

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM 2X3125U      |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 513300699       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |   |                                   |           |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor                 |                                   |           |
| 2 Refrigerant                      | R-290   |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 50                                      | [ V / Hz ]                        |           |
| 4 Application type                 | L/MBP(CO Compressors) Hot Gas Defrost Not Allowed |                                   |           |
| 4.1 Evaporating temperature range  | -35°C to 0°C                                      | (-31°F to 32°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) | -   | -                                 | -         |
| 8.3 HBP (32°C Ambient temperature) | -   | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -   | -                                 | -         |
| 9 Maximum condensing temperature   |   |                                   |           |
| 9.1 Operating                      | 18.4  | [kgf/cm <sup>2</sup> ] (262 psig) | / °C - °F |
| 9.2 Peak                           | 20.6  | [kgf/cm <sup>2</sup> ] (293 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130   | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                 |                                  |
|-------------------------------|-----------------|----------------------------------|
| 1 Commercial designation      | 1/4+            | [hp]                             |
| 2 Displacement                | 6.09            | [cm <sup>3</sup> ] (0.372 cu.in) |
| 2.1 Bore [mm]                 | 21.000          |                                  |
| 2.2 Stroke [mm]               | 17.600          |                                  |
| 3 Lubricant charge            | 150             | [ml] (5.07 fl.oz.)               |
| 3.1 Lubricants approved       |                 |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO22 |                                  |
| 4 Weight (with oil charge)    | 8.25            | [kg] (18.19 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                          | 7M220MD3/8EA17C3/8M220MD3/QP2-20A/QPS2-A22MD3/QPS2 |                                    |
| 3 Start capacitor                            | -  | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 5(350)   | [µF(VAC minimum)]                  |
| 5 Motor protection                           | BT107-130  |                                    |
| 6 Start winding resistance                   | 13.60  | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 12.10  | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | -  | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | -  | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | -  | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CCC - VDE  |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                |                                  |   |                           |                                       |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|---|---------------------------|---------------------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | ASHRAEMBP46<br>Static          |                                  | Evaporating temperature<br>(Condensing temperature) |                           | -6.7°C (19.94°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] |
| 1853                          | 467      | 543 | 240                            | 1.10                             |   | 7.72                      | 1.95                                  | 2.26  |

|                               |          |     |                                |                                  |   |                           |                                       |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|---|---------------------------|---------------------------------------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | ASHRAEMBP46<br>Fan             |                                  | Evaporating temperature<br>(Condensing temperature) |                           | -6.7°C (19.94°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] |
| 1883                          | 475      | 552 | 240                            | 2.30                             |   | 7.85                      | 1.98                                  | 2.30  |

### E - PERFORMANCE - CURVES

### F - EXTERNAL CHARACTERISTICS

|                         |   |
|-------------------------|---|
| 1 Base plate            | Universal                                     |
| 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 40° up + 45° to Back                  |
| 3.2 DISCHARGE           | 4.9 +0.10/-0.05 [mm] (0.193" +0.004"/-0.002") |
| 3.2.1 Material          | Copper  |
| 3.2.2 Shape             | Slanted 42° up + 24° to Back                  |
| 3.3 PROCESS             | 6.1 +0.10/+0.00 [mm] (0.240" +0.004"/+0.000") |
| 3.3.1 Material          | Copper  |
| 3.3.2 Shape             | Slanted 40° up + 45° to Back                  |
| 3.4 Oil cooler (Copper) | No [mm]                                       |
| 3.5 Connector sealing   | Rubber Plugs                                  |