

COMPRESSOR DEFINITION

Designation	EM T56CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513306117

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°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)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	9.04	[cm ³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.65	[kg] (16.87 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	MI2021X	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AE18BQ10	
6 Start winding resistance	24.75	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	21.55	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.81	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	291	73	85	78	0.67	0.91	3.69	0.93	1.08	
-30 (-22)	386	97	113	94	0.71	1.21	4.14	1.04	1.21	
-25 (-13)	510	129	150	110	0.75	1.60	4.66	1.17	1.36	
-20 (- 4)	664	167	194	127	0.79	2.09	5.24	1.32	1.54	
-15 (+ 5)	847	213	248	143	0.84	2.67	5.90	1.49	1.73	
-10 (+14)	1061	267	311	159	0.88	3.35	6.64	1.67	1.94	

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	262	66	77	80	0.68	0.82	3.29	0.83	0.96	
-30 (-22)	362	91	106	95	0.72	1.13	3.81	0.96	1.12	
-25 (-13)	487	123	143	112	0.76	1.53	4.33	1.09	1.27	
-20 (- 4)	639	161	187	130	0.81	2.01	4.88	1.23	1.43	
-15 (+ 5)	817	206	240	150	0.86	2.57	5.44	1.37	1.59	
-10 (+14)	1023	258	300	170	0.92	3.23	6.03	1.52	1.77	

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	233	59	68	79	0.67	0.73	2.94	0.74	0.86	
-30 (-22)	336	85	98	96	0.72	1.05	3.48	0.88	1.02	
-25 (-13)	461	116	135	116	0.76	1.45	3.98	1.00	1.17	
-20 (- 4)	609	153	178	137	0.82	1.91	4.44	1.12	1.30	
-15 (+ 5)	781	197	229	161	0.88	2.46	4.86	1.22	1.42	
-10 (+14)	977	246	286	186	0.96	3.08	5.25	1.32	1.54	

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42° up + 45° to Back		
3.2 DISCHARGE	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted parallel BP+24°to Back		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		