

### COMPRESSOR DEFINITION

|                           |  |
|---------------------------|--|
| Designation               | <b>NJ 9226GS</b>                         |
| Nominal Voltage/Frequency | <b>380-420 V 50 Hz / 440-480 V 60 Hz</b> |
| Engineering Number        | <b>948LM01</b>                           |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |   |                                   |           |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor             |                                   |           |
| 2 Refrigerant                      | R-404A  |                                   |           |
| 3 Nominal voltage and frequency    | 380-420 / 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                       | 3PHASE  |                                   |           |
| 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                      | 25.2  | [kgf/cm <sup>2</sup> ] (358 psig) | / °C - °F |
| 9.2 Peak                           | 28.3  | [kgf/cm <sup>2</sup> ] (402 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1+            | [hp]                                       |
| 2 Displacement                | 21.71         | [cm <sup>3</sup> ] (1.325 cu.in)           |
| 2.1 Bore [mm]                 | 38.087        |  |
| 2.2 Stroke [mm]               | 19.066        |  |
| 3 Lubricant charge            | 750           | [ml] (25.36 fl.oz.)                        |
| 3.1 Lubricants approved       |               |  |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 |  |
| 4 Weight (with oil charge)    | 19            | [kg] (41.89 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 | 380-420 V 50 Hz / 440-480 V 60 Hz 3 ~ (Three phase) |                                    |
| 2 Starting device type                       | 3PHASE  |                                    |
| 2.1 Starting device                          |   |                                    |
| 3 Start capacitor                            | -   | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -   | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 31HM26-36   |                                    |
| 6 Start winding resistance                   | 9.33  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 9.33  | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50/60 Hz)     | -   | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50/60 Hz)  | -   | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50/60 Hz)   | -   | [A] - Measured according to UL 984 |
| 11 Approval boards certification             |   |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                             |                               |  |                           |                                      |       |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS:<br>@380V50Hz |          |      | 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 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] |
| 11086                         | 2794     | 3248 | 1300                        | 2.40                          | 91.27  | 8.53                      | 2.15                                 | 2.50  |

### E - PERFORMANCE - CURVES

|                               |       |                            |                 |      |                                       |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@380V50Hz |       |                            | ASHRAE46<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) | 4722                       | 1190            | 1384 | 681                                   | 1.51                          | 29.98                   | 6.93                      | 1.75      | 2.03  |
| -15                           | (+ 5) | 5936                       | 1496            | 1739 | 778                                   | 1.62                          | 37.89                   | 7.63                      | 1.92      | 2.24  |
| -10                           | (+14) | 7425                       | 1871            | 2176 | 860                                   | 1.72                          | 47.69                   | 8.63                      | 2.18      | 2.53  |
| -5                            | (+23) | 9190                       | 2316            | 2693 | 931                                   | 1.81                          | 59.46                   | 9.89                      | 2.49      | 2.90  |
| 0                             | (+32) | 11230                      | 2830            | 3291 | 990                                   | 1.89                          | 73.30                   | 11.34                     | 2.86      | 3.32  |
| +5                            | (+41) | 13546                      | 3414            | 3969 | 1040                                  | 1.97                          | 89.29                   | 12.94                     | 3.26      | 3.79  |
| +10                           | (+50) | 16138                      | 4067            | 4729 | 1082                                  | 2.05                          | 107.51                  | 14.64                     | 3.69      | 4.29  |

|                               |       |                            |                 |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@380V50Hz |       |                            | ASHRAE46<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) | 3962                       | 998             | 1161 | 742                                    | 1.56                          | 27.76                   | 5.36                      | 1.35      | 1.57  |
| -15                           | (+ 5) | 4911                       | 1238            | 1439 | 851                                    | 1.70                          | 34.61                   | 5.76                      | 1.45      | 1.69  |
| -10                           | (+14) | 6104                       | 1538            | 1789 | 949                                    | 1.83                          | 43.31                   | 6.41                      | 1.62      | 1.88  |
| -5                            | (+23) | 7539                       | 1900            | 2209 | 1039                                   | 1.95                          | 53.95                   | 7.26                      | 1.83      | 2.13  |
| 0                             | (+32) | 9218                       | 2323            | 2701 | 1120                                   | 2.07                          | 66.60                   | 8.24                      | 2.08      | 2.41  |
| +5                            | (+41) | 11140                      | 2807            | 3264 | 1196                                   | 2.18                          | 81.35                   | 9.32                      | 2.35      | 2.73  |
| +10                           | (+50) | 13305                      | 3353            | 3899 | 1266                                   | 2.30                          | 98.29                   | 10.44                     | 2.63      | 3.06  |

|                               |       |                            |                 |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@380V50Hz |       |                            | ASHRAE46<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) | 3298                       | 831             | 967  | 760                                    | 1.58                          | 25.94                   | 4.33                      | 1.09      | 1.27  |
| -15                           | (+ 5) | 4021                       | 1013            | 1178 | 891                                    | 1.76                          | 31.83                   | 4.52                      | 1.14      | 1.32  |
| -10                           | (+14) | 4954                       | 1248            | 1452 | 1013                                   | 1.93                          | 39.53                   | 4.89                      | 1.23      | 1.43  |
| -5                            | (+23) | 6098                       | 1537            | 1787 | 1130                                   | 2.09                          | 49.11                   | 5.40                      | 1.36      | 1.58  |
| 0                             | (+32) | 7452                       | 1878            | 2184 | 1242                                   | 2.25                          | 60.66                   | 5.99                      | 1.51      | 1.76  |
| +5                            | (+41) | 9018                       | 2273            | 2642 | 1351                                   | 2.41                          | 74.28                   | 6.62                      | 1.67      | 1.94  |
| +10                           | (+50) | 10794                      | 2720            | 3163 | 1458                                   | 2.57                          | 90.04                   | 7.24                      | 1.82      | 2.12  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | American Standard |      |                          |
| 2 Tray holder           | No                |      |                          |
| 3 Connectors            |                   |      |                          |
| 3.1 SUCTION             | 9.6 +0.07/+0.00   | [mm] | (0.378" +0.003"/+0.000") |
| 3.1.1 Material          | Copper            |      |                          |
| 3.1.2 Shape             | Vertical          |      |                          |
| 3.2 DISCHARGE           | 8 +0.07/+0.00     | [mm] | (0.315" +0.003"/+0.000") |
| 3.2.1 Material          | Copper            |      |                          |
| 3.2.2 Shape             | Slanted J         |      |                          |
| 3.3 PROCESS             | 6.42 +0.08/+0.00  | [mm] | (0.253" +0.003"/+0.000") |
| 3.3.1 Material          | Copper            |      |                          |
| 3.3.2 Shape             | Vertical          |      |                          |
| 3.4 Oil cooler (Copper) | No                | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs      |      |                          |