

### COMPRESSOR DEFINITION

Designation	EM Z55CLT
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513300861

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	115-127 / 60	[ 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	-	103 to 140 V
8.2 LBP (43°C Ambient temperature)	-	-	-
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 <sup>2</sup> ] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm <sup>2</sup> ] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	0.13	[hp]
2 Displacement	9.04	[cm <sup>3</sup> ] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
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)	7.51	[kg] (16.56 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELECTRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	TSD	
2.1 Starting device	TSD- 115V/TSD2.1 - 115V 0	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)	[µF(VAC minimum)]
5 Motor protection	4TM319NFBYY-53	
6 Start winding resistance	7.67	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.32	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	10.80	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.00	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	1.00	[A] - Measured according to UL 984
11 Approval boards certification	NOM - UL - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAELBP32 Static		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 54.4°C (129.92°F)	
Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
632	159	185	102	0.92	1.99	6.19	1.56	1.81

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			ASHRAE32 Static		(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	356	90	104	66	1.58	1.11	5.39	1.36	1.58
-30	(-22)	479	121	140	77	1.83	1.50	6.24	1.57	1.83
-25	(-13)	634	160	186	89	2.11	1.99	7.18	1.81	2.10
-20	(- 4)	824	208	241	101	2.39	2.59	8.17	2.06	2.39
-15	(+ 5)	1049	264	307	115	2.68	3.30	9.16	2.31	2.68
-10	(+14)	1312	331	384	130	2.96	4.14	10.11	2.55	2.96

TEST CONDITIONS: @115V60Hz			ASHRAE32 Static		(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	334	84	98	66	1.47	1.05	5.00	1.26	1.47
-30	(-22)	453	114	133	78	1.69	1.42	5.76	1.45	1.69
-25	(-13)	604	152	177	91	1.94	1.90	6.61	1.67	1.94
-20	(- 4)	788	199	231	105	2.20	2.48	7.50	1.89	2.20
-15	(+ 5)	1008	254	295	120	2.46	3.17	8.39	2.12	2.46
-10	(+14)	1265	319	371	137	2.70	3.99	9.24	2.33	2.71

TEST CONDITIONS: @115V60Hz			ASHRAE32 Static		(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	302	76	89	69	1.29	0.95	4.40	1.11	1.29
-30	(-22)	416	105	122	82	1.49	1.30	5.07	1.28	1.49
-25	(-13)	561	141	164	96	1.71	1.76	5.82	1.47	1.71
-20	(- 4)	739	186	216	112	1.94	2.32	6.62	1.67	1.94
-15	(+ 5)	951	240	279	129	2.17	3.00	7.41	1.87	2.17
-10	(+14)	1201	303	352	148	2.39	3.79	8.15	2.05	2.39

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 Static			(Condensing temperature 65°C (+149°F) )					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	269	68	79	65	1.20	0.84	4.13	1.04	1.21
-30	(-22)	375	95	110	80	1.38	1.18	4.70	1.19	1.38
-25	(-13)	513	129	150	95	1.57	1.61	5.36	1.35	1.57
-20	(- 4)	683	172	200	112	1.78	2.15	6.06	1.53	1.78
-15	(+ 5)	888	224	260	131	1.98	2.80	6.75	1.70	1.98
-10	(+14)	1129	284	331	153	2.16	3.56	7.39	1.86	2.17

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.2 +0.12/-0.08	[mm]	(0.323" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 72° up + 22° 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	Straight		
3.3 PROCESS	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 55.3° up + 45° to back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		