

### COMPRESSOR DEFINITION

|                           |             |
|---------------------------|-------------|
| Designation               | NE K6144Z   |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number        | 267GG90     |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |   |                                   |           |
|--|---|-----------------------------------|-----------|
| 1 Type                                     | Hermetic reciprocating compressor           |                                   |           |
| 2 Refrigerant                              | R-134a                                      |                                   |           |
| 3 Nominal voltage and frequency            | 115 / 60                                    | [ 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 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      | 1/6           | [hp]                                       |
| 2 Displacement                | 5.44          | [cm <sup>3</sup> ] (0.332 cu.in)           |
| 2.1 Bore [mm]                 | 20.873        |  |
| 2.2 Stroke [mm]               | 15.920        |  |
| 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)    | 10.1          | [kg] (22.27 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 | 115 V 60 Hz 1~ (Single phase) |                                    |
| 2 Starting device type                       | Current Relay                 |                                    |
| 2.1 Starting device                          | MTRPH-55-31                   |                                    |
| 3 Start capacitor                            | 145-175(250)                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0743/J5                      |                                    |
| 6 Start winding resistance                   | 7.40                          | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 1.55                          | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 26.00                         | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | -                             | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz)      | -                             | [A] - Measured according to UL 984 |
| 11 Approval boards certification             |                               |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                |                                  |  |                           |                                      |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS:<br>@115V60Hz |          |     | ARIHBP<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] |
| 1814                          | 457      | 532 | 295                            | 4.05                             | 14.24  | 6.15                      | 1.55                                 | 1.80  |

### E - PERFORMANCE - CURVES

|                               |       |                            |          |     |  |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |       | ARI18<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)  | 886                        | 223      | 260 | 181                                    | 3.42                             | 5.54                       | 4.89                      | 1.23      | 1.43  |
| -10                           | (+14) | 1131                       | 285      | 332 | 198                                    | 3.52                             | 7.11                       | 5.70                      | 1.44      | 1.67  |
| -5                            | (+23) | 1427                       | 360      | 418 | 215                                    | 3.61                             | 9.02                       | 6.63                      | 1.67      | 1.94  |
| 0                             | (+32) | 1772                       | 447      | 519 | 232                                    | 3.70                             | 11.27                      | 7.64                      | 1.92      | 2.24  |
| +5                            | (+41) | 2168                       | 546      | 635 | 249                                    | 3.78                             | 13.90                      | 8.71                      | 2.19      | 2.55  |
| +10                           | (+50) | 2614                       | 659      | 766 | 266                                    | 3.85                             | 16.91                      | 9.83                      | 2.48      | 2.88  |

|                               |       |                            |          |     |   |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|---|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |       | ARI18<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)  | 772                        | 195      | 226 | 190                                     | 3.44                             | 5.30                       | 4.07                      | 1.03      | 1.19  |
| -10                           | (+14) | 992                        | 250      | 291 | 208                                     | 3.53                             | 6.84                       | 4.76                      | 1.20      | 1.39  |
| -5                            | (+23) | 1257                       | 317      | 368 | 227                                     | 3.63                             | 8.72                       | 5.54                      | 1.40      | 1.62  |
| 0                             | (+32) | 1569                       | 395      | 460 | 246                                     | 3.73                             | 10.97                      | 6.38                      | 1.61      | 1.87  |
| +5                            | (+41) | 1928                       | 486      | 565 | 265                                     | 3.83                             | 13.59                      | 7.27                      | 1.83      | 2.13  |
| +10                           | (+50) | 2332                       | 588      | 683 | 285                                     | 3.93                             | 16.61                      | 8.19                      | 2.06      | 2.40  |

|                               |       |                            |          |     |   |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|---|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |       | ARI18<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)  | 642                        | 162      | 188 | 198                                     | 3.45                             | 4.90                       | 3.24                      | 0.82      | 0.95  |
| -10                           | (+14) | 834                        | 210      | 244 | 218                                     | 3.55                             | 6.40                       | 3.82                      | 0.96      | 1.12  |
| -5                            | (+23) | 1069                       | 269      | 313 | 240                                     | 3.65                             | 8.26                       | 4.46                      | 1.12      | 1.31  |
| 0                             | (+32) | 1346                       | 339      | 394 | 261                                     | 3.76                             | 10.48                      | 5.15                      | 1.30      | 1.51  |
| +5                            | (+41) | 1665                       | 420      | 488 | 284                                     | 3.88                             | 13.10                      | 5.87                      | 1.48      | 1.72  |
| +10                           | (+50) | 2027                       | 511      | 594 | 307                                     | 4.00                             | 16.13                      | 6.60                      | 1.66      | 1.93  |

### F - EXTERNAL CHARACTERISTICS

|                         |                  |      |                          |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate            | Universal        |      |                          |
| 2 Tray holder           | No               |      |                          |
| 3 Connectors            |                  |      |                          |
| 3.1 SUCTION             | 8.03 +0.07/+0.00 | [mm] | (0.316" +0.003"/+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     |      |                          |