COMPRESSOR DEFINITION

Designation	**F FI12BKW**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**513200103**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Fan	-	103 to 127 V
8.2 LBP (43ºC Ambient temperature)	Fan	-	103 to 127 V
8.3 HBP (32ºC Ambient temperature)	Fan	-	103 to 127 V
8.4 HBP (43ºC Ambient temperature)	Fan	-	103 to 127 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	1/3+	[hp]
2 Displacement	11.14	[cm³] (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)	11.49	[kg] (25.33 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 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 25ºC (77ºF)] +/- 8%
7 Run winding resistance	1.23	[Ω at 25ºC (77ºF)] +/- 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 - IRAM - 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]
4600	1159	1348	632	6.49	34.44	7.28	1.83	2.13

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]
1350	340	396	325	4.20	9.88	4.15	1.05	1.22

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **Fan** — (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)**	1019	257	299	273	5.10	7.42	3.76	0.95	1.10
-30	**(-22)**	1157	292	339	294	5.15	8.46	4.00	1.01	1.17
-25	**(-13)**	1408	355	412	321	5.25	10.31	4.41	1.11	1.29
-20	**(- 4)**	1761	444	516	353	5.38	12.92	4.96	1.25	1.45
-15	**(+ 5)**	2209	557	647	391	5.56	16.23	5.59	1.41	1.64
-10	**(+14)**	2743	691	804	434	5.78	20.22	6.28	1.58	1.84
-5	**(+23)**	3354	845	983	481	6.05	24.81	6.97	1.76	2.04
0	**(+32)**	4033	1016	1182	532	6.36	29.96	7.63	1.92	2.24
+5	**(+41)**	4771	1202	1398	586	6.73	35.64	8.22	2.07	2.41
+10	**(+50)**	5560	1401	1629	644	7.14	41.77	8.69	2.19	2.55
+15	**(+59)**	6390	1610	1873	705	7.61	48.32	9.01	2.27	2.64

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **Fan** — (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)**	965	243	283	279	5.07	7.03	3.41	0.86	1.00
-30	**(-22)**	1058	267	310	301	5.10	7.73	3.56	0.90	1.04
-25	**(-13)**	1271	320	373	329	5.19	9.31	3.90	0.98	1.14
-20	**(- 4)**	1598	403	468	364	5.32	11.72	4.39	1.11	1.29
-15	**(+ 5)**	2028	511	594	403	5.50	14.90	4.99	1.26	1.46
-10	**(+14)**	2553	643	748	448	5.74	18.81	5.65	1.42	1.66
-5	**(+23)**	3164	797	927	498	6.03	23.41	6.34	1.60	1.86
0	**(+32)**	3853	971	1129	551	6.38	28.64	7.02	1.77	2.06
+5	**(+41)**	4611	1162	1351	609	6.79	34.45	7.64	1.92	2.24
+10	**(+50)**	5428	1368	1591	670	7.26	40.79	8.17	2.06	2.39
+15	**(+59)**	6297	1587	1845	735	7.78	47.62	8.56	2.16	2.51

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@115V60Hz **Fan**

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)**	829	209	243	284	4.99	6.04	2.90	0.73	0.85
-30	**(-22)**	882	222	259	308	5.04	6.45	2.96	0.75	0.87
-25	**(-13)**	1066	269	312	339	5.13	7.81	3.24	0.82	0.95
-20	**(- 4)**	1372	346	402	376	5.29	10.06	3.68	0.93	1.08
-15	**(+ 5)**	1791	451	525	418	5.51	13.16	4.25	1.07	1.25
-10	**(+14)**	2315	583	678	466	5.79	17.06	4.90	1.24	1.44
-5	**(+23)**	2934	739	860	518	6.14	21.71	5.60	1.41	1.64
0	**(+32)**	3640	917	1067	575	6.54	27.06	6.31	1.59	1.85
+5	**(+41)**	4424	1115	1296	637	7.02	33.06	6.97	1.76	2.04
+10	**(+50)**	5277	1330	1546	702	7.57	39.67	7.56	1.91	2.22
+15	**(+59)**	6191	1560	1814	771	8.18	46.82	8.04	2.03	2.35

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper plated steel		
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 plated steel		
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 plated steel		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	4.77 +0.17/-0.17	[mm]	(0.188" +0.007"/-0.007")
3.5 Connector sealing	Rubber Plugs		