COMPRESSOR DEFINITION

Designation	**EM Z55CLT**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513301786**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	-	103 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	-	103 to 140 V
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	0.13	[hp]
2 Displacement	9.04	[cm³] (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)	7.6	[kg] (16.75 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL 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 25ºC (77ºF)] +/- 8%
7 Run winding resistance	5.32	[Ω at 25ºC (77ºF)] +/- 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	UL	

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 +/- 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]
623	157	183	100	0.93	1.96	6.23	1.57	1.83

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **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]
-35	**(-31)**	347	87	102	68	0.56	1.08	5.12	1.29	1.50
-30	**(-22)**	489	123	143	78	0.66	1.53	6.24	1.57	1.83
-25	**(-13)**	653	165	191	90	0.76	2.05	7.22	1.82	2.12
-20	**(- 4)**	845	213	247	104	0.86	2.65	8.15	2.05	2.39
-15	**(+ 5)**	1068	269	313	118	0.95	3.36	9.08	2.29	2.66
-10	**(+14)**	1329	335	389	132	1.04	4.19	10.10	2.54	2.96

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **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]
-35	**(-31)**	331	84	97	70	0.58	1.04	4.71	1.19	1.38
-30	**(-22)**	459	116	135	81	0.68	1.44	5.68	1.43	1.66
-25	**(-13)**	612	154	179	94	0.79	1.92	6.51	1.64	1.91
-20	**(- 4)**	795	200	233	109	0.90	2.50	7.28	1.83	2.13
-15	**(+ 5)**	1013	255	297	126	1.01	3.19	8.06	2.03	2.36
-10	**(+14)**	1273	321	373	143	1.13	4.01	8.91	2.25	2.61

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **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]
-35	**(-31)**	306	77	90	71	0.58	0.96	4.31	1.09	1.26
-30	**(-22)**	421	106	123	82	0.69	1.32	5.16	1.30	1.51
-25	**(-13)**	564	142	165	96	0.80	1.77	5.88	1.48	1.72
-20	**(- 4)**	740	186	217	113	0.92	2.33	6.53	1.64	1.91
-15	**(+ 5)**	955	241	280	133	1.06	3.01	7.18	1.81	2.10
-10	**(+14)**	1213	306	356	153	1.20	3.83	7.91	1.99	2.32

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@115V60Hz **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]
-35	**(-31)**	271	68	79	70	0.57	0.85	3.87	0.97	1.13
-30	**(-22)**	374	94	110	81	0.68	1.17	4.65	1.17	1.36
-25	**(-13)**	508	128	149	97	0.80	1.60	5.28	1.33	1.55
-20	**(- 4)**	679	171	199	116	0.94	2.14	5.84	1.47	1.71
-15	**(+ 5)**	892	225	261	139	1.10	2.81	6.41	1.62	1.88
-10	**(+14)**	1152	290	337	162	1.28	3.64	7.05	1.78	2.07

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	Straight		
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	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		