

COMPRESSOR DEFINITION

Designation	F F6BKW
Nominal Voltage/Frequency	115 V 60 Hz
Engineering Number	513209312

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	Blend		
3 Nominal voltage and frequency	115 / 60	[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	-	103 to 135 V
8.2 LBP (43°C Ambient temperature)	Static	-	103 to 135 V
8.3 HBP (32°C Ambient temperature)	Fan	-	103 to 135 V
8.4 HBP (43°C Ambient temperature)	Fan	-	103 to 135 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	335	[ml] (11.33 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO32	
4 Weight (with oil charge)	10.6	[kg] (23.37 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	115 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516060/213516124	
3 Start capacitor	233-280(115)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRP40AIN-5590	
6 Start winding resistance	10.39	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.60	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	20.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAEHBP32 Static		Evaporating temperature (Condensing temperature)		7.2°C (44.96°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]	
2340	590	686	319	3.20	17.52	7.34	1.85	2.15	

TEST CONDITIONS: @115V60Hz			ASHRAELBP32 Static		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]	
655	165	192	168	2.05	4.79	3.90	0.98	1.14	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	360	91	105	124	1.79	2.62	2.91	0.73	0.85
-30	(-22)	463	117	136	144	1.89	3.39	3.25	0.82	0.95
-25	(-13)	600	151	176	165	2.01	4.40	3.66	0.92	1.07
-20	(- 4)	773	195	226	187	2.15	5.66	4.14	1.04	1.21
-15	(+ 5)	981	247	287	210	2.31	7.20	4.66	1.18	1.37
-10	(+14)	1225	309	359	234	2.48	9.02	5.23	1.32	1.53
-5	(+23)	1506	380	441	259	2.68	11.14	5.82	1.47	1.70
0	(+32)	1825	460	535	284	2.88	13.56	6.42	1.62	1.88
+5	(+41)	2183	550	640	311	3.10	16.31	7.03	1.77	2.06
+10	(+50)	2580	650	756	339	3.32	19.39	7.64	1.92	2.24
+15	(+59)	3017	760	884	367	3.55	22.81	8.22	2.07	2.41

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	360	91	105	124	1.79	2.62	2.91	0.73	0.85
-30	(-22)	463	117	136	144	1.89	3.39	3.25	0.82	0.95
-25	(-13)	600	151	176	165	2.01	4.40	3.66	0.92	1.07
-20	(- 4)	773	195	226	187	2.15	5.67	4.14	1.04	1.21
-15	(+ 5)	981	247	287	210	2.31	7.20	4.66	1.18	1.37
-10	(+14)	1225	309	359	234	2.48	9.03	5.23	1.32	1.53
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+10	(+50)	2580	650	756	339	3.32	19.39	7.64	1.92	2.24
+15	(+59)	3017	760	884	367	3.55	22.81	8.22	2.07	2.41

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	360	91	105	124	1.79	2.62	2.91	0.73	0.85
-30	(-22)	463	117	136	144	1.89	3.39	3.25	0.82	0.95
-25	(-13)	600	151	176	165	2.01	4.40	3.66	0.92	1.07
-20	(- 4)	773	195	226	187	2.15	5.67	4.14	1.04	1.21
-15	(+ 5)	981	247	287	210	2.31	7.21	4.66	1.18	1.37
-10	(+14)	1225	309	359	234	2.48	9.03	5.23	1.32	1.53
-5	(+23)	1506	380	441	259	2.68	11.14	5.82	1.47	1.70
0	(+32)	1825	460	535	284	2.88	13.57	6.42	1.62	1.88
+5	(+41)	2183	550	640	311	3.10	16.32	7.03	1.77	2.06
+10	(+50)	2580	650	756	339	3.32	19.39	7.64	1.92	2.24
+15	(+59)	3017	760	884	367	3.55	22.82	8.22	2.07	2.41

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		
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)	6.5 +0.09/-0.09	[mm]	(0.256" +0.004"/-0.004")
3.5 Connector sealing	Rubber Plugs		