

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM T56CLP       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 892EA85         |

### 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 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                | 9.34           | [cm <sup>3</sup> ] (0.570 cu.in) |
| 2.1 Bore [mm]                 | 26.000         |                                  |
| 2.2 Stroke [mm]               | 17.600         |                                  |
| 3 Lubricant charge            | 180            | [ml] (6.09 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 |                                  |
| 4 Weight (with oil charge)    | 7.7            | [kg] (16.98 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                              | -                                  | [μF(VAC minimum)]                  |
| 5 Motor protection                           | AE19BU                             |                                    |
| 6 Start winding resistance                   | 25.70                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 18.20                              | [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]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS:<br>@220V50Hz |          |     | CECOMAFLBP<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] |
| 397                           | 100      | 116 | 110                            | 0.83                             | 1.51   | 3.61                      | 0.91                          | 1.06  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF<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) | 299                        | 75       | 88  | 85                             | 0.78                                   | 0.96                       | 3.52                      | 0.89      | 1.03  |
| -30                           | (-22) | 400                        | 101      | 117 | 94                             | 0.80                                   | 1.28                       | 4.27                      | 1.07      | 1.25  |
| -25                           | (-13) | 521                        | 131      | 153 | 104                            | 0.81                                   | 1.67                       | 5.06                      | 1.28      | 1.48  |
| -20                           | (- 4) | 669                        | 169      | 196 | 113                            | 0.83                                   | 2.15                       | 5.92                      | 1.49      | 1.74  |
| -15                           | (+ 5) | 849                        | 214      | 249 | 123                            | 0.86                                   | 2.73                       | 6.85                      | 1.72      | 2.01  |
| -10                           | (+14) | 1065                       | 268      | 312 | 135                            | 0.89                                   | 3.43                       | 7.84                      | 1.98      | 2.30  |

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF<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) | 254                        | 64       | 74  | 84                             | 0.77                                    | 0.88                       | 2.99                      | 0.75      | 0.88  |
| -30                           | (-22) | 353                        | 89       | 103 | 96                             | 0.80                                    | 1.23                       | 3.66                      | 0.92      | 1.07  |
| -25                           | (-13) | 467                        | 118      | 137 | 108                            | 0.82                                    | 1.63                       | 4.34                      | 1.09      | 1.27  |
| -20                           | (- 4) | 603                        | 152      | 177 | 120                            | 0.85                                    | 2.11                       | 5.04                      | 1.27      | 1.48  |
| -15                           | (+ 5) | 766                        | 193      | 224 | 132                            | 0.88                                    | 2.67                       | 5.78                      | 1.46      | 1.69  |
| -10                           | (+14) | 959                        | 242      | 281 | 146                            | 0.93                                    | 3.36                       | 6.54                      | 1.65      | 1.92  |

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF<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) | 191                        | 48       | 56  | 81                             | 0.77                                    | 0.72                       | 2.37                      | 0.60      | 0.69  |
| -30                           | (-22) | 288                        | 73       | 84  | 95                             | 0.80                                    | 1.10                       | 3.00                      | 0.76      | 0.88  |
| -25                           | (-13) | 396                        | 100      | 116 | 110                            | 0.83                                    | 1.51                       | 3.61                      | 0.91      | 1.06  |
| -20                           | (- 4) | 520                        | 131      | 152 | 124                            | 0.87                                    | 1.99                       | 4.19                      | 1.06      | 1.23  |
| -15                           | (+ 5) | 665                        | 168      | 195 | 139                            | 0.91                                    | 2.55                       | 4.78                      | 1.20      | 1.40  |
| -10                           | (+14) | 836                        | 211      | 245 | 156                            | 0.96                                    | 3.21                       | 5.36                      | 1.35      | 1.57  |

### 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) | 128                        | 32       | 38  | 77                                      | 0.76                          | 0.54                    | 1.68                      | 0.42      | 0.49  |
| -30                           | (-22) | 224                        | 56       | 66  | 94                                      | 0.80                          | 0.94                    | 2.31                      | 0.58      | 0.68  |
| -25                           | (-13) | 325                        | 82       | 95  | 111                                     | 0.84                          | 1.37                    | 2.89                      | 0.73      | 0.85  |
| -20                           | (- 4) | 437                        | 110      | 128 | 129                                     | 0.89                          | 1.85                    | 3.41                      | 0.86      | 1.00  |
| -15                           | (+ 5) | 565                        | 142      | 165 | 147                                     | 0.94                          | 2.40                    | 3.88                      | 0.98      | 1.14  |
| -10                           | (+14) | 713                        | 180      | 209 | 166                                     | 1.00                          | 3.04                    | 4.32                      | 1.09      | 1.26  |

### 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           | 5.1 +0.10/+0.00                | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material          | Copper                         |      |                          |
| 3.2.2 Shape             | Slanted parallel to Base Plate |      |                          |
| 3.3 PROCESS             | 6 +0.08/-0.08                  | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material          | Copper(OD)                     |      |                          |
| 3.3.2 Shape             | Slanted 42°                    |      |                          |
| 3.4 Oil cooler (Copper) | No                             | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                   |      |                          |