

COMPRESSOR DEFINITION

Designation	EM T6152GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513306219

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 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	4.50	[cm ³] (0.275 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	13.000	
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)	7.74	[kg] (17.06 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-34/QL2-3.95 **	
3 Start capacitor	43-53(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	DRB180L61AXF	
6 Start winding resistance	21.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.95	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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	CE - UKCA - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			EN12900MBP_HH Fan		Evaporating temperature (Condensing temperature		-10°C (14°F) 45°C (113°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]
1448	365	424	229	1.38	11.66	6.32	1.59	1.85

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	1132	285	332	179	1.22	7.97	6.31	1.59	1.85
-15	(+ 5)	1397	352	409	194	1.26	9.92	7.21	1.82	2.11
-10	(+14)	1706	430	500	208	1.31	12.19	8.20	2.07	2.40
-5	(+23)	2061	519	604	222	1.36	14.85	9.30	2.34	2.72
0	(+32)	2467	622	723	235	1.41	17.95	10.49	2.64	3.07
+5	(+41)	2927	738	858	249	1.46	21.55	11.77	2.96	3.45
+10	(+50)	3443	868	1009	262	1.51	25.71	13.13	3.31	3.85

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	940	237	276	192	1.26	7.46	4.91	1.24	1.44
-15	(+ 5)	1172	295	343	211	1.32	9.36	5.56	1.40	1.63
-10	(+14)	1439	363	422	229	1.38	11.59	6.28	1.58	1.84
-5	(+23)	1746	440	512	247	1.45	14.19	7.07	1.78	2.07
0	(+32)	2096	528	614	264	1.52	17.24	7.92	2.00	2.32
+5	(+41)	2492	628	730	282	1.59	20.78	8.84	2.23	2.59
+10	(+50)	2938	740	861	300	1.66	24.88	9.81	2.47	2.87

TEST CONDITIONS: @220V50Hz			EN12900HH 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)	749	189	220	202	1.29	6.90	3.71	0.93	1.09
-15	(+ 5)	939	237	275	226	1.37	8.71	4.15	1.05	1.22
-10	(+14)	1158	292	339	250	1.46	10.83	4.63	1.17	1.36
-5	(+23)	1409	355	413	274	1.55	13.33	5.16	1.30	1.51
0	(+32)	1696	427	497	297	1.64	16.27	5.72	1.44	1.68
+5	(+41)	2021	509	592	320	1.73	19.70	6.31	1.59	1.85
+10	(+50)	2388	602	700	344	1.82	23.69	6.94	1.75	2.03

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		