

COMPRESSOR DEFINITION

Designation	F F7,5BK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513206240

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	Blend		
3 Nominal voltage and frequency	220-240 / 50	[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		
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)	Static	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 255 V	-
8.3 HBP (32°C Ambient temperature)	Fan	198 to 255 V	-
8.4 HBP (43°C Ambient temperature)	Fan	198 to 255 V	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	14.5	[kgf/cm ²] (206 psig)	/ °C - °F
9.2 Peak (gauge)	18.2	[kgf/cm ²] (259 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5+	[hp]
2 Displacement	6.92	[cm ³] (0.422 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	435	[ml] (14.71 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO32	
4 Weight (with oil charge)	10.5	[kg] (23.15 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213510606	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MRA58094-6	
6 Start winding resistance	39.14	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.41	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	10.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.60	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFHBP Static		Evaporating temperature (Condensing temperature		5°C (41°F) 55°C (131°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]
2135	538	626	292	1.50	19.21	7.31	1.84	2.14

TEST CONDITIONS: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
627	158	184	158	0.97	5.50	3.97	1.00	1.16

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	367	92	107		0.00	2.91	0.00	0.00	0.00
-30	(-22)	495	125	145		0.00	4.00	0.00	0.00	0.00
-25	(-13)	644	162	189		0.00	5.23	0.00	0.00	0.00
-20	(- 4)	818	206	240		0.00	6.64	0.00	0.00	0.00
-15	(+ 5)	1022	257	299		0.00	8.30	0.00	0.00	0.00
-10	(+14)	1260	318	369		0.00	10.25	0.00	0.00	0.00
-5	(+23)	1539	388	451		0.00	12.55	0.00	0.00	0.00
0	(+32)	1862	469	546		0.00	15.25	0.00	0.00	0.00
+5	(+41)	2234	563	655		0.00	18.41	0.00	0.00	0.00
+10	(+50)	2661	671	780		0.00	22.08	0.00	0.00	0.00
+15	(+59)	3147	793	922		0.00	26.32	0.00	0.00	0.00

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	336	85	98		0.00	2.94	0.00	0.00	0.00
-30	(-22)	459	116	135		0.00	4.04	0.00	0.00	0.00
-25	(-13)	600	151	176		0.00	5.27	0.00	0.00	0.00
-20	(- 4)	762	192	223		0.00	6.71	0.00	0.00	0.00
-15	(+ 5)	952	240	279		0.00	8.39	0.00	0.00	0.00
-10	(+14)	1173	296	344		0.00	10.38	0.00	0.00	0.00
-5	(+23)	1432	361	420		0.00	12.72	0.00	0.00	0.00
0	(+32)	1732	436	507		0.00	15.48	0.00	0.00	0.00
+5	(+41)	2078	524	609		0.00	18.70	0.00	0.00	0.00
+10	(+50)	2476	624	725		0.00	22.45	0.00	0.00	0.00
+15	(+59)	2930	738	858		0.00	26.77	0.00	0.00	0.00

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static			(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)	282	71	83		0.00	2.73	0.00	0.00	0.00
-30	(-22)	409	103	120		0.00	3.94	0.00	0.00	0.00
-25	(-13)	550	139	161		0.00	5.30	0.00	0.00	0.00
-20	(- 4)	710	179	208		0.00	6.86	0.00	0.00	0.00
-15	(+ 5)	895	226	262		0.00	8.68	0.00	0.00	0.00
-10	(+14)	1108	279	325		0.00	10.81	0.00	0.00	0.00
-5	(+23)	1355	342	397		0.00	13.31	0.00	0.00	0.00
0	(+32)	1641	414	481		0.00	16.23	0.00	0.00	0.00
+5	(+41)	1970	497	577		0.00	19.63	0.00	0.00	0.00
+10	(+50)	2348	592	688		0.00	23.55	0.00	0.00	0.00
+15	(+59)	2779	700	814		0.00	28.06	0.00	0.00	0.00

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		