

COMPRESSOR DEFINITION

Designation	EG AS100CLP
Nominal Voltage/Frequency	220 V 50-60 Hz
Engineering Number	513701421

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220 / 50-60	[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		
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)	Static	-	198 to 242 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 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)	10.35	[kg] (22.82 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 50-60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17E63/QPS2-A22MG1/QPS2-A22MG1 092/QPS2-C22MD3.	
3 Start capacitor	-	[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)	10.25/9.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.02/1.82	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	2.28/2.09	[A] - Measured according to UL 984
11 Approval boards certification	IRAM - TUV	

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)	583	147	171	129	1.21	1.82	4.53	1.14	1.33
-30	(-22)	740	187	217	143	1.23	2.32	5.20	1.31	1.53
-25	(-13)	958	241	281	160	1.27	3.01	6.02	1.52	1.76
-20	(- 4)	1236	311	362	178	1.32	3.88	6.94	1.75	2.03
-15	(+ 5)	1572	396	461	198	1.38	4.95	7.93	2.00	2.32
-10	(+14)	1965	495	576	219	1.45	6.20	8.95	2.26	2.62

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)	572	144	168	134	1.22	1.79	4.26	1.07	1.25
-30	(-22)	733	185	215	153	1.25	2.30	4.81	1.21	1.41
-25	(-13)	950	239	278	173	1.30	2.98	5.49	1.38	1.61
-20	(- 4)	1221	308	358	195	1.36	3.84	6.26	1.58	1.83
-15	(+ 5)	1545	389	453	218	1.44	4.86	7.07	1.78	2.07
-10	(+14)	1921	484	563	243	1.52	6.06	7.90	1.99	2.32

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)	532	134	156	136	1.22	1.67	3.92	0.99	1.15
-30	(-22)	702	177	206	160	1.27	2.20	4.41	1.11	1.29
-25	(-13)	923	233	270	185	1.33	2.90	5.00	1.26	1.46
-20	(- 4)	1192	300	349	211	1.41	3.75	5.66	1.43	1.66
-15	(+ 5)	1510	380	442	238	1.50	4.75	6.35	1.60	1.86
-10	(+14)	1874	472	549	267	1.61	5.91	7.03	1.77	2.06

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)	464	117	136	136	1.22	1.45	3.43	0.86	1.00
-30	(-22)	648	163	190	165	1.28	2.03	3.90	0.98	1.14
-25	(-13)	877	221	257	196	1.36	2.75	4.45	1.12	1.31
-20	(- 4)	1150	290	337	227	1.46	3.62	5.06	1.27	1.48
-15	(+ 5)	1466	369	430	259	1.57	4.62	5.67	1.43	1.66
-10	(+14)	1824	460	534	293	1.69	5.76	6.26	1.58	1.84

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		