COMPRESSOR DEFINITION

Designation	**EM Z60CLC**
Nominal Voltage/Frequency	**220 V 60 Hz**
Engineering Number	**513301794**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220 / 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	-	198 to 242 V
8.2 LBP (43ºC Ambient temperature)	Static	-	198 to 242 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	9.50	[cm³] (0.580 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	21.000	
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)	7.87	[kg] (17.35 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C3/8EA17E61/8EA17E62/8EA17E63/8EA17E64/QPS2-*2	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	4TM232NFBYY-53	
6 Start winding resistance	16.50	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	22.44	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60/220 Hz)	4.20	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60/220 Hz)	0.50	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60/220 Hz)	0.60	[A] - Measured according to UL 984
11 Approval boards certification	CE - TUV - UKCA	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V60Hz**			**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]
686	173	201	109	0.51	2.15	6.32	1.59	1.85

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **35ºC (+95ºF))**
@220V60Hz **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)**	428	108	125	74	0.39	1.34	5.73	1.44	1.68
-30	**(-22)**	550	139	161	84	0.42	1.72	6.57	1.66	1.92
-25	**(-13)**	708	178	207	94	0.45	2.22	7.54	1.90	2.21
-20	**(- 4)**	904	228	265	105	0.49	2.84	8.62	2.17	2.53
-15	**(+ 5)**	1139	287	334	116	0.54	3.59	9.79	2.47	2.87
-10	**(+14)**	1417	357	415	128	0.59	4.47	11.05	2.78	3.24

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@220V60Hz **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)**	394	99	116	77	0.39	1.23	5.14	1.29	1.51
-30	**(-22)**	516	130	151	88	0.42	1.62	5.87	1.48	1.72
-25	**(-13)**	671	169	197	100	0.47	2.10	6.71	1.69	1.96
-20	**(- 4)**	862	217	253	113	0.52	2.71	7.63	1.92	2.23
-15	**(+ 5)**	1092	275	320	127	0.58	3.44	8.61	2.17	2.52
-10	**(+14)**	1363	343	399	141	0.64	4.30	9.65	2.43	2.83

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@220V60Hz **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)**	357	90	105	77	0.39	1.12	4.65	1.17	1.36
-30	**(-22)**	477	120	140	90	0.44	1.50	5.31	1.34	1.56
-25	**(-13)**	629	159	184	104	0.49	1.97	6.04	1.52	1.77
-20	**(- 4)**	816	206	239	119	0.55	2.56	6.83	1.72	2.00
-15	**(+ 5)**	1040	262	305	136	0.62	3.27	7.65	1.93	2.24
-10	**(+14)**	1303	328	382	153	0.70	4.11	8.50	2.14	2.49

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V60Hz **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)**	316	80	93	75	0.39	0.99	4.22	1.06	1.24
-30	**(-22)**	434	109	127	90	0.44	1.36	4.82	1.22	1.41
-25	**(-13)**	583	147	171	106	0.51	1.83	5.47	1.38	1.60
-20	**(- 4)**	765	193	224	125	0.58	2.41	6.15	1.55	1.80
-15	**(+ 5)**	983	248	288	144	0.66	3.10	6.84	1.72	2.01
-10	**(+14)**	1239	312	363	165	0.75	3.91	7.53	1.90	2.21

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 30° up + 24° to Back		
3.3 PROCESS	6.35 +0.08/-0.08	[mm]	(0.250" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		