

COMPRESSOR DEFINITION

Designation	EM E32CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513300168

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	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°F)	
5 Motor type	RSCR		
6 Starting torque	LST - Low Starting Torque		
7 Expansion device	Capillary tube		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	Static	187 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm ²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm ²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/8	[hp]
2 Displacement	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO32	
4 Weight (with oil charge)	8.4	[kg] (18.52 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	TSD	
2.1 Starting device	TSD2-220V/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(350)	[µF(VAC minimum)]
5 Motor protection	4TM110NFBYY-53	
6 Start winding resistance	24.44	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	37.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.43	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.38	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.47	[A] - Measured according to UL 984
11 Approval boards certification	CCC - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Static		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]
338	85	99	49	0.23	1.06	6.94	1.75	2.03

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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]	
-35 (-31)	163	41	48	106	0.15	0.51	1.54	0.39	0.45	
-30 (-22)	235	59	69	127	0.17	0.74	1.86	0.47	0.55	
-25 (-13)	322	81	94	148	0.20	1.01	2.20	0.55	0.64	
-20 (- 4)	426	107	125	169	0.23	1.34	2.54	0.64	0.74	
-15 (+ 5)	547	138	160	189	0.25	1.72	2.91	0.73	0.85	
-10 (+14)	685	173	201	207	0.28	2.16	3.31	0.83	0.97	

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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]	
-35 (-31)	146	37	43	108	0.15	0.46	1.34	0.34	0.39	
-30 (-22)	221	56	65	130	0.18	0.69	1.68	0.42	0.49	
-25 (-13)	313	79	92	154	0.21	0.98	2.01	0.51	0.59	
-20 (- 4)	421	106	123	179	0.24	1.32	2.33	0.59	0.68	
-15 (+ 5)	547	138	160	205	0.27	1.72	2.66	0.67	0.78	
-10 (+14)	689	174	202	230	0.30	2.18	3.00	0.76	0.88	

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static				(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]	
-35 (-31)	118	30	35	109	0.15	0.37	1.09	0.28	0.32	
-30 (-22)	193	49	57	133	0.18	0.60	1.45	0.36	0.42	
-25 (-13)	284	72	83	159	0.21	0.89	1.77	0.45	0.52	
-20 (- 4)	391	99	115	188	0.25	1.23	2.06	0.52	0.60	
-15 (+ 5)	516	130	151	219	0.29	1.62	2.35	0.59	0.69	
-10 (+14)	658	166	193	251	0.33	2.08	2.62	0.66	0.77	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Static			(Condensing temperature 65°C (+149°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]
-35	(-31)	94	24	28	108	0.15	0.29	0.88	0.22	0.26
-30	(-22)	163	41	48	132	0.18	0.51	1.24	0.31	0.36
-25	(-13)	248	62	73	161	0.21	0.78	1.55	0.39	0.45
-20	(- 4)	349	88	102	194	0.25	1.10	1.81	0.46	0.53
-15	(+ 5)	467	118	137	230	0.30	1.47	2.04	0.51	0.60
-10	(+14)	603	152	177	268	0.35	1.90	2.25	0.57	0.66

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 40° up + 45° to Back		
3.2 DISCHARGE	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 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 40° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		