

COMPRESSOR DEFINITION

Designation	F FU130HAX
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513201018

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 - 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	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		

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

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		