

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>EM X55CLC</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>898UA97</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                       | 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 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            | 180            | [ml] (6.09 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.95           | [kg] (17.53 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                           |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 5(330)                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM232KFBYY-53                     |                                    |
| 6 Start winding resistance                   | 14.90                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 22.20                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.10                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.70                               | [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] |
| 392                           | 99       | 115 | 86                             | 0.39                             | 1.49   | 4.56                      | 1.15                           | 1.34  |

### 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) | 303                        | 76                | 89  | 61                                    | 0.29                             | 0.97                       | 4.95                      | 1.25      | 1.45  |
| -30                           | (-22) | 403                        | 102               | 118 | 70                                    | 0.33                             | 1.29                       | 5.75                      | 1.45      | 1.69  |
| -25                           | (-13) | 527                        | 133               | 154 | 80                                    | 0.37                             | 1.69                       | 6.63                      | 1.67      | 1.94  |
| -20                           | (- 4) | 677                        | 170               | 198 | 89                                    | 0.41                             | 2.17                       | 7.58                      | 1.91      | 2.22  |
| -15                           | (+ 5) | 854                        | 215               | 250 | 99                                    | 0.45                             | 2.75                       | 8.61                      | 2.17      | 2.52  |
| -10                           | (+14) | 1063                       | 268               | 311 | 110                                   | 0.50                             | 3.43                       | 9.70                      | 2.44      | 2.84  |

| 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) | 257                        | 65                | 75  | 62                                     | 0.29                             | 0.89                       | 4.15                      | 1.05      | 1.22  |
| -30                           | (-22) | 349                        | 88                | 102 | 72                                     | 0.33                             | 1.21                       | 4.82                      | 1.21      | 1.41  |
| -25                           | (-13) | 461                        | 116               | 135 | 83                                     | 0.38                             | 1.60                       | 5.54                      | 1.39      | 1.62  |
| -20                           | (- 4) | 597                        | 151               | 175 | 95                                     | 0.43                             | 2.08                       | 6.30                      | 1.59      | 1.85  |
| -15                           | (+ 5) | 759                        | 191               | 222 | 107                                    | 0.48                             | 2.65                       | 7.10                      | 1.79      | 2.08  |
| -10                           | (+14) | 947                        | 239               | 278 | 119                                    | 0.53                             | 3.32                       | 7.95                      | 2.00      | 2.33  |

| 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) | 209                        | 53                | 61  | 62                                     | 0.29                             | 0.80                       | 3.40                      | 0.86      | 1.00  |
| -30                           | (-22) | 292                        | 73                | 85  | 73                                     | 0.34                             | 1.11                       | 3.97                      | 1.00      | 1.16  |
| -25                           | (-13) | 392                        | 99                | 115 | 86                                     | 0.39                             | 1.49                       | 4.56                      | 1.15      | 1.34  |
| -20                           | (- 4) | 514                        | 129               | 150 | 99                                     | 0.45                             | 1.96                       | 5.17                      | 1.30      | 1.51  |
| -15                           | (+ 5) | 657                        | 166               | 193 | 113                                    | 0.51                             | 2.52                       | 5.80                      | 1.46      | 1.70  |
| -10                           | (+14) | 826                        | 208               | 242 | 128                                    | 0.57                             | 3.17                       | 6.44                      | 1.62      | 1.89  |

### 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) | 166                        | 42       | 49  | 61                                     | 0.29                          | 0.70                    | 2.72                      | 0.69      | 0.80  |
| -30                           | (-22) | 239                        | 60       | 70  | 73                                     | 0.34                          | 1.01                    | 3.23                      | 0.81      | 0.95  |
| -25                           | (-13) | 327                        | 82       | 96  | 87                                     | 0.40                          | 1.38                    | 3.74                      | 0.94      | 1.09  |
| -20                           | (- 4) | 432                        | 109      | 127 | 102                                    | 0.47                          | 1.83                    | 4.23                      | 1.07      | 1.24  |
| -15                           | (+ 5) | 558                        | 141      | 163 | 119                                    | 0.54                          | 2.37                    | 4.72                      | 1.19      | 1.38  |
| -10                           | (+14) | 705                        | 178      | 207 | 136                                    | 0.61                          | 3.01                    | 5.19                      | 1.31      | 1.52  |

### 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°       |      |                          |
| 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             | Straight          |      |                          |
| 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      |      |                          |