

COMPRESSOR DEFINITION

Designation	EG AS80CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701431

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 Expantion 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/cm²] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	11.14	[cm ³] (0.680 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	21.000	
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)	10.29	[kg] (22.69 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	7M4R7MC1/8EA21C1/8M4R7MC1/QPS2A4R7MG1 090	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[μF(VAC minimum)]
5 Motor protection	4TM445KFBYY-53	
6 Start winding resistance	6.20	[Ωat 25°C (77°F)] +/- 8%
7 Run winding resistance	3.30	[Ωat 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	18.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.28	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	3.81	[A] - Measured according to UL 984
11 Approval boards certification	TUV	

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]
837	211	245	163	2.04	2.63	5.15	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]	[W/W]
-35	(-31)	493	124	144	100	1.94	1.54	4.94	1.25	1.45
-30	(-22)	640	161	188	115	2.04	2.01	5.58	1.41	1.64
-25	(-13)	812	205	238	128	2.09	2.55	6.40	1.61	1.87
-20	(- 4)	1021	257	299	139	2.13	3.21	7.36	1.86	2.16
-15	(+ 5)	1279	322	375	150	2.17	4.02	8.45	2.13	2.48
-10	(+14)	1597	402	468	165	2.24	5.04	9.63	2.43	2.82

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)	468	118	137	109	2.01	1.47	4.29	1.08	1.26
-30	(-22)	623	157	183	127	2.13	1.95	4.89	1.23	1.43
-25	(-13)	799	201	234	142	2.20	2.51	5.64	1.42	1.65
-20	(- 4)	1007	254	295	155	2.25	3.16	6.50	1.64	1.91
-15	(+ 5)	1258	317	369	169	2.30	3.96	7.46	1.88	2.19
-10	(+14)	1566	395	459	184	2.38	4.94	8.48	2.14	2.48

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)	418	105	122	108	2.01	1.31	3.85	0.97	1.13
-30	(-22)	586	148	172	132	2.16	1.84	4.42	1.11	1.29
-25	(-13)	771	194	226	151	2.26	2.42	5.10	1.28	1.49
-20	(- 4)	983	248	288	168	2.33	3.09	5.87	1.48	1.72
-15	(+ 5)	1234	311	362	185	2.41	3.89	6.70	1.69	1.96
-10	(+14)	1536	387	450	203	2.51	4.85	7.57	1.91	2.22

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)	341	86	100	98	1.93	1.07	3.52	0.89	1.03
-30	(-22)	529	133	155	128	2.12	1.66	4.06	1.02	1.19
-25	(-13)	727	183	213	154	2.25	2.28	4.69	1.18	1.37
-20	(- 4)	949	239	278	177	2.37	2.98	5.37	1.35	1.57
-15	(+ 5)	1205	304	353	199	2.48	3.79	6.09	1.53	1.78
-10	(+14)	1507	380	442	222	2.61	4.76	6.81	1.72	1.99

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

