.254" +0.004"/+0.000") |
| 3.2.1 Material          | Copper           |      |                          |
| 3.2.2 Shape             | Straight         |      |                          |
| 3.3 PROCESS             | 6.45 +0.10/+0.00 | [mm] | (0.254" +0.004"/+0.000") |
| 3.3.1 Material          | Copper           |      |                          |
| 3.3.2 Shape             | Slanted 42°      |      |                          |
| 3.4 Oil cooler (Copper) | No               | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs     |      |                          |