

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | NE 6210Z |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 262FG71 |

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 | 1/2- | [hp] |
| 2 Displacement | 13.54 | [cm ³] (0.826 cu.in) |
| 2.1 Bore [mm] | 29.362 | |
| 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) | 11.08 | [kg] (24.43 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 | 9660A-XX-183 | |
| 3 Start capacitor | 189-227(165) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0809/G9 | |
| 6 Start winding resistance | 8.89 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.01 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 37.50 | [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) | 7.45 | [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) | 2394 | 603 | 702 | 380 | 5.23 | 12.95 | 6.30 | 1.59 | 1.85 |
| -10 | (+14) | 3034 | 765 | 889 | 418 | 5.50 | 16.47 | 7.27 | 1.83 | 2.13 |
| -5 | (+23) | 3825 | 964 | 1121 | 462 | 5.82 | 20.83 | 8.28 | 2.09 | 2.43 |
| 0 | (+32) | 4766 | 1201 | 1397 | 511 | 6.19 | 26.08 | 9.32 | 2.35 | 2.73 |
| +5 | (+41) | 5859 | 1476 | 1717 | 566 | 6.62 | 32.23 | 10.35 | 2.61 | 3.03 |
| +10 | (+50) | 7102 | 1790 | 2081 | 626 | 7.09 | 39.32 | 11.35 | 2.86 | 3.33 |

| 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) | 2060 | 519 | 604 | 385 | 5.30 | 12.03 | 5.35 | 1.35 | 1.57 |
| -10 | (+14) | 2653 | 668 | 777 | 435 | 5.64 | 15.56 | 6.10 | 1.54 | 1.79 |
| -5 | (+23) | 3375 | 850 | 989 | 489 | 6.03 | 19.87 | 6.90 | 1.74 | 2.02 |
| 0 | (+32) | 4226 | 1065 | 1238 | 547 | 6.47 | 25.01 | 7.73 | 1.95 | 2.26 |
| +5 | (+41) | 5207 | 1312 | 1526 | 609 | 6.96 | 30.99 | 8.55 | 2.15 | 2.51 |
| +10 | (+50) | 6318 | 1592 | 1851 | 676 | 7.50 | 37.86 | 9.34 | 2.35 | 2.74 |

| 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) | 1713 | 432 | 502 | 390 | 5.38 | 10.92 | 4.40 | 1.11 | 1.29 |
| -10 | (+14) | 2255 | 568 | 661 | 452 | 5.79 | 14.42 | 4.99 | 1.26 | 1.46 |
| -5 | (+23) | 2905 | 732 | 851 | 516 | 6.25 | 18.66 | 5.62 | 1.42 | 1.65 |
| 0 | (+32) | 3663 | 923 | 1073 | 583 | 6.76 | 23.66 | 6.28 | 1.58 | 1.84 |
| +5 | (+41) | 4529 | 1141 | 1327 | 654 | 7.32 | 29.44 | 6.94 | 1.75 | 2.03 |
| +10 | (+50) | 5503 | 1387 | 1613 | 727 | 7.93 | 36.04 | 7.56 | 1.91 | 2.22 |

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 | | |