

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | F FV6HAK |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513200443 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [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-CSIR | | |
| 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 | - | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 98 to 140 V |
| 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 | 1/5 | [hp] |
| 2 Displacement | 6.23 | [cm ³] (0.380 cu.in) |
| 2.1 Bore [mm] | 21.000 | |
| 2.2 Stroke [mm] | 18.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 10.79 | [kg] (23.79 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 | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213516507/213516515 | |
| 3 Start capacitor | 161-193(115) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM762MFBZZ-53 | |
| 6 Start winding resistance | 10.95 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 3.10 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 20.70 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 2.85 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 3.25 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | 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] |
| 675 | 170 | 198 | 139 | 1.86 | 3.84 | 4.86 | 1.22 | 1.42 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 352 | 89 | 103 | 93 | 1.61 | 1.99 | 3.80 | 0.96 | 1.11 |
| -30 (-22) | 508 | 128 | 149 | 112 | 1.69 | 2.88 | 4.55 | 1.15 | 1.33 |
| -25 (-13) | 695 | 175 | 204 | 132 | 1.80 | 3.95 | 5.28 | 1.33 | 1.55 |
| -20 (- 4) | 921 | 232 | 270 | 153 | 1.93 | 5.24 | 6.02 | 1.52 | 1.76 |
| -15 (+ 5) | 1192 | 300 | 349 | 175 | 2.07 | 6.81 | 6.80 | 1.71 | 1.99 |
| -10 (+14) | 1516 | 382 | 444 | 197 | 2.23 | 8.69 | 7.67 | 1.93 | 2.25 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 280 | 71 | 82 | 88 | 1.60 | 1.58 | 3.16 | 0.80 | 0.93 |
| -30 (-22) | 425 | 107 | 125 | 109 | 1.68 | 2.41 | 3.93 | 0.99 | 1.15 |
| -25 (-13) | 601 | 152 | 176 | 131 | 1.80 | 3.41 | 4.62 | 1.16 | 1.35 |
| -20 (- 4) | 815 | 205 | 239 | 155 | 1.95 | 4.64 | 5.27 | 1.33 | 1.55 |
| -15 (+ 5) | 1073 | 270 | 314 | 181 | 2.12 | 6.12 | 5.92 | 1.49 | 1.74 |
| -10 (+14) | 1383 | 348 | 405 | 209 | 2.32 | 7.92 | 6.60 | 1.66 | 1.93 |

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|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 65°C (+149°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) | 178 | 45 | 52 | 77 | 1.55 | 1.01 | 2.31 | 0.58 | 0.68 |
| -30 (-22) | 326 | 82 | 95 | 101 | 1.64 | 1.85 | 3.19 | 0.80 | 0.93 |
| -25 (-13) | 503 | 127 | 147 | 127 | 1.77 | 2.86 | 3.94 | 0.99 | 1.16 |
| -20 (- 4) | 717 | 181 | 210 | 156 | 1.95 | 4.08 | 4.61 | 1.16 | 1.35 |
| -15 (+ 5) | 975 | 246 | 286 | 187 | 2.16 | 5.56 | 5.22 | 1.32 | 1.53 |
| -10 (+14) | 1283 | 323 | 376 | 221 | 2.40 | 7.35 | 5.82 | 1.47 | 1.70 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal EG/F/AMEM version 2 | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Straight | | |
| 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 | Straight | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Straight | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |