

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T6160Y |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 872MA67 |

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 | High Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -15°C to 10°C | (5°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 temperature | | | |
| 9.1 Operating | 6.9 | [kgf/cm ²] (98 psig) | / °C - °F |
| 9.2 Peak | 7.8 | [kgf/cm ²] (111 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 1/4 | [hp] |
| 2 Displacement | 11.14 | [cm ³] (0.680 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 21.000 | |
| 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 | 53-64(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0933/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 | | | EN12900HBP_HH Fan | | Evaporating temperature (Condensing temperature | | 5°C (41°F) 50°C (122°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] |
| 2005 | 505 | 588 | 267 | 1.57 | | 7.50 | 1.89 | 2.20 |

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] |
| -15 | (+ 5) | 1060 | 267 | 311 | 165 | 1.27 | 3.42 | 6.43 | 1.62 | 1.88 |
| -10 | (+14) | 1327 | 334 | 389 | 182 | 1.31 | 4.29 | 7.29 | 1.84 | 2.14 |
| -5 | (+23) | 1629 | 411 | 477 | 201 | 1.36 | 5.28 | 8.09 | 2.04 | 2.37 |
| 0 | (+32) | 1970 | 496 | 577 | 223 | 1.43 | 6.40 | 8.84 | 2.23 | 2.59 |
| +5 | (+41) | 2353 | 593 | 689 | 247 | 1.51 | 7.67 | 9.54 | 2.40 | 2.79 |
| +10 | (+50) | 2780 | 701 | 815 | 273 | 1.60 | 9.10 | 10.18 | 2.56 | 2.98 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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] |
| -15 | (+ 5) | 944 | 238 | 277 | 173 | 1.29 | 3.30 | 5.45 | 1.37 | 1.60 |
| -10 | (+14) | 1184 | 298 | 347 | 192 | 1.34 | 4.15 | 6.17 | 1.56 | 1.81 |
| -5 | (+23) | 1458 | 367 | 427 | 212 | 1.40 | 5.13 | 6.87 | 1.73 | 2.01 |
| 0 | (+32) | 1770 | 446 | 519 | 235 | 1.46 | 6.25 | 7.54 | 1.90 | 2.21 |
| +5 | (+41) | 2122 | 535 | 622 | 259 | 1.55 | 7.52 | 8.19 | 2.06 | 2.40 |
| +10 | (+50) | 2518 | 634 | 738 | 286 | 1.64 | 8.96 | 8.80 | 2.22 | 2.58 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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] |
| -15 | (+ 5) | 822 | 207 | 241 | 181 | 1.31 | 3.15 | 4.54 | 1.14 | 1.33 |
| -10 | (+14) | 1034 | 261 | 303 | 203 | 1.37 | 3.98 | 5.10 | 1.29 | 1.49 |
| -5 | (+23) | 1280 | 322 | 375 | 226 | 1.43 | 4.93 | 5.67 | 1.43 | 1.66 |
| 0 | (+32) | 1561 | 393 | 458 | 250 | 1.51 | 6.04 | 6.23 | 1.57 | 1.83 |
| +5 | (+41) | 1882 | 474 | 552 | 277 | 1.60 | 7.31 | 6.80 | 1.71 | 1.99 |
| +10 | (+50) | 2245 | 566 | 658 | 305 | 1.71 | 8.76 | 7.36 | 1.86 | 2.16 |

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 | | |