

COMPRESSOR DEFINITION

Designation	EM T6144GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	912ED67

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[V / Hz]	
4 Application type	Medium Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-20°C to 10°C	(-4°F to 50°F)	
5 Motor type	CSIR		
6 Starting torque	HST - High starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm ²] (358 psig)	/ °C - °F
9.2 Peak	28.3	[kgf/cm ²] (402 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4-	[hp]
2 Displacement	3.97	[cm ³] (0.242 cu.in)
2.1 Bore [mm]	19.000	
2.2 Stroke [mm]	14.000	
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)	7.8	[kg] (17.20 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-36	
3 Start capacitor	43-53(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T1074	
6 Start winding resistance	16.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	10.26	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	9.90	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A]
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			ASHRAEHBP46 Fan		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]
2748	692	805	353	1.98	22.62	7.78	1.96	2.28

E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz			ASHRAE46 Fan		(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]
-20	(- 4)	1216	306	356	187	1.26	7.71	6.52	1.64	1.91
-15	(+ 5)	1510	381	443	203	1.33	9.64	7.47	1.88	2.19
-10	(+14)	1881	474	551	219	1.39	12.08	8.58	2.16	2.51
-5	(+23)	2321	585	680	237	1.47	15.02	9.79	2.47	2.87
0	(+32)	2825	712	828	255	1.54	18.44	11.07	2.79	3.24
+5	(+41)	3386	853	992	273	1.63	22.33	12.39	3.12	3.63
+10	(+50)	3998	1007	1171	292	1.71	26.67	13.70	3.45	4.01

TEST CONDITIONS: @208V60Hz			ASHRAE46 Fan		(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]
-20	(- 4)	1164	293	341	203	1.32	8.16	5.72	1.44	1.68
-15	(+ 5)	1402	353	411	222	1.40	9.89	6.32	1.59	1.85
-10	(+14)	1707	430	500	242	1.49	12.12	7.06	1.78	2.07
-5	(+23)	2074	523	608	263	1.58	14.83	7.89	1.99	2.31
0	(+32)	2495	629	731	284	1.67	18.02	8.79	2.22	2.58
+5	(+41)	2965	747	869	306	1.77	21.66	9.71	2.45	2.85
+10	(+50)	3477	876	1019	327	1.87	25.75	10.61	2.67	3.11

TEST CONDITIONS: @208V60Hz			ASHRAE46 Fan		(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]
-20	(- 4)	977	246	286	214	1.36	7.68	4.58	1.15	1.34
-15	(+ 5)	1182	298	346	239	1.47	9.36	4.96	1.25	1.45
-10	(+14)	1445	364	423	264	1.58	11.53	5.46	1.38	1.60
-5	(+23)	1761	444	516	290	1.70	14.17	6.06	1.53	1.78
0	(+32)	2123	535	622	317	1.82	17.27	6.70	1.69	1.96
+5	(+41)	2525	636	740	344	1.94	20.82	7.36	1.85	2.16
+10	(+50)	2961	746	868	370	2.06	24.79	7.98	2.01	2.34

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	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		