

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | F FU130HAX |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513200887 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|------------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low-Medium Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to -5°C | (-31°F to 23°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | LST/HST - Low/High starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | | Operating voltage range | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | Fan | 187 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Fan | 187 to 255 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 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 | 1/3+ | [hp] |
| 2 Displacement | 10.61 | [cm ³] (0.647 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 11.25 | [kg] (24.80 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELECTRICAL 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 | 213516345 | |
| 3 Start capacitor | 88-108(250) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 5TM 757KFBYY-53 | |
| 6 Start winding resistance | 16.50 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 7.50 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 17.50 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 2.50 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - CE - UKCA - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| 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] |
| 1055 | 266 | 309 | 224 | 1.88 | 5.99 | 4.72 | 1.19 | 1.38 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|-----------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 556 | 140 | 163 | 155 | 1.70 | 3.14 | 3.59 | 0.90 | 1.05 |
| -30 (-22) | 792 | 200 | 232 | 180 | 1.79 | 4.49 | 4.40 | 1.11 | 1.29 |
| -25 (-13) | 1057 | 266 | 310 | 206 | 1.85 | 6.00 | 5.14 | 1.30 | 1.51 |
| -20 (- 4) | 1367 | 345 | 401 | 233 | 1.89 | 7.78 | 5.88 | 1.48 | 1.72 |
| -15 (+ 5) | 1741 | 439 | 510 | 261 | 1.94 | 9.94 | 6.64 | 1.67 | 1.95 |
| -10 (+14) | 2196 | 553 | 643 | 292 | 2.01 | 12.58 | 7.49 | 1.89 | 2.20 |
| -5 (+23) | 2749 | 693 | 806 | 325 | 2.11 | 15.81 | 8.47 | 2.14 | 2.48 |

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|-------------------------------|----------------------------|----------|-----------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 444 | 112 | 130 | 152 | 1.72 | 2.51 | 2.93 | 0.74 | 0.86 |
| -30 (-22) | 685 | 173 | 201 | 182 | 1.80 | 3.88 | 3.74 | 0.94 | 1.10 |
| -25 (-13) | 950 | 239 | 278 | 213 | 1.86 | 5.39 | 4.46 | 1.12 | 1.31 |
| -20 (- 4) | 1256 | 317 | 368 | 245 | 1.92 | 7.15 | 5.12 | 1.29 | 1.50 |
| -15 (+ 5) | 1621 | 408 | 475 | 279 | 1.99 | 9.25 | 5.79 | 1.46 | 1.70 |
| -10 (+14) | 2062 | 520 | 604 | 316 | 2.08 | 11.81 | 6.51 | 1.64 | 1.91 |
| -5 (+23) | 2597 | 654 | 761 | 355 | 2.21 | 14.94 | 7.33 | 1.85 | 2.15 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|-----------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | 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) | 350 | 88 | 103 | 146 | 1.72 | 1.98 | 2.40 | 0.61 | 0.70 |
| -30 (-22) | 592 | 149 | 173 | 182 | 1.80 | 3.35 | 3.21 | 0.81 | 0.94 |
| -25 (-13) | 852 | 215 | 250 | 218 | 1.87 | 4.84 | 3.89 | 0.98 | 1.14 |
| -20 (- 4) | 1148 | 289 | 337 | 257 | 1.95 | 6.53 | 4.49 | 1.13 | 1.32 |
| -15 (+ 5) | 1499 | 378 | 439 | 297 | 2.04 | 8.56 | 5.06 | 1.27 | 1.48 |
| -10 (+14) | 1922 | 484 | 563 | 340 | 2.16 | 11.01 | 5.64 | 1.42 | 1.65 |
| -5 (+23) | 2434 | 613 | 713 | 387 | 2.32 | 14.00 | 6.29 | 1.58 | 1.84 |

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 | | |