

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>NB T1112Y</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>810BA42</b>         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |           |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                      | R-600a                            |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 50                      | [ V / Hz ]                        |           |
| 4 Application type                 | Low Back Pressure                 |                                   |           |
| 4.1 Evaporating temperature range  | -35°C to -10°C                    | (-31°F to 14°F)                   |           |
| 5 Motor type                       | RSIR-RSCR                         |                                   |           |
| 6 Starting torque                  | LST - Low Starting Torque         |                                   |           |
| 7 Expansion device                 | Capillary tube                    |                                   |           |
| 8 Compressor cooling               |                                   | Operating voltage range           |           |
|                                    |                                   | 50 Hz                             | 60 Hz     |
| 8.1 LBP (32°C Ambient temperature) | Static                            | 198 to 254 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 198 to 254 V                      | -         |
| 8.3 HBP (32°C Ambient temperature) | -                                 | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -                                 | -                                 | -         |
| 9 Maximum condensing temperature   |                                   |                                   |           |
| 9.1 Operating                      | 6.9                               | [kgf/cm <sup>2</sup> ] (98 psig)  | / °C - °F |
| 9.2 Peak                           | 7.8                               | [kgf/cm <sup>2</sup> ] (111 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                 |                                  |
|-------------------------------|-----------------|----------------------------------|
| 1 Commercial designation      |                 | [hp]                             |
| 2 Displacement                | 8.77            | [cm <sup>3</sup> ] (0.535 cu.in) |
| 2.1 Bore [mm]                 | 26.497          |                                  |
| 2.2 Stroke [mm]               | 15.920          |                                  |
| 3 Lubricant charge            | 350             | [ml] (11.84 fl.oz.)              |
| 3.1 Lubricants approved       |                 |                                  |
| 3.2 Lubricants type/viscosity | MINERAL / ISO10 |                                  |
| 4 Weight (with oil charge)    | 10.17           | [kg] (22.42 lb.)                 |
| 5 Nitrogen charge             | -               | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                    |                                    |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | PTC                                |                                    |
| 2.1 Starting device                          | 2019                               |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 4(450)                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | AD25FQ10                           |                                    |
| 6 Start winding resistance                   | 24.50                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 15.50                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.50                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.43                               | [A]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |   |           |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP</b><br>Static |                               | Evaporating temperature<br>(Condensing temperature | <b>-25°C (-13°F)</b><br><b>55°C (131°F)</b> |           |       |
| 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] |
| 352                           | 89       | 103 | 88                          | 0.42                          | 1.34   | 4.00  | 1.01      | 1.17  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>45°C (+113°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 230                        | 58       | 67                       | 56                          | 0.33   | 0.80                    | 4.07                      | 1.02      | 1.19  |
| <b>-30 (-22)</b>              | 312                        | 79       | 92                       | 71                          | 0.36   | 1.09                    | 4.41                      | 1.11      | 1.29  |
| <b>-25 (-13)</b>              | 416                        | 105      | 122                      | 84                          | 0.40   | 1.45                    | 4.99                      | 1.26      | 1.46  |
| <b>-20 (- 4)</b>              | 543                        | 137      | 159                      | 95                          | 0.44   | 1.89                    | 5.74                      | 1.45      | 1.68  |
| <b>-15 (+ 5)</b>              | 693                        | 175      | 203                      | 105                         | 0.49   | 2.42                    | 6.57                      | 1.66      | 1.93  |
| <b>-10 (+14)</b>              | 869                        | 219      | 254                      | 117                         | 0.55   | 3.04                    | 7.42                      | 1.87      | 2.17  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>55°C (+131°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 175                        | 44       | 51                       | 60                          | 0.34   | 0.67                    | 2.96                      | 0.75      | 0.87  |
| <b>-30 (-22)</b>              | 255                        | 64       | 75                       | 75                          | 0.37   | 0.97                    | 3.39                      | 0.85      | 0.99  |
| <b>-25 (-13)</b>              | 352                        | 89       | 103                      | 87                          | 0.41   | 1.34                    | 4.00                      | 1.01      | 1.17  |
| <b>-20 (- 4)</b>              | 466                        | 117      | 137                      | 99                          | 0.46   | 1.78                    | 4.71                      | 1.19      | 1.38  |
| <b>-15 (+ 5)</b>              | 600                        | 151      | 176                      | 111                         | 0.52   | 2.30                    | 5.45                      | 1.37      | 1.60  |
| <b>-10 (+14)</b>              | 756                        | 190      | 221                      | 124                         | 0.58   | 2.90                    | 6.13                      | 1.54      | 1.80  |

### F - EXTERNAL CHARACTERISTICS

|                         |                                |      |                          |
|-------------------------|--------------------------------|------|--------------------------|
| 1 Base plate            | European Standard              |      |                          |
| 2 Tray holder           | No                             |      |                          |
| 3 Connectors            |                                |      |                          |
| 3.1 SUCTION             | 6.1 +0.10/+0.00                | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material          | Copper                         |      |                          |
| 3.1.2 Shape             | Slanted 42°                    |      |                          |
| 3.2 DISCHARGE           | 4.94 +0.08/-0.08               | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material          | Copper                         |      |                          |
| 3.2.2 Shape             | Slanted parallel to Base Plate |      |                          |
| 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                   |      |                          |