

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | F F6BK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513200425 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--------------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | Blend | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [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 | 198 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 255 V | - |
| 8.3 HBP (32°C Ambient temperature) | Fan | 198 to 255 V | - |
| 8.4 HBP (43°C Ambient temperature) | Fan | 198 to 255 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) | 10.6 | [kg] (23.37 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 | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213516221/213516302 | |
| 3 Start capacitor | 88-108(180) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MRA58020-5590 | |
| 6 Start winding resistance | 40.63 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 14.13 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 10.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.30 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | IRAM | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @220V50Hz | | | CECOMAFHP Static | | Evaporating temperature (Condensing temperature | | 5°C (41°F) 55°C (131°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] |
| 1965 | 495 | 576 | 270 | 1.41 | 17.68 | 7.28 | 1.83 | 2.13 |

| TEST CONDITIONS: @220V50Hz | | | CECOMAFLBP Static | | Evaporating temperature (Condensing temperature | | -25°C (-13°F) 55°C (131°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] |
| 555 | 140 | 163 | 140 | 0.86 | 4.87 | 3.96 | 1.00 | 1.16 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 320 | 81 | 94 | 96 | 0.73 | 2.55 | 3.32 | 0.84 | 0.97 |
| -30 | (-22) | 394 | 99 | 116 | 115 | 0.78 | 3.18 | 3.48 | 0.88 | 1.02 |
| -25 | (-13) | 504 | 127 | 148 | 135 | 0.84 | 4.07 | 3.77 | 0.95 | 1.11 |
| -20 | (- 4) | 647 | 163 | 190 | 155 | 0.90 | 5.24 | 4.19 | 1.05 | 1.23 |
| -15 | (+ 5) | 824 | 208 | 241 | 175 | 0.97 | 6.68 | 4.69 | 1.18 | 1.37 |
| -10 | (+14) | 1033 | 260 | 303 | 196 | 1.05 | 8.40 | 5.25 | 1.32 | 1.54 |
| -5 | (+23) | 1274 | 321 | 373 | 217 | 1.14 | 10.40 | 5.85 | 1.48 | 1.72 |
| 0 | (+32) | 1546 | 389 | 453 | 239 | 1.24 | 12.68 | 6.47 | 1.63 | 1.90 |
| +5 | (+41) | 1847 | 465 | 541 | 262 | 1.35 | 15.23 | 7.07 | 1.78 | 2.07 |
| +10 | (+50) | 2177 | 549 | 638 | 286 | 1.47 | 18.08 | 7.63 | 1.92 | 2.24 |
| +15 | (+59) | 2536 | 639 | 743 | 312 | 1.61 | 21.20 | 8.13 | 2.05 | 2.38 |

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 320 | 81 | 94 | 96 | 0.73 | 2.81 | 3.32 | 0.84 | 0.97 |
| -30 | (-22) | 394 | 99 | 116 | 115 | 0.78 | 3.47 | 3.48 | 0.88 | 1.02 |
| -25 | (-13) | 504 | 127 | 148 | 135 | 0.84 | 4.43 | 3.77 | 0.95 | 1.11 |
| -20 | (- 4) | 647 | 163 | 190 | 155 | 0.90 | 5.69 | 4.19 | 1.05 | 1.23 |
| -15 | (+ 5) | 824 | 208 | 241 | 175 | 0.97 | 7.26 | 4.69 | 1.18 | 1.37 |
| -10 | (+14) | 1033 | 260 | 303 | 196 | 1.05 | 9.13 | 5.25 | 1.32 | 1.54 |
| -5 | (+23) | 1274 | 321 | 373 | 217 | 1.14 | 11.32 | 5.85 | 1.48 | 1.72 |
| 0 | (+32) | 1546 | 389 | 453 | 239 | 1.24 | 13.81 | 6.47 | 1.63 | 1.90 |
| +5 | (+41) | 1847 | 465 | 541 | 262 | 1.35 | 16.62 | 7.07 | 1.78 | 2.07 |
| +10 | (+50) | 2177 | 549 | 638 | 286 | 1.47 | 19.74 | 7.63 | 1.92 | 2.24 |
| +15 | (+59) | 2536 | 639 | 743 | 312 | 1.61 | 23.18 | 8.13 | 2.05 | 2.38 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 320 | 81 | 94 | 96 | 0.73 | 3.07 | 3.32 | 0.84 | 0.97 |
| -30 | (-22) | 394 | 99 | 116 | 115 | 0.78 | 3.81 | 3.48 | 0.88 | 1.02 |
| -25 | (-13) | 504 | 127 | 148 | 135 | 0.84 | 4.88 | 3.77 | 0.95 | 1.11 |
| -20 | (- 4) | 647 | 163 | 190 | 155 | 0.90 | 6.28 | 4.19 | 1.05 | 1.23 |
| -15 | (+ 5) | 824 | 208 | 241 | 175 | 0.97 | 8.02 | 4.69 | 1.18 | 1.37 |
| -10 | (+14) | 1033 | 260 | 303 | 196 | 1.05 | 10.09 | 5.25 | 1.32 | 1.54 |
| -5 | (+23) | 1274 | 321 | 373 | 217 | 1.14 | 12.51 | 5.85 | 1.48 | 1.72 |
| 0 | (+32) | 1546 | 389 | 453 | 239 | 1.24 | 15.27 | 6.47 | 1.63 | 1.90 |
| +5 | (+41) | 1847 | 465 | 541 | 262 | 1.35 | 18.37 | 7.07 | 1.78 | 2.07 |
| +10 | (+50) | 2177 | 549 | 638 | 286 | 1.47 | 21.82 | 7.63 | 1.92 | 2.24 |
| +15 | (+59) | 2536 | 639 | 743 | 312 | 1.61 | 25.61 | 8.13 | 2.05 | 2.38 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|---------------------|------|--------------------------|
| 1 Base plate | Universal EG/F | | |
| 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 plated steel | | |
| 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 plated steel | | |
| 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 plated steel | | |
| 3.3.2 Shape | Slanted | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |