

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM X32CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 700GA72         |

### 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                       | 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                            | 187 to 255 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 187 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      | 1/7            | [hp]                             |
| 2 Displacement                | 5.96           | [cm <sup>3</sup> ] (0.364 cu.in) |
| 2.1 Bore [mm]                 | 22.500         |                                  |
| 2.2 Stroke [mm]               | 15.000         |                                  |
| 3 Lubricant charge            | 150            | [ml] (5.07 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.3            | [kg] (16.09 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                       | TSD  |                                    |
| 2.1 Starting device                          | TSD-220V0.6/TSD2-220V/TSD2-220V1.2/TSD2-D-220V |                                    |
| 3 Start capacitor                            | -  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 2.5(300)/2(300)/4(300)                         | [µF(VAC minimum)]                  |
| 5 Motor protection                           | CP4TMC185K61A5                                 |                                    |
| 6 Start winding resistance                   | 23.90  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 42.50  | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 3.30   | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.55   | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | 0.68   | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | VDE  |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                   |                               |  |                               |           |       |
|-------------------------------|----------|-----|-----------------------------------|-------------------------------|--|-------------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP-NOFAN</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] |
| 237                           | 60       | 69  | 51                                | 0.26                          | 0.90   | 4.61                          | 1.16      | 1.35  |

### E - PERFORMANCE - CURVES

|                               |                            |                                |     |                             |                               |                                       |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|---------------------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</b><br>Static |     |                             |                               | (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] |
| -35 (-31)                     | 216                        | 54                             | 63  | 33                          | 0.20                          | 0.69                                  | 6.47                      | 1.63      | 1.89  |
| -30 (-22)                     | 281                        | 71                             | 82  | 43                          | 0.23                          | 0.90                                  | 6.77                      | 1.70      | 1.98  |
| -25 (-13)                     | 359                        | 90                             | 105 | 49                          | 0.25                          | 1.15                                  | 7.47                      | 1.88      | 2.19  |
| -20 (- 4)                     | 453                        | 114                            | 133 | 54                          | 0.28                          | 1.46                                  | 8.49                      | 2.14      | 2.49  |
| -15 (+ 5)                     | 568                        | 143                            | 167 | 58                          | 0.30                          | 1.83                                  | 9.72                      | 2.45      | 2.85  |
| -10 (+14)                     | 707                        | 178                            | 207 | 63                          | 0.32                          | 2.28                                  | 11.09                     | 2.79      | 3.25  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</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)                     | 156                        | 39                             | 46  | 33                          | 0.19                          | 0.54                                   | 4.73                      | 1.19      | 1.39  |
| -30 (-22)                     | 220                        | 55                             | 64  | 43                          | 0.23                          | 0.76                                   | 5.08                      | 1.28      | 1.49  |
| -25 (-13)                     | 293                        | 74                             | 86  | 51                          | 0.26                          | 1.02                                   | 5.74                      | 1.45      | 1.68  |
| -20 (- 4)                     | 380                        | 96                             | 111 | 57                          | 0.29                          | 1.33                                   | 6.63                      | 1.67      | 1.94  |
| -15 (+ 5)                     | 484                        | 122                            | 142 | 63                          | 0.32                          | 1.69                                   | 7.65                      | 1.93      | 2.24  |
| -10 (+14)                     | 610                        | 154                            | 179 | 70                          | 0.35                          | 2.13                                   | 8.70                      | 2.19      | 2.55  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</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)                     | 108                        | 27                             | 32  | 32                          | 0.19                          | 0.41                                   | 3.49                      | 0.88      | 1.02  |
| -30 (-22)                     | 168                        | 42                             | 49  | 43                          | 0.23                          | 0.64                                   | 3.91                      | 0.98      | 1.14  |
| -25 (-13)                     | 235                        | 59                             | 69  | 51                          | 0.26                          | 0.90                                   | 4.55                      | 1.15      | 1.33  |
| -20 (- 4)                     | 313                        | 79                             | 92  | 58                          | 0.30                          | 1.20                                   | 5.33                      | 1.34      | 1.56  |
| -15 (+ 5)                     | 405                        | 102                            | 119 | 66                          | 0.34                          | 1.55                                   | 6.15                      | 1.55      | 1.80  |
| -10 (+14)                     | 515                        | 130                            | 151 | 74                          | 0.38                          | 1.98                                   | 6.92                      | 1.74      | 2.03  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF-NOFAN<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) | 75                         | 19       | 22  | 29                                      | 0.18                          | 0.32                    | 2.54                      | 0.64      | 0.74  |
| -30                           | (-22) | 130                        | 33       | 38  | 41                                      | 0.22                          | 0.55                    | 3.05                      | 0.77      | 0.89  |
| -25                           | (-13) | 189                        | 48       | 55  | 50                                      | 0.26                          | 0.80                    | 3.70                      | 0.93      | 1.08  |
| -20                           | (- 4) | 256                        | 64       | 75  | 59                                      | 0.30                          | 1.08                    | 4.40                      | 1.11      | 1.29  |
| -15                           | (+ 5) | 334                        | 84       | 98  | 68                                      | 0.34                          | 1.42                    | 5.04                      | 1.27      | 1.48  |
| -10                           | (+14) | 427                        | 108      | 125 | 78                                      | 0.39                          | 1.82                    | 5.54                      | 1.40      | 1.62  |

### 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° 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 0° up + 45° to Back  |      |                          |
| 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 45° up + 45° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |