COMPRESSOR DEFINITION

Designation	**EM T2117GK**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513306262**

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 (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	1/4	[hp]
2 Displacement	4.50	[cm³] (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)	7.76	[kg] (17.11 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-0015/QL2-3.76 **	
3 Start capacitor	43-53(330)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	DRB180K52AXF	
6 Start winding resistance	21.10	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	14.40	[Ω at 25ºC (77ºF)] +/- 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	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**EN12900LBP_HH** **Static**		Evaporating temperature (Condensing temperature	**-35°C (-31°F)** **40°C (104°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]
482	121	141	130	1.02	3.55	3.72	0.94	1.09

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz**		**EN12900HH** **Static**				(Condensing temperature **35ºC (+95ºF))**				
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)**	405	102	119	113	0.99	2.80	3.57	0.90	1.05
-35	**(-31)**	530	133	155	127	1.02	3.69	4.18	1.05	1.22
-30	**(-22)**	682	172	200	142	1.06	4.76	4.83	1.22	1.42
-25	**(-13)**	867	219	254	157	1.11	6.08	5.54	1.40	1.62
-20	**(- 4)**	1092	275	320	172	1.16	7.69	6.34	1.60	1.86
-15	**(+ 5)**	1362	343	399	188	1.21	9.66	7.24	1.82	2.12
-10	**(+14)**	1683	424	493	204	1.26	12.03	8.26	2.08	2.42

TEST CONDITIONS: **@220V50Hz**		**EN12900HH** **Static**				(Condensing temperature **45ºC (+113ºF))**				
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)**	312	79	91	114	0.99	2.42	2.73	0.69	0.80
-35	**(-31)**	427	108	125	131	1.03	3.34	3.25	0.82	0.95
-30	**(-22)**	560	141	164	149	1.08	4.40	3.77	0.95	1.10
-25	**(-13)**	717	181	210	167	1.14	5.66	4.30	1.08	1.26
-20	**(- 4)**	904	228	265	186	1.20	7.17	4.87	1.23	1.43
-15	**(+ 5)**	1126	284	330	205	1.27	9.00	5.50	1.39	1.61
-10	**(+14)**	1390	350	407	224	1.33	11.19	6.21	1.57	1.82

TEST CONDITIONS: **@220V50Hz**		**EN12900HH** **Static**				(Condensing temperature **55ºC (+131ºF))**				
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)**	204	51	60	109	0.99	1.85	1.90	0.48	0.56
-35	**(-31)**	314	79	92	131	1.03	2.84	2.38	0.60	0.70
-30	**(-22)**	433	109	127	153	1.09	3.93	2.82	0.71	0.83
-25	**(-13)**	567	143	166	176	1.16	5.17	3.23	0.81	0.95
-20	**(- 4)**	721	182	211	199	1.24	6.63	3.64	0.92	1.07
-15	**(+ 5)**	900	227	264	222	1.32	8.36	4.06	1.02	1.19
-10	**(+14)**	1112	280	326	246	1.40	10.40	4.51	1.14	1.32

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	No		
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		