

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NE U2155GK |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 959QE71 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [V / Hz] | |
| 4 Application type | Low Back Pressure R404A | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | (-40°F to 14°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 | 25.2 | [kgf/cm ²] (358 psig) | / °C - °F |
| 9.2 Peak | 28.3 | [kgf/cm ²] (402 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 3/4 | [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) | 11.3 | [kg] (24.91 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL 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-68-31 | |
| 3 Start capacitor | 189-227(250) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MST16ADK-3265 | |
| 6 Start winding resistance | 5.99 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.10 | [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 | UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | ARILBP Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 48.9°C (120.02°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] |
| 1908 | 481 | 559 | 567 | 6.48 | 19.75 | 3.37 | 0.85 | 0.99 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-------------|------|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ARI4 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] |
| -40 | (-40) | 1051 | 265 | 308 | 331 | 5.00 | 8.66 | 3.16 | 0.80 | 0.93 |
| -35 | (-31) | 1386 | 349 | 406 | 387 | 5.32 | 11.48 | 3.59 | 0.90 | 1.05 |
| -30 | (-22) | 1817 | 458 | 532 | 447 | 5.68 | 15.12 | 4.07 | 1.03 | 1.19 |
| -25 | (-13) | 2343 | 591 | 687 | 509 | 6.08 | 19.63 | 4.61 | 1.16 | 1.35 |
| -20 | (- 4) | 2966 | 747 | 869 | 573 | 6.52 | 25.07 | 5.17 | 1.30 | 1.52 |
| -15 | (+ 5) | 3685 | 929 | 1080 | 639 | 7.01 | 31.48 | 5.76 | 1.45 | 1.69 |
| -10 | (+14) | 4500 | 1134 | 1319 | 707 | 7.56 | 38.93 | 6.37 | 1.60 | 1.87 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ARI4 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] |
| -40 | (-40) | 819 | 206 | 240 | 334 | 5.02 | 7.74 | 2.46 | 0.62 | 0.72 |
| -35 | (-31) | 1113 | 281 | 326 | 396 | 5.37 | 10.61 | 2.82 | 0.71 | 0.83 |
| -30 | (-22) | 1481 | 373 | 434 | 462 | 5.77 | 14.21 | 3.20 | 0.81 | 0.94 |
| -25 | (-13) | 1923 | 485 | 564 | 532 | 6.24 | 18.60 | 3.60 | 0.91 | 1.06 |
| -20 | (- 4) | 2440 | 615 | 715 | 607 | 6.77 | 23.82 | 4.01 | 1.01 | 1.18 |
| -15 | (+ 5) | 3030 | 764 | 888 | 686 | 7.38 | 29.94 | 4.42 | 1.11 | 1.30 |
| -10 | (+14) | 3695 | 931 | 1083 | 767 | 8.06 | 37.00 | 4.82 | 1.21 | 1.41 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-------------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ARI4 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] |
| -40 | (-40) | 589 | 149 | 173 | 332 | 5.01 | 6.68 | 1.78 | 0.45 | 0.52 |
| -35 | (-31) | 836 | 211 | 245 | 398 | 5.38 | 9.54 | 2.09 | 0.53 | 0.61 |
| -30 | (-22) | 1135 | 286 | 332 | 472 | 5.83 | 13.04 | 2.40 | 0.60 | 0.70 |
| -25 | (-13) | 1486 | 374 | 435 | 552 | 6.37 | 17.24 | 2.69 | 0.68 | 0.79 |
| -20 | (- 4) | 1889 | 476 | 553 | 637 | 7.00 | 22.19 | 2.98 | 0.75 | 0.87 |
| -15 | (+ 5) | 2344 | 591 | 687 | 729 | 7.72 | 27.95 | 3.23 | 0.81 | 0.95 |
| -10 | (+14) | 2852 | 719 | 836 | 826 | 8.54 | 34.56 | 3.44 | 0.87 | 1.01 |

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 | | |