

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	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	-	-
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	Current Relay	
2.1 Starting device	213516009/213516575	
3 Start capacitor	270-324(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM 771NFBZZ-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)	27.34	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	5.49	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	5.95	[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]
1003	253	294	193	2.64	3.15	5.19	1.31	1.52

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]	[W/W]
-35 (-31)	573	144	168	128	2.41	1.79	4.46	1.12	1.31
-30 (-22)	735	185	215	145	2.46	2.30	5.10	1.29	1.49
-25 (-13)	945	238	277	161	2.52	2.97	5.89	1.48	1.72
-20 (- 4)	1213	306	355	179	2.58	3.81	6.80	1.71	1.99
-15 (+ 5)	1545	389	453	197	2.66	4.86	7.82	1.97	2.29
-10 (+14)	1951	492	572	218	2.76	6.15	8.93	2.25	2.62

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]	[W/W]
-35 (-31)	554	140	162	136	2.43	1.74	4.09	1.03	1.20
-30 (-22)	725	183	212	155	2.49	2.27	4.68	1.18	1.37
-25 (-13)	938	236	275	175	2.56	2.94	5.37	1.35	1.57
-20 (- 4)	1202	303	352	195	2.65	3.78	6.17	1.55	1.81
-15 (+ 5)	1526	385	447	217	2.75	4.80	7.03	1.77	2.06
-10 (+14)	1918	483	562	241	2.87	6.05	7.95	2.00	2.33

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]	[W/W]
-35 (-31)	517	130	151	138	2.44	1.62	3.75	0.94	1.10
-30 (-22)	696	175	204	161	2.51	2.18	4.30	1.08	1.26
-25 (-13)	912	230	267	185	2.60	2.86	4.93	1.24	1.44
-20 (- 4)	1174	296	344	209	2.71	3.69	5.61	1.41	1.64
-15 (+ 5)	1490	375	437	235	2.83	4.69	6.34	1.60	1.86
-10 (+14)	1868	471	547	264	2.99	5.90	7.09	1.79	2.08

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)	462	116	135	135	2.43	1.45	3.42	0.86	1.00
-30	(-22)	650	164	190	163	2.52	2.04	3.95	1.00	1.16
-25	(-13)	870	219	255	191	2.63	2.73	4.52	1.14	1.33
-20	(- 4)	1130	285	331	221	2.77	3.55	5.12	1.29	1.50
-15	(+ 5)	1438	362	421	253	2.93	4.53	5.72	1.44	1.68
-10	(+14)	1804	455	529	287	3.12	5.69	6.31	1.59	1.85

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		