

COMPRESSOR DEFINITION

Designation	EM T6165GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513306212

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[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 pressures/temperature			
9.1 Operating (gauge)	25,7	[kgf/cm ²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28,7	[kgf/cm ²] (408 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	5,19	[cm ³] (0.317 cu.in)
2.1 Bore [mm]	21,000	
2.2 Stroke [mm]	15,000	
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	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-38	
3 Start capacitor	53-64(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0571/G6	
6 Start winding resistance	18.80	[Wat 25°C (77°F)] +/- 8%
7 Run winding resistance	10.90	[Wat 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	10.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.80	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	2.60	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]	
2994	754	877	394	2,18	24,65	7,60	1,92	2,23	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	1445	364	423	218	1,59	9,17	6,63	1,67	1,94
-15	(+ 5)	1782	449	522	235	1,64	11,37	7,58	1,91	2,22
-10	(+14)	2179	549	639	253	1,69	14,00	8,61	2,17	2,52
-5	(+23)	2637	665	773	270	1,75	17,06	9,77	2,46	2,86
0	(+32)	3158	796	926	288	1,80	20,61	10,97	2,77	3,21
+5	(+41)	3746	945	1098	307	1,87	24,7	12,20	3,08	3,58
+10	(+50)	4401	1110	1290	326	1,94	29,37	13,50	3,40	3,96

TEST CONDITIONS: @220V50Hz		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)	1210	305	355	233	1,63	8,48	5,19	1,31	1,52
-15	(+ 5)	1510	381	443	254	1,70	10,64	5,95	1,50	1,74
-10	(+14)	1862	470	546	275	1,76	13,21	6,77	1,71	1,98
-5	(+23)	2267	572	664	297	1,84	16,22	7,63	1,92	2,24
0	(+32)	2729	688	800	319	1,91	19,72	8,56	2,16	2,51
+5	(+41)	3254	821	954	342	1,99	23,78	9,52	2,40	2,79
+10	(+50)	3838	968	1125	365	2,07	28,42	10,52	2,65	3,08

TEST CONDITIONS: @220V50Hz		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)	980	247	287	244	1,66	7,71	4,02	1,01	1,18
-15	(+ 5)	1234	311	362	272	1,74	9,77	4,54	1,14	1,33
-10	(+14)	1533	387	449	299	1,82	12,23	5,13	1,29	1,50
-5	(+23)	1877	473	550	326	1,93	15,12	5,76	1,45	1,69
0	(+32)	2271	573	666	354	2,03	18,49	6,42	1,62	1,88
+5	(+41)	2736	690	802	382	2,13	22,56	7,16	1,81	2,10
+10	(+50)	3248	819	952	411	2,21	27,19	7,90	1,99	2,32

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
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° 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		