

COMPRESSOR DEFINITION

Designation	EM T30HHR
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513306063

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 60	[V / Hz]	
4 Application type	Low-Medium-High Back Pressure		
4.1 Evaporating temperature range	-35°C to 15°C	(-31°F to 59°F)	
5 Motor type	RSIR-CSIR		
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	-	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	98 to 140 V
8.3 HBP (32°C Ambient temperature)	Fan	-	98 to 140 V
8.4 HBP (43°C Ambient temperature)	Fan	-	98 to 140 V
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	1/10	[hp]
2 Displacement	2.83	[cm ³] (0.173 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	10.000	
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)	7.2	[kg] (15.87 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213514075/213515268	
3 Start capacitor	88-108(115)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM283RFBYY-53	
6 Start winding resistance	18.75	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	6.25	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	11.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.55	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAEHBP32 Static		Evaporating temperature (Condensing temperature		7.2°C (44.96°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]	
1353	341	396	140	1.55		9.69	2.44	2.84	

TEST CONDITIONS: @115V60Hz			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]	
312	79	91	76	1.13	1.77	4.11	1.04	1.20	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			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)	139	35	41	49	1.04	0.79	2.84	0.72	0.83
-30 (-22)	224	56	66	63	1.08	1.27	3.44	0.87	1.01
-25 (-13)	314	79	92	75	1.13	1.79	4.10	1.03	1.20
-20 (- 4)	416	105	122	85	1.17	2.37	4.84	1.22	1.42
-15 (+ 5)	535	135	157	95	1.21	3.05	5.69	1.43	1.67
-10 (+14)	677	171	198	103	1.25	3.87	6.67	1.68	1.95
-5 (+23)	847	214	248	110	1.29	4.87	7.82	1.97	2.29
0 (+32)	1052	265	308	116	1.33	6.08	9.16	2.31	2.68
+5 (+41)	1297	327	380	121	1.37	7.55	10.72	2.70	3.14
+10 (+50)	1587	400	465	126	1.42	9.31	12.53	3.16	3.67
+15 (+59)	1929	486	565	131	1.46	11.39	14.62	3.68	4.28

TEST CONDITIONS: @115V60Hz			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)	117	29	34	54	1.04	0.66	2.19	0.55	0.64
-30 (-22)	195	49	57	63	1.09	1.11	3.04	0.77	0.89
-25 (-13)	279	70	82	72	1.14	1.59	3.85	0.97	1.13
-20 (- 4)	375	94	110	81	1.20	2.13	4.63	1.17	1.36
-15 (+ 5)	487	123	143	90	1.26	2.78	5.43	1.37	1.59
-10 (+14)	622	157	182	99	1.32	3.56	6.26	1.58	1.83
-5 (+23)	785	198	230	109	1.38	4.51	7.16	1.80	2.10
0 (+32)	982	247	288	119	1.44	5.68	8.15	2.05	2.39
+5 (+41)	1218	307	357	130	1.51	7.09	9.26	2.33	2.71
+10 (+50)	1500	378	440	142	1.58	8.79	10.52	2.65	3.08
+15 (+59)	1833	462	537	155	1.65	10.82	11.96	3.01	3.50

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	71	18	21	48	1.00	0.40	1.48	0.37	0.43
-30	(-22)	145	37	43	57	1.06	0.83	2.45	0.62	0.72
-25	(-13)	225	57	66	68	1.12	1.28	3.28	0.83	0.96
-20	(- 4)	316	80	93	80	1.18	1.80	3.99	1.00	1.17
-15	(+ 5)	423	107	124	93	1.25	2.41	4.61	1.16	1.35
-10	(+14)	552	139	162	109	1.33	3.16	5.16	1.30	1.51
-5	(+23)	710	179	208	126	1.41	4.08	5.69	1.43	1.67
0	(+32)	901	227	264	145	1.49	5.21	6.20	1.56	1.82
+5	(+41)	1131	285	331	167	1.58	6.58	6.74	1.70	1.97
+10	(+50)	1406	354	412	190	1.68	8.24	7.32	1.85	2.15
+15	(+59)	1732	436	508	217	1.78	10.22	7.99	2.01	2.34

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
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° up + 45° to Back		
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 BP+24°to Back		
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 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		