

COMPRESSOR DEFINITION

Designation	EG Z90CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513700305

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 pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	12.21	[cm ³] (0.745 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	23.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO7	
4 Weight (with oil charge)	11.65	[kg] (25.68 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	PTC	
2.1 Starting device	7M220MD3/8EA17C3/8EA5B3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	4TM213PFBYY-53	
6 Start winding resistance	25.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	18.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.82	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CCC	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAF Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
570	144	167	120	0.54	2.17	4.77	1.20	1.40

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	422	106	124	88	0.41	1.46	4.80	1.21	1.41
-30	(-22)	543	137	159	100	0.47	1.89	5.39	1.36	1.58
-25	(-13)	679	171	199	114	0.53	2.37	5.96	1.50	1.75
-20	(- 4)	844	213	247	129	0.60	2.94	6.57	1.65	1.92
-15	(+ 5)	1050	264	308	145	0.67	3.66	7.26	1.83	2.13
-10	(+14)	1309	330	384	161	0.75	4.58	8.10	2.04	2.37

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	357	90	105	92	0.43	1.36	3.92	0.99	1.15
-30	(-22)	463	117	136	105	0.49	1.76	4.39	1.11	1.29
-25	(-13)	579	146	170	120	0.56	2.21	4.82	1.21	1.41
-20	(- 4)	718	181	210	137	0.63	2.74	5.25	1.32	1.54
-15	(+ 5)	894	225	262	155	0.71	3.42	5.74	1.45	1.68
-10	(+14)	1120	282	328	176	0.81	4.30	6.34	1.60	1.86

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	303	76	89	91	0.41	1.28	3.31	0.83	0.97
-30	(-22)	396	100	116	106	0.49	1.66	3.70	0.93	1.08
-25	(-13)	495	125	145	124	0.57	2.09	4.00	1.01	1.17
-20	(- 4)	613	155	180	144	0.66	2.60	4.28	1.08	1.26
-15	(+ 5)	763	192	224	167	0.77	3.25	4.59	1.16	1.34
-10	(+14)	958	241	281	192	0.89	4.09	4.97	1.25	1.46

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
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		
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		
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		