

COMPRESSOR DEFINITION

| | |
|---------------------------|-------------|
| Designation | NT 6220ZV |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 212DG08 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115 / 60 | [V / Hz] | |
| 4 Application type | High Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -15°C to 10°C | (5°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 | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1 | [hp] |
| 2 Displacement | 22.37 | [cm ³] (1.365 cu.in) |
| 2.1 Bore [mm] | 36.990 | |
| 2.2 Stroke [mm] | 20.830 | |
| 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 - ELETRICAL DATA

| | | |
|--|-------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115 V 60 Hz 1~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 3ARR2KCP172S | |
| 3 Start capacitor | 243-292(165) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | GA3RJS0002 | |
| 6 Start winding resistance | 2.66 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 0.43 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @115V60Hz | | | 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] | |
| 8414 | 2120 | 2465 | 1074 | 11.50 | 54.55 | 7.83 | 1.97 | 2.29 | |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @115V60Hz | | 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] |
| -15 | (+5) | 4417 | 1113 | 1294 | 593 | 7.81 | 23.87 | 7.44 | 1.88 | 2.18 |
| -10 | (+14) | 4971 | 1253 | 1457 | 627 | 8.01 | 26.99 | 7.93 | 2.00 | 2.32 |
| -5 | (+23) | 5994 | 1511 | 1757 | 681 | 8.38 | 32.66 | 8.80 | 2.22 | 2.58 |
| 0 | (+32) | 7486 | 1887 | 2194 | 754 | 8.92 | 40.97 | 9.93 | 2.50 | 2.91 |
| +5 | (+41) | 9446 | 2380 | 2768 | 846 | 9.63 | 51.97 | 11.16 | 2.81 | 3.27 |
| +10 | (+50) | 11874 | 2992 | 3479 | 959 | 10.51 | 65.73 | 12.38 | 3.12 | 3.63 |

| TEST CONDITIONS: @115V60Hz | | 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] |
| -15 | (+5) | 3878 | 977 | 1136 | 635 | 8.08 | 22.68 | 6.10 | 1.54 | 1.79 |
| -10 | (+14) | 4299 | 1083 | 1260 | 677 | 8.35 | 25.20 | 6.36 | 1.60 | 1.86 |
| -5 | (+23) | 5188 | 1307 | 1520 | 739 | 8.80 | 30.52 | 7.02 | 1.77 | 2.06 |
| 0 | (+32) | 6547 | 1650 | 1918 | 823 | 9.44 | 38.71 | 7.96 | 2.00 | 2.33 |
| +5 | (+41) | 8374 | 2110 | 2454 | 929 | 10.27 | 49.83 | 9.03 | 2.27 | 2.64 |
| +10 | (+50) | 10669 | 2689 | 3126 | 1055 | 11.29 | 63.96 | 10.10 | 2.54 | 2.96 |

| TEST CONDITIONS: @115V60Hz | | 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] |
| -15 | (+5) | 3314 | 835 | 971 | 659 | 8.24 | 21.10 | 5.03 | 1.27 | 1.47 |
| -10 | (+14) | 3654 | 921 | 1071 | 715 | 8.62 | 23.37 | 5.11 | 1.29 | 1.50 |
| -5 | (+23) | 4463 | 1125 | 1308 | 794 | 9.20 | 28.68 | 5.61 | 1.41 | 1.64 |
| 0 | (+32) | 5742 | 1447 | 1683 | 895 | 9.99 | 37.10 | 6.40 | 1.61 | 1.88 |
| +5 | (+41) | 7489 | 1887 | 2195 | 1020 | 10.98 | 48.70 | 7.35 | 1.85 | 2.15 |
| +10 | (+50) | 9705 | 2446 | 2844 | 1167 | 12.17 | 63.54 | 8.32 | 2.10 | 2.44 |

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 |