

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | T 6220GK |
| Nominal Voltage/Frequency | 208-230 V 60 Hz |
| Engineering Number | 931BD70 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 208-230 / 60 | [V / Hz] | |
| 4 Application type | Medium Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -20°C to 0°C | (-4°F to 32°F) | |
| 5 Motor type | CSCR | | |
| 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 25.7 | [kgf/cm ²] (365 psig) | / °C - °F |
| 9.2 Peak (gauge) | 28.7 | [kgf/cm ²] (408 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1- | [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 | 550 | [ml] (18.60 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 16.58 | [kg] (36.55 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 | 208-230 V 60 Hz 1~ (Single phase) | |
| 2 Starting device type | Voltage Relay | |
| 2.1 Starting device | 3ARR3B6V3 | |
| 3 Start capacitor | 43-53(330) | [μF(VAC minimum)] |
| 4 Run capacitor | 15(450) | [μF(VAC minimum)] |
| 5 Motor protection | T0748/C9 | |
| 6 Start winding resistance | 6.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 2.15 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 30.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 6.52 | [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: @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] |
| 8209 | 2069 | 2405 | 1134 | 6.39 | 67.58 | 7.24 | 1.82 | 2.12 |

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) | 3658 | 922 | 1072 | 471 | 3.62 | 23.22 | 7.77 | 1.96 | 2.28 |
| -15 | (+ 5) | 4567 | 1151 | 1338 | 532 | 3.87 | 29.15 | 8.58 | 2.16 | 2.52 |
| -10 | (+14) | 5645 | 1423 | 1654 | 603 | 4.15 | 36.26 | 9.36 | 2.36 | 2.74 |
| -5 | (+23) | 6894 | 1737 | 2020 | 684 | 4.47 | 44.61 | 10.07 | 2.54 | 2.95 |
| 0 | (+32) | 8312 | 2095 | 2436 | 777 | 4.84 | 54.25 | 10.71 | 2.70 | 3.14 |
| +5 | (+41) | 9901 | 2495 | 2901 | 881 | 5.25 | 65.27 | 11.25 | 2.84 | 3.30 |
| +10 | (+50) | 11659 | 2938 | 3416 | 996 | 5.71 | 77.71 | 11.68 | 2.94 | 3.42 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 2974 | 749 | 871 | 517 | 3.82 | 20.84 | 5.74 | 1.45 | 1.68 |
| -15 | (+ 5) | 3822 | 963 | 1120 | 599 | 4.11 | 26.94 | 6.39 | 1.61 | 1.87 |
| -10 | (+14) | 4825 | 1216 | 1414 | 686 | 4.45 | 34.24 | 7.05 | 1.78 | 2.07 |
| -5 | (+23) | 5983 | 1508 | 1753 | 778 | 4.82 | 42.81 | 7.70 | 1.94 | 2.25 |
| 0 | (+32) | 7295 | 1838 | 2138 | 877 | 5.23 | 52.70 | 8.30 | 2.09 | 2.43 |
| +5 | (+41) | 8761 | 2208 | 2567 | 982 | 5.69 | 64.00 | 8.86 | 2.23 | 2.60 |
| +10 | (+50) | 10382 | 2616 | 3042 | 1093 | 6.20 | 76.74 | 9.35 | 2.36 | 2.74 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 2262 | 570 | 663 | 564 | 4.02 | 17.79 | 4.02 | 1.01 | 1.18 |
| -15 | (+ 5) | 3047 | 768 | 893 | 668 | 4.37 | 24.12 | 4.56 | 1.15 | 1.33 |
| -10 | (+14) | 3971 | 1001 | 1163 | 772 | 4.76 | 31.68 | 5.13 | 1.29 | 1.50 |
| -5 | (+23) | 5033 | 1268 | 1475 | 877 | 5.18 | 40.54 | 5.74 | 1.45 | 1.68 |
| 0 | (+32) | 6235 | 1571 | 1827 | 982 | 5.65 | 50.75 | 6.35 | 1.60 | 1.86 |
| +5 | (+41) | 7576 | 1909 | 2220 | 1089 | 6.16 | 62.39 | 6.96 | 1.75 | 2.04 |
| +10 | (+50) | 9055 | 2282 | 2653 | 1197 | 6.72 | 75.50 | 7.54 | 1.90 | 2.21 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: | | ASHRAE46 | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|-------------------------|-------|------------------|----------|------|---------------------------------------|---------------------|---------------|-----------------|-----------|-------|
| @200V60Hz | | Fan | | | | | | | | |
| Evaporating temperature | | Cooling capacity | | | Power consumption | Current consumption | Gas flow rate | EFFICIENCY RATE | | |
| | | +/- 5% | | | +/- 5% | +/- 5% | +/- 5% | +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -20 | (- 4) | 4280 | 1079 | 1254 | 569 | 3.69 | 27.17 | 7.53 | 1.90 | 2.21 |
| -15 | (+ 5) | 5343 | 1346 | 1566 | 639 | 3.94 | 34.11 | 8.36 | 2.11 | 2.45 |
| -10 | (+14) | 6605 | 1664 | 1935 | 719 | 4.24 | 42.42 | 9.18 | 2.31 | 2.69 |
| -5 | (+23) | 8066 | 2033 | 2364 | 811 | 4.57 | 52.19 | 9.94 | 2.51 | 2.91 |
| 0 | (+32) | 9726 | 2451 | 2850 | 914 | 4.94 | 63.48 | 10.65 | 2.68 | 3.12 |
| +5 | (+41) | 11585 | 2919 | 3395 | 1030 | 5.35 | 76.37 | 11.27 | 2.84 | 3.30 |
| +10 | (+50) | 13642 | 3438 | 3998 | 1158 | 5.79 | 90.93 | 11.79 | 2.97 | 3.45 |

| TEST CONDITIONS: | | ASHRAE46 | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|-------------------------|-------|------------------|----------|------|--|---------------------|---------------|-----------------|-----------|-------|
| @200V60Hz | | Fan | | | | | | | | |
| Evaporating temperature | | Cooling capacity | | | Power consumption | Current consumption | Gas flow rate | EFFICIENCY RATE | | |
| | | +/- 5% | | | +/- 5% | +/- 5% | +/- 5% | +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -20 | (- 4) | 3480 | 877 | 1020 | 629 | 3.89 | 24.38 | 5.52 | 1.39 | 1.62 |
| -15 | (+ 5) | 4472 | 1127 | 1310 | 721 | 4.20 | 31.52 | 6.21 | 1.57 | 1.82 |
| -10 | (+14) | 5645 | 1423 | 1654 | 819 | 4.54 | 40.06 | 6.91 | 1.74 | 2.02 |
| -5 | (+23) | 7000 | 1764 | 2051 | 922 | 4.92 | 50.08 | 7.60 | 1.91 | 2.23 |
| 0 | (+32) | 8535 | 2151 | 2501 | 1032 | 5.34 | 61.66 | 8.26 | 2.08 | 2.42 |
| +5 | (+41) | 10250 | 2583 | 3004 | 1148 | 5.80 | 74.87 | 8.87 | 2.24 | 2.60 |
| +10 | (+50) | 12147 | 3061 | 3559 | 1272 | 6.29 | 89.78 | 9.42 | 2.37 | 2.76 |

| TEST CONDITIONS: | | ASHRAE46 | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|-------------------------|-------|------------------|----------|------|--|---------------------|---------------|-----------------|-----------|-------|
| @200V60Hz | | Fan | | | | | | | | |
| Evaporating temperature | | Cooling capacity | | | Power consumption | Current consumption | Gas flow rate | EFFICIENCY RATE | | |
| | | +/- 5% | | | +/- 5% | +/- 5% | +/- 5% | +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -20 | (- 4) | 2647 | 667 | 776 | 690 | 4.10 | 20.82 | 3.84 | 0.97 | 1.13 |
| -15 | (+ 5) | 3565 | 898 | 1045 | 806 | 4.46 | 28.22 | 4.42 | 1.11 | 1.29 |
| -10 | (+14) | 4646 | 1171 | 1361 | 922 | 4.85 | 37.07 | 5.03 | 1.27 | 1.47 |
| -5 | (+23) | 5889 | 1484 | 1726 | 1038 | 5.29 | 47.43 | 5.67 | 1.43 | 1.66 |
| 0 | (+32) | 7295 | 1838 | 2138 | 1155 | 5.76 | 59.38 | 6.32 | 1.59 | 1.85 |
| +5 | (+41) | 8863 | 2234 | 2597 | 1274 | 6.27 | 72.99 | 6.95 | 1.75 | 2.04 |
| +10 | (+50) | 10594 | 2670 | 3104 | 1394 | 6.82 | 88.33 | 7.56 | 1.90 | 2.21 |

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 | 9.6 +0.07/+0.00 | [mm] | (0.378" +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 | | |