

### COMPRESSOR DEFINITION

Designation	EG AS100CLP
Nominal Voltage/Frequency	220 V 60 Hz
Engineering Number	513701418

### 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	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	-	198 to 242 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 <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	1/3	[hp]
2 Displacement	13.54	[cm <sup>3</sup> ] (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)	10.35	[kg] (22.82 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	213516256	
3 Start capacitor	88-108(250)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM319LFBYY-53	
6 Start winding resistance	15.39	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.41	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	13.07	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.23	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.30	[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]
1009	254	296	194	1.36	3.17	5.21	1.31	1.53

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz			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)	497	125	146	125	1.20	1.56	3.97	1.00	1.16
-30	(-22)	713	180	209	142	1.23	2.24	5.02	1.26	1.47
-25	(-13)	941	237	276	159	1.27	2.95	5.91	1.49	1.73
-20	(- 4)	1190	300	349	178	1.31	3.74	6.71	1.69	1.97
-15	(+ 5)	1472	371	431	198	1.37	4.63	7.45	1.88	2.18
-10	(+14)	1797	453	527	219	1.44	5.67	8.18	2.06	2.40

TEST CONDITIONS: @220V60Hz			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)	494	125	145	134	1.22	1.55	3.70	0.93	1.08
-30	(-22)	704	177	206	152	1.25	2.21	4.60	1.16	1.35
-25	(-13)	923	233	270	172	1.30	2.90	5.35	1.35	1.57
-20	(- 4)	1162	293	340	194	1.36	3.65	6.00	1.51	1.76
-15	(+ 5)	1431	360	419	217	1.43	4.50	6.59	1.66	1.93
-10	(+14)	1740	439	510	242	1.51	5.49	7.17	1.81	2.10

TEST CONDITIONS: @220V60Hz			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)	475	120	139	139	1.23	1.49	3.41	0.86	1.00
-30	(-22)	679	171	199	161	1.27	2.13	4.20	1.06	1.23
-25	(-13)	890	224	261	184	1.33	2.79	4.83	1.22	1.42
-20	(- 4)	1118	282	328	209	1.40	3.51	5.36	1.35	1.57
-15	(+ 5)	1375	347	403	236	1.49	4.33	5.83	1.47	1.71
-10	(+14)	1671	421	490	265	1.59	5.27	6.29	1.58	1.84

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	439	111	129	142	1.23	1.37	3.09	0.78	0.90
-30	(-22)	638	161	187	167	1.29	2.00	3.78	0.95	1.11
-25	(-13)	841	212	247	194	1.36	2.64	4.32	1.09	1.27
-20	(- 4)	1061	267	311	223	1.45	3.33	4.76	1.20	1.39
-15	(+ 5)	1306	329	383	254	1.55	4.11	5.13	1.29	1.50
-10	(+14)	1589	400	466	288	1.67	5.01	5.50	1.39	1.61

### 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	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	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		