COMPRESSOR DEFINITION

Designation	**F FI8,5HAKW**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513200567**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 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	7.15	[cm³] (0.436 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	18.000	
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)	11.43	[kg] (25.20 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	213516094/213516132	
3 Start capacitor	243-292(100)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762NFBZZ-53	
6 Start winding resistance	8.10	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.35	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	27.50	[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)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - IRAM - TUV - UKCA - UL	

D - PERFORMANCE - CHECK POINT DATA

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]
830	209	243	177	2.31	4.72	4.70	1.18	1.38

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)**	450	113	132	118	2.00	2.55	3.79	0.96	1.11
-30	**(-22)**	615	155	180	141	2.11	3.49	4.39	1.11	1.29
-25	**(-13)**	834	210	245	164	2.24	4.74	5.09	1.28	1.49
-20	**(- 4)**	1106	279	324	189	2.40	6.29	5.87	1.48	1.72
-15	**(+ 5)**	1426	359	418	214	2.57	8.14	6.68	1.68	1.96
-10	**(+14)**	1792	452	525	240	2.76	10.27	7.49	1.89	2.19
-5	**(+23)**	2201	555	645	266	2.95	12.66	8.26	2.08	2.42

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)**	357	90	105	115	1.98	2.02	3.13	0.79	0.92
-30	**(-22)**	517	130	152	140	2.10	2.93	3.71	0.94	1.09
-25	**(-13)**	731	184	214	167	2.25	4.15	4.38	1.10	1.28
-20	**(- 4)**	997	251	292	196	2.43	5.68	5.09	1.28	1.49
-15	**(+ 5)**	1312	331	384	226	2.64	7.49	5.81	1.46	1.70
-10	**(+14)**	1672	421	490	257	2.87	9.58	6.50	1.64	1.91
-5	**(+23)**	2075	523	608	291	3.12	11.94	7.13	1.80	2.09

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

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)**	262	66	77	108	1.96	1.48	2.44	0.61	0.71
-30	**(-22)**	413	104	121	135	2.08	2.34	3.06	0.77	0.90
-25	**(-13)**	618	156	181	165	2.25	3.51	3.73	0.94	1.09
-20	**(- 4)**	875	220	256	197	2.46	4.98	4.42	1.11	1.30
-15	**(+ 5)**	1180	297	346	232	2.70	6.74	5.09	1.28	1.49
-10	**(+14)**	1531	386	449	269	2.98	8.77	5.71	1.44	1.67
-5	**(+23)**	1924	485	564	309	3.28	11.07	6.23	1.57	1.83

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		