

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG AS100HLP     |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513701404       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |           |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                      | R-134a                            |                                   |           |
| 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 264 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 198 to 264 V                      | -         |
| 8.3 HBP (32°C Ambient temperature) | -                                 | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -                                 | -                                 | -         |
| 9 Maximum condensing temperature   |                                   |                                   |           |
| 9.1 Operating                      | 14.2                              | [kgf/cm <sup>2</sup> ] (202 psig) | / °C - °F |
| 9.2 Peak                           | 15.9                              | [kgf/cm <sup>2</sup> ] (226 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1/3           | [hp]                                       |
| 2 Displacement                | 7.95          | [cm <sup>3</sup> ] (0.485 cu.in)           |
| 2.1 Bore [mm]                 | 22.500        |  |
| 2.2 Stroke [mm]               | 20.000        |  |
| 3 Lubricant charge            | 230           | [ml] (7.78 fl.oz.)                         |
| 3.1 Lubricants approved       |               |  |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 |  |
| 4 Weight (with oil charge)    | 10.99         | [kg] (24.23 lb.)                           |
| 5 Nitrogen charge             | 0.2 to 0.3    | [kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig) |

### 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                          | 8EA17C3/QPS2-A22MD3/QPS2-A22MD3 091 |                                    |
| 3 Start capacitor                            | -                                   | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 4(350)/5(350)                       | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM283NFBYY-53                      |                                    |
| 6 Start winding resistance                   | 29.00                               | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 15.40                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 8.50                                | [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             |                                     |                                    |

### 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 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] |
| 823                           | 207      | 241 | 153                         | 0.87                          | 4.68   | 5.38                      | 1.36                                   | 1.58  |

### E - PERFORMANCE - CURVES

|                               |       |                            |          |     |                             |  |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | ASHRAE32<br>Static         |          |     |                             | (Condensing temperature 35°C (+95°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) | 526                        | 133      | 154 | 102                         | 5.09                                   | 2.98                    | 5.10                      | 1.28      | 1.49  |
| -30                           | (-22) | 662                        | 167      | 194 | 116                         | 5.76                                   | 3.75                    | 5.76                      | 1.45      | 1.69  |
| -25                           | (-13) | 853                        | 215      | 250 | 129                         | 6.69                                   | 4.84                    | 6.69                      | 1.69      | 1.96  |
| -20                           | (- 4) | 1096                       | 276      | 321 | 142                         | 7.81                                   | 6.24                    | 7.81                      | 1.97      | 2.29  |
| -15                           | (+ 5) | 1389                       | 350      | 407 | 155                         | 9.04                                   | 7.93                    | 9.04                      | 2.28      | 2.65  |
| -10                           | (+14) | 1729                       | 436      | 507 | 168                         | 10.30                                  | 9.91                    | 10.30                     | 2.60      | 3.02  |

|                               |       |                            |          |     |                             |   |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|-----------------------------|---|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | ASHRAE32<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) | 422                        | 106      | 124 | 106                         | 4.05                                    | 2.39                    | 4.05                      | 1.02      | 1.19  |
| -30                           | (-22) | 593                        | 149      | 174 | 124                         | 4.79                                    | 3.36                    | 4.78                      | 1.21      | 1.40  |
| -25                           | (-13) | 821                        | 207      | 241 | 141                         | 5.76                                    | 4.66                    | 5.76                      | 1.45      | 1.69  |
| -20                           | (- 4) | 1102                       | 278      | 323 | 158                         | 6.90                                    | 6.28                    | 6.89                      | 1.74      | 2.02  |
| -15                           | (+ 5) | 1435                       | 362      | 421 | 175                         | 8.12                                    | 8.19                    | 8.12                      | 2.05      | 2.38  |
| -10                           | (+14) | 1816                       | 458      | 532 | 194                         | 9.34                                    | 10.41                   | 9.34                      | 2.35      | 2.74  |

|                               |       |                            |          |     |                             |   |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|-----------------------------|---|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       | ASHRAE32<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) | 366                        | 92       | 107 | 105                         | 3.57                                    | 2.07                    | 3.57                      | 0.90      | 1.04  |
| -30                           | (-22) | 531                        | 134      | 156 | 125                         | 4.22                                    | 3.01                    | 4.22                      | 1.06      | 1.24  |
| -25                           | (-13) | 754                        | 190      | 221 | 146                         | 5.08                                    | 4.28                    | 5.08                      | 1.28      | 1.49  |
| -20                           | (- 4) | 1033                       | 260      | 303 | 167                         | 6.08                                    | 5.88                    | 6.08                      | 1.53      | 1.78  |
| -15                           | (+ 5) | 1364                       | 344      | 400 | 189                         | 7.14                                    | 7.79                    | 7.14                      | 1.80      | 2.09  |
| -10                           | (+14) | 1745                       | 440      | 511 | 214                         | 8.18                                    | 10.00                   | 8.18                      | 2.06      | 2.40  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | ASHRAE32<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) | 358                        | 90       | 105 | 98                                      | 3.57                          | 2.03                    | 3.57                      | 0.90      | 1.05  |
| -30                           | (-22) | 476                        | 120      | 139 | 121                                     | 3.99                          | 2.70                    | 3.99                      | 1.00      | 1.17  |
| -25                           | (-13) | 653                        | 165      | 191 | 145                                     | 4.59                          | 3.71                    | 4.59                      | 1.16      | 1.34  |
| -20                           | (- 4) | 887                        | 224      | 260 | 170                                     | 5.30                          | 5.05                    | 5.30                      | 1.34      | 1.55  |
| -15                           | (+ 5) | 1175                       | 296      | 344 | 196                                     | 6.05                          | 6.71                    | 6.05                      | 1.52      | 1.77  |
| -10                           | (+14) | 1515                       | 382      | 444 | 226                                     | 6.74                          | 8.68                    | 6.74                      | 1.70      | 1.98  |

### F - EXTERNAL CHARACTERISTICS

|                         |                               |      |                          |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate            | Universal EG/F/AMEM version 2 |      |                          |
| 2 Tray holder           | No                            |      |                          |
| 3 Connectors            |                               |      |                          |
| 3.1 SUCTION             | 6.5 +0.12/-0.08               | [mm] | (0.256" +0.005"/-0.003") |
| 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             | 6.5 +0.12/-0.08               | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material          | Copper                        |      |                          |
| 3.3.2 Shape             | Slanted                       |      |                          |
| 3.4 Oil cooler (Copper) | No                            | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                  |      |                          |