

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NE K6213U |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 863CA41 |

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 - 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 | 18.4 | [kgf/cm ²] (262 psig) | / °C - °F |
| 9.2 Peak | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | 1/2 | [hp] |
| 2 Displacement | 12.11 | [cm ³] (0.739 cu.in) |
| 2.1 Bore [mm] | 27.775 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 11.1 | [kg] (24.47 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELECTRICAL 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 | MTRP-0050 | |
| 3 Start capacitor | 53-64(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0743/G6 | |
| 6 Start winding resistance | 20.88 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 3.93 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 19.30 | [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 | | | 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] |
| 2756 | 695 | 808 | 497 | 3.58 | 9.92 | 5.55 | 1.40 | 1.63 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | | 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) | 2118 | 534 | 621 | 397 | 3.31 | 6.86 | 5.34 | 1.35 | 1.56 |
| -15 | (+ 5) | 2610 | 658 | 765 | 426 | 3.40 | 8.51 | 6.13 | 1.55 | 1.80 |
| -10 | (+14) | 3207 | 808 | 940 | 454 | 3.49 | 10.52 | 7.07 | 1.78 | 2.07 |
| -5 | (+23) | 3910 | 985 | 1146 | 480 | 3.57 | 12.91 | 8.14 | 2.05 | 2.39 |
| 0 | (+32) | 4717 | 1189 | 1382 | 505 | 3.66 | 15.71 | 9.33 | 2.35 | 2.74 |
| +5 | (+41) | 5629 | 1419 | 1649 | 529 | 3.74 | 18.93 | 10.64 | 2.68 | 3.12 |
| +10 | (+50) | 6646 | 1675 | 1947 | 552 | 3.82 | 22.60 | 12.05 | 3.04 | 3.53 |

| TEST CONDITIONS: @220V50Hz | | | 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) | 1822 | 459 | 534 | 425 | 3.37 | 6.47 | 4.29 | 1.08 | 1.26 |
| -15 | (+ 5) | 2251 | 567 | 660 | 462 | 3.49 | 8.05 | 4.87 | 1.23 | 1.43 |
| -10 | (+14) | 2772 | 699 | 812 | 498 | 3.60 | 9.98 | 5.56 | 1.40 | 1.63 |
| -5 | (+23) | 3386 | 853 | 992 | 532 | 3.71 | 12.28 | 6.36 | 1.60 | 1.86 |
| 0 | (+32) | 4093 | 1031 | 1199 | 564 | 3.82 | 14.98 | 7.26 | 1.83 | 2.13 |
| +5 | (+41) | 4892 | 1233 | 1434 | 594 | 3.93 | 18.10 | 8.24 | 2.08 | 2.41 |
| +10 | (+50) | 5784 | 1457 | 1695 | 622 | 4.03 | 21.66 | 9.30 | 2.34 | 2.72 |

| TEST CONDITIONS: @220V50Hz | | | 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) | 1511 | 381 | 443 | 453 | 3.44 | 5.98 | 3.33 | 0.84 | 0.98 |
| -15 | (+ 5) | 1872 | 472 | 549 | 501 | 3.59 | 7.45 | 3.74 | 0.94 | 1.10 |
| -10 | (+14) | 2314 | 583 | 678 | 546 | 3.74 | 9.28 | 4.24 | 1.07 | 1.24 |
| -5 | (+23) | 2836 | 715 | 831 | 588 | 3.90 | 11.47 | 4.82 | 1.22 | 1.41 |
| 0 | (+32) | 3438 | 866 | 1007 | 629 | 4.05 | 14.05 | 5.47 | 1.38 | 1.60 |
| +5 | (+41) | 4119 | 1038 | 1207 | 667 | 4.19 | 17.04 | 6.18 | 1.56 | 1.81 |
| +10 | (+50) | 4881 | 1230 | 1430 | 703 | 4.33 | 20.47 | 6.94 | 1.75 | 2.03 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |