

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM X55CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 711UA98         |

### 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) | -                                 | -                                 | -         |
| 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                | 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            | 150            | [ml] (5.07 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                       | TSD                                |                                    |
| 2.1 Starting device                          | TSD-220V/TSD2-220V1.2/TSD2-D-220V  |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 5(350)/4(350)                      | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM232KDB                          |                                    |
| 6 Start winding resistance                   | 16.55                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 25.00                              | [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] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS:<br>@220V50Hz |          |     | CECOMAFLBP-NOFAN<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] |
| 399                           | 101      | 117 | 85                             | 0.40                             | 1.52   | 4.69                      | 1.18                          | 1.37  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF-NOFAN<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) | 298                        | 75       | 87  | 62                             | 0.30                                   | 0.95                       | 4.74                      | 1.20      | 1.39  |
| -30                           | (-22) | 391                        | 99       | 115 | 72                             | 0.34                                   | 1.25                       | 5.47                      | 1.38      | 1.60  |
| -25                           | (-13) | 510                        | 129      | 150 | 81                             | 0.38                                   | 1.64                       | 6.32                      | 1.59      | 1.85  |
| -20                           | (- 4) | 655                        | 165      | 192 | 90                             | 0.42                                   | 2.11                       | 7.31                      | 1.84      | 2.14  |
| -15                           | (+ 5) | 827                        | 208      | 242 | 99                             | 0.47                                   | 2.66                       | 8.41                      | 2.12      | 2.47  |
| -10                           | (+14) | 1026                       | 258      | 301 | 107                            | 0.51                                   | 3.31                       | 9.63                      | 2.43      | 2.82  |

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF-NOFAN<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) | 259                        | 65       | 76  | 61                             | 0.30                                    | 0.90                       | 4.26                      | 1.07      | 1.25  |
| -30                           | (-22) | 348                        | 88       | 102 | 72                             | 0.35                                    | 1.21                       | 4.85                      | 1.22      | 1.42  |
| -25                           | (-13) | 460                        | 116      | 135 | 83                             | 0.40                                    | 1.60                       | 5.53                      | 1.39      | 1.62  |
| -20                           | (- 4) | 597                        | 150      | 175 | 94                             | 0.45                                    | 2.08                       | 6.30                      | 1.59      | 1.85  |
| -15                           | (+ 5) | 758                        | 191      | 222 | 106                            | 0.50                                    | 2.65                       | 7.16                      | 1.80      | 2.10  |
| -10                           | (+14) | 945                        | 238      | 277 | 117                            | 0.56                                    | 3.31                       | 8.08                      | 2.04      | 2.37  |

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF-NOFAN<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) | 218                        | 55       | 64  | 61                             | 0.31                                    | 0.83                       | 3.63                      | 0.91      | 1.06  |
| -30                           | (-22) | 298                        | 75       | 87  | 72                             | 0.36                                    | 1.14                       | 4.13                      | 1.04      | 1.21  |
| -25                           | (-13) | 400                        | 101      | 117 | 85                             | 0.41                                    | 1.53                       | 4.69                      | 1.18      | 1.37  |
| -20                           | (- 4) | 524                        | 132      | 154 | 98                             | 0.47                                    | 2.00                       | 5.30                      | 1.34      | 1.55  |
| -15                           | (+ 5) | 671                        | 169      | 197 | 112                            | 0.53                                    | 2.57                       | 5.95                      | 1.50      | 1.74  |
| -10                           | (+14) | 840                        | 212      | 246 | 127                            | 0.60                                    | 3.22                       | 6.63                      | 1.67      | 1.94  |

### 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) | 180                        | 45       | 53  | 61                                      | 0.31                          | 0.76                    | 2.93                      | 0.74      | 0.86  |
| -30                           | (-22) | 247                        | 62       | 72  | 73                                      | 0.36                          | 1.04                    | 3.40                      | 0.86      | 1.00  |
| -25                           | (-13) | 334                        | 84       | 98  | 86                                      | 0.42                          | 1.41                    | 3.88                      | 0.98      | 1.14  |
| -20                           | (- 4) | 441                        | 111      | 129 | 101                                     | 0.48                          | 1.87                    | 4.37                      | 1.10      | 1.28  |
| -15                           | (+ 5) | 568                        | 143      | 166 | 117                                     | 0.56                          | 2.41                    | 4.86                      | 1.23      | 1.42  |
| -10                           | (+14) | 716                        | 180      | 210 | 134                                     | 0.63                          | 3.05                    | 5.35                      | 1.35      | 1.57  |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | European Standard            |      |                          |
| 2 Tray holder           | Yes                          |      |                          |
| 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           | 5.1 +0.10/+0.00              | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material          | Copper                       |      |                          |
| 3.2.2 Shape             | Slanted 42° up + 45° to Back |      |                          |
| 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 43° up + 45° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |