

### COMPRESSOR DEFINITION

Designation	EG YS110CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513701371

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220-240 / 50	[ 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	187 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	187 to 255 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 <sup>2</sup> ] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm <sup>2</sup> ] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	14.77	[cm <sup>3</sup> ] (0.901 cu.in)
2.1 Bore [mm]	28.000	
2.2 Stroke [mm]	24.000	
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)	10.98	[kg] (24.21 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8EA17C3/8EA17E61/QPS2-A22MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(330)	[µF(VAC minimum)]
5 Motor protection	4TM283KFBYY-53	
6 Start winding resistance	18.60	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	13.27	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
896	226	263	148	0.74	2.81	6.07	1.53	1.78

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			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)	534	135	157	95	0.46	1.67	5.60	1.41	1.64
-30 (-22)	695	175	204	109	0.55	2.18	6.39	1.61	1.87
-25 (-13)	888	224	260	122	0.60	2.78	7.30	1.84	2.14
-20 (- 4)	1125	283	330	135	0.65	3.53	8.32	2.10	2.44
-15 (+ 5)	1417	357	415	150	0.70	4.46	9.41	2.37	2.76
-10 (+14)	1776	448	521	168	0.77	5.60	10.55	2.66	3.09

TEST CONDITIONS: @220V50Hz			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)	499	126	146	100	0.50	1.56	5.03	1.27	1.47
-30 (-22)	659	166	193	117	0.60	2.07	5.67	1.43	1.66
-25 (-13)	850	214	249	132	0.67	2.67	6.44	1.62	1.89
-20 (- 4)	1082	273	317	148	0.72	3.40	7.32	1.84	2.14
-15 (+ 5)	1368	345	401	165	0.78	4.31	8.26	2.08	2.42
-10 (+14)	1718	433	503	185	0.86	5.42	9.25	2.33	2.71

TEST CONDITIONS: @220V50Hz			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)	481	121	141	104	0.51	1.51	4.64	1.17	1.36
-30 (-22)	638	161	187	124	0.63	2.00	5.15	1.30	1.51
-25 (-13)	823	207	241	142	0.72	2.58	5.79	1.46	1.70
-20 (- 4)	1047	264	307	160	0.78	3.29	6.52	1.64	1.91
-15 (+ 5)	1321	333	387	180	0.85	4.16	7.33	1.85	2.15
-10 (+14)	1657	418	486	202	0.94	5.23	8.18	2.06	2.40

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	458	115	134	106	0.52	1.43	4.28	1.08	1.26
-30	(-22)	607	153	178	129	0.66	1.90	4.67	1.18	1.37
-25	(-13)	781	197	229	151	0.76	2.45	5.19	1.31	1.52
-20	(- 4)	993	250	291	172	0.85	3.12	5.79	1.46	1.70
-15	(+ 5)	1252	316	367	195	0.94	3.94	6.47	1.63	1.90
-10	(+14)	1571	396	460	219	1.03	4.96	7.18	1.81	2.11

### F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
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		