

### COMPRESSOR DEFINITION

Designation	EG ZS80CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513701302

### 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	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 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 <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	1/4	[hp]
2 Displacement	11.14	[cm <sup>3</sup> ] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	10.97	[kg] (24.18 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C3/QPS2-A22MD3/QPS2-A22MD3 091	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	5(270)/4(270)	[μF(VAC minimum)]
5 Motor protection	4TM283KFBYY-53	
6 Start winding resistance	18.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	13.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	7.60	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.13	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - IRAM - UKCA - 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]
681	172	200	112	0.56	2.14	6.10	1.54	1.79

### 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)	396	100	116	76	0.47	1.24	5.21	1.31	1.53
-30	(-22)	525	132	154	86	0.49	1.65	6.08	1.53	1.78
-25	(-13)	675	170	198	97	0.53	2.12	7.00	1.76	2.05
-20	(- 4)	858	216	251	107	0.58	2.69	8.01	2.02	2.35
-15	(+ 5)	1086	274	318	119	0.64	3.42	9.15	2.31	2.68
-10	(+14)	1372	346	402	131	0.70	4.33	10.48	2.64	3.07

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)	381	96	112	80	0.47	1.19	4.79	1.21	1.40
-30	(-22)	509	128	149	91	0.49	1.59	5.59	1.41	1.64
-25	(-13)	654	165	192	102	0.53	2.05	6.40	1.61	1.88
-20	(- 4)	830	209	243	114	0.59	2.61	7.27	1.83	2.13
-15	(+ 5)	1048	264	307	127	0.66	3.30	8.25	2.08	2.42
-10	(+14)	1321	333	387	140	0.72	4.17	9.38	2.36	2.75

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)	360	91	106	82	0.47	1.13	4.39	1.11	1.29
-30	(-22)	487	123	143	95	0.50	1.53	5.12	1.29	1.50
-25	(-13)	628	158	184	108	0.55	1.97	5.82	1.47	1.71
-20	(- 4)	796	201	233	121	0.61	2.50	6.56	1.65	1.92
-15	(+ 5)	1004	253	294	136	0.69	3.16	7.37	1.86	2.16
-10	(+14)	1263	318	370	152	0.77	3.99	8.30	2.09	2.43

### 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)	335	84	98	83	0.50	1.05	4.05	1.02	1.19
-30	(-22)	460	116	135	97	0.53	1.44	4.69	1.18	1.38
-25	(-13)	597	150	175	113	0.58	1.87	5.29	1.33	1.55
-20	(- 4)	758	191	222	129	0.66	2.38	5.89	1.48	1.73
-15	(+ 5)	955	241	280	147	0.74	3.01	6.53	1.64	1.91
-10	(+14)	1201	303	352	165	0.84	3.79	7.25	1.83	2.13

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +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		