COMPRESSOR DEFINITION

Designation	**F FI7,5HAKW**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**513200836**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Low-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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/Fan	-	98 to 135 V
8.2 LBP (43ºC Ambient temperature)	Static/Fan	-	98 to 135 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm²] (202 psig)	/ ºC - ºF
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	6.76	[cm³] (0.413 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	17.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	10.82	[kg] (23.85 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	213516060/213516124	
3 Start capacitor	189-227(100)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762PFBZZ-53	
6 Start winding resistance	11.95	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.65	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	23.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.95	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	TUV - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			**ASHRAELBP32**		Evaporating temperature		**-23.3°C (-9.94°F)**	
@115V60Hz			**Static**		(Condensing temperature		**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]
765	193	224	166	2.21	4.35	4.60	1.16	1.35

E - PERFORMANCE - CURVES

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **45ºC (+113ºF))**			
@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)**	395	100	116	114	1.96	2.24	3.45	0.87	1.01
-30	**(-22)**	566	143	166	133	2.04	3.21	4.23	1.07	1.24
-25	**(-13)**	762	192	223	155	2.16	4.33	4.92	1.24	1.44
-20	**(- 4)**	1000	252	293	180	2.31	5.69	5.58	1.41	1.63
-15	**(+ 5)**	1293	326	379	205	2.48	7.38	6.29	1.59	1.84
-10	**(+14)**	1656	417	485	232	2.67	9.49	7.13	1.80	2.09
-5	**(+23)**	2102	530	616	257	2.85	12.09	8.17	2.06	2.39

TEST CONDITIONS:		**ASHRAE32**					(Condensing temperature **55ºC (+131ºF))**			
@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)**	329	83	96	112	1.94	1.86	2.93	0.74	0.86
-30	**(-22)**	493	124	145	132	2.03	2.80	3.71	0.94	1.09
-25	**(-13)**	682	172	200	156	2.16	3.87	4.36	1.10	1.28
-20	**(- 4)**	911	229	267	184	2.33	5.18	4.96	1.25	1.45
-15	**(+ 5)**	1193	301	349	214	2.54	6.81	5.57	1.40	1.63
-10	**(+14)**	1542	389	452	246	2.77	8.84	6.26	1.58	1.84
-5	**(+23)**	1974	497	578	277	3.02	11.36	7.12	1.79	2.09

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)**	242	61	71	105	1.92	1.37	2.30	0.58	0.67
-30	**(-22)**	399	101	117	126	2.00	2.26	3.13	0.79	0.92
-25	**(-13)**	579	146	170	153	2.14	3.29	3.79	0.96	1.11
-20	**(- 4)**	797	201	234	183	2.33	4.54	4.36	1.10	1.28
-15	**(+ 5)**	1067	269	313	218	2.57	6.09	4.90	1.24	1.44
-10	**(+14)**	1403	354	411	254	2.84	8.04	5.50	1.39	1.61
-5	**(+23)**	1820	459	533	292	3.13	10.47	6.22	1.57	1.82

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		