

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NE 1130Z |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 262CA47 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure R134a | | |
| 4.1 Evaporating temperature range | -30°C to -5°C | (-22°F to 23°F) | |
| 5 Motor type | RSIR | | |
| 6 Starting torque | LST - Low Starting Torque | | |
| 7 Expansion device | Capillary tube | | |
| 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 | 1/3 | [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) | 10.6 | [kg] (23.37 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 | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRPH-0028 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0156/G5 | |
| 6 Start winding resistance | 31.50 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 6.40 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 2.01 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - IMQ | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°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] |
| 1103 | 278 | 323 | 245 | 1.48 | 6.27 | 4.50 | 1.13 | 1.32 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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] |
| -30 | (-22) | 858 | 216 | 251 | 194 | 1.31 | 4.86 | 4.43 | 1.12 | 1.30 |
| -25 | (-13) | 1138 | 287 | 334 | 218 | 1.46 | 6.46 | 5.21 | 1.31 | 1.53 |
| -20 | (- 4) | 1475 | 372 | 432 | 247 | 1.62 | 8.40 | 5.97 | 1.51 | 1.75 |
| -15 | (+ 5) | 1869 | 471 | 548 | 279 | 1.78 | 10.67 | 6.70 | 1.69 | 1.96 |
| -10 | (+14) | 2319 | 584 | 680 | 315 | 1.94 | 13.29 | 7.37 | 1.86 | 2.16 |
| -5 | (+23) | 2826 | 712 | 828 | 355 | 2.10 | 16.26 | 7.96 | 2.01 | 2.33 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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] |
| -30 | (-22) | 806 | 203 | 236 | 196 | 1.24 | 4.57 | 4.10 | 1.03 | 1.20 |
| -25 | (-13) | 1070 | 270 | 314 | 226 | 1.43 | 6.08 | 4.74 | 1.20 | 1.39 |
| -20 | (- 4) | 1394 | 351 | 409 | 259 | 1.62 | 7.94 | 5.38 | 1.36 | 1.58 |
| -15 | (+ 5) | 1779 | 448 | 521 | 296 | 1.81 | 10.16 | 6.01 | 1.51 | 1.76 |
| -10 | (+14) | 2224 | 560 | 652 | 337 | 2.00 | 12.74 | 6.61 | 1.66 | 1.94 |
| -5 | (+23) | 2729 | 688 | 800 | 381 | 2.19 | 15.70 | 7.15 | 1.80 | 2.10 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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] |
| -30 | (-22) | 755 | 190 | 221 | 199 | 1.19 | 4.28 | 3.79 | 0.96 | 1.11 |
| -25 | (-13) | 1004 | 253 | 294 | 233 | 1.41 | 5.70 | 4.31 | 1.09 | 1.26 |
| -20 | (- 4) | 1316 | 332 | 386 | 271 | 1.63 | 7.49 | 4.86 | 1.22 | 1.42 |
| -15 | (+ 5) | 1692 | 426 | 496 | 312 | 1.85 | 9.66 | 5.41 | 1.36 | 1.59 |
| -10 | (+14) | 2132 | 537 | 625 | 358 | 2.07 | 12.21 | 5.96 | 1.50 | 1.75 |
| -5 | (+23) | 2635 | 664 | 772 | 407 | 2.29 | 15.16 | 6.48 | 1.63 | 1.90 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 4.86 +0.07/+0.00 | [mm] | (0.191" +0.003"/+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 | | |