

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG X90CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513703047       |

### 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 255 V                      | -         |
| 8.2 LBP (43°C Ambient temperature)         | Static                            | 198 to 255 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      | 1/4+           | [hp]                             |
| 2 Displacement                | 12.21          | [cm <sup>3</sup> ] (0.745 cu.in) |
| 2.1 Bore [mm]                 | 26.000         |                                  |
| 2.2 Stroke [mm]               | 23.000         |                                  |
| 3 Lubricant charge            | 280            | [ml] (9.47 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 11.05          | [kg] (24.36 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                              | 4(350)                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM189NFBYY-53                     |                                    |
| 6 Start winding resistance                   | 23.80                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 23.60                              | [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)     | 0.68                               | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | 0.74                               | [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] |
| 524                           | 132      | 154 | 105                               | 0.49                          | 2.00   | 4.99                          | 1.26      | 1.46  |

### E - PERFORMANCE - CURVES

|                               |                            |                                |     |                             |                               |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| 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)                     | 347                        | 87                             | 102 | 73                          | 0.35                          | 1.20                                   | 4.75                      | 1.20      | 1.39  |
| -30 (-22)                     | 466                        | 117                            | 136 | 87                          | 0.42                          | 1.63                                   | 5.38                      | 1.35      | 1.58  |
| -25 (-13)                     | 590                        | 149                            | 173 | 99                          | 0.47                          | 2.06                                   | 6.03                      | 1.52      | 1.77  |
| -20 (- 4)                     | 735                        | 185                            | 216 | 110                         | 0.52                          | 2.56                                   | 6.72                      | 1.69      | 1.97  |
| -15 (+ 5)                     | 921                        | 232                            | 270 | 122                         | 0.58                          | 3.21                                   | 7.49                      | 1.89      | 2.19  |
| -10 (+14)                     | 1162                       | 293                            | 341 | 137                         | 0.65                          | 4.06                                   | 8.34                      | 2.10      | 2.45  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| 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)                     | 282                        | 71                             | 83  | 72                          | 0.34                          | 1.07                                   | 3.88                      | 0.98      | 1.14  |
| -30 (-22)                     | 407                        | 102                            | 119 | 90                          | 0.42                          | 1.55                                   | 4.47                      | 1.13      | 1.31  |
| -25 (-13)                     | 524                        | 132                            | 154 | 105                         | 0.49                          | 2.00                                   | 5.03                      | 1.27      | 1.47  |
| -20 (- 4)                     | 651                        | 164                            | 191 | 118                         | 0.55                          | 2.49                                   | 5.57                      | 1.40      | 1.63  |
| -15 (+ 5)                     | 806                        | 203                            | 236 | 132                         | 0.62                          | 3.09                                   | 6.12                      | 1.54      | 1.79  |
| -10 (+14)                     | 1004                       | 253                            | 294 | 149                         | 0.70                          | 3.85                                   | 6.72                      | 1.69      | 1.97  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</b><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)                     | 179                        | 45                             | 52  | 64                          | 0.31                          | 0.76                                   | 2.86                      | 0.72      | 0.84  |
| -30 (-22)                     | 321                        | 81                             | 94  | 88                          | 0.42                          | 1.34                                   | 3.50                      | 0.88      | 1.03  |
| -25 (-13)                     | 443                        | 112                            | 130 | 107                         | 0.51                          | 1.86                                   | 4.05                      | 1.02      | 1.19  |
| -20 (- 4)                     | 563                        | 142                            | 165 | 125                         | 0.58                          | 2.38                                   | 4.53                      | 1.14      | 1.33  |
| -15 (+ 5)                     | 698                        | 176                            | 204 | 142                         | 0.66                          | 2.97                                   | 4.96                      | 1.25      | 1.45  |
| -10 (+14)                     | 864                        | 218                            | 253 | 162                         | 0.76                          | 3.69                                   | 5.38                      | 1.36      | 1.58  |

### 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           |      |                          |
| 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           |      |                          |
| 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           |      |                          |
| 3.4 Oil cooler (Copper) | No                | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs      |      |                          |