

COMPRESSOR DEFINITION

| | |
|---------------------------|-------------------------------|
| Designation | NT 6220GK |
| Nominal Voltage/Frequency | 200-240 V 50 Hz / 230 V 60 Hz |
| Engineering Number | 922BN04 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 200-240 / 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 | 3/4 | [hp] |
| 2 Displacement | 14.50 | [cm ³] (0.885 cu.in) |
| 2.1 Bore [mm] | 34.120 | |
| 2.2 Stroke [mm] | 15.870 | |
| 3 Lubricant charge | 450 | [ml] (15.22 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 17 | [kg] (37.48 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELECTRICAL DATA

| | | |
|--|--|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 200-240 V 50 Hz / 230 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRPH-55 | |
| 3 Start capacitor | 88-108(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MRA38112-3259 | |
| 6 Start winding resistance | 12.16 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.86 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | IMQ | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS: @200V50Hz | | | 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] |
| 7232 | 1822 | 2119 | 961 | 5.80 | 59.54 | 7.53 | 1.90 | 2.21 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | | 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] |
| -20 | (- 4) | 3236 | 816 | 948 | 499 | 3.70 | 20.52 | 6.49 | 1.63 | 1.90 |
| -15 | (+ 5) | 4109 | 1036 | 1204 | 543 | 3.89 | 26.24 | 7.58 | 1.91 | 2.22 |
| -10 | (+14) | 5158 | 1300 | 1511 | 589 | 4.08 | 33.15 | 8.76 | 2.21 | 2.57 |
| -5 | (+23) | 6384 | 1609 | 1871 | 637 | 4.27 | 41.31 | 10.02 | 2.53 | 2.94 |
| 0 | (+32) | 7786 | 1962 | 2281 | 687 | 4.48 | 50.82 | 11.34 | 2.86 | 3.32 |
| +5 | (+41) | 9364 | 2360 | 2744 | 737 | 4.69 | 61.75 | 12.71 | 3.20 | 3.72 |
| +10 | (+50) | 11119 | 2802 | 3258 | 788 | 4.92 | 74.20 | 14.09 | 3.55 | 4.13 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | | 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] |
| -20 | (- 4) | 2721 | 686 | 797 | 528 | 3.82 | 19.07 | 5.15 | 1.30 | 1.51 |
| -15 | (+ 5) | 3433 | 865 | 1006 | 587 | 4.07 | 24.21 | 5.85 | 1.47 | 1.71 |
| -10 | (+14) | 4309 | 1086 | 1263 | 648 | 4.33 | 30.57 | 6.65 | 1.67 | 1.95 |
| -5 | (+23) | 5348 | 1348 | 1567 | 711 | 4.61 | 38.24 | 7.51 | 1.89 | 2.20 |
| 0 | (+32) | 6551 | 1651 | 1920 | 776 | 4.90 | 47.31 | 8.44 | 2.13 | 2.47 |
| +5 | (+41) | 7916 | 1995 | 2320 | 842 | 5.22 | 57.85 | 9.40 | 2.37 | 2.75 |
| +10 | (+50) | 9445 | 2380 | 2768 | 910 | 5.55 | 69.95 | 10.39 | 2.62 | 3.04 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | | 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] |
| -20 | (- 4) | 2283 | 575 | 669 | 554 | 3.93 | 17.95 | 4.12 | 1.04 | 1.21 |
| -15 | (+ 5) | 2858 | 720 | 838 | 623 | 4.22 | 22.63 | 4.60 | 1.16 | 1.35 |
| -10 | (+14) | 3584 | 903 | 1050 | 695 | 4.53 | 28.59 | 5.16 | 1.30 | 1.51 |
| -5 | (+23) | 4459 | 1124 | 1307 | 770 | 4.87 | 35.90 | 5.79 | 1.46 | 1.70 |
| 0 | (+32) | 5485 | 1382 | 1607 | 847 | 5.23 | 44.66 | 6.48 | 1.63 | 1.90 |
| +5 | (+41) | 6660 | 1678 | 1952 | 925 | 5.62 | 54.94 | 7.20 | 1.81 | 2.11 |
| +10 | (+50) | 7986 | 2012 | 2340 | 1005 | 6.04 | 66.83 | 7.94 | 2.00 | 2.33 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate | Universal | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 9.6 +0.07/+0.00 | [mm] | (0.378" +0.003"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Vertical | | |
| 3.2 DISCHARGE | 6.42 +0.08/+0.00 | [mm] | (0.253" +0.003"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Vertical | | |
| 3.3 PROCESS | 6.42 +0.08/+0.00 | [mm] | (0.253" +0.003"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Vertical | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |