

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG M80CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513700169       |

### 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 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                | 11.14          | [cm <sup>3</sup> ] (0.680 cu.in) |
| 2.1 Bore [mm]                 | 26.000         |                                  |
| 2.2 Stroke [mm]               | 21.000         |                                  |
| 3 Lubricant charge            | 280            | [ml] (9.47 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 |                                  |
| 4 Weight (with oil charge)    | 11.5           | [kg] (25.35 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(310)                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM189NFBYY-53                     |                                    |
| 6 Start winding resistance                   | 22.45                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 18.35                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 5.10                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.85                               | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CE - UKCA - VDE                    |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                |                                  |                                                    |                           |                                        |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|----------------------------------------------------|---------------------------|----------------------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | ASHRAELBP32<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<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] |
| 685                           | 173      | 201 | 115                            | 0.54                             | 2.15                                               | 5.95                      | 1.50                                   | 1.74  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                    |                                |                                        |                            |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|----------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<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)                     | 397                        | 100      | 116                | 80                             | 0.38                                   | 1.24                       | 4.99                      | 1.26      | 1.46  |
| -30 (-22)                     | 512                        | 129      | 150                | 94                             | 0.44                                   | 1.61                       | 5.49                      | 1.38      | 1.61  |
| -25 (-13)                     | 661                        | 167      | 194                | 106                            | 0.49                                   | 2.07                       | 6.25                      | 1.58      | 1.83  |
| -20 (- 4)                     | 849                        | 214      | 249                | 118                            | 0.55                                   | 2.67                       | 7.19                      | 1.81      | 2.11  |
| -15 (+ 5)                     | 1080                       | 272      | 316                | 131                            | 0.61                                   | 3.40                       | 8.24                      | 2.08      | 2.41  |
| -10 (+14)                     | 1359                       | 342      | 398                | 146                            | 0.68                                   | 4.29                       | 9.31                      | 2.35      | 2.73  |

|                               |                            |          |                    |                                |                                        |                            |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|----------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<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)                     | 375                        | 95       | 110                | 82                             | 0.39                                   | 1.17                       | 4.59                      | 1.16      | 1.35  |
| -30 (-22)                     | 485                        | 122      | 142                | 97                             | 0.46                                   | 1.52                       | 5.01                      | 1.26      | 1.47  |
| -25 (-13)                     | 627                        | 158      | 184                | 111                            | 0.52                                   | 1.97                       | 5.66                      | 1.43      | 1.66  |
| -20 (- 4)                     | 805                        | 203      | 236                | 125                            | 0.59                                   | 2.53                       | 6.44                      | 1.62      | 1.89  |
| -15 (+ 5)                     | 1024                       | 258      | 300                | 140                            | 0.66                                   | 3.22                       | 7.30                      | 1.84      | 2.14  |
| -10 (+14)                     | 1288                       | 324      | 377                | 158                            | 0.74                                   | 4.06                       | 8.16                      | 2.06      | 2.39  |

|                               |                            |          |                    |                                |                                        |                            |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|----------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<br>Static |                                | (Condensing temperature 65°C (+149°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)                     | 349                        | 88       | 102                | 83                             | 0.40                                   | 1.09                       | 4.20                      | 1.06      | 1.23  |
| -30 (-22)                     | 457                        | 115      | 134                | 99                             | 0.47                                   | 1.43                       | 4.59                      | 1.16      | 1.35  |
| -25 (-13)                     | 595                        | 150      | 174                | 115                            | 0.54                                   | 1.87                       | 5.17                      | 1.30      | 1.52  |
| -20 (- 4)                     | 766                        | 193      | 225                | 131                            | 0.61                                   | 2.41                       | 5.87                      | 1.48      | 1.72  |
| -15 (+ 5)                     | 976                        | 246      | 286                | 148                            | 0.69                                   | 3.08                       | 6.61                      | 1.67      | 1.94  |
| -10 (+14)                     | 1229                       | 310      | 360                | 169                            | 0.79                                   | 3.88                       | 7.31                      | 1.84      | 2.14  |

### F - EXTERNAL CHARACTERISTICS

|                         |                                       |      |                          |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate            | European Standard EG/F/AMEM Version 2 |      |                          |
| 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                          |      |                          |