

### COMPRESSOR DEFINITION

Designation	EG S80CLP
Nominal Voltage/Frequency	220-240 V 50-60 Hz
Engineering Number	513700156

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50-60	[ 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	187 to 255 V	187 to 242 V
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 V	187 to 242 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 <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/4	[hp]
2 Displacement	11.14	[cm <sup>3</sup> ] (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)	11.12	[kg] (24.51 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50-60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	7M220MC1/8EA17C1/8EA5B1/8M220MC1/MS34X 220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	MSC34A49J3	
6 Start winding resistance	20.20	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	9.35	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	11.40/10.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	1.93/1.73	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50/60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
515	130	151	134	1.25	1.96	3.85	0.97	1.13

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	358	90	105	103	1.20	1.24	3.49	0.88	1.02
-30	(-22)	445	112	130	114	1.21	1.55	3.94	0.99	1.16
-25	(-13)	579	146	170	126	1.24	2.01	4.62	1.17	1.35
-20	(- 4)	758	191	222	138	1.26	2.64	5.47	1.38	1.60
-15	(+ 5)	978	247	287	152	1.29	3.42	6.41	1.61	1.88
-10	(+14)	1238	312	363	167	1.33	4.33	7.39	1.86	2.16
-5	(+23)	1535	387	450	184	1.37	5.39	8.34	2.10	2.44

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	306	77	90	105	1.20	1.16	2.90	0.73	0.85
-30	(-22)	391	99	115	120	1.22	1.49	3.29	0.83	0.96
-25	(-13)	514	130	151	134	1.25	1.97	3.85	0.97	1.13
-20	(- 4)	673	170	197	148	1.28	2.57	4.55	1.15	1.33
-15	(+ 5)	864	218	253	163	1.32	3.31	5.30	1.34	1.55
-10	(+14)	1085	274	318	179	1.37	4.16	6.05	1.53	1.77
-5	(+23)	1334	336	391	198	1.42	5.13	6.74	1.70	1.98

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	246	62	72	107	1.20	1.04	2.30	0.58	0.67
-30	(-22)	330	83	97	124	1.23	1.40	2.64	0.67	0.77
-25	(-13)	444	112	130	141	1.27	1.88	3.13	0.79	0.92
-20	(- 4)	583	147	171	158	1.31	2.47	3.70	0.93	1.08
-15	(+ 5)	747	188	219	175	1.35	3.17	4.29	1.08	1.26
-10	(+14)	931	235	273	193	1.41	3.96	4.85	1.22	1.42
-5	(+23)	1134	286	332	213	1.47	4.85	5.30	1.34	1.55

### 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		