

COMPRESSOR DEFINITION

Designation	EM T32CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	891CA78

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	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
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)	7.3	[kg] (16.09 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	2019	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	AD37FN10	
6 Start winding resistance	32.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	31.50	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.59	[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]	
330	83	97	76	0.32	1.04	4.34	1.09	1.27	

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)	200	50	59	58	0.00	0.63	3.42	0.86	1.00
-30	(-22)	266	67	78	64	0.00	0.83	4.15	1.05	1.22
-25	(-13)	346	87	101	70	0.00	1.09	4.95	1.25	1.45
-20	(- 4)	442	111	130	76	0.00	1.39	5.80	1.46	1.70
-15	(+ 5)	556	140	163	83	0.00	1.75	6.69	1.69	1.96
-10	(+14)	689	174	202	90	0.00	2.17	7.61	1.92	2.23
-5	(+23)	843	212	247	99	0.00	2.66	8.55	2.15	2.51

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)	180	45	53	59	0.00	0.56	3.07	0.77	0.90
-30	(-22)	247	62	72	66	0.00	0.77	3.75	0.94	1.10
-25	(-13)	328	83	96	73	0.00	1.03	4.49	1.13	1.32
-20	(- 4)	425	107	124	80	0.00	1.33	5.28	1.33	1.55
-15	(+ 5)	538	136	158	88	0.00	1.69	6.11	1.54	1.79
-10	(+14)	670	169	196	96	0.00	2.11	6.96	1.75	2.04
-5	(+23)	822	207	241	105	0.00	2.60	7.82	1.97	2.29

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)	156	39	46	58	0.00	0.49	2.72	0.69	0.80
-30	(-22)	223	56	65	66	0.00	0.70	3.36	0.85	0.98
-25	(-13)	303	76	89	75	0.00	0.95	4.06	1.02	1.19
-20	(- 4)	397	100	116	83	0.00	1.25	4.80	1.21	1.41
-15	(+ 5)	508	128	149	91	0.00	1.60	5.57	1.40	1.63
-10	(+14)	637	161	187	100	0.00	2.01	6.37	1.61	1.87
-5	(+23)	786	198	230	109	0.00	2.49	7.17	1.81	2.10

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)	129	33	38	58	0.00	0.41	2.20	0.56	0.65
-30	(-22)	193	49	57	68	0.00	0.61	2.82	0.71	0.83
-25	(-13)	270	68	79	77	0.00	0.85	3.49	0.88	1.02
-20	(- 4)	360	91	106	86	0.00	1.13	4.20	1.06	1.23
-15	(+ 5)	467	118	137	95	0.00	1.47	4.94	1.25	1.45
-10	(+14)	591	149	173	104	0.00	1.86	5.70	1.44	1.67
-5	(+23)	734	185	215	114	0.00	2.32	6.46	1.63	1.89

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	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted parallel to Base Plate		
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		