

COMPRESSOR DEFINITION

Designation	EG YS80CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513701270

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	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	198 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 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 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	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	ALQUILB / ISO5	
4 Weight (with oil charge)	10.97	[kg] (24.18 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

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	8EA17C1/8EA17E63/QPS2-A22MG1/QPS2-A22MG1 092/QPS2	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM283KFBYY-53	
6 Start winding resistance	23.32	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.33	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	8.10/7.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	1.37/1.22	[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	CE - IRAM - UKCA - VDE	

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]
678	171	199	115	0.85	2.13	5.92	1.49	1.73

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)	382	96	112	49	0.75	1.20	7.64	1.93	2.24
-30 (-22)	515	130	151	72	0.78	1.61	7.39	1.86	2.17
-25 (-13)	670	169	196	91	0.81	2.10	7.52	1.90	2.20
-20 (- 4)	857	216	251	108	0.85	2.69	8.00	2.02	2.35
-15 (+ 5)	1086	274	318	123	0.89	3.42	8.83	2.23	2.59
-10 (+14)	1368	345	401	136	0.93	4.31	10.00	2.52	2.93

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)	380	96	111	72	0.77	1.19	5.46	1.38	1.60
-30 (-22)	504	127	148	89	0.79	1.58	5.68	1.43	1.67
-25 (-13)	648	163	190	104	0.82	2.03	6.16	1.55	1.81
-20 (- 4)	823	208	241	118	0.86	2.59	6.88	1.73	2.02
-15 (+ 5)	1040	262	305	131	0.91	3.27	7.84	1.97	2.30
-10 (+14)	1309	330	383	144	0.96	4.13	9.01	2.27	2.64

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)	366	92	107	83	0.77	1.15	4.37	1.10	1.28
-30 (-22)	481	121	141	97	0.79	1.51	4.85	1.22	1.42
-25 (-13)	616	155	180	110	0.83	1.93	5.47	1.38	1.60
-20 (- 4)	781	197	229	124	0.87	2.45	6.22	1.57	1.82
-15 (+ 5)	986	248	289	139	0.93	3.10	7.09	1.79	2.08
-10 (+14)	1242	313	364	155	1.00	3.92	8.06	2.03	2.36

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)	340	86	100	82	0.77	1.07	4.10	1.03	1.20
-30	(-22)	447	113	131	96	0.80	1.40	4.62	1.16	1.35
-25	(-13)	573	144	168	112	0.84	1.80	5.18	1.30	1.52
-20	(- 4)	728	183	213	129	0.90	2.29	5.75	1.45	1.68
-15	(+ 5)	922	232	270	148	0.97	2.90	6.32	1.59	1.85
-10	(+14)	1166	294	342	170	1.06	3.68	6.88	1.73	2.02

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		