

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EG ZS60HLP      |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number        | 513701168       |

### 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                            | -                                 | 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      | 1/5           | [hp]                                       |
| 2 Displacement                | 5.09          | [cm <sup>3</sup> ] (0.311 cu.in)           |
| 2.1 Bore [mm]                 | 22.500        |  |
| 2.2 Stroke [mm]               | 12.800        |  |
| 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)    | 10.7          | [kg] (23.59 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                          | 8EA14C3/8EA21C3/QPS2-A4R7MD3/QPS2-A4R7MD3 094 |                                    |
| 3 Start capacitor                            | -   | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 12(180)/15(200)/20(200)                       | [µF(VAC minimum)]                  |
| 5 Motor protection                           | BT149-105                                     |                                    |
| 6 Start winding resistance                   | 6.00  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 5.15  | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 10.40   | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | 1.56  | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz)      | 1.90  | [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] |
| 610                           | 154      | 179 | 104                         | 0.91                          | 3.47   | 5.87                      | 1.48                                   | 1.72  |

### 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)                     | 314                        | 79       | 92                 | 69                          | 0.61                                   | 1.78                    | 4.59                      | 1.16      | 1.34  |
| -30 (-22)                     | 423                        | 107      | 124                | 82                          | 0.72                                   | 2.40                    | 5.25                      | 1.32      | 1.54  |
| -25 (-13)                     | 600                        | 151      | 176                | 98                          | 0.86                                   | 3.41                    | 6.12                      | 1.54      | 1.79  |
| -20 (- 4)                     | 833                        | 210      | 244                | 116                         | 1.01                                   | 4.74                    | 7.16                      | 1.80      | 2.10  |
| -15 (+ 5)                     | 1109                       | 280      | 325                | 133                         | 1.16                                   | 6.33                    | 8.33                      | 2.10      | 2.44  |
| -10 (+14)                     | 1417                       | 357      | 415                | 148                         | 1.28                                   | 8.12                    | 9.60                      | 2.42      | 2.81  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 249                        | 63       | 73                 | 61                          | 0.55                                   | 1.41                    | 4.01                      | 1.01      | 1.17  |
| -30 (-22)                     | 358                        | 90       | 105                | 77                          | 0.68                                   | 2.03                    | 4.70                      | 1.19      | 1.38  |
| -25 (-13)                     | 533                        | 134      | 156                | 96                          | 0.84                                   | 3.02                    | 5.51                      | 1.39      | 1.62  |
| -20 (- 4)                     | 762                        | 192      | 223                | 119                         | 1.03                                   | 4.33                    | 6.40                      | 1.61      | 1.88  |
| -15 (+ 5)                     | 1032                       | 260      | 303                | 141                         | 1.22                                   | 5.89                    | 7.33                      | 1.85      | 2.15  |
| -10 (+14)                     | 1332                       | 336      | 390                | 162                         | 1.40                                   | 7.63                    | 8.27                      | 2.08      | 2.42  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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)                     | 155                        | 39       | 45                 | 55                          | 0.50                                   | 0.88                    | 2.88                      | 0.73      | 0.84  |
| -30 (-22)                     | 267                        | 67       | 78                 | 72                          | 0.64                                   | 1.51                    | 3.78                      | 0.95      | 1.11  |
| -25 (-13)                     | 444                        | 112      | 130                | 94                          | 0.82                                   | 2.52                    | 4.70                      | 1.18      | 1.38  |
| -20 (- 4)                     | 673                        | 170      | 197                | 119                         | 1.04                                   | 3.83                    | 5.61                      | 1.41      | 1.64  |
| -15 (+ 5)                     | 942                        | 237      | 276                | 146                         | 1.26                                   | 5.38                    | 6.47                      | 1.63      | 1.90  |
| -10 (+14)                     | 1239                       | 312      | 363                | 172                         | 1.50                                   | 7.10                    | 7.26                      | 1.83      | 2.13  |

### 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           | 4.94 +0.08/-0.08              | [mm] | (0.194" +0.003"/-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                  |      |                          |