

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG US80HLP      |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number        | 513701182       |

### 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                       | RSIR                              |                                   |             |
| 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                            | -                                 | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static                            | -                                 | 98 to 140 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      | 1/4           | [hp]                                       |
| 2 Displacement                | 6.36          | [cm <sup>3</sup> ] (0.388 cu.in)           |
| 2.1 Bore [mm]                 | 22.500        |  |
| 2.2 Stroke [mm]               | 16.000        |  |
| 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)    | 9.98          | [kg] (22.00 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                          | 4SP14U445KF/4SP14W445KF/4SP21U445KF/4SP21W445KF |                                    |
| 3 Start capacitor                            | -   | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -   | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4SP14/21(U/W)445KFX                             |                                    |
| 6 Start winding resistance                   | 7.80  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 3.30  | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 16.40   | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | 2.85  | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz)      | 3.35  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CE - UKCA - 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] |
| 806                           | 203      | 236 | 147                         | 1.90                          | 4.58   | 5.49                      | 1.38                                   | 1.61  |

### 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)                     | 401                        | 101      | 117                | 97                          | 1.25                                   | 2.27                    | 4.12                      | 1.04      | 1.21  |
| -30 (-22)                     | 602                        | 152      | 176                | 119                         | 1.52                                   | 3.41                    | 5.03                      | 1.27      | 1.47  |
| -25 (-13)                     | 823                        | 207      | 241                | 140                         | 1.79                                   | 4.67                    | 5.87                      | 1.48      | 1.72  |
| -20 (- 4)                     | 1074                       | 271      | 315                | 161                         | 2.05                                   | 6.11                    | 6.68                      | 1.68      | 1.96  |
| -15 (+ 5)                     | 1366                       | 344      | 400                | 182                         | 2.30                                   | 7.80                    | 7.55                      | 1.90      | 2.21  |
| -10 (+14)                     | 1710                       | 431      | 501                | 201                         | 2.55                                   | 9.80                    | 8.51                      | 2.14      | 2.49  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 324                        | 82       | 95                 | 87                          | 1.13                                   | 1.83                    | 3.72                      | 0.94      | 1.09  |
| -30 (-22)                     | 517                        | 130      | 151                | 112                         | 1.46                                   | 2.93                    | 4.55                      | 1.15      | 1.33  |
| -25 (-13)                     | 734                        | 185      | 215                | 139                         | 1.79                                   | 4.17                    | 5.28                      | 1.33      | 1.55  |
| -20 (- 4)                     | 988                        | 249      | 289                | 165                         | 2.12                                   | 5.62                    | 5.97                      | 1.50      | 1.75  |
| -15 (+ 5)                     | 1287                       | 324      | 377                | 193                         | 2.46                                   | 7.35                    | 6.67                      | 1.68      | 1.96  |
| -10 (+14)                     | 1644                       | 414      | 482                | 220                         | 2.81                                   | 9.42                    | 7.46                      | 1.88      | 2.19  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 248                        | 63       | 73                 | 80                          | 1.04                                   | 1.41                    | 3.13                      | 0.79      | 0.92  |
| -30 (-22)                     | 426                        | 107      | 125                | 107                         | 1.39                                   | 2.41                    | 3.96                      | 1.00      | 1.16  |
| -25 (-13)                     | 633                        | 159      | 185                | 136                         | 1.75                                   | 3.59                    | 4.65                      | 1.17      | 1.36  |
| -20 (- 4)                     | 881                        | 222      | 258                | 167                         | 2.13                                   | 5.01                    | 5.29                      | 1.33      | 1.55  |
| -15 (+ 5)                     | 1181                       | 298      | 346                | 199                         | 2.53                                   | 6.74                    | 5.92                      | 1.49      | 1.73  |
| -10 (+14)                     | 1542                       | 389      | 452                | 232                         | 2.94                                   | 8.84                    | 6.61                      | 1.67      | 1.94  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | European Standard |      |                          |
| 2 Tray holder           | Yes               |      |                          |
| 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      |      |                          |