

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>EM X40CLC</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>875DA95</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                | 7.23           | [cm <sup>3</sup> ] (0.441 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 16.000         |                                  |
| 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)    | 7.61           | [kg] (16.78 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                              | 4(440)                             | [μF(VAC minimum)]                  |
| 5 Motor protection                           | AX37FN                             |                                    |
| 6 Start winding resistance                   | 23.00                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 33.00                              | [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]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |   |           |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP</b><br>Static |                               | Evaporating temperature<br>(Condensing temperature | <b>-25°C (-13°F)</b><br><b>55°C (131°F)</b> |           |       |
| 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] |
| 308                           | 78       | 90  | 69                          | 0.32                          | 1.17   | 4.46  | 1.12      | 1.31  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>45°C (+113°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 208                        | 52       | 61                       | 52                          | 0.24   | 0.72                    | 3.96                      | 1.00      | 1.16  |
| <b>-30 (-22)</b>              | 277                        | 70       | 81                       | 59                          | 0.27   | 0.96                    | 4.72                      | 1.19      | 1.38  |
| <b>-25 (-13)</b>              | 367                        | 92       | 108                      | 67                          | 0.31   | 1.28                    | 5.44                      | 1.37      | 1.60  |
| <b>-20 (- 4)</b>              | 477                        | 120      | 140                      | 77                          | 0.35   | 1.66                    | 6.18                      | 1.56      | 1.81  |
| <b>-15 (+ 5)</b>              | 607                        | 153      | 178                      | 88                          | 0.39   | 2.12                    | 6.95                      | 1.75      | 2.04  |
| <b>-10 (+14)</b>              | 759                        | 191      | 222                      | 98                          | 0.43   | 2.66                    | 7.81                      | 1.97      | 2.29  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>55°C (+131°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 166                        | 42       | 49                       | 53                          | 0.24   | 0.63                    | 3.17                      | 0.80      | 0.93  |
| <b>-30 (-22)</b>              | 228                        | 57       | 67                       | 60                          | 0.28   | 0.87                    | 3.82                      | 0.96      | 1.12  |
| <b>-25 (-13)</b>              | 308                        | 78       | 90                       | 69                          | 0.32   | 1.17                    | 4.42                      | 1.11      | 1.30  |
| <b>-20 (- 4)</b>              | 406                        | 102      | 119                      | 81                          | 0.37   | 1.55                    | 5.00                      | 1.26      | 1.46  |
| <b>-15 (+ 5)</b>              | 523                        | 132      | 153                      | 93                          | 0.42   | 2.00                    | 5.58                      | 1.41      | 1.64  |
| <b>-10 (+14)</b>              | 659                        | 166      | 193                      | 106                         | 0.47   | 2.53                    | 6.22                      | 1.57      | 1.82  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>65°C (+149°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 130                        | 33       | 38                       | 51                          | 0.24   | 0.55                    | 2.55                      | 0.64      | 0.75  |
| <b>-30 (-22)</b>              | 184                        | 46       | 54                       | 59                          | 0.28   | 0.77                    | 3.12                      | 0.79      | 0.92  |
| <b>-25 (-13)</b>              | 253                        | 64       | 74                       | 70                          | 0.32   | 1.07                    | 3.61                      | 0.91      | 1.06  |
| <b>-20 (- 4)</b>              | 339                        | 85       | 99                       | 84                          | 0.38   | 1.44                    | 4.05                      | 1.02      | 1.19  |
| <b>-15 (+ 5)</b>              | 441                        | 111      | 129                      | 99                          | 0.44   | 1.88                    | 4.47                      | 1.13      | 1.31  |
| <b>-10 (+14)</b>              | 561                        | 141      | 164                      | 114                         | 0.51   | 2.39                    | 4.91                      | 1.24      | 1.44  |

### 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 +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      |      |                          |