

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | NE U6214Z       |
| Nominal Voltage/Frequency | 208-230 V 60 Hz |
| Engineering Number        | 269ND71         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |   |                                   |           |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor           |                                   |           |
| 2 Refrigerant                      | R-134a                                      |                                   |           |
| 3 Nominal voltage and frequency    | 208-230 / 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                       | CSCR  |                                   |           |
| 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)    | 11.5          | [kg] (25.35 lb.)                 |
| 5 Nitrogen charge             | -             | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                   |                                    |
|--|-----------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 208-230 V 60 Hz 1~ (Single phase) |                                    |
| 2 Starting device type                       | Voltage Relay                     |                                    |
| 2.1 Starting device                          | RVA4AL3C-649                      |                                    |
| 3 Start capacitor                            | 108-130(330)                      | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 12.5(400)                         | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0843/G9                          |                                    |
| 6 Start winding resistance                   | 10.00                             | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 3.00                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 30.00                             | [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             | UL                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                             |                               |  |                           |                                      |       |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS:<br>@230V60Hz |          |      | 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 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] |
| 6249                          | 1575     | 1831 | 855                         | 4.10                          | 49.04  | 7.31                      | 1.84                                 | 2.14  |

### E - PERFORMANCE - CURVES

|                               |       |                            |          |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@230V60Hz |       | ARI18<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)  | 2997                       | 755      | 878  | 481                                    | 2.79                          | 18.74                   | 6.23                      | 1.57      | 1.83  |
| -10                           | (+14) | 3805                       | 959      | 1115 | 531                                    | 2.93                          | 23.93                   | 7.16                      | 1.81      | 2.10  |
| -5                            | (+23) | 4762                       | 1200     | 1395 | 591                                    | 3.12                          | 30.10                   | 8.06                      | 2.03      | 2.36  |
| 0                             | (+32) | 5866                       | 1478     | 1719 | 659                                    | 3.35                          | 37.31                   | 8.90                      | 2.24      | 2.61  |
| +5                            | (+41) | 7119                       | 1794     | 2086 | 737                                    | 3.63                          | 45.63                   | 9.67                      | 2.44      | 2.83  |
| +10                           | (+50) | 8521                       | 2147     | 2497 | 823                                    | 3.95                          | 55.13                   | 10.35                     | 2.61      | 3.03  |

|                               |       |                            |          |      |   |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@230V60Hz |       | ARI18<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)  | 2622                       | 661      | 768  | 505                                     | 2.87                          | 18.00                   | 5.19                      | 1.31      | 1.52  |
| -10                           | (+14) | 3355                       | 846      | 983  | 561                                     | 3.03                          | 23.15                   | 5.98                      | 1.51      | 1.75  |
| -5                            | (+23) | 4229                       | 1066     | 1239 | 625                                     | 3.23                          | 29.34                   | 6.77                      | 1.71      | 1.98  |
| 0                             | (+32) | 5242                       | 1321     | 1536 | 696                                     | 3.48                          | 36.63                   | 7.54                      | 1.90      | 2.21  |
| +5                            | (+41) | 6395                       | 1612     | 1874 | 774                                     | 3.76                          | 45.09                   | 8.26                      | 2.08      | 2.42  |
| +10                           | (+50) | 7689                       | 1938     | 2253 | 859                                     | 4.09                          | 54.77                   | 8.94                      | 2.25      | 2.62  |

|                               |       |                            |          |      |   |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@230V60Hz |       | ARI18<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)  | 2250                       | 567      | 659  | 525                                     | 2.92                          | 17.17                   | 4.29                      | 1.08      | 1.26  |
| -10                           | (+14) | 2899                       | 730      | 849  | 591                                     | 3.13                          | 22.26                   | 4.90                      | 1.24      | 1.44  |
| -5                            | (+23) | 3678                       | 927      | 1078 | 663                                     | 3.36                          | 28.44                   | 5.55                      | 1.40      | 1.63  |
| 0                             | (+32) | 4590                       | 1157     | 1345 | 740                                     | 3.63                          | 35.77                   | 6.20                      | 1.56      | 1.82  |
| +5                            | (+41) | 5632                       | 1419     | 1650 | 822                                     | 3.94                          | 44.31                   | 6.85                      | 1.73      | 2.01  |
| +10                           | (+50) | 6806                       | 1715     | 1994 | 909                                     | 4.28                          | 54.14                   | 7.49                      | 1.89      | 2.19  |

### 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     |      |                          |