

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | F F6HBK |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 513200286 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115 / 60 | [V / Hz] | |
| 4 Application type | Low-Medium-High Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to 15°C | (-31°F to 59°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 | - | 103 to 135 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 103 to 135 V |
| 8.3 HBP (32°C Ambient temperature) | Fan | - | 103 to 135 V |
| 8.4 HBP (43°C Ambient temperature) | Fan | - | 103 to 135 V |
| 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 / ISO22 | |
| 4 Weight (with oil charge) | 10.67 | [kg] (23.52 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 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213516060/213516124 | |
| 3 Start capacitor | 270-324(115) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MSP36ALK-5590 | |
| 6 Start winding resistance | 10.55 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 2.29 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 27.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 3.20 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 3.80 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - UKCA - UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--------------------------------------|-------|--|
| TEST CONDITIONS: @115V60Hz | | | ASHRAEHBP32 Static | | 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] | |
| 2520 | 635 | 738 | 317 | 3.30 | | 7.95 | 2.00 | 2.33 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--------------------------------------|-------|--|
| TEST CONDITIONS: @115V60Hz | | | ASHRAEHBP32 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] | |
| 2520 | 635 | 738 | 317 | 3.30 | | 7.95 | 2.00 | 2.33 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|--|
| 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] | |
| 570 | 144 | 167 | 153 | 2.12 | 3.24 | 3.73 | 0.94 | 1.09 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|--|
| TEST CONDITIONS: @115V60Hz | | | 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] | |
| 570 | 144 | 167 | 153 | 2.12 | 3.24 | 3.73 | 0.94 | 1.09 | |

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] |
| -35 | (-31) | 302 | 76 | 88 | 107 | 1.87 | 1.71 | 2.53 | 0.64 | 0.74 |
| -30 | (-22) | 381 | 96 | 112 | 124 | 1.95 | 2.16 | 3.10 | 0.78 | 0.91 |
| -25 | (-13) | 515 | 130 | 151 | 143 | 2.05 | 2.92 | 3.74 | 0.94 | 1.10 |
| -20 | (- 4) | 705 | 178 | 206 | 163 | 2.16 | 4.00 | 4.46 | 1.12 | 1.31 |
| -15 | (+ 5) | 949 | 239 | 278 | 185 | 2.30 | 5.41 | 5.25 | 1.32 | 1.54 |
| -10 | (+14) | 1249 | 315 | 366 | 207 | 2.45 | 7.14 | 6.10 | 1.54 | 1.79 |
| -5 | (+23) | 1603 | 404 | 470 | 229 | 2.61 | 9.21 | 7.01 | 1.77 | 2.06 |
| 0 | (+32) | 2011 | 507 | 589 | 252 | 2.77 | 11.63 | 7.98 | 2.01 | 2.34 |
| +5 | (+41) | 2473 | 623 | 725 | 274 | 2.94 | 14.40 | 9.01 | 2.27 | 2.64 |
| +10 | (+50) | 2989 | 753 | 876 | 296 | 3.11 | 17.52 | 10.08 | 2.54 | 2.95 |
| +15 | (+59) | 3559 | 897 | 1043 | 317 | 3.27 | 21.01 | 11.20 | 2.82 | 3.28 |

E - PERFORMANCE - CURVES

| 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) | 210 | 53 | 61 | 104 | 1.88 | 1.18 | 2.14 | 0.54 | 0.63 |
| -30 | (-22) | 321 | 81 | 94 | 123 | 1.96 | 1.83 | 2.73 | 0.69 | 0.80 |
| -25 | (-13) | 478 | 121 | 140 | 145 | 2.07 | 2.72 | 3.36 | 0.85 | 0.98 |
| -20 | (- 4) | 680 | 171 | 199 | 169 | 2.21 | 3.87 | 4.02 | 1.01 | 1.18 |
| -15 | (+ 5) | 925 | 233 | 271 | 194 | 2.37 | 5.28 | 4.71 | 1.19 | 1.38 |
| -10 | (+14) | 1215 | 306 | 356 | 221 | 2.55 | 6.96 | 5.43 | 1.37 | 1.59 |
| -5 | (+23) | 1549 | 390 | 454 | 248 | 2.75 | 8.91 | 6.17 | 1.55 | 1.81 |
| 0 | (+32) | 1926 | 485 | 564 | 276 | 2.97 | 11.14 | 6.93 | 1.75 | 2.03 |
| +5 | (+41) | 2346 | 591 | 688 | 304 | 3.19 | 13.66 | 7.70 | 1.94 | 2.26 |
| +10 | (+50) | 2810 | 708 | 823 | 332 | 3.42 | 16.47 | 8.49 | 2.14 | 2.49 |
| +15 | (+59) | 3316 | 836 | 972 | 359 | 3.65 | 19.58 | 9.28 | 2.34 | 2.72 |

| 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) | 191 | 48 | 56 | 101 | 1.86 | 1.07 | 2.00 | 0.50 | 0.59 |
| -30 | (-22) | 314 | 79 | 92 | 122 | 1.94 | 1.79 | 2.59 | 0.65 | 0.76 |
| -25 | (-13) | 471 | 119 | 138 | 146 | 2.06 | 2.69 | 3.18 | 0.80 | 0.93 |
| -20 | (- 4) | 662 | 167 | 194 | 172 | 2.21 | 3.78 | 3.77 | 0.95 | 1.10 |
| -15 | (+ 5) | 887 | 224 | 260 | 201 | 2.39 | 5.07 | 4.34 | 1.09 | 1.27 |
| -10 | (+14) | 1145 | 289 | 336 | 231 | 2.60 | 6.56 | 4.91 | 1.24 | 1.44 |
| -5 | (+23) | 1436 | 362 | 421 | 262 | 2.83 | 8.26 | 5.46 | 1.38 | 1.60 |
| 0 | (+32) | 1761 | 444 | 516 | 295 | 3.09 | 10.17 | 5.99 | 1.51 | 1.76 |
| +5 | (+41) | 2117 | 534 | 620 | 328 | 3.36 | 12.31 | 6.50 | 1.64 | 1.90 |
| +10 | (+50) | 2507 | 632 | 734 | 361 | 3.64 | 14.68 | 6.98 | 1.76 | 2.04 |
| +15 | (+59) | 2928 | 738 | 858 | 395 | 3.93 | 17.28 | 7.42 | 1.87 | 2.18 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal EG/F/AMEM version 2 | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.2 +0.12/-0.08 | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted | | |
| 3.2 DISCHARGE | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted | | |
| 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 | Slanted | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |