COMPRESSOR DEFINITION

Designation	**EM T30CDP**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513306242**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	High Back Pressure (Commercial Compressors)		
4.1 Evaporating temperature range	-15°C to 10°C	(5°F to 50°F)	
5 Motor type	RSIR		
6 Starting torque			
7 Expantion device			
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	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/10	[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	ALQUILB / ISO22	
4 Weight (with oil charge)	7.2	[kg] (15.87 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0224/07	
6 Start winding resistance	32.00	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	31.50	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.59	[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**			**EN12900HBP_HH** **Static**		Evaporating temperature (Condensing temperature	**5°C (41°F)** **50°C (122°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]
816	206	239	91	0.61		8.95	2.26	2.62

E - PERFORMANCE - CURVES

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

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]
-15	**(+ 5)**	419	106	123	61	0.52	1.35	6.84	1.72	2.01
-10	**(+14)**	530	134	155	66	0.53	1.71	8.02	2.02	2.35
-5	**(+23)**	658	166	193	70	0.54	2.13	9.39	2.37	2.75
0	**(+32)**	805	203	236	73	0.55	2.62	11.00	2.77	3.22
+5	**(+41)**	971	245	284	76	0.56	3.17	12.87	3.24	3.77
+10	**(+50)**	1156	291	339	77	0.57	3.79	15.03	3.79	4.40

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

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]
-15	**(+ 5)**	364	92	107	65	0.53	1.27	5.65	1.42	1.66
-10	**(+14)**	464	117	136	71	0.55	1.63	6.56	1.65	1.92
-5	**(+23)**	580	146	170	76	0.56	2.04	7.58	1.91	2.22
0	**(+32)**	714	180	209	81	0.58	2.52	8.75	2.21	2.56
+5	**(+41)**	866	218	254	86	0.59	3.07	10.10	2.55	2.96
+10	**(+50)**	1037	261	304	89	0.60	3.69	11.66	2.94	3.42

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

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]
-15	**(+ 5)**	316	80	93	68	0.54	1.21	4.60	1.16	1.35
-10	**(+14)**	405	102	119	76	0.56	1.56	5.35	1.35	1.57
-5	**(+23)**	510	129	150	83	0.58	1.97	6.14	1.55	1.80
0	**(+32)**	632	159	185	90	0.60	2.44	7.00	1.76	2.05
+5	**(+41)**	771	194	226	97	0.62	2.99	7.94	2.00	2.33
+10	**(+50)**	928	234	272	103	0.65	3.62	9.01	2.27	2.64

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		