

COMPRESSOR DEFINITION

Designation	EG AS100CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701419

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	RSIR-CSIR		
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 ²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm ²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	13.54	[cm ³] (0.826 cu.in)
2.1 Bore [mm]	28.000	
2.2 Stroke [mm]	22.000	
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)	10.14	[kg] (22.35 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA14C1/8EA21C1/QPS2-A4R7MG1/QPS2-A4R7MG1 090	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	4TM762PFBZZ-53	
6 Start winding resistance	5.66	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	3.24	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	18.72	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.96	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	1.95	[A] - Measured according to UL 984
11 Approval boards certification	CE - TUV - UKCA	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @127V60Hz			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]
1015	256	297	197	2.65	3.19	5.16	1.30	1.51

E - PERFORMANCE - CURVES

TEST CONDITIONS: @127V60Hz		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]
-35	(-31)	576	145	169	132	2.43	1.80	4.36	1.10	1.28
-30	(-22)	741	187	217	148	2.48	2.32	5.03	1.27	1.47
-25	(-13)	954	240	279	165	2.53	2.99	5.80	1.46	1.70
-20	(- 4)	1221	308	358	183	2.60	3.84	6.69	1.68	1.96
-15	(+ 5)	1551	391	455	202	2.68	4.88	7.69	1.94	2.25
-10	(+14)	1950	491	571	221	2.77	6.15	8.82	2.22	2.59

TEST CONDITIONS: @127V60Hz		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]
-35	(-31)	573	144	168	140	2.45	1.79	4.08	1.03	1.20
-30	(-22)	740	187	217	158	2.51	2.32	4.68	1.18	1.37
-25	(-13)	952	240	279	178	2.57	2.99	5.36	1.35	1.57
-20	(- 4)	1216	306	356	199	2.66	3.82	6.10	1.54	1.79
-15	(+ 5)	1539	388	451	222	2.76	4.84	6.93	1.75	2.03
-10	(+14)	1927	486	565	246	2.89	6.08	7.84	1.98	2.30

TEST CONDITIONS: @127V60Hz		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]
-35	(-31)	538	136	158	144	2.46	1.68	3.74	0.94	1.09
-30	(-22)	711	179	208	165	2.53	2.23	4.32	1.09	1.27
-25	(-13)	926	233	271	188	2.61	2.91	4.93	1.24	1.44
-20	(- 4)	1189	300	348	213	2.72	3.74	5.57	1.40	1.63
-15	(+ 5)	1508	380	442	241	2.85	4.75	6.26	1.58	1.83
-10	(+14)	1890	476	554	270	3.01	5.96	7.00	1.76	2.05

E - PERFORMANCE - CURVES

TEST CONDITIONS: @127V60Hz		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)	471	119	138	144	2.47	1.48	3.27	0.82	0.96
-30	(-22)	654	165	192	169	2.54	2.05	3.87	0.97	1.13
-25	(-13)	875	220	256	196	2.64	2.75	4.46	1.12	1.31
-20	(- 4)	1141	287	334	227	2.78	3.59	5.04	1.27	1.48
-15	(+ 5)	1459	368	428	260	2.94	4.59	5.63	1.42	1.65
-10	(+14)	1837	463	538	295	3.14	5.80	6.23	1.57	1.82

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EG/F/AMEM Version 2		
2 Tray holder	No		
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	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	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		