

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NE U2155GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 959QA51 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [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 - 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 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) | 11.1 | [kg] (24.47 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-49-65 | |
| 3 Start capacitor | 64-77(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0964/G6 | |
| 6 Start winding resistance | 27.95 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 5.11 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 18.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 3.79 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - CE - IRAM - UKCA - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS: @220V50Hz | | | EN12900LBP_HH Fan | | Evaporating temperature (Condensing temperature | | -35°C (-31°F) 40°C (104°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] |
| 1255 | 316 | 368 | 340 | 2.62 | 9.24 | 3.69 | 0.93 | 1.08 |

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] |
| -40 | (-40) | 1038 | 261 | 304 | 292 | 2.54 | 7.19 | 3.54 | 0.89 | 1.04 |
| -35 | (-31) | 1359 | 342 | 398 | 335 | 2.62 | 9.46 | 4.07 | 1.03 | 1.19 |
| -30 | (-22) | 1772 | 446 | 519 | 379 | 2.72 | 12.37 | 4.68 | 1.18 | 1.37 |
| -25 | (-13) | 2276 | 574 | 667 | 425 | 2.84 | 15.96 | 5.36 | 1.35 | 1.57 |
| -20 | (- 4) | 2872 | 724 | 842 | 472 | 2.98 | 20.24 | 6.08 | 1.53 | 1.78 |
| -15 | (+ 5) | 3560 | 897 | 1043 | 520 | 3.14 | 25.25 | 6.85 | 1.73 | 2.01 |
| -10 | (+14) | 4340 | 1094 | 1272 | 569 | 3.32 | 31.01 | 7.63 | 1.92 | 2.24 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|------------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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] |
| -40 | (-40) | 840 | 212 | 246 | 299 | 2.54 | 6.54 | 2.82 | 0.71 | 0.83 |
| -35 | (-31) | 1119 | 282 | 328 | 347 | 2.63 | 8.75 | 3.23 | 0.81 | 0.95 |
| -30 | (-22) | 1473 | 371 | 432 | 399 | 2.76 | 11.56 | 3.69 | 0.93 | 1.08 |
| -25 | (-13) | 1902 | 479 | 557 | 453 | 2.91 | 15.00 | 4.19 | 1.06 | 1.23 |
| -20 | (- 4) | 2406 | 606 | 705 | 510 | 3.09 | 19.09 | 4.71 | 1.19 | 1.38 |
| -15 | (+ 5) | 2986 | 752 | 875 | 570 | 3.30 | 23.86 | 5.24 | 1.32 | 1.54 |
| -10 | (+14) | 3641 | 918 | 1067 | 633 | 3.54 | 29.32 | 5.76 | 1.45 | 1.69 |

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|-------------------------------|-------|----------------------------|------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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] |
| -40 | (-40) | 640 | 161 | 188 | 298 | 2.57 | 5.77 | 2.15 | 0.54 | 0.63 |
| -35 | (-31) | 882 | 222 | 258 | 353 | 2.67 | 7.97 | 2.49 | 0.63 | 0.73 |
| -30 | (-22) | 1182 | 298 | 346 | 413 | 2.81 | 10.73 | 2.86 | 0.72 | 0.84 |
| -25 | (-13) | 1541 | 388 | 451 | 477 | 2.99 | 14.07 | 3.23 | 0.81 | 0.95 |
| -20 | (- 4) | 1958 | 493 | 574 | 546 | 3.22 | 18.01 | 3.60 | 0.91 | 1.05 |
| -15 | (+ 5) | 2434 | 613 | 713 | 619 | 3.48 | 22.57 | 3.94 | 0.99 | 1.16 |
| -10 | (+14) | 2969 | 748 | 870 | 696 | 3.79 | 27.78 | 4.25 | 1.07 | 1.25 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 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 | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+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 | | |