

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | NE 6187Z |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 261FG71 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115 / 60 | [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 - 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 16.2 | [kgf/cm ²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 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 | 12.11 | [cm ³] (0.739 cu.in) |
| 2.1 Bore [mm] | 27.775 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 10.4 | [kg] (22.93 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELETRICAL DATA

| | | |
|--|-------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115 V 60 Hz 1~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRPH-63 | |
| 3 Start capacitor | 145-175(165) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0558/G9 | |
| 6 Start winding resistance | 7.30 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.20 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 29.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 7.20 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL | |

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @100V60Hz | | ASHRAE46 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) | 2093 | 528 | 613 | 357 | 5.67 | 11.32 | 5.85 | 1.48 | 1.72 |
| -10 | (+14) | 2672 | 673 | 783 | 393 | 5.80 | 14.50 | 6.81 | 1.72 | 1.99 |
| -5 | (+23) | 3399 | 857 | 996 | 432 | 5.97 | 18.51 | 7.88 | 1.99 | 2.31 |
| 0 | (+32) | 4275 | 1077 | 1253 | 473 | 6.19 | 23.39 | 9.03 | 2.28 | 2.65 |
| +5 | (+41) | 5300 | 1336 | 1553 | 517 | 6.46 | 29.16 | 10.24 | 2.58 | 3.00 |
| +10 | (+50) | 6473 | 1631 | 1897 | 564 | 6.78 | 35.84 | 11.48 | 2.89 | 3.36 |

| TEST CONDITIONS: @100V60Hz | | ASHRAE46 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) | 1779 | 448 | 521 | 359 | 5.64 | 10.39 | 4.96 | 1.25 | 1.45 |
| -10 | (+14) | 2308 | 582 | 676 | 403 | 5.82 | 13.54 | 5.72 | 1.44 | 1.68 |
| -5 | (+23) | 2965 | 747 | 869 | 450 | 6.05 | 17.46 | 6.58 | 1.66 | 1.93 |
| 0 | (+32) | 3748 | 945 | 1098 | 500 | 6.33 | 22.18 | 7.49 | 1.89 | 2.20 |
| +5 | (+41) | 4658 | 1174 | 1365 | 552 | 6.66 | 27.73 | 8.44 | 2.13 | 2.47 |
| +10 | (+50) | 5695 | 1435 | 1669 | 607 | 7.04 | 34.12 | 9.39 | 2.37 | 2.75 |

| TEST CONDITIONS: @100V60Hz | | ASHRAE46 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) | 1452 | 366 | 426 | 360 | 5.61 | 9.25 | 4.03 | 1.02 | 1.18 |
| -10 | (+14) | 1929 | 486 | 565 | 414 | 5.85 | 12.34 | 4.65 | 1.17 | 1.36 |
| -5 | (+23) | 2511 | 633 | 736 | 470 | 6.14 | 16.13 | 5.34 | 1.35 | 1.56 |
| 0 | (+32) | 3198 | 806 | 937 | 528 | 6.48 | 20.65 | 6.06 | 1.53 | 1.78 |
| +5 | (+41) | 3990 | 1005 | 1169 | 588 | 6.87 | 25.94 | 6.79 | 1.71 | 1.99 |
| +10 | (+50) | 4886 | 1231 | 1432 | 651 | 7.31 | 32.00 | 7.50 | 1.89 | 2.20 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate | Universal | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.03 +0.07/+0.00 | [mm] | (0.316" +0.003"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.45 +0.10/+0.00 | [mm] | (0.254" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.45 +0.10/+0.00 | [mm] | (0.254" +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 | | |