

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG U60HLC       |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number        | 513700101       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |                                   |                                   |              |
|--|-----------------------------------|-----------------------------------|--------------|
| 1 Type                                     | Hermetic reciprocating compressor |                                   |              |
| 2 Refrigerant                              | R-134a                            |                                   |              |
| 3 Nominal voltage and frequency            | 115-127 / 60                      | [ 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                            | 85 to 110 V                       | 103 to 140 V |
| 8.2 LBP (43°C Ambient temperature)         | Static                            | 85 to 110 V                       | 103 to 140 V |
| 8.3 HBP (32°C Ambient temperature)         | -                                 | -                                 | -            |
| 8.4 HBP (43°C Ambient temperature)         | -                                 | -                                 | -            |
| 9 Maximum condensing pressures/temperature |                                   |                                   |              |
| 9.1 Operating (gauge)                      | 16.2                              | [kgf/cm <sup>2</sup> ] (230 psig) | / °C - °F    |
| 9.2 Peak (gauge)                           | 20.6                              | [kgf/cm <sup>2</sup> ] (293 psig) | / °C - °F    |
| 10 Maximum winding temperature             | 130                               | [ °C ]                            |              |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1/5           | [hp]                                       |
| 2 Displacement                | 5.56          | [cm <sup>3</sup> ] (0.339 cu.in)           |
| 2.1 Bore [mm]                 | 22.500        |  |
| 2.2 Stroke [mm]               | 14.000        |  |
| 3 Lubricant charge            | 280           | [ml] (9.47 fl.oz.)                         |
| 3.1 Lubricants approved       |               |  |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 |  |
| 4 Weight (with oil charge)    | 11.23         | [kg] (24.76 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 | 115-127 V 60 Hz 1 ~ (Single phase)                 |                                    |
| 2 Starting device type                       | PTC  |                                    |
| 2.1 Starting device                          | 7M4R7MD3/8EA14C3/8EA1B3/8EA21C3/8EA3B3/8EA4B3/8M4I |                                    |
| 3 Start capacitor                            | -  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 15(180)  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM283ULBYY-53                                     |                                    |
| 6 Start winding resistance                   | 5.50   | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 5.20   | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 9.50   | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | 1.60   | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz)      | -  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | UL   |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |                           |  |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS:<br>@115V60Hz |          |     | 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] |
| 600                           | 151      | 176 | 111                         | 1.00                          | 3.41   | 5.39                      | 1.36                                   | 1.58  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |                            |          | 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)                     | 254                        | 64       | 75                 | 69                          | 0.63                                   | 1.44                    | 3.69                      | 0.93      | 1.08  |
| -30 (-22)                     | 423                        | 107      | 124                | 88                          | 0.79                                   | 2.40                    | 4.75                      | 1.20      | 1.39  |
| -25 (-13)                     | 604                        | 152      | 177                | 106                         | 0.94                                   | 3.43                    | 5.73                      | 1.44      | 1.68  |
| -20 (- 4)                     | 810                        | 204      | 237                | 121                         | 1.08                                   | 4.61                    | 6.69                      | 1.69      | 1.96  |
| -15 (+ 5)                     | 1051                       | 265      | 308                | 137                         | 1.23                                   | 6.00                    | 7.69                      | 1.94      | 2.25  |
| -10 (+14)                     | 1339                       | 338      | 393                | 152                         | 1.38                                   | 7.68                    | 8.76                      | 2.21      | 2.57  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |                            |          | 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)                     | 219                        | 55       | 64                 | 70                          | 0.64                                   | 1.24                    | 3.12                      | 0.79      | 0.92  |
| -30 (-22)                     | 372                        | 94       | 109                | 89                          | 0.80                                   | 2.11                    | 4.11                      | 1.04      | 1.20  |
| -25 (-13)                     | 539                        | 136      | 158                | 107                         | 0.95                                   | 3.06                    | 5.01                      | 1.26      | 1.47  |
| -20 (- 4)                     | 730                        | 184      | 214                | 125                         | 1.11                                   | 4.15                    | 5.86                      | 1.48      | 1.72  |
| -15 (+ 5)                     | 957                        | 241      | 281                | 142                         | 1.27                                   | 5.47                    | 6.72                      | 1.69      | 1.97  |
| -10 (+14)                     | 1233                       | 311      | 361                | 161                         | 1.46                                   | 7.07                    | 7.64                      | 1.93      | 2.24  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@115V60Hz |                            |          | 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)                     | 186                        | 47       | 55                 | 71                          | 0.65                                   | 1.05                    | 2.62                      | 0.66      | 0.77  |
| -30 (-22)                     | 321                        | 81       | 94                 | 90                          | 0.81                                   | 1.82                    | 3.53                      | 0.89      | 1.04  |
| -25 (-13)                     | 470                        | 118      | 138                | 109                         | 0.97                                   | 2.67                    | 4.34                      | 1.09      | 1.27  |
| -20 (- 4)                     | 644                        | 162      | 189                | 128                         | 1.14                                   | 3.66                    | 5.07                      | 1.28      | 1.49  |
| -15 (+ 5)                     | 855                        | 215      | 251                | 147                         | 1.33                                   | 4.88                    | 5.80                      | 1.46      | 1.70  |
| -10 (+14)                     | 1115                       | 281      | 327                | 169                         | 1.54                                   | 6.39                    | 6.56                      | 1.65      | 1.92  |

### F - EXTERNAL CHARACTERISTICS

|                         |                               |      |                          |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate            | Universal EG/F/AMEM version 2 |      |                          |
| 2 Tray holder           | No                            |      |                          |
| 3 Connectors            |                               |      |                          |
| 3.1 SUCTION             | 8.2 +0.12/-0.08               | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material          | Copper                        |      |                          |
| 3.1.2 Shape             | Straight                      |      |                          |
| 3.2 DISCHARGE           | 6.5 +0.12/-0.08               | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material          | Copper                        |      |                          |
| 3.2.2 Shape             | Straight                      |      |                          |
| 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             | Straight                      |      |                          |
| 3.4 Oil cooler (Copper) | No                            | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                  |      |                          |