

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>NB T1114Y</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>810CA47</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                              |                                   |           |
| 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 pressures/temperature |                                   |                                   |           |
| 9.1 Operating (gauge)                      | 7.7                               | [kgf/cm <sup>2</sup> ] (109 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 9.8                               | [kgf/cm <sup>2</sup> ] (139 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                |                                  |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation      |                | [hp]                             |
| 2 Displacement                | 9.99           | [cm <sup>3</sup> ] (0.610 cu.in) |
| 2.1 Bore [mm]                 | 26.497         |                                  |
| 2.2 Stroke [mm]               | 18.120         |                                  |
| 3 Lubricant charge            | 350            | [ml] (11.84 fl.oz.)              |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 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                          | V230                               |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0127/07                           |                                    |
| 6 Start winding resistance                   | 23.40                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 15.40                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 5.10                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.63                               | [A]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | CCIB - VDE                         |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                |                                  |  |                           |                               |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP</b><br>Static    |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°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] |
| 409                           | 103      | 120 | 107                            | 0.68                             | 1.56   | 3.82                      | 0.96                          | 1.12  |

### E - PERFORMANCE - CURVES

|                               |                            |                          |     |                                |                                  |                                       |                           |           |       |
|-------------------------------|----------------------------|--------------------------|-----|--------------------------------|----------------------------------|---------------------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF</b><br>Static |     |                                |                                  | (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] |
| -35 (-31)                     | 311                        | 78                       | 91  | 78                             | 0.60                             | 0.99                                  | 4.02                      | 1.01      | 1.18  |
| -30 (-22)                     | 419                        | 106                      | 123 | 86                             | 0.62                             | 1.34                                  | 4.88                      | 1.23      | 1.43  |
| -25 (-13)                     | 555                        | 140                      | 163 | 97                             | 0.65                             | 1.78                                  | 5.73                      | 1.44      | 1.68  |
| -20 (- 4)                     | 718                        | 181                      | 210 | 109                            | 0.70                             | 2.31                                  | 6.57                      | 1.66      | 1.93  |
| -15 (+ 5)                     | 909                        | 229                      | 266 | 122                            | 0.74                             | 2.93                                  | 7.44                      | 1.88      | 2.18  |
| -10 (+14)                     | 1128                       | 284                      | 330 | 135                            | 0.79                             | 3.64                                  | 8.36                      | 2.11      | 2.45  |

|                               |                            |                          |     |                                |                                  |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF</b><br>Static |     |                                |                                  | (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] |
| -35 (-31)                     | 270                        | 68                       | 79  | 77                             | 0.60                             | 0.94                                   | 3.47                      | 0.87      | 1.02  |
| -30 (-22)                     | 366                        | 92                       | 107 | 88                             | 0.63                             | 1.27                                   | 4.15                      | 1.05      | 1.22  |
| -25 (-13)                     | 487                        | 123                      | 143 | 101                            | 0.68                             | 1.70                                   | 4.80                      | 1.21      | 1.41  |
| -20 (- 4)                     | 633                        | 160                      | 185 | 116                            | 0.73                             | 2.21                                   | 5.43                      | 1.37      | 1.59  |
| -15 (+ 5)                     | 804                        | 203                      | 236 | 133                            | 0.79                             | 2.81                                   | 6.06                      | 1.53      | 1.78  |
| -10 (+14)                     | 1001                       | 252                      | 293 | 150                            | 0.84                             | 3.50                                   | 6.73                      | 1.69      | 1.97  |

|                               |                            |                          |     |                                |                                  |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF</b><br>Static |     |                                |                                  | (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] |
| -35 (-31)                     | 215                        | 54                       | 63  | 83                             | 0.61                             | 0.82                                   | 2.60                      | 0.66      | 0.76  |
| -30 (-22)                     | 301                        | 76                       | 88  | 94                             | 0.64                             | 1.14                                   | 3.24                      | 0.82      | 0.95  |
| -25 (-13)                     | 410                        | 103                      | 120 | 108                            | 0.69                             | 1.56                                   | 3.81                      | 0.96      | 1.12  |
| -20 (- 4)                     | 542                        | 136                      | 159 | 124                            | 0.75                             | 2.07                                   | 4.36                      | 1.10      | 1.28  |
| -15 (+ 5)                     | 696                        | 175                      | 204 | 142                            | 0.82                             | 2.66                                   | 4.89                      | 1.23      | 1.43  |
| -10 (+14)                     | 874                        | 220                      | 256 | 160                            | 0.88                             | 3.35                                   | 5.44                      | 1.37      | 1.59  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF<br>Static          |          |     | (Condensing temperature 65°C (+149°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] |
| -35                           | (-31) | 164                        | 41       | 48  | 85                                      | 0.61                          | 0.69                    | 1.92                      | 0.48      | 0.56  |
| -30                           | (-22) | 244                        | 61       | 71  | 93                                      | 0.65                          | 1.03                    | 2.63                      | 0.66      | 0.77  |
| -25                           | (-13) | 344                        | 87       | 101 | 105                                     | 0.70                          | 1.45                    | 3.28                      | 0.83      | 0.96  |
| -20                           | (- 4) | 464                        | 117      | 136 | 120                                     | 0.77                          | 1.97                    | 3.87                      | 0.98      | 1.14  |
| -15                           | (+ 5) | 604                        | 152      | 177 | 136                                     | 0.83                          | 2.57                    | 4.44                      | 1.12      | 1.30  |
| -10                           | (+14) | 766                        | 193      | 224 | 153                                     | 0.90                          | 3.26                    | 5.00                      | 1.26      | 1.46  |

### 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                   |      |                          |