

### COMPRESSOR DEFINITION

Designation	F FU130UAX
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	513200666

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-290		
3 Nominal voltage and frequency	115 / 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 - Hight 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	-	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Fan	-	98 to 140 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	18.4	[kgf/cm <sup>2</sup> ] (262 psig)	/ °C - °F
9.2 Peak	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	6.76	[cm <sup>3</sup> ] (0.413 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	17.000	
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)	10	[kg] (22.05 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516051	
3 Start capacitor	378-454(150)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MST 26AFZ-5590	
6 Start winding resistance	3.75	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	39.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	6.24	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	7.17	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - UL	

### D - PERFORMANCE - CHECK POINT DATA

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]
1360	343	399	264	4.25	4.05	5.15	1.30	1.51

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			ASHRAE32 Fan		(Condensing temperature 35°C (+95°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)	885	223	259	196	3.92	2.13	4.55	1.15	1.33
-30	(-22)	1109	279	325	210	3.96	3.20	5.25	1.32	1.54
-25	(-13)	1394	351	408	228	4.02	4.85	6.08	1.53	1.78
-20	(- 4)	1740	439	510	247	4.10	6.20	7.05	1.78	2.07
-15	(+ 5)	2151	542	630	264	4.19	6.39	8.19	2.06	2.40
-10	(+14)	2628	662	770	278	4.26	4.55	9.51	2.40	2.79
-5	(+23)	3172	799	929	287	4.32	- 0.20	11.03	2.78	3.23

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)	882	222	258	208	3.96	2.75	4.22	1.06	1.24
-30	(-22)	1081	272	317	225	4.02	3.04	4.77	1.20	1.40
-25	(-13)	1344	339	394	246	4.10	4.20	5.44	1.37	1.59
-20	(- 4)	1674	422	491	268	4.20	5.37	6.23	1.57	1.83
-15	(+ 5)	2073	522	607	289	4.31	5.68	7.18	1.81	2.10
-10	(+14)	2541	640	744	307	4.41	4.26	8.30	2.09	2.43
-5	(+23)	3080	776	903	321	4.49	0.24	9.61	2.42	2.81

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)	801	202	235	214	3.96	2.84	3.76	0.95	1.10
-30	(-22)	979	247	287	235	4.05	2.45	4.19	1.06	1.23
-25	(-13)	1226	309	359	260	4.16	3.24	4.72	1.19	1.38
-20	(- 4)	1544	389	452	287	4.30	4.35	5.37	1.35	1.57
-15	(+ 5)	1933	487	566	314	4.44	4.89	6.16	1.55	1.81
-10	(+14)	2397	604	702	338	4.57	4.02	7.11	1.79	2.08
-5	(+23)	2936	740	860	357	4.69	0.84	8.23	2.07	2.41

### 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)	731	184	214	217	3.97	- 0.12	3.36	0.85	0.98
-30	(-22)	893	225	262	244	4.09	- 1.07	3.70	0.93	1.08
-25	(-13)	1127	284	330	275	4.25	- 0.53	4.13	1.04	1.21
-20	(- 4)	1436	362	421	308	4.42	0.63	4.66	1.18	1.37
-15	(+ 5)	1822	459	534	341	4.61	1.54	5.32	1.34	1.56
-10	(+14)	2285	576	670	372	4.79	1.32	6.12	1.54	1.79
-5	(+23)	2829	713	829	399	4.95	- 0.89	7.09	1.79	2.08

### 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	Slanted		
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	Slanted		
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	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		