

COMPRESSOR DEFINITION

Designation	EM T22HLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	191CA47

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
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 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)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	3.00	[cm ³] (0.183 cu.in)
2.1 Bore	19.000	
2.2 Stroke	5.300	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight(with oil charge)	7.1	[kg] (15.65 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		
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection (external)	T0221-26	
6 Start winding resistance	34.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	36.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.44	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	IMQ	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Static		Evaporating temperature	-23.3°C (-9.94°F)		
					(Condensing temperature	54.4°C (129.92°F)		
Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
257	65	75	63	0.44	1.46	4.07	1.03	1.19

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 35°C (+95°F))				
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	154	39	45	45	0.39	0.87	3.41	0.86	1.00
-30 (-22)	215	54	63	51	0.40	1.22	4.23	1.07	1.24
-25 (-13)	288	73	85	57	0.42	1.64	5.07	1.28	1.49
-20 (- 4)	377	95	111	63	0.44	2.15	5.97	1.50	1.75
-15 (+ 5)	486	122	142	70	0.46	2.77	6.97	1.76	2.04
-10 (+14)	619	156	181	76	0.48	3.55	8.10	2.04	2.37

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 45°C (+113°F))				
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	127	32	37	45	0.39	0.72	2.86	0.72	0.84
-30 (-22)	190	48	56	52	0.41	1.08	3.67	0.93	1.08
-25 (-13)	263	66	77	59	0.43	1.49	4.44	1.12	1.30
-20 (- 4)	349	88	102	67	0.45	1.98	5.21	1.31	1.53
-15 (+ 5)	453	114	133	75	0.48	2.58	6.02	1.52	1.76
-10 (+14)	578	146	169	84	0.51	3.31	6.90	1.74	2.02

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 55°C (+131°F))				
Evaporating temperature	Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
	+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C (°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35 (-31)	94	24	28	42	0.38	0.53	2.22	0.56	0.65
-30 (-22)	158	40	46	51	0.40	0.90	3.07	0.77	0.90
-25 (-13)	230	58	67	60	0.43	1.31	3.82	0.96	1.12
-20 (- 4)	313	79	92	70	0.46	1.78	4.52	1.14	1.32
-15 (+ 5)	412	104	121	80	0.49	2.35	5.19	1.31	1.52
-10 (+14)	530	133	155	90	0.53	3.03	5.88	1.48	1.72

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard
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°
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 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