

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG X100CLC      |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513703058       |

### 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      | 1/3            | [hp]                             |
| 2 Displacement                | 13.54          | [cm <sup>3</sup> ] (0.826 cu.in) |
| 2.1 Bore [mm]                 | 28.000         |                                  |
| 2.2 Stroke [mm]               | 22.000         |                                  |
| 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)    | 11.19          | [kg] (24.67 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/TSD2-220V                 |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 4(350)/5(350)                      | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM283KFBYY-53                     |                                    |
| 6 Start winding resistance                   | 21.20                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 19.60                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.90                               | [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 |          |     | ASHRAE LBP-NOFAN<br>Static  |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°F)<br>54.4°C (129.92°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] |
| 762                           | 192      | 223 | 122                         | 0.56                          | 2.39   | 6.23                      | 1.57                                   | 1.83  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32-NOFAN<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)                     | 438                        | 110      | 128                      | 83                          | 0.40                                   | 1.37                    | 5.28                      | 1.33      | 1.55  |
| -30 (-22)                     | 579                        | 146      | 170                      | 98                          | 0.46                                   | 1.82                    | 5.94                      | 1.50      | 1.74  |
| -25 (-13)                     | 727                        | 183      | 213                      | 110                         | 0.52                                   | 2.28                    | 6.64                      | 1.67      | 1.94  |
| -20 (- 4)                     | 901                        | 227      | 264                      | 122                         | 0.57                                   | 2.83                    | 7.39                      | 1.86      | 2.17  |
| -15 (+ 5)                     | 1122                       | 283      | 329                      | 135                         | 0.63                                   | 3.53                    | 8.23                      | 2.08      | 2.41  |
| -10 (+14)                     | 1408                       | 355      | 413                      | 152                         | 0.71                                   | 4.44                    | 9.18                      | 2.31      | 2.69  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32-NOFAN<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)                     | 374                        | 94       | 110                      | 80                          | 0.39                                   | 1.17                    | 4.65                      | 1.17      | 1.36  |
| -30 (-22)                     | 541                        | 136      | 159                      | 101                         | 0.47                                   | 1.70                    | 5.34                      | 1.35      | 1.57  |
| -25 (-13)                     | 703                        | 177      | 206                      | 118                         | 0.54                                   | 2.21                    | 6.02                      | 1.52      | 1.76  |
| -20 (- 4)                     | 879                        | 221      | 257                      | 132                         | 0.61                                   | 2.76                    | 6.69                      | 1.69      | 1.96  |
| -15 (+ 5)                     | 1089                       | 274      | 319                      | 148                         | 0.68                                   | 3.43                    | 7.38                      | 1.86      | 2.16  |
| -10 (+14)                     | 1353                       | 341      | 397                      | 166                         | 0.77                                   | 4.27                    | 8.11                      | 2.04      | 2.38  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32-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)                     | 267                        | 67       | 78                       | 70                          | 0.36                                   | 0.84                    | 3.83                      | 0.97      | 1.12  |
| -30 (-22)                     | 469                        | 118      | 137                      | 98                          | 0.47                                   | 1.47                    | 4.63                      | 1.17      | 1.36  |
| -25 (-13)                     | 653                        | 165      | 191                      | 120                         | 0.56                                   | 2.05                    | 5.35                      | 1.35      | 1.57  |
| -20 (- 4)                     | 840                        | 212      | 246                      | 140                         | 0.65                                   | 2.64                    | 6.00                      | 1.51      | 1.76  |
| -15 (+ 5)                     | 1048                       | 264      | 307                      | 160                         | 0.73                                   | 3.30                    | 6.61                      | 1.67      | 1.94  |
| -10 (+14)                     | 1299                       | 327      | 381                      | 181                         | 0.83                                   | 4.10                    | 7.19                      | 1.81      | 2.11  |

### 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           |      |                          |
| 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      |      |                          |