

COMPRESSOR DEFINITION

| | |
|---------------------------|----------------------------------|
| Designation | NJ X6250GS |
| Nominal Voltage/Frequency | 400 V 50 Hz / 440 V 60 Hz |
| Engineering Number | 945BS29 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 400 / 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 | 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 | 2 | [hp] |
| 2 Displacement | 37.88 | [cm ³] (2.312 cu.in) |
| 2.1 Bore [mm] | 44.980 | |
| 2.2 Stroke [mm] | 23.850 | |
| 3 Lubricant charge | 750 | [ml] (25.36 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 21.7 | [kg] (47.84 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 | 400 V 50 Hz / 440 V 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 | 34HM293-50 | |
| 6 Start winding resistance | 7.77 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 7.77 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50/60 Hz) | 23.00/23.00 | [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 | UL - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @400V50Hz | | | EN12900MBP Fan | | Evaporating temperature (Condensing temperature | | -10°C (14°F) 45°C (113°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] |
| 11114 | 2801 | 3257 | 1773 | 3.44 | 97.83 | 6.27 | 1.58 | 1.84 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @400V50Hz | | | EN12900 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) | 8911 | 2246 | 2611 | 1356 | 2.91 | 67.65 | 6.56 | 1.65 | 1.92 |
| -15 | (+ 5) | 10990 | 2770 | 3220 | 1493 | 3.11 | 84.24 | 7.37 | 1.86 | 2.16 |
| -10 | (+14) | 13426 | 3383 | 3934 | 1631 | 3.31 | 103.76 | 8.24 | 2.08 | 2.41 |
| -5 | (+23) | 16219 | 4087 | 4753 | 1770 | 3.50 | 126.58 | 9.16 | 2.31 | 2.68 |
| 0 | (+32) | 19369 | 4881 | 5676 | 1910 | 3.67 | 153.07 | 10.14 | 2.55 | 2.97 |
| +5 | (+41) | 22876 | 5765 | 6703 | 2051 | 3.84 | 183.60 | 11.15 | 2.81 | 3.27 |
| +10 | (+50) | 26739 | 6738 | 7835 | 2194 | 3.99 | 218.55 | 12.20 | 3.07 | 3.57 |

| TEST CONDITIONS: @400V50Hz | | | EN12900 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) | 7321 | 1845 | 2145 | 1452 | 3.06 | 63.22 | 5.04 | 1.27 | 1.48 |
| -15 | (+ 5) | 9132 | 2301 | 2676 | 1618 | 3.26 | 79.63 | 5.64 | 1.42 | 1.65 |
| -10 | (+14) | 11236 | 2831 | 3292 | 1782 | 3.47 | 98.89 | 6.31 | 1.59 | 1.85 |
| -5 | (+23) | 13631 | 3435 | 3994 | 1943 | 3.68 | 121.37 | 7.02 | 1.77 | 2.06 |
| 0 | (+32) | 16319 | 4112 | 4782 | 2102 | 3.89 | 147.45 | 7.77 | 1.96 | 2.28 |
| +5 | (+41) | 19299 | 4863 | 5655 | 2258 | 4.10 | 177.49 | 8.55 | 2.15 | 2.51 |
| +10 | (+50) | 22570 | 5688 | 6614 | 2412 | 4.31 | 211.87 | 9.35 | 2.36 | 2.74 |

| TEST CONDITIONS: @400V50Hz | | | EN12900 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) | 5714 | 1440 | 1674 | 1510 | 3.13 | 58.08 | 3.79 | 0.95 | 1.11 |
| -15 | (+ 5) | 7197 | 1814 | 2109 | 1718 | 3.33 | 73.89 | 4.19 | 1.06 | 1.23 |
| -10 | (+14) | 8906 | 2244 | 2610 | 1920 | 3.55 | 92.48 | 4.63 | 1.17 | 1.36 |
| -5 | (+23) | 10843 | 2733 | 3177 | 2116 | 3.78 | 114.21 | 5.12 | 1.29 | 1.50 |
| 0 | (+32) | 13008 | 3278 | 3812 | 2305 | 4.03 | 139.45 | 5.65 | 1.42 | 1.65 |
| +5 | (+41) | 15399 | 3881 | 4512 | 2489 | 4.29 | 168.58 | 6.19 | 1.56 | 1.81 |
| +10 | (+50) | 18017 | 4540 | 5279 | 2667 | 4.56 | 201.97 | 6.75 | 1.70 | 1.98 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @400V60Hz | | EN12900 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) | 10233 | 2579 | 2999 | 1614 | 2.86 | 77.73 | 6.33 | 1.60 | 1.86 |
| -15 | (+ 5) | 12696 | 3199 | 3720 | 1792 | 3.09 | 97.31 | 7.09 | 1.79 | 2.08 |
| -10 | (+14) | 15535 | 3915 | 4552 | 1985 | 3.33 | 120.03 | 7.83 | 1.97 | 2.29 |
| -5 | (+23) | 18749 | 4725 | 5494 | 2192 | 3.59 | 146.30 | 8.55 | 2.16 | 2.51 |
| 0 | (+32) | 22338 | 5629 | 6546 | 2413 | 3.89 | 176.52 | 9.25 | 2.33 | 2.71 |
| +5 | (+41) | 26302 | 6628 | 7707 | 2648 | 4.22 | 211.11 | 9.93 | 2.50 | 2.91 |
| +10 | (+50) | 30642 | 7722 | 8979 | 2897 | 4.59 | 250.47 | 10.58 | 2.67 | 3.10 |

| TEST CONDITIONS: @400V60Hz | | EN12900 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) | 8201 | 2067 | 2403 | 1692 | 2.95 | 70.77 | 4.84 | 1.22 | 1.42 |
| -15 | (+ 5) | 10402 | 2621 | 3048 | 1915 | 3.22 | 90.69 | 5.43 | 1.37 | 1.59 |
| -10 | (+14) | 12892 | 3249 | 3778 | 2143 | 3.50 | 113.50 | 6.02 | 1.52 | 1.76 |
| -5 | (+23) | 15673 | 3949 | 4592 | 2375 | 3.79 | 139.59 | 6.60 | 1.66 | 1.94 |
| 0 | (+32) | 18742 | 4723 | 5492 | 2613 | 4.10 | 169.38 | 7.18 | 1.81 | 2.10 |
| +5 | (+41) | 22101 | 5569 | 6476 | 2856 | 4.43 | 203.27 | 7.74 | 1.95 | 2.27 |
| +10 | (+50) | 25749 | 6489 | 7545 | 3104 | 4.80 | 241.67 | 8.28 | 2.09 | 2.43 |

| TEST CONDITIONS: @400V60Hz | | EN12900 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) | 6233 | 1571 | 1827 | 1708 | 3.02 | 63.36 | 3.66 | 0.92 | 1.07 |
| -15 | (+ 5) | 8100 | 2041 | 2373 | 1996 | 3.36 | 83.17 | 4.05 | 1.02 | 1.19 |
| -10 | (+14) | 10170 | 2563 | 2980 | 2280 | 3.71 | 105.60 | 4.45 | 1.12 | 1.30 |
| -5 | (+23) | 12443 | 3136 | 3646 | 2559 | 4.06 | 131.05 | 4.86 | 1.22 | 1.42 |
| 0 | (+32) | 14920 | 3760 | 4372 | 2835 | 4.42 | 159.94 | 5.26 | 1.33 | 1.54 |
| +5 | (+41) | 17600 | 4435 | 5157 | 3106 | 4.79 | 192.66 | 5.67 | 1.43 | 1.66 |
| +10 | (+50) | 20483 | 5162 | 6002 | 3374 | 5.18 | 229.63 | 6.07 | 1.53 | 1.78 |

F - EXTERNAL CHARACTERISTICS

| | |
|-------------------------|---|
| 1 Base plate | American Standard |
| 2 Tray holder | No |
| 3 Connectors | |
| 3.1 SUCTION | 12.77 +0.08/+0.00 [mm] (0.503" +0.003"/+0.000") |
| 3.1.1 Material | Copper |
| 3.1.2 Shape | ROTOLOCK(Ex. thr. 1"-14UNS-2A) |
| 3.2 DISCHARGE | 8 +0.07/+0.00 [mm] (0.315" +0.003"/+0.000") |
| 3.2.1 Material | Copper |
| 3.2.2 Shape | Slanted J |
| 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 |