

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM U26CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 893AA75         |

### 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-Medium Back Pressure          |                                   |           |
| 4.1 Evaporating temperature range          | -35°C to -5°C                     | (-31°F to 23°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 pressures/temperature |                                   |                                   |           |
| 9.1 Operating (gauge)                      | 7.7                               | [kgf/cm <sup>2</sup> ] (109 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 9.8                               | [kgf/cm <sup>2</sup> ] (139 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                |                                  |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation      |                | [hp]                             |
| 2 Displacement                | 5.19           | [cm <sup>3</sup> ] (0.317 cu.in) |
| 2.1 Bore [mm]                 | 21.000         |                                  |
| 2.2 Stroke [mm]               | 15.000         |                                  |
| 3 Lubricant charge            | 180            | [ml] (6.09 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 |                                  |
| 4 Weight (with oil charge)    | 7.1            | [kg] (15.65 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                          | MSDA3                              |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM110NFBYY-53                     |                                    |
| 6 Start winding resistance                   | 35.41                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 42.70                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 2.40                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.43                               | [A]                                |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -                                  | [A]                                |
| 11 Approval boards certification             | VDE                                |                                    |

### D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS:<br>@220V50Hz |          |     | CECOMAFB<br>Static             |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°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] |
| 217                           | 55       | 64  | 60                             | 0.43                             | 0.83                                               | 3.65                      | 0.92                          | 1.07  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       |                            | CECOMAF<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) | 134                        | 34                | 39  | 44                                     | 0.39                             | 0.47                       | 3.07                      | 0.77      | 0.90  |
| -30                           | (-22) | 189                        | 48                | 55  | 50                                     | 0.40                             | 0.66                       | 3.76                      | 0.95      | 1.10  |
| -25                           | (-13) | 253                        | 64                | 74  | 57                                     | 0.42                             | 0.88                       | 4.43                      | 1.12      | 1.30  |
| -20                           | (- 4) | 328                        | 83                | 96  | 64                                     | 0.44                             | 1.14                       | 5.12                      | 1.29      | 1.50  |
| -15                           | (+ 5) | 415                        | 105               | 122 | 71                                     | 0.47                             | 1.45                       | 5.87                      | 1.48      | 1.72  |
| -10                           | (+14) | 517                        | 130               | 151 | 77                                     | 0.50                             | 1.81                       | 6.70                      | 1.69      | 1.96  |
| -5                            | (+23) | 635                        | 160               | 186 | 83                                     | 0.52                             | 2.23                       | 7.65                      | 1.93      | 2.24  |

| TEST CONDITIONS:<br>@220V50Hz |       |                            | CECOMAF<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) | 111                        | 28                | 33  | 44                                     | 0.39                             | 0.42                       | 2.51                      | 0.63      | 0.74  |
| -30                           | (-22) | 161                        | 40                | 47  | 52                                     | 0.40                             | 0.61                       | 3.11                      | 0.78      | 0.91  |
| -25                           | (-13) | 217                        | 55                | 64  | 59                                     | 0.43                             | 0.83                       | 3.66                      | 0.92      | 1.07  |
| -20                           | (- 4) | 283                        | 71                | 83  | 67                                     | 0.46                             | 1.08                       | 4.20                      | 1.06      | 1.23  |
| -15                           | (+ 5) | 360                        | 91                | 106 | 76                                     | 0.50                             | 1.38                       | 4.76                      | 1.20      | 1.39  |
| -10                           | (+14) | 450                        | 113               | 132 | 84                                     | 0.53                             | 1.73                       | 5.38                      | 1.35      | 1.58  |
| -5                            | (+23) | 555                        | 140               | 163 | 91                                     | 0.56                             | 2.14                       | 6.08                      | 1.53      | 1.78  |

| TEST CONDITIONS:<br>@220V50Hz |       |                            | CECOMAF<br>Static |     | (Condensing temperature 65°C (+149°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) | 84                         | 21                | 25  | 44                                     | 0.39                             | 0.36                       | 1.94                      | 0.49      | 0.57  |
| -30                           | (-22) | 129                        | 33                | 38  | 52                                     | 0.41                             | 0.54                       | 2.49                      | 0.63      | 0.73  |
| -25                           | (-13) | 180                        | 45                | 53  | 61                                     | 0.44                             | 0.76                       | 2.97                      | 0.75      | 0.87  |
| -20                           | (- 4) | 238                        | 60                | 70  | 70                                     | 0.47                             | 1.01                       | 3.41                      | 0.86      | 1.00  |
| -15                           | (+ 5) | 306                        | 77                | 90  | 80                                     | 0.51                             | 1.30                       | 3.84                      | 0.97      | 1.12  |
| -10                           | (+14) | 386                        | 97                | 113 | 90                                     | 0.55                             | 1.64                       | 4.29                      | 1.08      | 1.26  |
| -5                            | (+23) | 479                        | 121               | 140 | 100                                    | 0.59                             | 2.05                       | 4.80                      | 1.21      | 1.41  |

### F - EXTERNAL CHARACTERISTICS

|                         |                   |      |                          |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate            | European Standard |      |                          |
| 2 Tray holder           | No                |      |                          |
| 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           | 5.02 +0.02/-0.02  | [mm] | (0.198" +0.001"/-0.001") |
| 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      |      |                          |