

COMPRESSOR DEFINITION

Designation	EM T32HLP
Nominal Voltage/Frequency	200-240 V 50 Hz
Engineering Number	513300901

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	200-240 / 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	165 to 264 V	-
8.2 LBP (43°C Ambient temperature)	Static	165 to 264 V	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm ²] (202 psig)	/ °C - °F
9.2 Peak	15.9	[kgf/cm ²] (226 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/7	[hp]
2 Displacement	3.67	[cm ³] (0.224 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	10.600	
3 Lubricant charge	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	6.7	[kg] (14.77 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	200-240 V 50 Hz ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	QP2-20A	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM197NFBYY-53	
6 Start winding resistance	13.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	26.97	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.95	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC	

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 (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
348	88	102	85	0.67	1.98	4.09	1.03	1.20

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	212	53	62	64	1.02	1.20	3.46	0.87	1.01
-30	(-22)	300	76	88	75	1.30	1.70	4.42	1.11	1.30
-25	(-13)	392	99	115	80	1.52	2.23	5.20	1.31	1.52
-20	(- 4)	497	125	146	82	1.74	2.83	5.94	1.50	1.74
-15	(+ 5)	624	157	183	84	1.99	3.56	6.80	1.71	1.99
-10	(+14)	783	197	229	90	2.32	4.49	7.93	2.00	2.32

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	146	37	43	47	0.70	0.83	2.38	0.60	0.70
-30	(-22)	255	64	75	70	1.09	1.45	3.70	0.93	1.08
-25	(-13)	362	91	106	84	1.38	2.05	4.70	1.18	1.38
-20	(- 4)	475	120	139	93	1.62	2.70	5.52	1.39	1.62
-15	(+ 5)	606	153	177	99	1.85	3.46	6.32	1.59	1.85
-10	(+14)	763	192	224	107	2.13	4.37	7.26	1.83	2.13

TEST CONDITIONS: @220V50Hz			ASHRAE32 Static		(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	45	11	13	15	0.21	0.25	0.71	0.18	0.21
-30	(-22)	171	43	50	48	0.70	0.97	2.40	0.61	0.70
-25	(-13)	290	73	85	72	1.06	1.65	3.63	0.91	1.06
-20	(- 4)	410	103	120	87	1.33	2.34	4.54	1.14	1.33
-15	(+ 5)	542	137	159	98	1.55	3.10	5.30	1.34	1.55
-10	(+14)	695	175	204	108	1.77	3.98	6.06	1.53	1.77

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static			(Condensing temperature 65°C (+149°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	- 17	- 4	- 5	- 3	- 0.07	- 0.09	- 0.23	- 0.06	- 0.07
-30	(-22)	126	32	37	42	0.54	0.71	1.83	0.46	0.54
-25	(-13)	254	64	75	74	0.97	1.44	3.29	0.83	0.96
-20	(- 4)	379	96	111	95	1.27	2.16	4.31	1.09	1.26
-15	(+ 5)	510	129	150	110	1.48	2.91	5.03	1.27	1.47
-10	(+14)	657	166	193	122	1.65	3.76	5.60	1.41	1.64

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 0° up + 45° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 0° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		