

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM T56CLP       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513306205       |

### 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 255 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 198 to 255 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      | 1/6            | [hp]                             |
| 2 Displacement                | 9.04           | [cm <sup>3</sup> ] (0.552 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 20.000         |                                  |
| 3 Lubricant charge            | 180            | [ml] (6.09 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.65           | [kg] (16.87 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                          | MI2021                             |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 2.5(280)                           | [µF(VAC minimum)]                  |
| 5 Motor protection                           | AE18BQ10                           |                                    |
| 6 Start winding resistance                   | 24.75                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 21.55                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 5.50                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.64                               | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CE - UKCA - VDE                    |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |                               |           |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|-------------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAF</b><br>Static    |                               | Evaporating temperature<br>(Condensing temperature | -25°C (-13°F)<br>55°C (131°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] |
| 389                           | 98       | 114 | 106                         | 0.62                          | 1.48   | 3.68                          | 0.93      | 1.08  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (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] |
| -35 (-31)                     | 262                        | 66       | 77                       | 75                          | 0.54                                   | 0.91                    | 3.45                      | 0.87      | 1.01  |
| -30 (-22)                     | 349                        | 88       | 102                      | 91                          | 0.58                                   | 1.21                    | 3.86                      | 0.97      | 1.13  |
| -25 (-13)                     | 461                        | 116      | 135                      | 107                         | 0.61                                   | 1.60                    | 4.33                      | 1.09      | 1.27  |
| -20 (- 4)                     | 600                        | 151      | 176                      | 124                         | 0.64                                   | 2.09                    | 4.85                      | 1.22      | 1.42  |
| -15 (+ 5)                     | 765                        | 193      | 224                      | 140                         | 0.68                                   | 2.67                    | 5.44                      | 1.37      | 1.59  |
| -10 (+14)                     | 956                        | 241      | 280                      | 156                         | 0.71                                   | 3.35                    | 6.10                      | 1.54      | 1.79  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (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] |
| -35 (-31)                     | 217                        | 55       | 64                       | 77                          | 0.55                                   | 0.82                    | 2.83                      | 0.71      | 0.83  |
| -30 (-22)                     | 299                        | 75       | 88                       | 92                          | 0.59                                   | 1.14                    | 3.25                      | 0.82      | 0.95  |
| -25 (-13)                     | 402                        | 101      | 118                      | 109                         | 0.62                                   | 1.53                    | 3.67                      | 0.93      | 1.08  |
| -20 (- 4)                     | 527                        | 133      | 154                      | 127                         | 0.66                                   | 2.01                    | 4.11                      | 1.04      | 1.20  |
| -15 (+ 5)                     | 674                        | 170      | 197                      | 147                         | 0.70                                   | 2.58                    | 4.57                      | 1.15      | 1.34  |
| -10 (+14)                     | 843                        | 213      | 247                      | 167                         | 0.75                                   | 3.24                    | 5.05                      | 1.27      | 1.48  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><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)                     | 174                        | 44       | 51                       | 76                          | 0.54                                   | 0.74                    | 2.29                      | 0.58      | 0.67  |
| -30 (-22)                     | 250                        | 63       | 73                       | 93                          | 0.58                                   | 1.05                    | 2.68                      | 0.67      | 0.78  |
| -25 (-13)                     | 342                        | 86       | 100                      | 113                         | 0.63                                   | 1.45                    | 3.04                      | 0.77      | 0.89  |
| -20 (- 4)                     | 451                        | 114      | 132                      | 134                         | 0.67                                   | 1.91                    | 3.37                      | 0.85      | 0.99  |
| -15 (+ 5)                     | 579                        | 146      | 170                      | 158                         | 0.72                                   | 2.46                    | 3.67                      | 0.92      | 1.08  |
| -10 (+14)                     | 724                        | 182      | 212                      | 183                         | 0.78                                   | 3.08                    | 3.95                      | 1.00      | 1.16  |

### F - EXTERNAL CHARACTERISTICS

|                         |                                       |      |                          |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate            | European Standard EG/F/AMEM Version 2 |      |                          |
| 2 Tray holder           | No                                    |      |                          |
| 3 Connectors            |                                       |      |                          |
| 3.1 SUCTION             | 6.5 +0.12/-0.08                       | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material          | Copper                                |      |                          |
| 3.1.2 Shape             | Slanted 42° up + 45° to Back          |      |                          |
| 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 BP+24°to Back        |      |                          |
| 3.3 PROCESS             | 6.5 +0.12/-0.08                       | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material          | Copper                                |      |                          |
| 3.3.2 Shape             | Slanted 45° up + 45° to Back          |      |                          |
| 3.4 Oil cooler (Copper) | No                                    | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                          |      |                          |