

COMPRESSOR DEFINITION

Designation	EG YS90CLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701339

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	RSCR		
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	12.21	[cm ³] (0.745 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	23.000	
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)	11.22	[kg] (24.74 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	8EA14C3/8EA21C3/QPS2-A4R7MD3/QPS2-A4R7MD3 094	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)	[µF(VAC minimum)]
5 Motor protection	4TM 771NFBZZ-53	
6 Start winding resistance	6.30	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	2.50	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	24.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	3.45	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	4.45	[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]
912	230	267	156	1.56	2.86	5.84	1.47	1.71

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)	526	133	154	102	1.22	1.65	5.15	1.30	1.51
-30 (-22)	681	172	200	116	1.30	2.14	5.90	1.49	1.73
-25 (-13)	869	219	255	129	1.38	2.73	6.76	1.70	1.98
-20 (- 4)	1102	278	323	142	1.47	3.46	7.73	1.95	2.27
-15 (+ 5)	1394	351	409	157	1.56	4.39	8.84	2.23	2.59
-10 (+14)	1759	443	516	173	1.66	5.55	10.12	2.55	2.97

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)	514	130	151	109	1.26	1.61	4.70	1.18	1.38
-30 (-22)	680	171	199	126	1.36	2.13	5.39	1.36	1.58
-25 (-13)	871	219	255	142	1.46	2.73	6.15	1.55	1.80
-20 (- 4)	1101	277	323	158	1.57	3.46	6.98	1.76	2.04
-15 (+ 5)	1384	349	406	175	1.68	4.36	7.91	1.99	2.32
-10 (+14)	1734	437	508	193	1.81	5.47	8.96	2.26	2.63

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)	464	117	136	109	1.26	1.45	4.24	1.07	1.24
-30 (-22)	646	163	189	131	1.39	2.03	4.92	1.24	1.44
-25 (-13)	847	214	248	151	1.52	2.66	5.62	1.42	1.65
-20 (- 4)	1081	273	317	171	1.65	3.40	6.35	1.60	1.86
-15 (+ 5)	1362	343	399	191	1.79	4.29	7.15	1.80	2.09
-10 (+14)	1702	429	499	212	1.95	5.37	8.02	2.02	2.35

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)	375	94	110	102	1.23	1.17	3.72	0.94	1.09
-30	(-22)	580	146	170	129	1.39	1.82	4.42	1.11	1.30
-25	(-13)	798	201	234	155	1.55	2.51	5.11	1.29	1.50
-20	(- 4)	1042	263	305	180	1.72	3.28	5.79	1.46	1.70
-15	(+ 5)	1326	334	389	205	1.89	4.18	6.49	1.63	1.90
-10	(+14)	1663	419	487	231	2.08	5.25	7.22	1.82	2.12

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		