

COMPRESSOR DEFINITION

| | |
|---------------------------|----------------|
| Designation | NT 2212GS |
| Nominal Voltage/Frequency | 200 V 50-60 Hz |
| Engineering Number | 926KR08 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 200 / 50-60 | [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 | 3PHASE | | |
| 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 | 1 1/4 | [hp] |
| 2 Displacement | 27.80 | [cm ³] (1.696 cu.in) |
| 2.1 Bore [mm] | 38.100 | |
| 2.2 Stroke [mm] | 24.400 | |
| 3 Lubricant charge | 650 | [ml] (21.98 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 18.04 | [kg] (39.77 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|----------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 200 V 50-60 Hz 3 ~ (Three phase) | |
| 2 Starting device type | 3PHASE | |
| 2.1 Starting device | | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0926/K9 | |
| 6 Start winding resistance | 2.75 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.60 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50/60 Hz) | - | [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 | | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @200V60Hz | | | ASHRAELBP32 Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°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] |
| 5362 | 1351 | 1571 | 1197 | 4.21 | 36.35 | 4.48 | 1.13 | 1.31 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|---------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | ASHRAE32 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) | 2130 | 537 | 624 | 563 | 3.41 | 14.31 | 3.77 | 0.95 | 1.11 |
| -35 | (-31) | 2782 | 701 | 815 | 653 | 3.55 | 18.76 | 4.28 | 1.08 | 1.25 |
| -30 | (-22) | 3642 | 918 | 1067 | 745 | 3.71 | 24.64 | 4.90 | 1.23 | 1.43 |
| -25 | (-13) | 4708 | 1186 | 1380 | 840 | 3.89 | 31.99 | 5.61 | 1.41 | 1.64 |
| -20 | (- 4) | 5981 | 1507 | 1753 | 937 | 4.09 | 40.85 | 6.38 | 1.61 | 1.87 |
| -15 | (+ 5) | 7461 | 1880 | 2186 | 1037 | 4.32 | 51.27 | 7.20 | 1.81 | 2.11 |
| -10 | (+14) | 9148 | 2305 | 2680 | 1139 | 4.58 | 63.28 | 8.03 | 2.02 | 2.35 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | ASHRAE32 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) | 1878 | 473 | 550 | 568 | 3.40 | 12.59 | 3.31 | 0.83 | 0.97 |
| -35 | (-31) | 2536 | 639 | 743 | 672 | 3.57 | 17.07 | 3.78 | 0.95 | 1.11 |
| -30 | (-22) | 3390 | 854 | 993 | 780 | 3.76 | 22.89 | 4.34 | 1.09 | 1.27 |
| -25 | (-13) | 4439 | 1119 | 1301 | 891 | 3.98 | 30.10 | 4.97 | 1.25 | 1.46 |
| -20 | (- 4) | 5683 | 1432 | 1665 | 1005 | 4.23 | 38.73 | 5.65 | 1.42 | 1.66 |
| -15 | (+ 5) | 7123 | 1795 | 2087 | 1122 | 4.51 | 48.84 | 6.35 | 1.60 | 1.86 |
| -10 | (+14) | 8758 | 2207 | 2566 | 1243 | 4.82 | 60.46 | 7.05 | 1.78 | 2.07 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @200V50Hz | | ASHRAE32 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) | 1636 | 412 | 479 | 570 | 3.42 | 10.95 | 2.87 | 0.72 | 0.84 |
| -35 | (-31) | 2278 | 574 | 668 | 690 | 3.62 | 15.30 | 3.30 | 0.83 | 0.97 |
| -30 | (-22) | 3104 | 782 | 910 | 815 | 3.85 | 20.92 | 3.80 | 0.96 | 1.11 |
| -25 | (-13) | 4115 | 1037 | 1206 | 944 | 4.11 | 27.84 | 4.36 | 1.10 | 1.28 |
| -20 | (- 4) | 5308 | 1338 | 1556 | 1077 | 4.41 | 36.10 | 4.94 | 1.24 | 1.45 |
| -15 | (+ 5) | 6686 | 1685 | 1959 | 1213 | 4.75 | 45.75 | 5.52 | 1.39 | 1.62 |
| -10 | (+14) | 8248 | 2078 | 2417 | 1354 | 5.12 | 56.83 | 6.08 | 1.53 | 1.78 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @200V60Hz | | ASHRAE32 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] |
| -40 | (-40) | 2408 | 607 | 705 | 604 | 2.71 | 16.18 | 3.98 | 1.00 | 1.17 |
| -35 | (-31) | 3317 | 836 | 972 | 744 | 3.06 | 22.37 | 4.46 | 1.13 | 1.31 |
| -30 | (-22) | 4396 | 1108 | 1288 | 884 | 3.41 | 29.74 | 4.98 | 1.26 | 1.46 |
| -25 | (-13) | 5646 | 1423 | 1654 | 1021 | 3.75 | 38.35 | 5.54 | 1.40 | 1.62 |
| -20 | (- 4) | 7065 | 1780 | 2070 | 1154 | 4.09 | 48.25 | 6.13 | 1.54 | 1.80 |
| -15 | (+ 5) | 8655 | 2181 | 2536 | 1279 | 4.44 | 59.47 | 6.76 | 1.70 | 1.98 |
| -10 | (+14) | 10415 | 2625 | 3052 | 1397 | 4.80 | 72.06 | 7.44 | 1.87 | 2.18 |

| TEST CONDITIONS: @200V60Hz | | ASHRAE32 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] |
| -40 | (-40) | 2026 | 511 | 594 | 615 | 2.71 | 13.59 | 3.30 | 0.83 | 0.97 |
| -35 | (-31) | 2930 | 738 | 859 | 764 | 3.10 | 19.72 | 3.82 | 0.96 | 1.12 |
| -30 | (-22) | 4009 | 1010 | 1175 | 917 | 3.49 | 27.07 | 4.35 | 1.10 | 1.27 |
| -25 | (-13) | 5262 | 1326 | 1542 | 1072 | 3.89 | 35.68 | 4.89 | 1.23 | 1.43 |
| -20 | (- 4) | 6690 | 1686 | 1960 | 1227 | 4.30 | 45.59 | 5.44 | 1.37 | 1.60 |
| -15 | (+ 5) | 8292 | 2090 | 2430 | 1380 | 4.73 | 56.86 | 6.02 | 1.52 | 1.76 |
| -10 | (+14) | 10069 | 2537 | 2950 | 1530 | 5.18 | 69.51 | 6.61 | 1.66 | 1.94 |

| TEST CONDITIONS: @200V60Hz | | ASHRAE32 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] |
| -40 | (-40) | 1785 | 450 | 523 | 619 | 2.70 | 11.95 | 2.88 | 0.73 | 0.84 |
| -35 | (-31) | 2618 | 660 | 767 | 775 | 3.12 | 17.59 | 3.38 | 0.85 | 0.99 |
| -30 | (-22) | 3629 | 915 | 1063 | 940 | 3.55 | 24.46 | 3.87 | 0.98 | 1.13 |
| -25 | (-13) | 4819 | 1214 | 1412 | 1111 | 4.00 | 32.61 | 4.34 | 1.09 | 1.27 |
| -20 | (- 4) | 6188 | 1559 | 1813 | 1288 | 4.48 | 42.09 | 4.81 | 1.21 | 1.41 |
| -15 | (+ 5) | 7736 | 1949 | 2267 | 1469 | 4.99 | 52.94 | 5.27 | 1.33 | 1.54 |
| -10 | (+14) | 9463 | 2385 | 2773 | 1650 | 5.53 | 65.20 | 5.72 | 1.44 | 1.68 |

F - EXTERNAL CHARACTERISTICS

| | |
|-------------------------|--|
| 1 Base plate | Universal |
| 2 Tray holder | No |
| 3 Connectors | |
| 3.1 SUCTION | 12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010") |
| 3.1.1 Material | Steel |
| 3.1.2 Shape | ROTOLOCK(Ex. thr. 1"-14UNS-2A) |
| 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 |