

COMPRESSOR DEFINITION

Designation	F FU130AX
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513200583

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	Blend		
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	HST - 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 (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	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	ALQUILB / ISO32	
4 Weight (with oil charge)	11.2	[kg] (24.69 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 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516485	
3 Start capacitor	64-77(250)/124-149(180)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRP36ALK-5590	
6 Start winding resistance	14.55	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.69	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	26.50	[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)	4.50	[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]
1405	354	412	312	2.54	10.28	4.50	1.13	1.32

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)	790	199	232	226	2.38	5.76	3.50	0.88	1.02
-30	(-22)	1042	262	305	255	2.43	7.60	4.10	1.03	1.20
-25	(-13)	1367	345	401	287	2.49	10.00	4.77	1.20	1.40
-20	(- 4)	1762	444	516	321	2.57	12.92	5.48	1.38	1.61
-15	(+ 5)	2223	560	651	358	2.67	16.34	6.20	1.56	1.82
-10	(+14)	2744	691	804	397	2.81	20.23	6.91	1.74	2.03
-5	(+23)	3322	837	973	437	2.98	24.58	7.60	1.92	2.23

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)	708	179	208	227	2.38	5.16	3.12	0.79	0.91
-30	(-22)	955	241	280	262	2.44	6.97	3.66	0.92	1.07
-25	(-13)	1274	321	373	299	2.52	9.32	4.26	1.07	1.25
-20	(- 4)	1662	419	487	340	2.61	12.18	4.89	1.23	1.43
-15	(+ 5)	2114	533	619	382	2.73	15.54	5.53	1.39	1.62
-10	(+14)	2625	662	769	427	2.87	19.36	6.15	1.55	1.80
-5	(+23)	3193	805	936	474	3.05	23.63	6.73	1.70	1.97

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)	593	150	174	220	2.37	4.33	2.71	0.68	0.79
-30	(-22)	841	212	246	260	2.44	6.14	3.24	0.82	0.95
-25	(-13)	1160	292	340	303	2.54	8.49	3.82	0.96	1.12
-20	(- 4)	1546	390	453	349	2.64	11.34	4.43	1.12	1.30
-15	(+ 5)	1996	503	585	397	2.78	14.67	5.03	1.27	1.47
-10	(+14)	2504	631	734	448	2.94	18.47	5.60	1.41	1.64
-5	(+23)	3067	773	899	500	3.13	22.70	6.13	1.55	1.80

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		