

COMPRESSOR DEFINITION

Designation	F F6BK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513206380

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	Blend		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low-Medium-High Back Pressure		
4.1 Evaporating temperature range	-35°C to 15°C	(-31°F to 59°F)	
5 Motor type	RSIR/CSIR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	Static	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 255 V	-
8.3 HBP (32°C Ambient temperature)	Fan	198 to 255 V	-
8.4 HBP (43°C Ambient temperature)	Fan	198 to 255 V	-
9 Maximum condensing pressures/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	1/5	[hp]
2 Displacement	6.23	[cm ³] (0.380 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	18.000	
3 Lubricant charge	435	[ml] (14.71 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO32	
4 Weight (with oil charge)	10.54	[kg] (23.24 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	213510533/213510738	
3 Start capacitor	88-108(180)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRA58020-6	
6 Start winding resistance	40.63	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	14.13	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	10.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFHBP Static		Evaporating temperature (Condensing temperature		5°C (41°F) 55°C (131°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]
1960	494	574	270	1.41	17.64	7.26	1.83	2.13

TEST CONDITIONS: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
555	140	163	140	0.86	4.87	3.96	1.00	1.16

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	315	79	92		0.00	2.49	0.00	0.00	0.00
-30	(-22)	440	111	129		0.00	3.57	0.00	0.00	0.00
-25	(-13)	570	144	167		0.00	4.65	0.00	0.00	0.00
-20	(- 4)	712	179	209		0.00	5.80	0.00	0.00	0.00
-15	(+ 5)	875	221	256		0.00	7.11	0.00	0.00	0.00
-10	(+14)	1067	269	313		0.00	8.67	0.00	0.00	0.00
-5	(+23)	1296	327	380		0.00	10.55	0.00	0.00	0.00
0	(+32)	1570	396	460		0.00	12.84	0.00	0.00	0.00
+5	(+41)	1897	478	556		0.00	15.62	0.00	0.00	0.00
+10	(+50)	2286	576	670		0.00	18.96	0.00	0.00	0.00
+15	(+59)	2743	691	804		0.00	22.97	0.00	0.00	0.00

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	263	66	77		0.00	2.30	0.00	0.00	0.00
-30	(-22)	392	99	115		0.00	3.45	0.00	0.00	0.00
-25	(-13)	525	132	154		0.00	4.62	0.00	0.00	0.00
-20	(- 4)	668	168	196		0.00	5.88	0.00	0.00	0.00
-15	(+ 5)	830	209	243		0.00	7.32	0.00	0.00	0.00
-10	(+14)	1020	257	299		0.00	9.02	0.00	0.00	0.00
-5	(+23)	1245	314	365		0.00	11.06	0.00	0.00	0.00
0	(+32)	1513	381	443		0.00	13.52	0.00	0.00	0.00
+5	(+41)	1832	462	537		0.00	16.50	0.00	0.00	0.00
+10	(+50)	2212	557	648		0.00	20.06	0.00	0.00	0.00
+15	(+59)	2658	670	779		0.00	24.29	0.00	0.00	0.00

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	237	60	70		0.00	2.31	0.00	0.00	0.00
-30	(-22)	361	91	106		0.00	3.47	0.00	0.00	0.00
-25	(-13)	486	123	143		0.00	4.67	0.00	0.00	0.00
-20	(- 4)	621	156	182		0.00	5.98	0.00	0.00	0.00
-15	(+ 5)	773	195	226		0.00	7.49	0.00	0.00	0.00
-10	(+14)	950	239	278		0.00	9.28	0.00	0.00	0.00
-5	(+23)	1161	293	340		0.00	11.42	0.00	0.00	0.00
0	(+32)	1414	356	414		0.00	14.01	0.00	0.00	0.00
+5	(+41)	1716	433	503		0.00	17.12	0.00	0.00	0.00
+10	(+50)	2077	523	608		0.00	20.84	0.00	0.00	0.00
+15	(+59)	2503	631	733		0.00	25.24	0.00	0.00	0.00

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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 plated steel		
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 plated steel		
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 plated steel		
3.3.2 Shape	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		