

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG Y60HLP       |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number        | 513700295       |

### 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                       | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature)         | Static                            | 85 to 110 V                       | 98 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 / ISO7 |  |
| 4 Weight (with oil charge)    | 10.75        | [kg] (23.70 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                       | Combo                              |                                    |
| 2.1 Starting device                          | 3ARR51H4F1/3ARR55H4F1              |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 20(180)                            | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 3ARR55H4F                          |                                    |
| 6 Start winding resistance                   | 5.70                               | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 5.10                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 9.30                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | 1.50                               | [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] |
| 620                           | 156      | 182 | 114                         | 1.18                          | 3.52   | 5.44                      | 1.37                                   | 1.59  |

### 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)                     | 325                        | 82       | 95                 | 82                          | 0.97                                   | 1.84                    | 3.95                      | 0.99      | 1.16  |
| -30 (-22)                     | 470                        | 118      | 138                | 96                          | 1.03                                   | 2.67                    | 4.91                      | 1.24      | 1.44  |
| -25 (-13)                     | 639                        | 161      | 187                | 109                         | 1.11                                   | 3.63                    | 5.87                      | 1.48      | 1.72  |
| -20 (- 4)                     | 841                        | 212      | 247                | 123                         | 1.20                                   | 4.79                    | 6.86                      | 1.73      | 2.01  |
| -15 (+ 5)                     | 1089                       | 274      | 319                | 137                         | 1.31                                   | 6.22                    | 7.92                      | 2.00      | 2.32  |
| -10 (+14)                     | 1392                       | 351      | 408                | 152                         | 1.42                                   | 7.97                    | 9.11                      | 2.30      | 2.67  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 270                        | 68       | 79                 | 80                          | 0.98                                   | 1.52                    | 3.43                      | 0.86      | 1.00  |
| -30 (-22)                     | 416                        | 105      | 122                | 95                          | 1.05                                   | 2.36                    | 4.38                      | 1.10      | 1.28  |
| -25 (-13)                     | 581                        | 146      | 170                | 111                         | 1.14                                   | 3.30                    | 5.28                      | 1.33      | 1.55  |
| -20 (- 4)                     | 775                        | 195      | 227                | 127                         | 1.25                                   | 4.41                    | 6.16                      | 1.55      | 1.80  |
| -15 (+ 5)                     | 1010                       | 255      | 296                | 143                         | 1.38                                   | 5.77                    | 7.05                      | 1.78      | 2.07  |
| -10 (+14)                     | 1296                       | 327      | 380                | 161                         | 1.52                                   | 7.43                    | 8.01                      | 2.02      | 2.35  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 190                        | 48       | 56                 | 71                          | 0.94                                   | 1.07                    | 2.63                      | 0.66      | 0.77  |
| -30 (-22)                     | 338                        | 85       | 99                 | 90                          | 1.02                                   | 1.92                    | 3.65                      | 0.92      | 1.07  |
| -25 (-13)                     | 501                        | 126      | 147                | 109                         | 1.12                                   | 2.84                    | 4.55                      | 1.15      | 1.33  |
| -20 (- 4)                     | 689                        | 174      | 202                | 129                         | 1.25                                   | 3.92                    | 5.37                      | 1.35      | 1.57  |
| -15 (+ 5)                     | 913                        | 230      | 268                | 149                         | 1.40                                   | 5.21                    | 6.16                      | 1.55      | 1.81  |
| -10 (+14)                     | 1184                       | 298      | 347                | 171                         | 1.56                                   | 6.78                    | 6.96                      | 1.75      | 2.04  |

### 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             | 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                  |      |                          |