

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | NE U6217U       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 863JA51         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |   |                                   |           |
|--|---|-----------------------------------|-----------|
| 1 Type                                     | Hermetic reciprocating compressor             |                                   |           |
| 2 Refrigerant                              | R-290   |                                   |           |
| 3 Nominal voltage and frequency            | 220-240 / 50                                  | [ 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                               | 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)                      | 19.1  | [kgf/cm <sup>2</sup> ] (272 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 21.2  | [kgf/cm <sup>2</sup> ] (301 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 - ELECTRICAL 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-0071-65                      |                                    |
| 3 Start capacitor                            | 88-108(330)                        | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | MST20APK-3265                      |                                    |
| 6 Start winding resistance                   | 11.03                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 5.15                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 21.00                              | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 3.84                               | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             |                                    |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                                |                                  |  |                           |                                      |       |
|-------------------------------|----------|------|--------------------------------|----------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |      | 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] |
| 6493                          | 1636     | 1903 | 809                            | 4.19                             | 22.22  | 8.03                      | 2.02                                 | 2.35  |

### E - PERFORMANCE - CURVES

|                               |       |                            |                 |      |                                       |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | 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] |
| -20                           | (- 4) | 2996                       | 755             | 878  | 427                                   | 2.61                             | 8.45                       | 7.02                      | 1.77      | 2.06  |
| -15                           | (+ 5) | 3696                       | 931             | 1083 | 460                                   | 2.75                             | 10.47                      | 8.04                      | 2.03      | 2.36  |
| -10                           | (+14) | 4522                       | 1140            | 1325 | 495                                   | 2.89                             | 12.87                      | 9.14                      | 2.30      | 2.68  |
| -5                            | (+23) | 5474                       | 1380            | 1604 | 531                                   | 3.02                             | 15.65                      | 10.29                     | 2.59      | 3.02  |
| 0                             | (+32) | 6552                       | 1651            | 1920 | 569                                   | 3.14                             | 18.83                      | 11.49                     | 2.90      | 3.37  |
| +5                            | (+41) | 7755                       | 1954            | 2272 | 609                                   | 3.25                             | 22.44                      | 12.73                     | 3.21      | 3.73  |
| +10                           | (+50) | 9084                       | 2289            | 2662 | 650                                   | 3.36                             | 26.47                      | 13.99                     | 3.53      | 4.10  |

|                               |       |                            |                 |      |  |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | 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] |
| -20                           | (- 4) | 2682                       | 676             | 786  | 463                                    | 2.75                             | 8.18                       | 5.77                      | 1.45      | 1.69  |
| -15                           | (+ 5) | 3274                       | 825             | 959  | 509                                    | 2.94                             | 10.03                      | 6.43                      | 1.62      | 1.88  |
| -10                           | (+14) | 3977                       | 1002            | 1165 | 556                                    | 3.13                             | 12.24                      | 7.16                      | 1.80      | 2.10  |
| -5                            | (+23) | 4790                       | 1207            | 1404 | 604                                    | 3.31                             | 14.81                      | 7.94                      | 2.00      | 2.33  |
| 0                             | (+32) | 5714                       | 1440            | 1674 | 653                                    | 3.49                             | 17.78                      | 8.76                      | 2.21      | 2.57  |
| +5                            | (+41) | 6749                       | 1701            | 1978 | 703                                    | 3.67                             | 21.15                      | 9.61                      | 2.42      | 2.82  |
| +10                           | (+50) | 7894                       | 1989            | 2313 | 754                                    | 3.85                             | 24.93                      | 10.48                     | 2.64      | 3.07  |

|                               |       |                            |                 |      |  |                                  |                            |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | 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] |
| -20                           | (- 4) | 2256                       | 569             | 661  | 501                                    | 2.87                             | 7.52                       | 4.51                      | 1.14      | 1.32  |
| -15                           | (+ 5) | 2792                       | 704             | 818  | 558                                    | 3.11                             | 9.34                       | 5.01                      | 1.26      | 1.47  |
| -10                           | (+14) | 3423                       | 863             | 1003 | 616                                    | 3.36                             | 11.51                      | 5.56                      | 1.40      | 1.63  |
| -5                            | (+23) | 4150                       | 1046            | 1216 | 673                                    | 3.60                             | 14.03                      | 6.16                      | 1.55      | 1.81  |
| 0                             | (+32) | 4973                       | 1253            | 1457 | 731                                    | 3.84                             | 16.92                      | 6.80                      | 1.71      | 1.99  |
| +5                            | (+41) | 5890                       | 1484            | 1726 | 789                                    | 4.09                             | 20.21                      | 7.46                      | 1.88      | 2.19  |
| +10                           | (+50) | 6904                       | 1740            | 2023 | 847                                    | 4.33                             | 23.89                      | 8.14                      | 2.05      | 2.38  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | European Standard |      |                          |
| 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           | 6.1 +0.10/+0.00   | [mm] | (0.240" +0.004"/+0.000") |
| 3.2.1 Material          | Copper            |      |                          |
| 3.2.2 Shape             | Straight          |      |                          |
| 3.3 PROCESS             | 6.1 +0.10/+0.00   | [mm] | (0.240" +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      |      |                          |