

COMPRESSOR DEFINITION

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|---------------------------|-----------------|
| Designation | NJ 7240F |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 143FA19 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-22 | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Air Conditioning | | |
| 4.1 Evaporating temperature range | 0°C to 15°C | (32°F to 59°F) | |
| 5 Motor type | PSC | | |
| 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 | 21.7 | [kgf/cm ²] (309 psig) | / °C - °F |
| 9.2 Peak | 24.2 | [kgf/cm ²] (344 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|-----------------|--|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 34.38 | [cm ³] (2.098 cu.in) |
| 2.1 Bore [mm] | 42.850 | |
| 2.2 Stroke [mm] | 23.850 | |
| 3 Lubricant charge | 750 | [ml] (25.36 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO46 | |
| 4 Weight (with oil charge) | 22.3 | [kg] (49.16 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELECTRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | PSC | |
| 2.1 Starting device | | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 25(440) | [µF(VAC minimum)] |
| 5 Motor protection | CRA1773 | |
| 6 Start winding resistance | 7.10 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.20 | [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) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | | |

D - PERFORMANCE - CHECK POINT DATA

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|-------------------------------|----------|------|--------------------------------|----------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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] |
| 16552 | 4171 | 4850 | 2048 | 9.80 | 102.22 | 8.08 | 2.04 | 2.37 |

E - PERFORMANCE - CURVES

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|-------------------------------|----------------------------|----------|-----------------|--------------------------------|---------------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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] |
| 0 (+32) | 14845 | 3741 | 4350 | 1526 | 8.18 | 78.81 | 9.73 | 2.45 | 2.85 |
| +5 (+41) | 18387 | 4633 | 5388 | 1609 | 8.48 | 99.35 | 11.43 | 2.88 | 3.35 |
| +10 (+50) | 22467 | 5662 | 6583 | 1712 | 8.83 | 120.73 | 13.12 | 3.31 | 3.85 |
| +15 (+59) | 27087 | 6826 | 7937 | 1832 | 9.22 | 0.21 | 14.78 | 3.73 | 4.33 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|-----------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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] |
| 0 (+32) | 13635 | 3436 | 3995 | 1686 | 8.61 | 77.72 | 8.09 | 2.04 | 2.37 |
| +5 (+41) | 16828 | 4241 | 4931 | 1793 | 9.00 | 96.50 | 9.39 | 2.37 | 2.75 |
| +10 (+50) | 20460 | 5156 | 5995 | 1918 | 9.48 | 118.20 | 10.66 | 2.69 | 3.13 |
| +15 (+59) | 24532 | 6182 | 7189 | 2062 | 10.05 | 0.08 | 11.90 | 3.00 | 3.49 |

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|-------------------------------|----------------------------|----------|-----------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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] |
| 0 (+32) | 12375 | 3119 | 3626 | 1853 | 9.05 | 76.15 | 6.68 | 1.68 | 1.96 |
| +5 (+41) | 15201 | 3831 | 4454 | 1985 | 9.54 | 93.25 | 7.66 | 1.93 | 2.24 |
| +10 (+50) | 18367 | 4628 | 5382 | 2134 | 10.16 | 115.35 | 8.61 | 2.17 | 2.52 |
| +15 (+59) | 21873 | 5512 | 6409 | 2301 | 10.91 | - 0.29 | 9.51 | 2.40 | 2.79 |

F - EXTERNAL CHARACTERISTICS

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|-------------------------|--|
| 1 Base plate | American Standard |
| 2 Tray holder | No |
| 3 Connectors | |
| 3.1 SUCTION | 12.7 +0.25/-0.25 [mm] (0.500" +0.010"/-0.010") |
| 3.1.1 Material | Steel |
| 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 |