

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	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	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	8EA21C1/QPS2-A4R7MG1 090	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[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)	4.10	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	4.85	[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	163	2.16	2.86	5.60	1.41	1.64

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)	525	132	154	105	1.93	1.64	5.00	1.26	1.47	
-30 (-22)	685	173	201	120	1.99	2.14	5.72	1.44	1.68	
-25 (-13)	878	221	257	134	2.05	2.75	6.58	1.66	1.93	
-20 (- 4)	1122	283	329	148	2.11	3.52	7.57	1.91	2.22	
-15 (+ 5)	1431	361	419	163	2.17	4.50	8.69	2.19	2.55	
-10 (+14)	1821	459	534	182	2.24	5.74	9.93	2.50	2.91	

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)	519	131	152	112	1.95	1.62	4.61	1.16	1.35	
-30 (-22)	681	172	199	131	2.03	2.13	5.21	1.31	1.53	
-25 (-13)	868	219	254	148	2.11	2.72	5.92	1.49	1.73	
-20 (- 4)	1096	276	321	164	2.19	3.44	6.73	1.70	1.97	
-15 (+ 5)	1381	348	405	181	2.28	4.35	7.64	1.93	2.24	
-10 (+14)	1739	438	509	200	2.39	5.48	8.65	2.18	2.53	

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)	465	117	136	112	1.96	1.46	4.14	1.04	1.21	
-30 (-22)	645	162	189	136	2.05	2.02	4.70	1.18	1.38	
-25 (-13)	841	212	246	158	2.15	2.64	5.34	1.35	1.57	
-20 (- 4)	1070	270	313	178	2.26	3.36	6.06	1.53	1.77	
-15 (+ 5)	1346	339	394	198	2.38	4.24	6.84	1.72	2.00	
-10 (+14)	1687	425	494	220	2.52	5.32	7.67	1.93	2.25	

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)	363	91	106	104	1.95	1.14	3.52	0.89	1.03
-30	(-22)	576	145	169	136	2.06	1.81	4.13	1.04	1.21
-25	(-13)	797	201	234	164	2.17	2.50	4.78	1.20	1.40
-20	(- 4)	1042	263	305	190	2.31	3.28	5.47	1.38	1.60
-15	(+ 5)	1326	334	389	215	2.46	4.18	6.19	1.56	1.81
-10	(+14)	1665	420	488	241	2.64	5.26	6.94	1.75	2.03

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		