

COMPRESSOR DEFINITION

Designation	EG AS70CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701236

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		
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)	Static	-	103 to 140 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	1/4	[hp]
2 Displacement	9.66	[cm ³] (0.589 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	18.200	
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)	10.38	[kg] (22.88 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	4TM427LFBYY-53	
6 Start winding resistance	6.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.90	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	11.00	[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)	2.26	[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]
711	179	208	133	1.60	2.23	5.35	1.35	1.57

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)	410	103	120	85	1.32	1.28	4.80	1.21	1.41
-30	(-22)	558	141	163	98	1.39	1.75	5.69	1.43	1.67
-25	(-13)	712	179	209	109	1.46	2.23	6.53	1.65	1.91
-20	(- 4)	889	224	260	120	1.52	2.79	7.40	1.86	2.17
-15	(+ 5)	1106	279	324	132	1.59	3.48	8.37	2.11	2.45
-10	(+14)	1379	347	404	144	1.68	4.35	9.54	2.40	2.79

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)	376	95	110	88	1.34	1.18	4.28	1.08	1.25
-30	(-22)	528	133	155	103	1.42	1.66	5.11	1.29	1.50
-25	(-13)	682	172	200	117	1.50	2.14	5.83	1.47	1.71
-20	(- 4)	853	215	250	131	1.58	2.68	6.53	1.65	1.91
-15	(+ 5)	1060	267	311	145	1.67	3.34	7.29	1.84	2.14
-10	(+14)	1318	332	386	160	1.78	4.16	8.18	2.06	2.40

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)	334	84	98	85	1.33	1.04	3.89	0.98	1.14
-30	(-22)	497	125	146	104	1.43	1.56	4.70	1.18	1.38
-25	(-13)	657	166	193	123	1.53	2.06	5.36	1.35	1.57
-20	(- 4)	830	209	243	140	1.64	2.61	5.95	1.50	1.74
-15	(+ 5)	1034	261	303	159	1.77	3.26	6.53	1.65	1.91
-10	(+14)	1284	324	376	178	1.91	4.05	7.20	1.82	2.11

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)	262	66	77	79	1.29	0.82	3.33	0.84	0.98
-30	(-22)	444	112	130	103	1.42	1.39	4.18	1.05	1.23
-25	(-13)	618	156	181	127	1.56	1.94	4.83	1.22	1.41
-20	(- 4)	800	202	234	151	1.71	2.52	5.34	1.35	1.57
-15	(+ 5)	1007	254	295	175	1.89	3.17	5.81	1.46	1.70
-10	(+14)	1257	317	368	200	2.09	3.97	6.30	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	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		