

COMPRESSOR DEFINITION

Designation	EM T46CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	891EA57

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-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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 254 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 254 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	7.96	[cm ³] (0.486 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	17.600	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO7	
4 Weight (with oil charge)	7	[kg] (15.43 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	MSDA3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-153	
6 Start winding resistance	30.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	25.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.72	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

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]
348	88	102	100	0.71	1.33	3.48	0.88	1.02

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF Static				(Condensing temperature 35°C (+95°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)	270	68	79	73	0.66	0.86	3.68	0.93	1.08
-30	(-22)	357	90	105	82	0.67	1.15	4.38	1.10	1.28
-25	(-13)	464	117	136	91	0.69	1.49	5.15	1.30	1.51
-20	(- 4)	592	149	174	99	0.71	1.90	5.99	1.51	1.76
-15	(+ 5)	744	187	218	108	0.74	2.39	6.88	1.73	2.02
-10	(+14)	922	232	270	118	0.77	2.97	7.82	1.97	2.29
-5	(+23)	1129	285	331	128	0.80	3.65	8.79	2.21	2.58

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)	232	58	68	76	0.66	0.81	3.07	0.77	0.90
-30	(-22)	312	79	91	86	0.68	1.08	3.64	0.92	1.07
-25	(-13)	407	103	119	95	0.70	1.42	4.27	1.08	1.25
-20	(- 4)	522	132	153	105	0.73	1.82	4.94	1.24	1.45
-15	(+ 5)	658	166	193	116	0.76	2.30	5.64	1.42	1.65
-10	(+14)	817	206	239	128	0.80	2.86	6.37	1.61	1.87
-5	(+23)	1003	253	294	141	0.84	3.52	7.12	1.79	2.09

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)	190	48	56	77	0.66	0.72	2.49	0.63	0.73
-30	(-22)	262	66	77	88	0.68	1.00	2.97	0.75	0.87
-25	(-13)	347	87	102	99	0.71	1.32	3.48	0.88	1.02
-20	(- 4)	448	113	131	111	0.74	1.71	4.02	1.01	1.18
-15	(+ 5)	568	143	166	124	0.78	2.18	4.57	1.15	1.34
-10	(+14)	709	179	208	138	0.83	2.72	5.13	1.29	1.50
-5	(+23)	874	220	256	154	0.88	3.36	5.68	1.43	1.66

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)	150	38	44	76	0.66	0.63	1.98	0.50	0.58
-30	(-22)	213	54	62	88	0.69	0.90	2.40	0.60	0.70
-25	(-13)	288	73	84	101	0.72	1.22	2.83	0.71	0.83
-20	(- 4)	376	95	110	115	0.76	1.59	3.27	0.82	0.96
-15	(+ 5)	480	121	141	130	0.80	2.04	3.70	0.93	1.08
-10	(+14)	603	152	177	147	0.85	2.57	4.12	1.04	1.21
-5	(+23)	747	188	219	166	0.90	3.19	4.51	1.14	1.32

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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°		
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	Straight		
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 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		