

COMPRESSOR DEFINITION

Designation	EM E32CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513300508

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 / ISO5	
4 Weight (with oil charge)	8.16	[kg] (17.99 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)	165	42	48	107	0.15	0.52	1.56	0.39	0.46
-30	(-22)	236	60	69	129	0.18	0.74	1.88	0.47	0.55
-25	(-13)	320	81	94	146	0.20	1.00	2.18	0.55	0.64
-20	(- 4)	420	106	123	162	0.22	1.32	2.48	0.63	0.73
-15	(+ 5)	539	136	158	180	0.24	1.70	2.84	0.71	0.83
-10	(+14)	681	172	200	202	0.27	2.15	3.27	0.82	0.96

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)	149	37	44	111	0.16	0.46	1.36	0.34	0.40
-30	(-22)	231	58	68	141	0.19	0.72	1.76	0.44	0.52
-25	(-13)	322	81	94	164	0.22	1.01	2.08	0.53	0.61
-20	(- 4)	424	107	124	183	0.24	1.33	2.36	0.59	0.69
-15	(+ 5)	543	137	159	201	0.26	1.71	2.63	0.66	0.77
-10	(+14)	681	172	200	221	0.29	2.15	2.93	0.74	0.86

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)	100	25	29	89	0.12	0.31	0.93	0.23	0.27
-30	(-22)	195	49	57	135	0.18	0.61	1.47	0.37	0.43
-25	(-13)	295	74	87	172	0.23	0.93	1.87	0.47	0.55
-20	(- 4)	404	102	118	202	0.27	1.27	2.18	0.55	0.64
-15	(+ 5)	524	132	154	228	0.30	1.65	2.42	0.61	0.71
-10	(+14)	660	166	194	254	0.33	2.08	2.65	0.67	0.78

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)	8	2	2	13	0.02	0.02	0.10	0.02	0.03
-30	(-22)	118	30	35	83	0.11	0.37	0.83	0.21	0.24
-25	(-13)	230	58	67	141	0.19	0.72	1.38	0.35	0.41
-20	(- 4)	346	87	101	190	0.25	1.09	1.78	0.45	0.52
-15	(+ 5)	470	119	138	233	0.31	1.48	2.07	0.52	0.61
-10	(+14)	607	153	178	272	0.36	1.92	2.28	0.57	0.67

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
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	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
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		