

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	V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0225/07	
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			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]
464	117	136	105	0.22	1.46	4.40	1.11	1.29

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	275	69	81	73	0.66	0.86	3.75	0.94	1.10
-30	(-22)	365	92	107	82	0.67	1.14	4.45	1.12	1.30
-25	(-13)	474	120	139	91	0.69	1.49	5.21	1.31	1.53
-20	(- 4)	605	152	177	100	0.71	1.90	6.04	1.52	1.77
-15	(+ 5)	760	191	223	109	0.74	2.39	6.94	1.75	2.03
-10	(+14)	942	237	276	119	0.77	2.97	7.90	1.99	2.31
-5	(+23)	1154	291	338	129	0.80	3.65	8.92	2.25	2.61

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)	256	65	75	76	0.66	0.80	3.39	0.85	0.99
-30	(-22)	345	87	101	86	0.68	1.08	4.02	1.01	1.18
-25	(-13)	451	114	132	96	0.70	1.42	4.70	1.18	1.38
-20	(- 4)	578	146	169	107	0.73	1.82	5.43	1.37	1.59
-15	(+ 5)	729	184	214	117	0.76	2.30	6.20	1.56	1.82
-10	(+14)	906	228	266	129	0.80	2.86	7.02	1.77	2.06
-5	(+23)	1112	280	326	141	0.84	3.52	7.89	1.99	2.31

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)	229	58	67	77	0.66	0.72	3.00	0.76	0.88
-30	(-22)	316	80	93	88	0.68	0.99	3.58	0.90	1.05
-25	(-13)	420	106	123	100	0.71	1.32	4.19	1.06	1.23
-20	(- 4)	543	137	159	112	0.74	1.71	4.83	1.22	1.42
-15	(+ 5)	689	174	202	125	0.78	2.17	5.50	1.39	1.61
-10	(+14)	861	217	252	139	0.83	2.72	6.19	1.56	1.81
-5	(+23)	1062	267	311	154	0.88	3.36	6.91	1.74	2.03

E - PERFORMANCE - CURVES

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)	202	51	59	76	0.66	0.63	2.66	0.67	0.78
-30	(-22)	286	72	84	89	0.69	0.90	3.20	0.81	0.94
-25	(-13)	387	97	113	103	0.72	1.21	3.76	0.95	1.10
-20	(- 4)	506	128	148	117	0.76	1.59	4.32	1.09	1.27
-15	(+ 5)	648	163	190	133	0.80	2.04	4.90	1.23	1.43
-10	(+14)	814	205	239	149	0.85	2.57	5.48	1.38	1.61
-5	(+23)	1008	254	295	166	0.90	3.19	6.07	1.53	1.78

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		