

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T6165GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 912GA67 |

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 | Medium Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -20°C to 10°C | (-4°F to 50°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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 25.7 | [kgf/cm ²] (365 psig) | / °C - °F |
| 9.2 Peak (gauge) | 28.7 | [kgf/cm ²] (408 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 1/3 | [hp] |
| 2 Displacement | 5.19 | [cm ³] (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 | 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-38 | |
| 3 Start capacitor | 53-64(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) | 10.40 | [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 | | | EN12900MBP_HH Fan | | Evaporating temperature (Condensing temperature | | -10°C (14°F) 45°C (113°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] |
| 1652 | 416 | 484 | 275 | 1.76 | 13.31 | 6.00 | 1.51 | 1.76 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | EN12900HH 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] |
| -20 | (- 4) | 1304 | 329 | 382 | 218 | 1.59 | 9.18 | 5.97 | 1.50 | 1.75 |
| -15 | (+ 5) | 1609 | 406 | 472 | 235 | 1.64 | 11.42 | 6.85 | 1.73 | 2.01 |
| -10 | (+14) | 1966 | 496 | 576 | 253 | 1.69 | 14.06 | 7.79 | 1.96 | 2.28 |
| -5 | (+23) | 2377 | 599 | 696 | 270 | 1.75 | 17.12 | 8.80 | 2.22 | 2.58 |
| 0 | (+32) | 2843 | 716 | 833 | 288 | 1.81 | 20.68 | 9.86 | 2.49 | 2.89 |
| +5 | (+41) | 3366 | 848 | 986 | 307 | 1.87 | 24.79 | 10.97 | 2.76 | 3.21 |
| +10 | (+50) | 3950 | 995 | 1157 | 326 | 1.94 | 29.50 | 12.11 | 3.05 | 3.55 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | EN12900HH 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] |
| -20 | (- 4) | 1073 | 270 | 315 | 233 | 1.63 | 8.52 | 4.62 | 1.16 | 1.35 |
| -15 | (+ 5) | 1337 | 337 | 392 | 254 | 1.69 | 10.69 | 5.27 | 1.33 | 1.54 |
| -10 | (+14) | 1646 | 415 | 482 | 275 | 1.76 | 13.26 | 5.98 | 1.51 | 1.75 |
| -5 | (+23) | 2003 | 505 | 587 | 297 | 1.84 | 16.27 | 6.74 | 1.70 | 1.97 |
| 0 | (+32) | 2408 | 607 | 706 | 319 | 1.91 | 19.80 | 7.54 | 1.90 | 2.21 |
| +5 | (+41) | 2865 | 722 | 840 | 342 | 1.99 | 23.89 | 8.38 | 2.11 | 2.46 |
| +10 | (+50) | 3376 | 851 | 989 | 365 | 2.07 | 28.59 | 9.25 | 2.33 | 2.71 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | EN12900HH 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] |
| -20 | (- 4) | 844 | 213 | 247 | 244 | 1.66 | 7.76 | 3.45 | 0.87 | 1.01 |
| -15 | (+ 5) | 1059 | 267 | 310 | 272 | 1.74 | 9.81 | 3.90 | 0.98 | 1.14 |
| -10 | (+14) | 1312 | 331 | 385 | 299 | 1.83 | 12.28 | 4.39 | 1.11 | 1.29 |
| -5 | (+23) | 1607 | 405 | 471 | 326 | 1.93 | 15.21 | 4.93 | 1.24 | 1.44 |
| 0 | (+32) | 1945 | 490 | 570 | 354 | 2.03 | 18.66 | 5.50 | 1.39 | 1.61 |
| +5 | (+41) | 2327 | 587 | 682 | 382 | 2.12 | 22.69 | 6.09 | 1.54 | 1.79 |
| +10 | (+50) | 2757 | 695 | 808 | 411 | 2.22 | 27.35 | 6.71 | 1.69 | 1.96 |

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 | | |