

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NT 6220U |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 842DA04 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-290 | | |
| 3 Nominal voltage and frequency | 220-240 / 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 - 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 19.1 | [kgf/cm ²] (272 psig) | / °C - °F |
| 9.2 Peak (gauge) | 21.2 | [kgf/cm ²] (301 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 3/4 | [hp] |
| 2 Displacement | 17.39 | [cm ³] (1.061 cu.in) |
| 2.1 Bore [mm] | 34.120 | |
| 2.2 Stroke [mm] | 19.030 | |
| 3 Lubricant charge | 180 | [ml] (6.09 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 | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRPH-0019-65 | |
| 3 Start capacitor | 53-64(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0558/G6 | |
| 6 Start winding resistance | 9.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 2.30 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 29.00 | [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 | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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] |
| 7515 | 1894 | 2202 | 900 | 5.80 | 25.72 | 8.35 | 2.10 | 2.45 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 3454 | 870 | 1012 | 556 | 4.85 | 0.00 | 6.19 | 1.56 | 1.81 |
| -15 | (+ 5) | 4213 | 1062 | 1235 | 592 | 4.93 | 0.00 | 7.12 | 1.79 | 2.09 |
| -10 | (+14) | 5166 | 1302 | 1514 | 624 | 5.01 | 0.00 | 8.29 | 2.09 | 2.43 |
| -5 | (+23) | 6313 | 1591 | 1850 | 651 | 5.08 | 0.00 | 9.70 | 2.44 | 2.84 |
| 0 | (+32) | 7654 | 1929 | 2243 | 675 | 5.15 | 0.00 | 11.34 | 2.86 | 3.32 |
| +5 | (+41) | 9188 | 2315 | 2692 | 695 | 5.21 | 0.00 | 13.22 | 3.33 | 3.87 |
| +10 | (+50) | 10916 | 2751 | 3199 | 712 | 5.27 | 0.00 | 15.34 | 3.86 | 4.49 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 2818 | 710 | 826 | 577 | 4.87 | 0.00 | 4.91 | 1.24 | 1.44 |
| -15 | (+ 5) | 3557 | 896 | 1042 | 630 | 5.00 | 0.00 | 5.66 | 1.43 | 1.66 |
| -10 | (+14) | 4449 | 1121 | 1304 | 676 | 5.12 | 0.00 | 6.57 | 1.66 | 1.93 |
| -5 | (+23) | 5494 | 1384 | 1610 | 717 | 5.24 | 0.00 | 7.64 | 1.93 | 2.24 |
| 0 | (+32) | 6691 | 1686 | 1961 | 753 | 5.34 | 0.00 | 8.87 | 2.23 | 2.60 |
| +5 | (+41) | 8040 | 2026 | 2356 | 784 | 5.44 | 0.00 | 10.25 | 2.58 | 3.00 |
| +10 | (+50) | 9542 | 2405 | 2796 | 809 | 5.53 | 0.00 | 11.80 | 2.97 | 3.46 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 2274 | 573 | 666 | 607 | 4.93 | 0.00 | 3.74 | 0.94 | 1.09 |
| -15 | (+ 5) | 2971 | 749 | 871 | 676 | 5.12 | 0.00 | 4.39 | 1.11 | 1.29 |
| -10 | (+14) | 3780 | 953 | 1108 | 739 | 5.30 | 0.00 | 5.11 | 1.29 | 1.50 |
| -5 | (+23) | 4700 | 1184 | 1377 | 794 | 5.46 | 0.00 | 5.92 | 1.49 | 1.74 |
| 0 | (+32) | 5732 | 1444 | 1680 | 843 | 5.62 | 0.00 | 6.81 | 1.72 | 2.00 |
| +5 | (+41) | 6875 | 1732 | 2014 | 885 | 5.76 | 0.00 | 7.78 | 1.96 | 2.28 |
| +10 | (+50) | 8129 | 2048 | 2382 | 920 | 5.89 | 0.00 | 8.83 | 2.22 | 2.59 |

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 | | |