

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | F F6BKW |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 513200146 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--------------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | Blend | | |
| 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 14.5 | [kgf/cm ²] (206 psig) | / °C - °F |
| 9.2 Peak (gauge) | 18.2 | [kgf/cm ²] (259 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 | ALQUILB / ISO32 | |
| 4 Weight (with oil charge) | 10.72 | [kg] (23.63 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 | 233-280(115) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MRP40AIN-5590 | |
| 6 Start winding resistance | 10.39 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 2.60 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 20.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 3.00 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | 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] |
| 2340 | 590 | 686 | 319 | 3.20 | 17.52 | 7.34 | 1.85 | 2.15 |

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|-----------------------------------------------------|---------------------------|----------------------------------------|-------|
| 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] |
| 655 | 165 | 192 | 168 | 2.05 | 4.79 | 3.90 | 0.98 | 1.14 |

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) | 360 | 91 | 105 | 124 | 1.79 | 2.62 | 2.91 | 0.73 | 0.85 |
| -30 (-22) | 463 | 117 | 136 | 144 | 1.89 | 3.39 | 3.25 | 0.82 | 0.95 |
| -25 (-13) | 600 | 151 | 176 | 165 | 2.01 | 4.40 | 3.66 | 0.92 | 1.07 |
| -20 (- 4) | 773 | 195 | 226 | 187 | 2.15 | 5.66 | 4.14 | 1.04 | 1.21 |
| -15 (+ 5) | 981 | 247 | 287 | 210 | 2.31 | 7.20 | 4.66 | 1.18 | 1.37 |
| -10 (+14) | 1225 | 309 | 359 | 234 | 2.48 | 9.02 | 5.23 | 1.32 | 1.53 |
| -5 (+23) | 1506 | 380 | 441 | 259 | 2.68 | 11.14 | 5.82 | 1.47 | 1.70 |
| 0 (+32) | 1825 | 460 | 535 | 284 | 2.88 | 13.56 | 6.42 | 1.62 | 1.88 |
| +5 (+41) | 2183 | 550 | 640 | 311 | 3.10 | 16.31 | 7.03 | 1.77 | 2.06 |
| +10 (+50) | 2580 | 650 | 756 | 339 | 3.32 | 19.39 | 7.64 | 1.92 | 2.24 |
| +15 (+59) | 3017 | 760 | 884 | 367 | 3.55 | 22.81 | 8.22 | 2.07 | 2.41 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|----------------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 360 | 91 | 105 | 124 | 1.79 | 2.62 | 2.91 | 0.73 | 0.85 |
| -30 (-22) | 463 | 117 | 136 | 144 | 1.89 | 3.39 | 3.25 | 0.82 | 0.95 |
| -25 (-13) | 600 | 151 | 176 | 165 | 2.01 | 4.40 | 3.66 | 0.92 | 1.07 |
| -20 (- 4) | 773 | 195 | 226 | 187 | 2.15 | 5.67 | 4.14 | 1.04 | 1.21 |
| -15 (+ 5) | 981 | 247 | 287 | 210 | 2.31 | 7.20 | 4.66 | 1.18 | 1.37 |
| -10 (+14) | 1225 | 309 | 359 | 234 | 2.48 | 9.03 | 5.23 | 1.32 | 1.53 |
| -5 (+23) | 1506 | 380 | 441 | 259 | 2.68 | 11.14 | 5.82 | 1.47 | 1.70 |
| 0 (+32) | 1825 | 460 | 535 | 284 | 2.88 | 13.57 | 6.42 | 1.62 | 1.88 |
| +5 (+41) | 2183 | 550 | 640 | 311 | 3.10 | 16.31 | 7.03 | 1.77 | 2.06 |
| +10 (+50) | 2580 | 650 | 756 | 339 | 3.32 | 19.39 | 7.64 | 1.92 | 2.24 |
| +15 (+59) | 3017 | 760 | 884 | 367 | 3.55 | 22.81 | 8.22 | 2.07 | 2.41 |

E - PERFORMANCE - CURVES

| 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) | 360 | 91 | 105 | 124 | 1.79 | 2.62 | 2.91 | 0.73 | 0.85 |
| -30 | (-22) | 463 | 117 | 136 | 144 | 1.89 | 3.39 | 3.25 | 0.82 | 0.95 |
| -25 | (-13) | 600 | 151 | 176 | 165 | 2.01 | 4.40 | 3.66 | 0.92 | 1.07 |
| -20 | (- 4) | 773 | 195 | 226 | 187 | 2.15 | 5.67 | 4.14 | 1.04 | 1.21 |
| -15 | (+ 5) | 981 | 247 | 287 | 210 | 2.31 | 7.21 | 4.66 | 1.18 | 1.37 |
| -10 | (+14) | 1225 | 309 | 359 | 234 | 2.48 | 9.03 | 5.23 | 1.32 | 1.53 |
| -5 | (+23) | 1506 | 380 | 441 | 259 | 2.68 | 11.14 | 5.82 | 1.47 | 1.70 |
| 0 | (+32) | 1825 | 460 | 535 | 284 | 2.88 | 13.57 | 6.42 | 1.62 | 1.88 |
| +5 | (+41) | 2183 | 550 | 640 | 311 | 3.10 | 16.32 | 7.03 | 1.77 | 2.06 |
| +10 | (+50) | 2580 | 650 | 756 | 339 | 3.32 | 19.39 | 7.64 | 1.92 | 2.24 |
| +15 | (+59) | 3017 | 760 | 884 | 367 | 3.55 | 22.82 | 8.22 | 2.07 | 2.41 |

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 | Straight | | |
| 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 | 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) | 6.5 +0.09/-0.09 | [mm] | (0.256" +0.004"/-0.004") |
| 3.5 Connector sealing | Rubber Plugs | | |