

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM Y55CLP       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 897GA95         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |           |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                      | R-600a                            |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 50                      | [ 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-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                            | 198 to 254 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 198 to 254 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      |                | [hp]                             |
| 2 Displacement                | 9.04           | [cm <sup>3</sup> ] (0.552 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 20.000         |                                  |
| 3 Lubricant charge            | 180            | [ml] (6.09 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.7            | [kg] (16.98 lb.)                 |
| 5 Nitrogen charge             | -              | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                    |                                    |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | PTC                                |                                    |
| 2.1 Starting device                          | V230                               |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 4(300)                             | [µF(VAC minimum)]                  |
| 5 Motor protection                           | T0520/07                           |                                    |
| 6 Start winding resistance                   | 27.35                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 20.40                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.75                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.50                               | [A]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |   |           |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP</b><br>Static |                               | Evaporating temperature<br>(Condensing temperature | <b>-25°C (-13°F)</b><br><b>55°C (131°F)</b> |           |       |
| 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] |
| 403                           | 102      | 118 | 92                          | 0.44                          | 1.54   | 4.37  | 1.10      | 1.28  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>45°C (+113°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 260                        | 65       | 76                       | 66                          | 0.31   | 0.90                    | 3.92                      | 0.99      | 1.15  |
| <b>-30 (-22)</b>              | 347                        | 88       | 102                      | 77                          | 0.37   | 1.21                    | 4.52                      | 1.14      | 1.32  |
| <b>-25 (-13)</b>              | 459                        | 116      | 135                      | 89                          | 0.42   | 1.60                    | 5.16                      | 1.30      | 1.51  |
| <b>-20 (- 4)</b>              | 596                        | 150      | 175                      | 102                         | 0.47   | 2.08                    | 5.86                      | 1.48      | 1.72  |
| <b>-15 (+ 5)</b>              | 760                        | 192      | 223                      | 114                         | 0.52   | 2.65                    | 6.62                      | 1.67      | 1.94  |
| <b>-10 (+14)</b>              | 953                        | 240      | 279                      | 128                         | 0.57   | 3.34                    | 7.44                      | 1.88      | 2.18  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>55°C (+131°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 214                        | 54       | 63                       | 67                          | 0.31   | 0.81                    | 3.20                      | 0.81      | 0.94  |
| <b>-30 (-22)</b>              | 300                        | 76       | 88                       | 79                          | 0.38   | 1.14                    | 3.78                      | 0.95      | 1.11  |
| <b>-25 (-13)</b>              | 404                        | 102      | 118                      | 92                          | 0.44   | 1.54                    | 4.36                      | 1.10      | 1.28  |
| <b>-20 (- 4)</b>              | 527                        | 133      | 155                      | 106                         | 0.50   | 2.02                    | 4.94                      | 1.24      | 1.45  |
| <b>-15 (+ 5)</b>              | 673                        | 170      | 197                      | 121                         | 0.56   | 2.58                    | 5.53                      | 1.39      | 1.62  |
| <b>-10 (+14)</b>              | 841                        | 212      | 247                      | 137                         | 0.62   | 3.23                    | 6.13                      | 1.54      | 1.80  |

|                               |                            |          |                          |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | <b>CECOMAF</b><br>Static |                             | (Condensing temperature <b>65°C (+149°F)</b> ) |                         |                           |           |       |
| 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] |
| <b>-35 (-31)</b>              | 177                        | 45       | 52                       | 68                          | 0.31   | 0.75                    | 2.61                      | 0.66      | 0.76  |
| <b>-30 (-22)</b>              | 258                        | 65       | 76                       | 81                          | 0.39   | 1.09                    | 3.18                      | 0.80      | 0.93  |
| <b>-25 (-13)</b>              | 352                        | 89       | 103                      | 95                          | 0.46   | 1.49                    | 3.71                      | 0.93      | 1.09  |
| <b>-20 (- 4)</b>              | 461                        | 116      | 135                      | 111                         | 0.52   | 1.95                    | 4.18                      | 1.05      | 1.23  |
| <b>-15 (+ 5)</b>              | 585                        | 147      | 171                      | 128                         | 0.59   | 2.48                    | 4.61                      | 1.16      | 1.35  |
| <b>-10 (+14)</b>              | 727                        | 183      | 213                      | 146                         | 0.67   | 3.10                    | 5.00                      | 1.26      | 1.47  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | European Standard |      |                          |
| 2 Tray holder           | Yes               |      |                          |
| 3 Connectors            |                   |      |                          |
| 3.1 SUCTION             | 6.1 +0.10/+0.00   | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material          | Copper            |      |                          |
| 3.1.2 Shape             | Slanted 42°       |      |                          |
| 3.2 DISCHARGE           | 5.1 +0.10/+0.00   | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material          | Copper            |      |                          |
| 3.2.2 Shape             | Straight          |      |                          |
| 3.3 PROCESS             | 6 +0.08/-0.08     | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material          | Copper(OD)        |      |                          |
| 3.3.2 Shape             | Slanted 42°       |      |                          |
| 3.4 Oil cooler (Copper) | No                | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs      |      |                          |