

COMPRESSOR DEFINITION

Designation	F F11,5BK
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513200109

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	Blend		
3 Nominal voltage and frequency	115-127 / 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)	Fan	-	103 to 140 V
8.2 LBP (43°C Ambient temperature)	Fan	-	103 to 140 V
8.3 HBP (32°C Ambient temperature)	Fan	-	103 to 140 V
8.4 HBP (43°C Ambient temperature)	Fan	-	103 to 140 V
9 Maximum condensing temperature			
9.1 Operating	14.5	[kgf/cm ²] (206 psig)	/ °C - °F
9.2 Peak	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	11.14	[cm ³] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
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)	11.4	[kg] (25.13 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	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516183/213516191	
3 Start capacitor	460-552(115)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRT20AKN-5590	
6 Start winding resistance	6.03	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.23	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	40.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	5.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	6.20	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAEHBP32 Fan		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]
4000	1008	1172	584	6.30	29.95	6.85	1.73	2.01

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]
1130	285	331	296	4.26	8.27	3.81	0.96	1.12

E - PERFORMANCE - CURVES

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)	909	229	266	276	3.93	6.62	3.29	0.83	0.96
-30 (-22)	999	252	293	273	4.03	7.30	3.75	0.94	1.10
-25 (-13)	1181	298	346	284	4.18	8.65	4.25	1.07	1.25
-20 (- 4)	1450	365	425	305	4.37	10.63	4.78	1.21	1.40
-15 (+ 5)	1800	454	527	336	4.61	13.22	5.33	1.34	1.56
-10 (+14)	2223	560	651	374	4.87	16.38	5.89	1.48	1.73
-5 (+23)	2715	684	796	419	5.16	20.09	6.44	1.62	1.89
0 (+32)	3269	824	958	468	5.47	24.30	6.97	1.76	2.04
+5 (+41)	3880	978	1137	520	5.79	28.99	7.48	1.89	2.19
+10 (+50)	4540	1144	1330	573	6.10	34.12	7.95	2.00	2.33
+15 (+59)	5245	1322	1537	626	6.42	39.66	8.37	2.11	2.45

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)	757	191	222	260	3.94	5.52	2.89	0.73	0.85
-30 (-22)	853	215	250	268	4.03	6.24	3.27	0.82	0.96
-25 (-13)	1039	262	304	287	4.19	7.61	3.70	0.93	1.08
-20 (- 4)	1309	330	384	317	4.41	9.60	4.16	1.05	1.22
-15 (+ 5)	1657	418	486	355	4.68	12.18	4.65	1.17	1.36
-10 (+14)	2077	524	609	400	5.00	15.31	5.15	1.30	1.51
-5 (+23)	2564	646	751	451	5.35	18.97	5.66	1.43	1.66
0 (+32)	3110	784	911	505	5.73	23.12	6.16	1.55	1.80
+5 (+41)	3711	935	1087	562	6.14	27.72	6.63	1.67	1.94
+10 (+50)	4359	1098	1277	618	6.56	32.76	7.08	1.78	2.07
+15 (+59)	5049	1272	1480	674	6.99	38.18	7.49	1.89	2.19

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)	598	151	175	224	3.96	4.36	2.67	0.67	0.78
-30	(-22)	701	177	205	244	4.05	5.13	2.96	0.75	0.87
-25	(-13)	892	225	261	276	4.22	6.54	3.30	0.83	0.97
-20	(- 4)	1165	294	341	316	4.46	8.55	3.69	0.93	1.08
-15	(+ 5)	1514	382	444	365	4.77	11.13	4.11	1.04	1.20
-10	(+14)	1933	487	566	420	5.14	14.25	4.55	1.15	1.33
-5	(+23)	2415	609	708	479	5.55	17.87	5.00	1.26	1.47
0	(+32)	2956	745	866	541	6.01	21.97	5.45	1.37	1.60
+5	(+41)	3548	894	1040	604	6.51	26.51	5.89	1.48	1.73
+10	(+50)	4185	1055	1226	667	7.03	31.46	6.31	1.59	1.85
+15	(+59)	4863	1225	1425	728	7.57	36.78	6.69	1.69	1.96

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		