

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NE U6212Z |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 269ME71 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---------------------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115-127 / 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 - 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 | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 1/2 | [hp] |
| 2 Displacement | 14.28 | [cm ³] (0.871 cu.in) |
| 2.1 Bore [mm] | 30.157 | |
| 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) | 11.5 | [kg] (25.35 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELECTRICAL DATA

| | | |
|----------------------------------------------|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRPH-70-31 | |
| 3 Start capacitor | 189-227(250) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0736/J5 | |
| 6 Start winding resistance | 5.45 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 0.92 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 40.00 | [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) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|-----------------------------|-------------------------------|----------------------------------------------------|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAEHBP46 Fan | | Evaporating temperature (Condensing temperature | | 7.2°C (44.96°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] |
| 5675 | 1430 | 1663 | 745 | 7.57 | 36.80 | 7.62 | 1.92 | 2.23 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|----------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | 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) | 2845 | 717 | 834 | 385 | 4.81 | 15.39 | 7.39 | 1.86 | 2.16 |
| -10 | (+14) | 3559 | 897 | 1043 | 431 | 5.10 | 19.32 | 8.27 | 2.08 | 2.42 |
| -5 | (+23) | 4414 | 1112 | 1293 | 484 | 5.47 | 24.04 | 9.12 | 2.30 | 2.67 |
| 0 | (+32) | 5410 | 1363 | 1585 | 546 | 5.91 | 29.60 | 9.91 | 2.50 | 2.91 |
| +5 | (+41) | 6546 | 1650 | 1918 | 615 | 6.44 | 36.01 | 10.65 | 2.68 | 3.12 |
| +10 | (+50) | 7823 | 1971 | 2292 | 692 | 7.04 | 43.31 | 11.31 | 2.85 | 3.31 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|-----------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | 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) | 2425 | 611 | 711 | 408 | 4.96 | 14.17 | 5.94 | 1.50 | 1.74 |
| -10 | (+14) | 3078 | 776 | 902 | 461 | 5.30 | 18.05 | 6.68 | 1.68 | 1.96 |
| -5 | (+23) | 3861 | 973 | 1131 | 521 | 5.73 | 22.73 | 7.41 | 1.87 | 2.17 |
| 0 | (+32) | 4773 | 1203 | 1399 | 588 | 6.23 | 28.24 | 8.12 | 2.05 | 2.38 |
| +5 | (+41) | 5815 | 1465 | 1704 | 662 | 6.81 | 34.61 | 8.79 | 2.21 | 2.57 |
| +10 | (+50) | 6987 | 1761 | 2047 | 743 | 7.47 | 41.87 | 9.40 | 2.37 | 2.75 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|-----------------------------|-----------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | 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) | 2118 | 534 | 621 | 430 | 5.06 | 13.49 | 4.93 | 1.24 | 1.44 |
| -10 | (+14) | 2698 | 680 | 791 | 491 | 5.50 | 17.26 | 5.49 | 1.38 | 1.61 |
| -5 | (+23) | 3397 | 856 | 995 | 559 | 6.02 | 21.82 | 6.07 | 1.53 | 1.78 |
| 0 | (+32) | 4214 | 1062 | 1235 | 634 | 6.61 | 27.22 | 6.65 | 1.68 | 1.95 |
| +5 | (+41) | 5150 | 1298 | 1509 | 715 | 7.28 | 33.48 | 7.21 | 1.82 | 2.11 |
| +10 | (+50) | 6205 | 1564 | 1818 | 802 | 8.03 | 40.64 | 7.74 | 1.95 | 2.27 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate | Universal | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+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 | | |