

### COMPRESSOR DEFINITION

Designation	F FU130HAX
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513200963

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	220 / 60	[ 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	-	198 to 242 V
8.2 LBP (43°C Ambient temperature)	Fan	-	198 to 242 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 <sup>2</sup> ] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm <sup>2</sup> ] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	10.61	[cm <sup>3</sup> ] (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)	11.18	[kg] (24.65 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516584	
3 Start capacitor	88-108(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM757MFBYY-53	
6 Start winding resistance	11.95	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.95	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	18.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.70	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	TUV	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V60Hz			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]
1250	315	366	265	2.38	7.10	4.71	1.19	1.38

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz			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)	649	164	190	191	1.75	3.67	3.37	0.85	0.99
-30 (-22)	889	224	260	220	2.01	5.04	4.07	1.03	1.19
-25 (-13)	1215	306	356	254	2.32	6.90	4.81	1.21	1.41
-20 (- 4)	1632	411	478	292	2.66	9.29	5.60	1.41	1.64
-15 (+ 5)	2143	540	628	331	3.02	12.23	6.47	1.63	1.90
-10 (+14)	2751	693	806	370	3.37	15.76	7.42	1.87	2.18
-5 (+23)	3461	872	1014	407	3.71	19.91	8.49	2.14	2.49

TEST CONDITIONS: @220V60Hz			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)	517	130	152	175	1.60	2.92	2.97	0.75	0.87
-30 (-22)	777	196	228	210	1.92	4.41	3.69	0.93	1.08
-25 (-13)	1113	280	326	251	2.29	6.32	4.40	1.11	1.29
-20 (- 4)	1527	385	448	296	2.70	8.69	5.12	1.29	1.50
-15 (+ 5)	2024	510	593	344	3.13	11.55	5.87	1.48	1.72
-10 (+14)	2607	657	764	391	3.56	14.93	6.67	1.68	1.95
-5 (+23)	3279	826	961	437	3.98	18.86	7.53	1.90	2.21

TEST CONDITIONS: @220V60Hz			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)	430	108	126	166	1.52	2.43	2.58	0.65	0.76
-30 (-22)	679	171	199	207	1.89	3.85	3.27	0.82	0.96
-25 (-13)	992	250	291	254	2.32	5.63	3.91	0.98	1.14
-20 (- 4)	1372	346	402	305	2.79	7.81	4.51	1.14	1.32
-15 (+ 5)	1823	459	534	359	3.28	10.40	5.10	1.29	1.49
-10 (+14)	2349	592	688	414	3.78	13.45	5.69	1.43	1.67
-5 (+23)	2952	744	865	467	4.26	16.98	6.30	1.59	1.85

### 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		