

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T2125GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 912DA67 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure R404A | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | (-40°F to 14°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - High 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 | 25.2 | [kgf/cm ²] (358 psig) | / °C - °F |
| 9.2 Peak | 28.3 | [kgf/cm ²] (402 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 1/3+ | [hp] |
| 2 Displacement | 5.96 | [cm ³] (0.364 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 15.000 | |
| 3 Lubricant charge | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 7.8 | [kg] (17.20 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-36 | |
| 3 Start capacitor | 64-77(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0571/G6 | |
| 6 Start winding resistance | [Ω at 25°C (77°F)] +/- 8% | |
| 7 Run winding resistance | [Ω at 25°C (77°F)] +/- 8% | |
| 8 LRA - Locked rotor amperage (50 Hz) | 9.80 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | VDE | |

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] |
| 1198 | 302 | 351 | 251 | 1.57 | 8.12 | 4.77 | 1.20 | 1.40 |

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) | 599 | 151 | 176 | 155 | 1.29 | 4.03 | 3.87 | 0.97 | 1.13 |
| -35 | (-31) | 783 | 197 | 229 | 174 | 1.35 | 5.28 | 4.49 | 1.13 | 1.32 |
| -30 | (-22) | 1001 | 252 | 293 | 195 | 1.41 | 6.77 | 5.14 | 1.29 | 1.51 |
| -25 | (-13) | 1260 | 318 | 369 | 217 | 1.48 | 8.56 | 5.82 | 1.47 | 1.71 |
| -20 | (- 4) | 1566 | 395 | 459 | 239 | 1.55 | 10.69 | 6.55 | 1.65 | 1.92 |
| -15 | (+ 5) | 1924 | 485 | 564 | 262 | 1.62 | 13.22 | 7.33 | 1.85 | 2.15 |
| -10 | (+14) | 2340 | 590 | 686 | 286 | 1.70 | 16.19 | 8.19 | 2.06 | 2.40 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 552 | 139 | 162 | 158 | 1.29 | 3.70 | 3.50 | 0.88 | 1.03 |
| -35 | (-31) | 730 | 184 | 214 | 180 | 1.36 | 4.92 | 4.05 | 1.02 | 1.19 |
| -30 | (-22) | 942 | 237 | 276 | 204 | 1.43 | 6.36 | 4.61 | 1.16 | 1.35 |
| -25 | (-13) | 1191 | 300 | 349 | 230 | 1.51 | 8.08 | 5.19 | 1.31 | 1.52 |
| -20 | (- 4) | 1485 | 374 | 435 | 256 | 1.60 | 10.12 | 5.79 | 1.46 | 1.70 |
| -15 | (+ 5) | 1830 | 461 | 536 | 285 | 1.70 | 12.55 | 6.42 | 1.62 | 1.88 |
| -10 | (+14) | 2230 | 562 | 653 | 314 | 1.80 | 15.39 | 7.10 | 1.79 | 2.08 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 486 | 122 | 142 | 156 | 1.29 | 3.25 | 3.12 | 0.79 | 0.91 |
| -35 | (-31) | 662 | 167 | 194 | 182 | 1.37 | 4.44 | 3.63 | 0.92 | 1.06 |
| -30 | (-22) | 867 | 219 | 254 | 210 | 1.45 | 5.85 | 4.13 | 1.04 | 1.21 |
| -25 | (-13) | 1109 | 280 | 325 | 240 | 1.55 | 7.51 | 4.63 | 1.17 | 1.36 |
| -20 | (- 4) | 1393 | 351 | 408 | 272 | 1.66 | 9.48 | 5.12 | 1.29 | 1.50 |
| -15 | (+ 5) | 1725 | 435 | 505 | 306 | 1.78 | 11.80 | 5.64 | 1.42 | 1.65 |
| -10 | (+14) | 2110 | 532 | 618 | 342 | 1.91 | 14.54 | 6.17 | 1.55 | 1.81 |

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 | 4.86 +0.07/+0.00 | [mm] | (0.191" +0.003"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 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 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |