

COMPRESSOR DEFINITION

Designation	EM T2125GK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513306217

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	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°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 (32°C Ambient temperature)	Fan	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Fan	198 to 255 V	-
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/cm²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28,7	[kgf/cm²] (408 psig)	
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	5,96	[cm³] (0.364 cu.in)
2.1 Bore [mm]	22,500	
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)	7,75	[kg] (17.09 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-36	
3 Start capacitor	64-77(330)	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	T0571/G6	
6 Start winding resistance	19.15	[Wat 25°C (77°F)] +/- 8%
7 Run winding resistance	11.30	[Wat 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	9.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	2.45	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	2.65	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		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]
1198	302	351	251	1,57	8,12	4,77	1,20	1,40

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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]
-40	(-40)	599	151	176	155	1,29	4,03	3,87	0,98	1,13
-35	(-31)	783	197	229	174	1,35	5,28	4,50	1,13	1,32
-30	(-22)	1001	252	293	195	1,41	6,77	5,13	1,29	1,50
-25	(-13)	1260	318	369	217	1,48	8,56	5,81	1,47	1,70
-20	(- 4)	1566	395	459	239	1,54	10,69	6,55	1,65	1,92
-15	(+ 5)	1924	485	564	262	1,62	13,22	7,34	1,85	2,15
-10	(+14)	2340	590	686	286	1,70	16,19	8,18	2,06	2,40

TEST CONDITIONS: @220V50Hz		ASHRAE32 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]
-40	(-40)	552	139	162	158	1,29	3,70	3,49	0,88	1,02
-35	(-31)	730	184	214	180	1,36	4,91	4,06	1,02	1,19
-30	(-22)	942	238	276	204	1,43	6,36	4,62	1,16	1,35
-25	(-13)	1192	301	349	230	1,52	8,08	5,18	1,31	1,52
-20	(- 4)	1485	374	435	256	1,60	10,12	5,80	1,46	1,70
-15	(+ 5)	1829	461	536	285	1,70	12,54	6,42	1,62	1,88
-10	(+14)	2230	562	654	314	1,80	15,40	7,10	1,79	2,08

TEST CONDITIONS: @220V50Hz		ASHRAE32 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]
-40	(-40)	486	123	142	156	1,29	3,25	3,12	0,79	0,91
-35	(-31)	662	167	194	182	1,37	4,45	3,64	0,92	1,07
-30	(-22)	867	219	254	210	1,45	5,84	4,13	1,04	1,21
-25	(-13)	1109	280	325	240	1,55	7,51	4,62	1,16	1,35
-20	(- 4)	1394	352	409	272	1,65	9,48	5,13	1,29	1,50
-15	(+ 5)	1725	435	506	306	1,78	11,80	5,64	1,42	1,65
-10	(+14)	2110	532	618	342	1,91	14,54	6,17	1,56	1,81

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		