

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB T1118Z |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 298BA47 |

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 | | |
| 4.1 Evaporating temperature range | -35°C to -10°C | (-31°F to 14°F) | |
| 5 Motor type | RSIR-RSCR | | |
| 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) | Static | 198 to 254 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 254 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 16.2 | [kgf/cm ²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 8.39 | [cm ³] (0.512 cu.in) |
| 2.1 Bore [mm] | 24.282 | |
| 2.2 Stroke [mm] | 18.120 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 10.7 | [kg] (23.59 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 | PTC | |
| 2.1 Starting device | V230 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(450) | [µF(VAC minimum)] |
| 5 Motor protection | T0503/07 | |
| 6 Start winding resistance | 16.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 11.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 6.90 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.94 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | IMQ | |

D - PERFORMANCE - CHECK POINT DATA

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|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Static | | 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] |
| 766 | 193 | 224 | 157 | 0.74 | 4.35 | 4.88 | 1.23 | 1.43 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Static | | | | (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] |
| -35 | (-31) | 431 | 109 | 126 | 103 | 0.50 | 2.44 | 4.18 | 1.05 | 1.22 |
| -30 | (-22) | 593 | 149 | 174 | 119 | 0.57 | 3.36 | 4.96 | 1.25 | 1.45 |
| -25 | (-13) | 789 | 199 | 231 | 138 | 0.64 | 4.48 | 5.73 | 1.44 | 1.68 |
| -20 | (- 4) | 1027 | 259 | 301 | 158 | 0.72 | 5.85 | 6.52 | 1.64 | 1.91 |
| -15 | (+ 5) | 1313 | 331 | 385 | 179 | 0.81 | 7.50 | 7.36 | 1.85 | 2.16 |
| -10 | (+14) | 1655 | 417 | 485 | 200 | 0.91 | 9.48 | 8.27 | 2.08 | 2.42 |

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|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Static | | | | (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] |
| -35 | (-31) | 390 | 98 | 114 | 103 | 0.50 | 2.21 | 3.81 | 0.96 | 1.12 |
| -30 | (-22) | 550 | 139 | 161 | 122 | 0.58 | 3.12 | 4.51 | 1.14 | 1.32 |
| -25 | (-13) | 743 | 187 | 218 | 143 | 0.66 | 4.22 | 5.18 | 1.31 | 1.52 |
| -20 | (- 4) | 976 | 246 | 286 | 167 | 0.76 | 5.56 | 5.85 | 1.48 | 1.72 |
| -15 | (+ 5) | 1256 | 316 | 368 | 191 | 0.86 | 7.17 | 6.56 | 1.65 | 1.92 |
| -10 | (+14) | 1589 | 400 | 466 | 217 | 0.98 | 9.10 | 7.32 | 1.84 | 2.14 |

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|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Static | | | | (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] |
| -35 | (-31) | 350 | 88 | 103 | 101 | 0.50 | 1.98 | 3.47 | 0.88 | 1.02 |
| -30 | (-22) | 505 | 127 | 148 | 123 | 0.59 | 2.86 | 4.09 | 1.03 | 1.20 |
| -25 | (-13) | 691 | 174 | 203 | 148 | 0.68 | 3.92 | 4.68 | 1.18 | 1.37 |
| -20 | (- 4) | 916 | 231 | 268 | 175 | 0.79 | 5.21 | 5.24 | 1.32 | 1.54 |
| -15 | (+ 5) | 1185 | 299 | 347 | 203 | 0.92 | 6.76 | 5.83 | 1.47 | 1.71 |
| -10 | (+14) | 1506 | 379 | 441 | 233 | 1.05 | 8.63 | 6.45 | 1.63 | 1.89 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|--------------------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 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 | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted parallel to Base Plate | | |
| 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 | | |