

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM Y26CLC       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 894HA75         |

### 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                               | 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)         | -                                 | -                                 | -         |
| 8.2 LBP (43°C Ambient temperature)         | Static                            | 187 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)    | 7.7            | [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                          | MSDA3                              |                                    |
| 3 Start capacitor                            | -                                  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 2.5(450)                           | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM110NFBYY-153                    |                                    |
| 6 Start winding resistance                   | 28.50                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 43.20                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 2.25                               | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.70                               | [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<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] |
| 290                           | 73       | 85  | 57                             | 0.25                             | 0.91   | 5.09                      | 1.28                                   | 1.49  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       |                            | 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) | 148                        | 37                 | 43  | 40                                     | 0.19                             | 0.46                       | 3.69                      | 0.93      | 1.08  |
| -30                           | (-22) | 210                        | 53                 | 61  | 47                                     | 0.21                             | 0.66                       | 4.49                      | 1.13      | 1.32  |
| -25                           | (-13) | 283                        | 71                 | 83  | 53                                     | 0.24                             | 0.89                       | 5.32                      | 1.34      | 1.56  |
| -20                           | (- 4) | 368                        | 93                 | 108 | 60                                     | 0.27                             | 1.16                       | 6.18                      | 1.56      | 1.81  |
| -15                           | (+ 5) | 468                        | 118                | 137 | 66                                     | 0.29                             | 1.47                       | 7.07                      | 1.78      | 2.07  |
| -10                           | (+14) | 583                        | 147                | 171 | 73                                     | 0.32                             | 1.84                       | 7.99                      | 2.01      | 2.34  |
| -5                            | (+23) | 715                        | 180                | 209 | 80                                     | 0.35                             | 2.26                       | 8.94                      | 2.25      | 2.62  |

| TEST CONDITIONS:<br>@220V50Hz |       |                            | 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) | 135                        | 34                 | 40  | 41                                     | 0.19                             | 0.42                       | 3.29                      | 0.83      | 0.96  |
| -30                           | (-22) | 193                        | 49                 | 56  | 48                                     | 0.21                             | 0.60                       | 4.04                      | 1.02      | 1.18  |
| -25                           | (-13) | 262                        | 66                 | 77  | 55                                     | 0.24                             | 0.82                       | 4.79                      | 1.21      | 1.40  |
| -20                           | (- 4) | 346                        | 87                 | 101 | 62                                     | 0.27                             | 1.09                       | 5.54                      | 1.40      | 1.62  |
| -15                           | (+ 5) | 443                        | 112                | 130 | 70                                     | 0.31                             | 1.40                       | 6.29                      | 1.58      | 1.84  |
| -10                           | (+14) | 557                        | 140                | 163 | 79                                     | 0.34                             | 1.76                       | 7.04                      | 1.77      | 2.06  |
| -5                            | (+23) | 687                        | 173                | 201 | 88                                     | 0.38                             | 2.17                       | 7.80                      | 1.96      | 2.28  |

| TEST CONDITIONS:<br>@220V50Hz |       |                            | ASHRAE32<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) | 119                        | 30                 | 35  | 41                                     | 0.19                             | 0.37                       | 2.92                      | 0.74      | 0.85  |
| -30                           | (-22) | 173                        | 44                 | 51  | 48                                     | 0.21                             | 0.54                       | 3.63                      | 0.92      | 1.06  |
| -25                           | (-13) | 240                        | 60                 | 70  | 56                                     | 0.24                             | 0.75                       | 4.32                      | 1.09      | 1.27  |
| -20                           | (- 4) | 320                        | 81                 | 94  | 64                                     | 0.28                             | 1.01                       | 4.98                      | 1.25      | 1.46  |
| -15                           | (+ 5) | 416                        | 105                | 122 | 74                                     | 0.32                             | 1.31                       | 5.61                      | 1.41      | 1.64  |
| -10                           | (+14) | 528                        | 133                | 155 | 85                                     | 0.37                             | 1.67                       | 6.21                      | 1.56      | 1.82  |
| -5                            | (+23) | 657                        | 166                | 193 | 97                                     | 0.42                             | 2.08                       | 6.78                      | 1.71      | 1.99  |

### 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      |      |                          |