

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | F F11,5AKW |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513200180 |

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 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 | 198 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 255 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 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 | 1/3 | [hp] |
| 2 Displacement | 11.14 | [cm ³] (0.680 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 21.000 | |
| 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) | 10.94 | [kg] (24.12 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 | 213516035/213516043 | |
| 3 Start capacitor | 108-130(220) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MRA58112-5590 | |
| 6 Start winding resistance | 26.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 8.46 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 16.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.90 | [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 - UCIEE - UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V50Hz | | | 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] | |
| 975 | 246 | 286 | 258 | 1.67 | 7.14 | 3.78 | 0.95 | 1.11 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V50Hz | | | 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] | |
| 975 | 246 | 286 | 258 | 1.67 | 7.14 | 3.78 | 0.95 | 1.11 | |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 601 | 151 | 176 | 188 | 1.24 | 4.38 | 3.19 | 0.80 | 0.93 |
| -30 (-22) | 765 | 193 | 224 | 217 | 1.46 | 5.58 | 3.52 | 0.89 | 1.03 |
| -25 (-13) | 963 | 243 | 282 | 247 | 1.62 | 7.04 | 3.89 | 0.98 | 1.14 |
| -20 (- 4) | 1200 | 303 | 352 | 280 | 1.76 | 8.80 | 4.29 | 1.08 | 1.26 |
| -15 (+ 5) | 1482 | 374 | 434 | 315 | 1.90 | 10.90 | 4.71 | 1.19 | 1.38 |
| -10 (+14) | 1814 | 457 | 531 | 353 | 2.08 | 13.37 | 5.14 | 1.29 | 1.51 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 550 | 139 | 161 | 188 | 1.24 | 4.01 | 2.92 | 0.74 | 0.86 |
| -30 (-22) | 707 | 178 | 207 | 217 | 1.46 | 5.16 | 3.26 | 0.82 | 0.95 |
| -25 (-13) | 898 | 226 | 263 | 247 | 1.62 | 6.56 | 3.63 | 0.91 | 1.06 |
| -20 (- 4) | 1127 | 284 | 330 | 280 | 1.76 | 8.26 | 4.03 | 1.01 | 1.18 |
| -15 (+ 5) | 1401 | 353 | 411 | 315 | 1.90 | 10.30 | 4.45 | 1.12 | 1.30 |
| -10 (+14) | 1724 | 434 | 505 | 353 | 2.08 | 12.71 | 4.88 | 1.23 | 1.43 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | 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) | 499 | 126 | 146 | 188 | 1.24 | 3.64 | 2.65 | 0.67 | 0.78 |
| -30 | (-22) | 649 | 163 | 190 | 217 | 1.46 | 4.74 | 2.99 | 0.75 | 0.88 |
| -25 | (-13) | 832 | 210 | 244 | 247 | 1.62 | 6.08 | 3.36 | 0.85 | 0.98 |
| -20 | (- 4) | 1053 | 265 | 309 | 280 | 1.76 | 7.72 | 3.76 | 0.95 | 1.10 |
| -15 | (+ 5) | 1319 | 332 | 386 | 315 | 1.90 | 9.69 | 4.18 | 1.05 | 1.23 |
| -10 | (+14) | 1633 | 411 | 478 | 353 | 2.08 | 12.04 | 4.62 | 1.17 | 1.36 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|---------------------|------|--------------------------|
| 1 Base plate | Universal EG/F | | |
| 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 plated steel | | |
| 3.1.2 Shape | Slanted | | |
| 3.2 DISCHARGE | 5 +0.18/-0.06 | [mm] | (0.197" +0.007"/-0.002") |
| 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) | 5.1 +0.10/+0.00 | [mm] | (0.201" +0.004"/+0.000") |
| 3.5 Connector sealing | Rubber Plugs | | |