

Designation **NT2180GK**
 Nominal Voltage/Frequency **220-240 V 50 Hz**
 Engineering Number **923HA04**


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 | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | | |
| 5 Motor type | CSR | | |
| 6 Starting torque | HST - High starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | Fan cooled | Operating voltage range | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | - | - | - |
| 8.2 LBP (43°C Ambient temperature) | - | - | - |
| | - | - | - |
| | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 24.7 | [bar] | |
| 9.2 Peak (gauge) | 27.7 | [bar] | |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--------------------|
| 1 Commercial designation | 1 | [hp] |
| 2 Displacement | 20.44 | [cm ³] |
| 2.1 Bore | 36.990 | |
| 2.2 Stroke | 19.03 | |
| 3 Lubricant charge | 450 | [ml] |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight(with oil charge) | 17.4 | [kg] |
| 5 Nitrogen charge | 0.2 to 0.3 | [bar] |

C - ELECTRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Voltage Relay | |
| 2.1 Starting device | 3ARR3B6AC3 | |
| 3 Start capacitor | 130-156(330) | [µf(VAC minimum)] |
| 4 Run capacitor | 17.5(440) | [µf(VAC minimum)] |
| 5 Motor protection (external) | T0659/G9 | |
| 6 Start winding resistance | 8.56 | [ohm at 25°C] +/- 8% |
| 7 Run winding resistance | 1.82 | [ohm at 25°C] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 35.0 | [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: @220V50Hz | | EN12900LBP Fan | | Evap. temp. -35°C | Return Gas +20°C |
| | | | | Cond. temp. +40°C | Liquid Subcooling 0 K |
| Cooling capacity +/- 5% | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% |
| [W] | | [W] | [A] | [kg/h] | [W/W] |
| 530 | | 507 | 2.42 | 14.35 | 1.05 |

E - PERFORMANCE - CURVES

| | | | | | | |
|--------------------------------------|----------------------------|------------------------------|-------------------------------|-------------------------|---------------------------|-------------|
| TEST CONDITIONS: @220V50Hz | | EN12900 Fan | | Condensing temperature | | 35°C |
| Evaporating temperature | Cooling capacity +/- 5% | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | |
| °C | [W] | [W] | [A] | [kg/h] | [W/W] | |
| -40 | 444 | 438 | 2.14 | 11.30 | 1.01 | |
| -35 | 584 | 501 | 2.39 | 14.90 | 1.17 | |
| -30 | 763 | 562 | 2.65 | 19.56 | 1.37 | |
| -25 | 984 | 622 | 2.92 | 25.35 | 1.58 | |
| -20 | 1248 | 685 | 3.20 | 32.35 | 1.82 | |
| -15 | 1555 | 753 | 3.49 | 40.64 | 2.06 | |
| -10 | 1907 | 827 | 3.79 | 50.27 | 2.31 | |

| | | | | | | |
|--------------------------------------|----------------------------|------------------------------|-------------------------------|-------------------------|---------------------------|-------------|
| TEST CONDITIONS: @220V50Hz | | EN12900 Fan | | Condensing temperature | | 45°C |
| Evaporating temperature | Cooling capacity +/- 5% | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | |
| °C | [W] | [W] | [A] | [kg/h] | [W/W] | |
| -40 | 332 | 429 | 2.10 | 9.75 | 0.78 | |
| -35 | 468 | 510 | 2.42 | 13.53 | 0.92 | |
| -30 | 625 | 587 | 2.75 | 18.20 | 1.06 | |
| -25 | 814 | 664 | 3.10 | 23.83 | 1.22 | |
| -20 | 1034 | 743 | 3.45 | 30.50 | 1.39 | |
| -15 | 1286 | 825 | 3.81 | 38.27 | 1.56 | |
| -10 | 1573 | 913 | 4.18 | 47.22 | 1.73 | |

| | | | | | | |
|--------------------------------------|----------------------------|------------------------------|-------------------------------|-------------------------|---------------------------|-------------|
| TEST CONDITIONS: @220V50Hz | | EN12900 Fan | | Condensing temperature | | 55°C |
| Evaporating temperature | Cooling capacity +/- 5% | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | |
| °C | [W] | [W] | [A] | [kg/h] | [W/W] | |
| -40 | - | - | - | - | - | |
| -35 | 338 | 523 | 2.52 | 11.98 | 0.66 | |
| -30 | 483 | 614 | 2.90 | 16.55 | 0.78 | |
| -25 | 640 | 702 | 3.28 | 21.91 | 0.91 | |
| -20 | 814 | 789 | 3.68 | 28.14 | 1.03 | |
| -15 | 1007 | 879 | 4.08 | 35.29 | 1.15 | |
| -10 | 1224 | 974 | 4.50 | 43.45 | 1.25 | |

F - EXTERNAL CHARACTERISTICS

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