

COMPRESSOR DEFINITION

| | |
|---------------------------|--|
| Designation | NE U6181GK |
| Nominal Voltage/Frequency | 200-230 V 50 Hz / 208-230 V 60 Hz |
| Engineering Number | 958NB92 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 200-230 / 50 | [V / Hz] | |
| 4 Application type | Medium Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -20°C to 10°C | (-4°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 | 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 | 1/3+ | [hp] |
| 2 Displacement | 6.20 | [cm ³] (0.378 cu.in) |
| 2.1 Bore [mm] | 20.873 | |
| 2.2 Stroke [mm] | 18.120 | |
| 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) | 10.66 | [kg] (23.50 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|--|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRP-49 | |
| 3 Start capacitor | 64-77(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MST36APK-3166 | |
| 6 Start winding resistance | 27.64 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 5.04 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50/60 Hz) | 18.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50/60 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50/60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|---------------------------------------|-------|
| TEST CONDITIONS: @230V60Hz | | | ARIMBP Fan | | Evaporating temperature (Condensing temperature | | -6.7°C (19.94°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] |
| 2052 | 517 | 601 | 424 | 2.44 | 22.11 | 4.84 | 1.22 | 1.42 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V60Hz | | 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] |
| -20 | (- 4) | 1545 | 389 | 453 | 302 | 2.04 | 13.05 | 5.10 | 1.29 | 1.50 |
| -15 | (+ 5) | 1878 | 473 | 550 | 334 | 2.13 | 16.05 | 5.64 | 1.42 | 1.65 |
| -10 | (+14) | 2330 | 587 | 683 | 364 | 2.23 | 20.16 | 6.41 | 1.62 | 1.88 |
| -5 | (+23) | 2902 | 731 | 850 | 392 | 2.33 | 25.47 | 7.40 | 1.86 | 2.17 |
| 0 | (+32) | 3592 | 905 | 1053 | 419 | 2.44 | 32.10 | 8.57 | 2.16 | 2.51 |
| +5 | (+41) | 4402 | 1109 | 1290 | 444 | 2.54 | 40.13 | 9.91 | 2.50 | 2.90 |
| +10 | (+50) | 5330 | 1343 | 1562 | 468 | 2.65 | 49.67 | 11.39 | 2.87 | 3.34 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V60Hz | | 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] |
| -20 | (- 4) | 1291 | 325 | 378 | 320 | 2.10 | 12.61 | 4.04 | 1.02 | 1.18 |
| -15 | (+ 5) | 1567 | 395 | 459 | 357 | 2.21 | 15.48 | 4.39 | 1.11 | 1.29 |
| -10 | (+14) | 1934 | 487 | 567 | 393 | 2.33 | 19.37 | 4.91 | 1.24 | 1.44 |
| -5 | (+23) | 2391 | 603 | 701 | 427 | 2.45 | 24.37 | 5.59 | 1.41 | 1.64 |
| 0 | (+32) | 2940 | 741 | 861 | 460 | 2.58 | 30.59 | 6.38 | 1.61 | 1.87 |
| +5 | (+41) | 3579 | 902 | 1049 | 492 | 2.71 | 38.12 | 7.28 | 1.84 | 2.13 |
| +10 | (+50) | 4309 | 1086 | 1263 | 522 | 2.84 | 47.07 | 8.27 | 2.08 | 2.42 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V60Hz | | 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] |
| -20 | (- 4) | 1005 | 253 | 294 | 334 | 2.14 | 11.83 | 3.01 | 0.76 | 0.88 |
| -15 | (+ 5) | 1243 | 313 | 364 | 377 | 2.28 | 14.80 | 3.29 | 0.83 | 0.96 |
| -10 | (+14) | 1544 | 389 | 452 | 419 | 2.43 | 18.68 | 3.68 | 0.93 | 1.08 |
| -5 | (+23) | 1907 | 481 | 559 | 460 | 2.58 | 23.59 | 4.15 | 1.05 | 1.22 |
| 0 | (+32) | 2334 | 588 | 684 | 499 | 2.74 | 29.62 | 4.69 | 1.18 | 1.37 |
| +5 | (+41) | 2822 | 711 | 827 | 537 | 2.89 | 36.87 | 5.26 | 1.33 | 1.54 |
| +10 | (+50) | 3373 | 850 | 988 | 574 | 3.04 | 45.45 | 5.86 | 1.48 | 1.72 |

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 | | |