COMPRESSOR DEFINITION

Designation	**F F7,5BKW**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513200814**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	-	103 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	-	103 to 140 V
8.3 HBP (32ºC Ambient temperature)	Fan	-	103 to 140 V
8.4 HBP (43ºC Ambient temperature)	Fan	-	103 to 140 V
9 Maximum condensing temperature			
9.1 Operating	14.5	[kgf/cm²] (206 psig)	/ ºC - ºF
9.2 Peak	18.2	[kgf/cm²] (259 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5+	[hp]
2 Displacement	6.92	[cm³] (0.422 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO32	
4 Weight (with oil charge)	10.73	[kg] (23.66 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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	213516060/213516124	
3 Start capacitor	189-227(110)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSP36ALK-5590	
6 Start winding resistance	10.35	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.65	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	25.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.30	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.90	[A] - Measured according to UL 984
11 Approval boards certification		

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]
2550	643	747	367	3.83	19.09	6.95	1.75	2.04

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]
735	185	215	192	2.53	5.38	3.83	0.97	1.12

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@115V60Hz**		**ASHRAE32** **Static**			(Condensing temperature **45ºC (+113ºF))**					
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)**	443	112	130	143	2.00	3.22	3.08	0.78	0.90
-30	**(-22)**	535	135	157	163	2.11	3.91	3.32	0.84	0.97
-25	**(-13)**	672	169	197	185	2.25	4.92	3.67	0.92	1.08
-20	**(- 4)**	852	215	250	208	2.41	6.25	4.10	1.03	1.20
-15	**(+ 5)**	1074	271	315	233	2.59	7.89	4.60	1.16	1.35
-10	**(+14)**	1337	337	392	259	2.80	9.85	5.14	1.29	1.51
-5	**(+23)**	1640	413	480	286	3.03	12.13	5.71	1.44	1.67
0	**(+32)**	1981	499	581	315	3.28	14.72	6.29	1.58	1.84
+5	**(+41)**	2360	595	692	345	3.55	17.63	6.86	1.73	2.01
+10	**(+50)**	2776	700	814	377	3.84	20.86	7.40	1.86	2.17
+15	**(+59)**	3228	813	946	409	4.15	24.40	7.89	1.99	2.31

TEST CONDITIONS: **@115V60Hz**		**ASHRAE32** **Static**			(Condensing temperature **55ºC (+131ºF))**					
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)**	443	112	130	143	2.00	3.22	3.08	0.78	0.90
-30	**(-22)**	535	135	157	163	2.11	3.91	3.32	0.84	0.97
-25	**(-13)**	672	169	197	185	2.25	4.92	3.67	0.92	1.08
-20	**(- 4)**	852	215	250	208	2.41	6.25	4.10	1.03	1.20
-15	**(+ 5)**	1074	271	315	233	2.59	7.89	4.60	1.16	1.35
-10	**(+14)**	1337	337	392	259	2.80	9.85	5.14	1.29	1.51
-5	**(+23)**	1640	413	480	286	3.03	12.13	5.71	1.44	1.67
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+5	**(+41)**	2360	595	692	345	3.55	17.64	6.86	1.73	2.01
+10	**(+50)**	2776	700	814	377	3.84	20.86	7.40	1.86	2.17
+15	**(+59)**	3228	813	946	409	4.15	24.41	7.89	1.99	2.31

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**

@115V60Hz **Static**

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)**	443	112	130	143	2.00	3.23	3.08	0.78	0.90
-30	**(-22)**	535	135	157	163	2.11	3.91	3.32	0.84	0.97
-25	**(-13)**	672	169	197	185	2.25	4.92	3.67	0.92	1.08
-20	**(- 4)**	852	215	250	208	2.41	6.25	4.10	1.03	1.20
-15	**(+ 5)**	1074	271	315	233	2.59	7.89	4.60	1.16	1.35
-10	**(+14)**	1337	337	392	259	2.80	9.85	5.14	1.29	1.51
-5	**(+23)**	1640	413	480	286	3.03	12.13	5.71	1.44	1.67
0	**(+32)**	1981	499	581	315	3.28	14.73	6.29	1.58	1.84
+5	**(+41)**	2360	595	692	345	3.55	17.64	6.86	1.73	2.01
+10	**(+50)**	2776	700	814	377	3.84	20.87	7.40	1.86	2.17
+15	**(+59)**	3228	813	946	409	4.15	24.41	7.89	1.99	2.31

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