

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>NE U6220GK</b>      |
| Nominal Voltage/Frequency | <b>115-127 V 60 Hz</b> |
| Engineering Number        | <b>959TE71</b>         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |   |                                   |           |
|--|---|-----------------------------------|-----------|
| 1 Type                                     | Hermetic reciprocating compressor             |                                   |           |
| 2 Refrigerant                              | R-404A  |                                   |           |
| 3 Nominal voltage and frequency            | 115-127 / 60                                  | [ 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                               | 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 pressures/temperature |   |                                   |           |
| 9.1 Operating (gauge)                      | 25.7  | [kgf/cm <sup>2</sup> ] (365 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 28.7  | [kgf/cm <sup>2</sup> ] (408 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |                                  |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation      | 3/4           | [hp]                             |
| 2 Displacement                | 14.28         | [cm <sup>3</sup> ] (0.871 cu.in) |
| 2.1 Bore [mm]                 | 30.157        |                                  |
| 2.2 Stroke [mm]               | 20.000        |                                  |
| 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             | -             | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                    |                                    |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115-127 V 60 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | Voltage Relay                      |                                    |
| 2.1 Starting device                          | RVAH9AD3C-555                      |                                    |
| 3 Start capacitor                            | 243-292(250)                       | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 25(400)                            | [µF(VAC minimum)]                  |
| 5 Motor protection                           | MST00AFW-3262                      |                                    |
| 6 Start winding resistance                   | 5.69                               | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 0.73                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 57.00                              | [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

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@127V60Hz |       | ARI4<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) | 3520                       | 887      | 1031 | 647                                    | 6.81                          | 29.72                   | 5.43                      | 1.37      | 1.59  |
| -15                           | (+ 5) | 4218                       | 1063     | 1236 | 721                                    | 7.37                          | 36.07                   | 5.86                      | 1.48      | 1.72  |
| -10                           | (+14) | 5144                       | 1296     | 1507 | 801                                    | 8.01                          | 44.51                   | 6.43                      | 1.62      | 1.88  |
| -5                            | (+23) | 6297                       | 1587     | 1845 | 888                                    | 8.72                          | 55.27                   | 7.09                      | 1.79      | 2.08  |
| 0                             | (+32) | 7678                       | 1935     | 2250 | 982                                    | 9.51                          | 68.57                   | 7.81                      | 1.97      | 2.29  |
| +5                            | (+41) | 9286                       | 2340     | 2721 | 1082                                   | 10.37                         | 84.63                   | 8.58                      | 2.16      | 2.51  |
| +10                           | (+50) | 11121                      | 2803     | 3259 | 1189                                   | 11.31                         | 103.66                  | 9.36                      | 2.36      | 2.74  |

| TEST CONDITIONS:<br>@127V60Hz |       | ARI4<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) | 2903                       | 732      | 851  | 684                                     | 7.10                          | 28.38                   | 4.24                      | 1.07      | 1.24  |
| -15                           | (+ 5) | 3502                       | 883      | 1026 | 767                                     | 7.73                          | 34.60                   | 4.57                      | 1.15      | 1.34  |
| -10                           | (+14) | 4292                       | 1081     | 1258 | 855                                     | 8.43                          | 42.95                   | 5.02                      | 1.27      | 1.47  |
| -5                            | (+23) | 5271                       | 1328     | 1545 | 946                                     | 9.18                          | 53.67                   | 5.57                      | 1.40      | 1.63  |
| 0                             | (+32) | 6441                       | 1623     | 1887 | 1041                                    | 10.00                         | 66.98                   | 6.19                      | 1.56      | 1.81  |
| +5                            | (+41) | 7800                       | 1966     | 2286 | 1141                                    | 10.88                         | 83.08                   | 6.84                      | 1.72      | 2.00  |
| +10                           | (+50) | 9350                       | 2356     | 2740 | 1244                                    | 11.82                         | 102.21                  | 7.50                      | 1.89      | 2.20  |

| TEST CONDITIONS:<br>@127V60Hz |       | ARI4<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) | 2279                       | 574      | 668  | 712                                     | 7.30                          | 26.78                   | 3.21                      | 0.81      | 0.94  |
| -15                           | (+ 5) | 2754                       | 694      | 807  | 810                                     | 8.07                          | 32.78                   | 3.40                      | 0.86      | 1.00  |
| -10                           | (+14) | 3383                       | 853      | 991  | 911                                     | 8.89                          | 40.97                   | 3.70                      | 0.93      | 1.09  |
| -5                            | (+23) | 4165                       | 1050     | 1220 | 1013                                    | 9.74                          | 51.56                   | 4.11                      | 1.03      | 1.20  |
| 0                             | (+32) | 5099                       | 1285     | 1494 | 1116                                    | 10.65                         | 64.78                   | 4.57                      | 1.15      | 1.34  |
| +5                            | (+41) | 6187                       | 1559     | 1813 | 1221                                    | 11.60                         | 80.85                   | 5.08                      | 1.28      | 1.49  |
| +10                           | (+50) | 7427                       | 1872     | 2176 | 1328                                    | 12.59                         | 99.99                   | 5.59                      | 1.41      | 1.64  |

### 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     |      |                          |