

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>EM T40CLP</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>895DA83</b>         |

### 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                              |                                   |           |
| 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                | 7.23           | [cm <sup>3</sup> ] (0.441 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 16.000         |                                  |
| 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)    | 7.35           | [kg] (16.20 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                          | MI2021                             |                                    |
| 3 Start capacitor                            | -                                  | [μF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [μF(VAC minimum)]                  |
| 5 Motor protection                           | AE64FS                             |                                    |
| 6 Start winding resistance                   | 26.70                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 27.20                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.30                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.53                               | [A]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                             |                               |  |                           |  |       |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | 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] |
| 406                           | 102      | 119 | 93                          | 0.68                          | 1.27   | 4.38                      | 1.10                                   | 1.28  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                    |                             |                                       |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|---------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<br>Static |                             | (Condensing temperature 35°C (+95°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)                     | 226                        | 57       | 66                 | 59                          | 0.62                                  | 0.71                    | 3.79                      | 0.96      | 1.11  |
| -30 (-22)                     | 314                        | 79       | 92                 | 70                          | 0.63                                  | 0.98                    | 4.49                      | 1.13      | 1.32  |
| -25 (-13)                     | 416                        | 105      | 122                | 79                          | 0.65                                  | 1.30                    | 5.26                      | 1.33      | 1.54  |
| -20 (- 4)                     | 535                        | 135      | 157                | 88                          | 0.67                                  | 1.68                    | 6.12                      | 1.54      | 1.79  |
| -15 (+ 5)                     | 676                        | 170      | 198                | 96                          | 0.70                                  | 2.13                    | 7.04                      | 1.77      | 2.06  |
| -10 (+14)                     | 841                        | 212      | 246                | 104                         | 0.73                                  | 2.65                    | 8.04                      | 2.03      | 2.36  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | 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)                     | 204                        | 51       | 60                 | 59                          | 0.62                                   | 0.64                    | 3.44                      | 0.87      | 1.01  |
| -30 (-22)                     | 290                        | 73       | 85                 | 72                          | 0.64                                   | 0.91                    | 4.05                      | 1.02      | 1.19  |
| -25 (-13)                     | 391                        | 98       | 115                | 83                          | 0.66                                   | 1.23                    | 4.72                      | 1.19      | 1.38  |
| -20 (- 4)                     | 509                        | 128      | 149                | 93                          | 0.69                                   | 1.60                    | 5.45                      | 1.37      | 1.60  |
| -15 (+ 5)                     | 647                        | 163      | 190                | 104                         | 0.72                                   | 2.04                    | 6.25                      | 1.57      | 1.83  |
| -10 (+14)                     | 810                        | 204      | 237                | 114                         | 0.75                                   | 2.56                    | 7.09                      | 1.79      | 2.08  |

|                               |                            |          |                    |                             |  |                         |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | 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)                     | 185                        | 47       | 54                 | 61                          | 0.62                                   | 0.58                    | 3.01                      | 0.76      | 0.88  |
| -30 (-22)                     | 269                        | 68       | 79                 | 76                          | 0.64                                   | 0.84                    | 3.55                      | 0.89      | 1.04  |
| -25 (-13)                     | 368                        | 93       | 108                | 89                          | 0.67                                   | 1.15                    | 4.14                      | 1.04      | 1.21  |
| -20 (- 4)                     | 483                        | 122      | 142                | 101                         | 0.70                                   | 1.52                    | 4.79                      | 1.21      | 1.40  |
| -15 (+ 5)                     | 620                        | 156      | 182                | 113                         | 0.74                                   | 1.95                    | 5.48                      | 1.38      | 1.60  |
| -10 (+14)                     | 780                        | 197      | 229                | 125                         | 0.78                                   | 2.46                    | 6.21                      | 1.56      | 1.82  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | 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) | 163                        | 41       | 48  | 63                                     | 0.62                          | 0.51                    | 2.59                      | 0.65      | 0.76  |
| -30                           | (-22) | 246                        | 62       | 72  | 79                                     | 0.65                          | 0.77                    | 3.10                      | 0.78      | 0.91  |
| -25                           | (-13) | 342                        | 86       | 100 | 94                                     | 0.68                          | 1.07                    | 3.65                      | 0.92      | 1.07  |
| -20                           | (- 4) | 455                        | 115      | 133 | 108                                    | 0.72                          | 1.43                    | 4.23                      | 1.07      | 1.24  |
| -15                           | (+ 5) | 588                        | 148      | 172 | 122                                    | 0.77                          | 1.85                    | 4.85                      | 1.22      | 1.42  |
| -10                           | (+14) | 745                        | 188      | 218 | 136                                    | 0.81                          | 2.35                    | 5.49                      | 1.38      | 1.61  |

### 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           | 4.95 +0.05/+0.05  | [mm] | (0.195" +0.002"/+0.002") |
| 3.2.1 Material          | Copper            |      |                          |
| 3.2.2 Shape             | Vertical          |      |                          |
| 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      |      |                          |