

COMPRESSOR DEFINITION

Designation	EG S80CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513700155

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-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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	-	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	98 to 140 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 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	MINERAL / ISO10	
4 Weight (with oil charge)	11.28	[kg] (24.87 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	7M4R7MC1/8EA14C1/8EA21C1/8M4R7MC1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM762MFBZZ-53	
6 Start winding resistance	5.81	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.31	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	21.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.37	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
850	214	249	160	2.21	2.67	5.30	1.34	1.55

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	513	129	150	113	1.97	1.61	4.53	1.14	1.33
-30	(-22)	640	161	187	128	2.04	2.00	5.01	1.26	1.47
-25	(-13)	826	208	242	145	2.13	2.59	5.70	1.44	1.67
-20	(- 4)	1066	269	312	163	2.23	3.35	6.53	1.65	1.91
-15	(+ 5)	1357	342	398	181	2.34	4.27	7.48	1.89	2.19
-10	(+14)	1694	427	496	199	2.46	5.34	8.50	2.14	2.49
-5	(+23)	2071	522	607	217	2.59	6.55	9.55	2.41	2.80

TEST CONDITIONS: @115V60Hz		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)	482	122	141	113	1.97	1.51	4.26	1.07	1.25
-30	(-22)	616	155	180	130	2.05	1.93	4.79	1.21	1.40
-25	(-13)	806	203	236	148	2.14	2.53	5.48	1.38	1.60
-20	(- 4)	1049	264	307	167	2.25	3.30	6.28	1.58	1.84
-15	(+ 5)	1340	338	393	187	2.37	4.22	7.17	1.81	2.10
-10	(+14)	1675	422	491	207	2.51	5.28	8.09	2.04	2.37
-5	(+23)	2049	516	600	227	2.66	6.48	9.01	2.27	2.64

TEST CONDITIONS: @115V60Hz		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)	434	109	127	114	1.98	1.36	3.77	0.95	1.11
-30	(-22)	575	145	168	133	2.06	1.80	4.33	1.09	1.27
-25	(-13)	770	194	226	153	2.17	2.42	5.01	1.26	1.47
-20	(- 4)	1016	256	298	176	2.30	3.19	5.78	1.46	1.69
-15	(+ 5)	1309	330	383	199	2.44	4.12	6.60	1.66	1.93
-10	(+14)	1642	414	481	222	2.60	5.18	7.42	1.87	2.17
-5	(+23)	2013	507	590	246	2.78	6.37	8.20	2.07	2.40

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	349	88	102	108	1.94	1.09	3.26	0.82	0.96
-30	(-22)	498	125	146	130	2.04	1.56	3.84	0.97	1.13
-25	(-13)	699	176	205	154	2.18	2.19	4.52	1.14	1.32
-20	(- 4)	949	239	278	181	2.33	2.98	5.24	1.32	1.54
-15	(+ 5)	1243	313	364	208	2.51	3.91	5.98	1.51	1.75
-10	(+14)	1576	397	462	236	2.70	4.97	6.69	1.69	1.96
-5	(+23)	1944	490	570	265	2.92	6.15	7.33	1.85	2.15

F - EXTERNAL CHARACTERISTICS

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