

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | NJ 2192GJ       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 943CA11         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |           |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                      | R-404A                            |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 50                      | [ V / Hz ]                        |           |
| 4 Application type                 | Low Back Pressure R404A           |                                   |           |
| 4.1 Evaporating temperature range  | -40°C to -10°C                    | (-40°F to 14°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                      | 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 1/4         | [hp]                                       |
| 2 Displacement                | 26.11         | [cm <sup>3</sup> ] (1.593 cu.in)           |
| 2.1 Bore [mm]                 | 41.770        |  |
| 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)    | 21            | [kg] (46.30 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 | 220-240 V 50 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | Voltage Relay                      |                                    |
| 2.1 Starting device                          | RVA2L3C                            |                                    |
| 3 Start capacitor                            | 88-108(330)                        | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 15(440)                            | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 15HM1962-248                       |                                    |
| 6 Start winding resistance                   | 7.43                               | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 1.92                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | -                                  | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | -                                  | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CCC - IMQ                          |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |      |                             |                               |  |                           |  |       |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |      | ASHRAELBP32<br>Fan          |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°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] |
| 4054                          | 1022     | 1188 | 947                         | 5.10                          | 27.48  | 4.28                      | 1.08                                   | 1.25  |

### E - PERFORMANCE - CURVES

|                               |       |                            |                 |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | ASHRAE32<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] |
| -40                           | (-40) | 1924                       | 485             | 564  | 544                                    | 3.54                          | 12.93                   | 3.52                      | 0.89      | 1.03  |
| -35                           | (-31) | 2527                       | 637             | 740  | 629                                    | 3.84                          | 17.04                   | 4.04                      | 1.02      | 1.18  |
| -30                           | (-22) | 3350                       | 844             | 982  | 721                                    | 4.18                          | 22.66                   | 4.66                      | 1.17      | 1.36  |
| -25                           | (-13) | 4391                       | 1106            | 1287 | 819                                    | 4.57                          | 29.83                   | 5.35                      | 1.35      | 1.57  |
| -20                           | (- 4) | 5647                       | 1423            | 1655 | 923                                    | 4.99                          | 38.57                   | 6.10                      | 1.54      | 1.79  |
| -15                           | (+ 5) | 7116                       | 1793            | 2085 | 1032                                   | 5.46                          | 48.90                   | 6.89                      | 1.74      | 2.02  |
| -10                           | (+14) | 8797                       | 2217            | 2578 | 1146                                   | 5.98                          | 60.85                   | 7.69                      | 1.94      | 2.25  |

|                               |       |                            |                 |      |   |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | ASHRAE32<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] |
| -40                           | (-40) | 1553                       | 391             | 455  | 525                                     | 3.45                          | 10.42                   | 2.95                      | 0.74      | 0.87  |
| -35                           | (-31) | 2185                       | 551             | 640  | 632                                     | 3.84                          | 14.71                   | 3.46                      | 0.87      | 1.01  |
| -30                           | (-22) | 3002                       | 756             | 880  | 744                                     | 4.26                          | 20.27                   | 4.03                      | 1.02      | 1.18  |
| -25                           | (-13) | 4002                       | 1008            | 1173 | 860                                     | 4.72                          | 27.13                   | 4.65                      | 1.17      | 1.36  |
| -20                           | (- 4) | 5182                       | 1306            | 1518 | 979                                     | 5.22                          | 35.31                   | 5.30                      | 1.33      | 1.55  |
| -15                           | (+ 5) | 6539                       | 1648            | 1916 | 1101                                    | 5.75                          | 44.84                   | 5.95                      | 1.50      | 1.74  |
| -10                           | (+14) | 8073                       | 2034            | 2366 | 1224                                    | 6.31                          | 55.74                   | 6.58                      | 1.66      | 1.93  |

|                               |       |                            |                 |      |   |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|-----------------|------|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | ASHRAE32<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] |
| -40                           | (-40) | 1208                       | 304             | 354  | 506                                     | 3.37                          | 8.08                    | 2.41                      | 0.61      | 0.71  |
| -35                           | (-31) | 1889                       | 476             | 554  | 638                                     | 3.86                          | 12.70                   | 2.94                      | 0.74      | 0.86  |
| -30                           | (-22) | 2720                       | 685             | 797  | 773                                     | 4.37                          | 18.34                   | 3.50                      | 0.88      | 1.02  |
| -25                           | (-13) | 3698                       | 932             | 1084 | 908                                     | 4.92                          | 25.03                   | 4.07                      | 1.03      | 1.19  |
| -20                           | (- 4) | 4822                       | 1215            | 1413 | 1045                                    | 5.49                          | 32.79                   | 4.64                      | 1.17      | 1.36  |
| -15                           | (+ 5) | 6088                       | 1534            | 1784 | 1181                                    | 6.10                          | 41.66                   | 5.18                      | 1.30      | 1.52  |
| -10                           | (+14) | 7494                       | 1889            | 2196 | 1317                                    | 6.72                          | 51.64                   | 5.67                      | 1.43      | 1.66  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | American Standard |      |                          |
| 2 Tray holder           | No                |      |                          |
| 3 Connectors            |                   |      |                          |
| 3.1 SUCTION             | 12.77 +0.08/+0.00 | [mm] | (0.503" +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      |      |                          |