

### COMPRESSOR DEFINITION

|                           |             |
|---------------------------|-------------|
| Designation               | EG AS70CLP  |
| Nominal Voltage/Frequency | 220 V 60 Hz |
| Engineering Number        | 513701237   |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |              |
|------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |              |
| 2 Refrigerant                      | R-600a                            |                                   |              |
| 3 Nominal voltage and frequency    | 220 / 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                            | -                                 | 198 to 242 V |
| 8.2 LBP (43°C Ambient temperature) | Static                            | -                                 | 198 to 242 V |
| 8.3 HBP (32°C Ambient temperature) | -                                 | -                                 | -            |
| 8.4 HBP (43°C Ambient temperature) | -                                 | -                                 | -            |
| 9 Maximum condensing temperature   |                                   |                                   |              |
| 9.1 Operating                      | 6.9                               | [kgf/cm <sup>2</sup> ] (98 psig)  | / °C - °F    |
| 9.2 Peak                           | 7.8                               | [kgf/cm <sup>2</sup> ] (111 psig) | / °C - °F    |
| 10 Maximum winding temperature     | 130                               | [ °C ]                            |              |

### B - MECHANICAL DATA

|                               |                |                                  |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation      | 1/4            | [hp]                             |
| 2 Displacement                | 9.66           | [cm <sup>3</sup> ] (0.589 cu.in) |
| 2.1 Bore [mm]                 | 26.000         |                                  |
| 2.2 Stroke [mm]               | 18.200         |                                  |
| 3 Lubricant charge            | 280            | [ml] (9.47 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 10.38          | [kg] (22.88 lb.)                 |
| 5 Nitrogen charge             | -              | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220 V 60 Hz 1 ~ (Single phase)      |                                    |
| 2 Starting device type                       | PTC                                 |                                    |
| 2.1 Starting device                          | 8EA17C1/QPS2-A22MG1/QPS2-A22MG1 092 |                                    |
| 3 Start capacitor                            | -                                   | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                   | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM283KFBYY-53                      |                                    |
| 6 Start winding resistance                   | 24.60                               | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 21.50                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (60 Hz)        | 5.18/5.18                           | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz)     | 1.16/0.97                           | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz)      | 1.35/1.24                           | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CE - TUV - UKCA                     |                                    |

### D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS:<br>@220V60Hz |          |     | 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<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>rate<br>+/- 5%                         | EFFICIENCY RATE<br>+/- 7% |  |       |  |
| [Btu/h]                       | [kcal/h] | [W] | [W]                            | [A]                              | [kg/h]   | [Btu/Wh]                  | [kcal/Wh]                              | [W/W] |  |
| 711                           | 179      | 208 | 133                            | 0.86                             | 2.23   | 5.35                      | 1.35                                   | 1.57  |  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V60Hz |       | ASHRAE32<br>Static         |          |     |                                | (Condensing temperature 35°C (+95°F) ) |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%       | Gas flow<br>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) | 424                        | 107      | 124 | 87                             | 0.73                                   | 1.33                       | 4.85                      | 1.22      | 1.42  |
| -30                           | (-22) | 545                        | 137      | 160 | 99                             | 0.76                                   | 1.71                       | 5.51                      | 1.39      | 1.61  |
| -25                           | (-13) | 686                        | 173      | 201 | 109                            | 0.79                                   | 2.15                       | 6.34                      | 1.60      | 1.86  |
| -20                           | (- 4) | 857                        | 216      | 251 | 118                            | 0.82                                   | 2.69                       | 7.30                      | 1.84      | 2.14  |
| -15                           | (+ 5) | 1071                       | 270      | 314 | 129                            | 0.86                                   | 3.37                       | 8.32                      | 2.10      | 2.44  |
| -10                           | (+14) | 1339                       | 337      | 392 | 143                            | 0.90                                   | 4.22                       | 9.35                      | 2.36      | 2.74  |

| TEST CONDITIONS:<br>@220V60Hz |       | ASHRAE32<br>Static         |          |     |                                | (Condensing temperature 45°C (+113°F) ) |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%        | Gas flow<br>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) | 398                        | 100      | 117 | 92                             | 0.74                                    | 1.25                       | 4.29                      | 1.08      | 1.26  |
| -30                           | (-22) | 531                        | 134      | 156 | 110                            | 0.78                                    | 1.66                       | 4.77                      | 1.20      | 1.40  |
| -25                           | (-13) | 678                        | 171      | 199 | 123                            | 0.82                                    | 2.13                       | 5.47                      | 1.38      | 1.60  |
| -20                           | (- 4) | 850                        | 214      | 249 | 135                            | 0.86                                    | 2.67                       | 6.32                      | 1.59      | 1.85  |
| -15                           | (+ 5) | 1058                       | 267      | 310 | 146                            | 0.91                                    | 3.33                       | 7.28                      | 1.84      | 2.13  |
| -10                           | (+14) | 1315                       | 331      | 385 | 159                            | 0.96                                    | 4.15                       | 8.29                      | 2.09      | 2.43  |

| TEST CONDITIONS:<br>@220V60Hz |       | ASHRAE32<br>Static         |          |     |                                | (Condensing temperature 55°C (+131°F) ) |                            |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| Evaporating<br>temperature    |       | Cooling capacity<br>+/- 5% |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%        | Gas flow<br>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) | 340                        | 86       | 100 | 79                             | 0.73                                    | 1.07                       | 4.43                      | 1.12      | 1.30  |
| -30                           | (-22) | 490                        | 123      | 144 | 105                            | 0.79                                    | 1.54                       | 4.59                      | 1.16      | 1.35  |
| -25                           | (-13) | 648                        | 163      | 190 | 127                            | 0.84                                    | 2.03                       | 5.01                      | 1.26      | 1.47  |
| -20                           | (- 4) | 825                        | 208      | 242 | 145                            | 0.90                                    | 2.59                       | 5.62                      | 1.42      | 1.65  |
| -15                           | (+ 5) | 1034                       | 261      | 303 | 161                            | 0.96                                    | 3.26                       | 6.38                      | 1.61      | 1.87  |
| -10                           | (+14) | 1285                       | 324      | 377 | 178                            | 1.03                                    | 4.05                       | 7.23                      | 1.82      | 2.12  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V60Hz |       | 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) | 251                        | 63       | 73  | 46                                      | 0.71                          | 0.79                    | 5.37                      | 1.35      | 1.57  |
| -30                           | (-22) | 422                        | 106      | 124 | 86                                      | 0.78                          | 1.32                    | 5.08                      | 1.28      | 1.49  |
| -25                           | (-13) | 596                        | 150      | 175 | 120                                     | 0.85                          | 1.87                    | 5.08                      | 1.28      | 1.49  |
| -20                           | (- 4) | 784                        | 198      | 230 | 148                                     | 0.92                          | 2.47                    | 5.31                      | 1.34      | 1.56  |
| -15                           | (+ 5) | 998                        | 251      | 292 | 174                                     | 1.00                          | 3.14                    | 5.73                      | 1.44      | 1.68  |
| -10                           | (+14) | 1248                       | 315      | 366 | 199                                     | 1.09                          | 3.94                    | 6.27                      | 1.58      | 1.84  |

### F - EXTERNAL CHARACTERISTICS

|                         |                                       |      |                          |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate            | European Standard 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             | 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             | Straight                              |      |                          |
| 3.4 Oil cooler (Copper) | No                                    | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                          |      |                          |