

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM TE2134U |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513300296 |

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 | Very Low Back Pressure | | |
| 4.1 Evaporating temperature range | -45°C to -10°C | (-49°F to 14°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - Hight starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 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 ²] (262 psig) | / °C - °F |
| 9.2 Peak | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|-----------------|----------------------------------|
| 1 Commercial designation | 1/3 | [hp] |
| 2 Displacement | 9.50 | [cm ³] (0.580 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 21.000 | |
| 3 Lubricant charge | 210 | [ml] (7.10 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO22 | |
| 4 Weight (with oil charge) | 8.6 | [kg] (18.96 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRP-0028/QL2-6.4 | |
| 3 Start capacitor | 88-108(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0806/G6 | |
| 6 Start winding resistance | 22.33 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 7.89 | [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 | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 1477 | 372 | 433 | 307 | 1.83 | 4.40 | 4.81 | 1.21 | 1.41 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 35°C (+95°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 833 | 210 | 244 | 177 | 1.42 | 2.46 | 4.72 | 1.19 | 1.38 |
| -35 | (-31) | 1069 | 269 | 313 | 200 | 1.47 | 3.16 | 5.36 | 1.35 | 1.57 |
| -30 | (-22) | 1378 | 347 | 404 | 225 | 1.55 | 4.09 | 6.11 | 1.54 | 1.79 |
| -25 | (-13) | 1758 | 443 | 515 | 251 | 1.63 | 5.23 | 6.99 | 1.76 | 2.05 |
| -20 | (- 4) | 2206 | 556 | 646 | 276 | 1.72 | 6.58 | 8.00 | 2.02 | 2.34 |
| -15 | (+ 5) | 2718 | 685 | 797 | 298 | 1.80 | 8.14 | 9.16 | 2.31 | 2.68 |
| -10 | (+14) | 3294 | 830 | 965 | 315 | 1.86 | 9.91 | 10.46 | 2.64 | 3.07 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 45°C (+113°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 731 | 184 | 214 | 185 | 1.44 | 2.16 | 3.96 | 1.00 | 1.16 |
| -35 | (-31) | 940 | 237 | 275 | 211 | 1.51 | 2.78 | 4.47 | 1.13 | 1.31 |
| -30 | (-22) | 1214 | 306 | 356 | 240 | 1.60 | 3.60 | 5.04 | 1.27 | 1.48 |
| -25 | (-13) | 1549 | 390 | 454 | 272 | 1.70 | 4.61 | 5.69 | 1.43 | 1.67 |
| -20 | (- 4) | 1944 | 490 | 570 | 302 | 1.82 | 5.80 | 6.42 | 1.62 | 1.88 |
| -15 | (+ 5) | 2397 | 604 | 702 | 332 | 1.93 | 7.18 | 7.23 | 1.82 | 2.12 |
| -10 | (+14) | 2903 | 732 | 851 | 357 | 2.03 | 8.73 | 8.15 | 2.05 | 2.39 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 55°C (+131°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 607 | 153 | 178 | 190 | 1.45 | 1.79 | 3.17 | 0.80 | 0.93 |
| -35 | (-31) | 795 | 200 | 233 | 219 | 1.53 | 2.35 | 3.64 | 0.92 | 1.07 |
| -30 | (-22) | 1039 | 262 | 305 | 253 | 1.64 | 3.08 | 4.12 | 1.04 | 1.21 |
| -25 | (-13) | 1338 | 337 | 392 | 290 | 1.77 | 3.98 | 4.63 | 1.17 | 1.36 |
| -20 | (- 4) | 1688 | 425 | 495 | 328 | 1.91 | 5.04 | 5.16 | 1.30 | 1.51 |
| -15 | (+ 5) | 2087 | 526 | 612 | 364 | 2.06 | 6.25 | 5.73 | 1.44 | 1.68 |
| -10 | (+14) | 2532 | 638 | 742 | 398 | 2.20 | 7.62 | 6.34 | 1.60 | 1.86 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.2 +0.12/-0.08 | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 40° up + 45° to Back | | |
| 3.2 DISCHARGE | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted 0° up + 24° to Back | | |
| 3.3 PROCESS | 6.2 +0.05/+0.05 | [mm] | (0.244" +0.002"/+0.002") |
| 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 | | |