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 - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	-	-	-
8.2 LBP (43ºC Ambient temperature)	-	-	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	25.2	[kgf/cm²] (358 psig)	/ ºC - ºF
9.2 Peak	28.3	[kgf/cm²] (402 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	5.19	[cm³] (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/cm²] (2.84 to 4.27 psig)

C - ELETRICAL 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/QL2-4.8 **	
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	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	10.90	[Ω at 25ºC (77ºF)] +/- 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)	2.60	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	2.80	[A] - Measured according to UL 984
11 Approval boards certification	CCC - CE - ISI - 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]
1652	416	484	275	1.76	13.31	6.00	1.51	1.76

E - PERFORMANCE - CURVES

TEST CONDITIONS: **EN12900HH** (Condensing temperature **35ºC (+95ºF))**
@220V50Hz **Fan**

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)**	1304	329	382	218	1.59	9.18	5.97	1.50	1.75
-15	**(+ 5)**	1609	406	472	235	1.64	11.42	6.85	1.73	2.01
-10	**(+14)**	1966	496	576	253	1.69	14.06	7.79	1.96	2.28
-5	**(+23)**	2377	599	696	270	1.75	17.12	8.80	2.22	2.58
0	**(+32)**	2843	716	833	288	1.81	20.68	9.86	2.49	2.89
+5	**(+41)**	3366	848	986	307	1.87	24.79	10.97	2.76	3.21
+10	**(+50)**	3950	995	1157	326	1.94	29.50	12.11	3.05	3.55

TEST CONDITIONS: **EN12900HH** (Condensing temperature **45ºC (+113ºF))**
@220V50Hz **Fan**

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)**	1073	270	315	233	1.63	8.52	4.62	1.16	1.35
-15	**(+ 5)**	1337	337	392	254	1.69	10.69	5.27	1.33	1.54
-10	**(+14)**	1646	415	482	275	1.76	13.26	5.98	1.51	1.75
-5	**(+23)**	2003	505	587	297	1.84	16.27	6.74	1.70	1.97
0	**(+32)**	2408	607	706	319	1.91	19.80	7.54	1.90	2.21
+5	**(+41)**	2865	722	840	342	1.99	23.89	8.38	2.11	2.46
+10	**(+50)**	3376	851	989	365	2.07	28.59	9.25	2.33	2.71

TEST CONDITIONS: **EN12900HH** (Condensing temperature **55ºC (+131ºF))**
@220V50Hz **Fan**

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)**	844	213	247	244	1.66	7.76	3.45	0.87	1.01
-15	**(+ 5)**	1059	267	310	272	1.74	9.81	3.90	0.98	1.14
-10	**(+14)**	1312	331	385	299	1.83	12.28	4.39	1.11	1.29
-5	**(+23)**	1607	405	471	326	1.93	15.21	4.93	1.24	1.44
0	**(+32)**	1945	490	570	354	2.03	18.66	5.50	1.39	1.61
+5	**(+41)**	2327	587	682	382	2.12	22.69	6.09	1.54	1.79
+10	**(+50)**	2757	695	808	411	2.22	27.35	6.71	1.69	1.96

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 42º 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 parallet 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		