

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | F F11,5BK |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513200418 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | Blend | | |
| 3 Nominal voltage and frequency | 115-127 / 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) | Fan | - | 103 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Fan | - | 103 to 140 V |
| 8.3 HBP (32°C Ambient temperature) | Fan | - | 103 to 140 V |
| 8.4 HBP (43°C Ambient temperature) | Fan | - | 103 to 140 V |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 14.5 | [kgf/cm ²] (206 psig) | / °C - °F |
| 9.2 Peak | 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) | 11.4 | [kg] (25.13 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 | 213516183/213516191 | |
| 3 Start capacitor | 460-552(115) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MRT20AKN-5590 | |
| 6 Start winding resistance | 6.03 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.23 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 40.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 5.00 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 6.20 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - UKCA - UL | |

D - PERFORMANCE - CHECK POINT DATA

| 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] |
| 4000 | 1008 | 1172 | 584 | 6.30 | 29.95 | 6.85 | 1.73 | 2.01 |

| 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] |
| 1130 | 285 | 331 | 296 | 4.26 | 8.27 | 3.81 | 0.96 | 1.12 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @115V60Hz | | ASHRAE32 Fan | | | (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) | 909 | 229 | 266 | 276 | 3.93 | 6.62 | 3.29 | 0.83 | 0.96 |
| -30 | (-22) | 999 | 252 | 293 | 273 | 4.03 | 7.30 | 3.75 | 0.94 | 1.10 |
| -25 | (-13) | 1181 | 298 | 346 | 284 | 4.18 | 8.65 | 4.25 | 1.07 | 1.25 |
| -20 | (- 4) | 1450 | 365 | 425 | 305 | 4.37 | 10.63 | 4.78 | 1.21 | 1.40 |
| -15 | (+ 5) | 1800 | 454 | 527 | 336 | 4.61 | 13.22 | 5.33 | 1.34 | 1.56 |
| -10 | (+14) | 2223 | 560 | 651 | 374 | 4.87 | 16.38 | 5.89 | 1.48 | 1.73 |
| -5 | (+23) | 2715 | 684 | 796 | 419 | 5.16 | 20.09 | 6.44 | 1.62 | 1.89 |
| 0 | (+32) | 3269 | 824 | 958 | 468 | 5.47 | 24.30 | 6.97 | 1.76 | 2.04 |
| +5 | (+41) | 3880 | 978 | 1137 | 520 | 5.79 | 28.99 | 7.48 | 1.89 | 2.19 |
| +10 | (+50) | 4540 | 1144 | 1330 | 573 | 6.10 | 34.12 | 7.95 | 2.00 | 2.33 |
| +15 | (+59) | 5245 | 1322 | 1537 | 626 | 6.42 | 39.66 | 8.37 | 2.11 | 2.45 |

| TEST CONDITIONS: @115V60Hz | | ASHRAE32 Fan | | | (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) | 757 | 191 | 222 | 260 | 3.94 | 5.52 | 2.89 | 0.73 | 0.85 |
| -30 | (-22) | 853 | 215 | 250 | 268 | 4.03 | 6.24 | 3.27 | 0.82 | 0.96 |
| -25 | (-13) | 1039 | 262 | 304 | 287 | 4.19 | 7.61 | 3.70 | 0.93 | 1.08 |
| -20 | (- 4) | 1309 | 330 | 384 | 317 | 4.41 | 9.60 | 4.16 | 1.05 | 1.22 |
| -15 | (+ 5) | 1657 | 418 | 486 | 355 | 4.68 | 12.18 | 4.65 | 1.17 | 1.36 |
| -10 | (+14) | 2077 | 524 | 609 | 400 | 5.00 | 15.31 | 5.15 | 1.30 | 1.51 |
| -5 | (+23) | 2564 | 646 | 751 | 451 | 5.35 | 18.97 | 5.66 | 1.43 | 1.66 |
| 0 | (+32) | 3110 | 784 | 911 | 505 | 5.73 | 23.12 | 6.16 | 1.55 | 1.80 |
| +5 | (+41) | 3711 | 935 | 1087 | 562 | 6.14 | 27.72 | 6.63 | 1.67 | 1.94 |
| +10 | (+50) | 4359 | 1098 | 1277 | 618 | 6.56 | 32.76 | 7.08 | 1.78 | 2.07 |
| +15 | (+59) | 5049 | 1272 | 1480 | 674 | 6.99 | 38.18 | 7.49 | 1.89 | 2.19 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @115V60Hz | | ASHRAE32 Fan | | | (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) | 598 | 151 | 175 | 224 | 3.96 | 4.36 | 2.67 | 0.67 | 0.78 |
| -30 | (-22) | 701 | 177 | 205 | 244 | 4.05 | 5.13 | 2.96 | 0.75 | 0.87 |
| -25 | (-13) | 892 | 225 | 261 | 276 | 4.22 | 6.54 | 3.30 | 0.83 | 0.97 |
| -20 | (- 4) | 1165 | 294 | 341 | 316 | 4.46 | 8.55 | 3.69 | 0.93 | 1.08 |
| -15 | (+ 5) | 1514 | 382 | 444 | 365 | 4.77 | 11.13 | 4.11 | 1.04 | 1.20 |
| -10 | (+14) | 1933 | 487 | 566 | 420 | 5.14 | 14.25 | 4.55 | 1.15 | 1.33 |
| -5 | (+23) | 2415 | 609 | 708 | 479 | 5.55 | 17.87 | 5.00 | 1.26 | 1.47 |
| 0 | (+32) | 2956 | 745 | 866 | 541 | 6.01 | 21.97 | 5.45 | 1.37 | 1.60 |
| +5 | (+41) | 3548 | 894 | 1040 | 604 | 6.51 | 26.51 | 5.89 | 1.48 | 1.73 |
| +10 | (+50) | 4185 | 1055 | 1226 | 667 | 7.03 | 31.46 | 6.31 | 1.59 | 1.85 |
| +15 | (+59) | 4863 | 1225 | 1425 | 728 | 7.57 | 36.78 | 6.69 | 1.69 | 1.96 |

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) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |