

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	RSCR		
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	2.5(450)	[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)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[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	94	0.54	1.33	3.69	0.93	1.08

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	71	0.48	0.86	3.81	0.96	1.12
-30	(-22)	357	90	105	79	0.50	1.15	4.56	1.15	1.33
-25	(-13)	464	117	136	87	0.52	1.49	5.36	1.35	1.57
-20	(- 4)	592	149	174	95	0.54	1.90	6.23	1.57	1.83
-15	(+ 5)	744	187	218	104	0.57	2.39	7.15	1.80	2.10
-10	(+14)	922	232	270	113	0.60	2.97	8.13	2.05	2.38
-5	(+23)	1129	285	331	123	0.64	3.65	9.16	2.31	2.68

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	72	0.49	0.81	3.21	0.81	0.94
-30	(-22)	312	79	91	81	0.51	1.08	3.82	0.96	1.12
-25	(-13)	407	103	119	91	0.54	1.42	4.48	1.13	1.31
-20	(- 4)	522	132	153	101	0.57	1.82	5.17	1.30	1.52
-15	(+ 5)	658	166	193	111	0.60	2.30	5.90	1.49	1.73
-10	(+14)	817	206	239	123	0.64	2.86	6.66	1.68	1.95
-5	(+23)	1003	253	294	135	0.68	3.52	7.45	1.88	2.18

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	73	0.49	0.72	2.62	0.66	0.77
-30	(-22)	262	66	77	83	0.52	1.00	3.14	0.79	0.92
-25	(-13)	347	87	102	94	0.55	1.32	3.68	0.93	1.08
-20	(- 4)	448	113	131	106	0.58	1.71	4.24	1.07	1.24
-15	(+ 5)	568	143	166	118	0.62	2.18	4.81	1.21	1.41
-10	(+14)	709	179	208	132	0.67	2.72	5.38	1.36	1.58
-5	(+23)	874	220	256	146	0.73	3.36	5.97	1.50	1.75

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	72	0.48	0.63	2.07	0.52	0.61
-30	(-22)	213	54	62	84	0.51	0.90	2.53	0.64	0.74
-25	(-13)	288	73	84	96	0.55	1.22	2.99	0.75	0.88
-20	(- 4)	376	95	110	110	0.59	1.59	3.44	0.87	1.01
-15	(+ 5)	480	121	141	124	0.64	2.04	3.89	0.98	1.14
-10	(+14)	603	152	177	140	0.70	2.57	4.32	1.09	1.27
-5	(+23)	747	188	219	157	0.77	3.19	4.74	1.19	1.39

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		