



COMPRESSOR TECHNICAL DATA

COMPRESSOR DEFINITION

Designation	EG YS90CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513701022

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 pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 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)	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	7M220MC1/8EA17C1/8M220MC1	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM319KFBYY-53	
6 Start winding resistance	23.31	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	11.64	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	8.80/8.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	1.55/1.40	[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	



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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]
734	185	215	127	0.94	2.30	5.78	1.46	1.69

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]
-35 (-31)	443	112	130	86	0.84	1.39	5.15	1.30	1.51
-30 (-22)	578	146	169	97	0.87	1.81	5.95	1.50	1.74
-25 (-13)	749	189	219	110	0.90	2.35	6.84	1.72	2.00
-20 (- 4)	959	242	281	123	0.94	3.01	7.77	1.96	2.28
-15 (+ 5)	1212	305	355	139	0.98	3.81	8.72	2.20	2.56
-10 (+14)	1513	381	443	157	1.02	4.77	9.66	2.43	2.83

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]
-35 (-31)	420	106	123	92	0.85	1.32	4.57	1.15	1.34
-30 (-22)	548	138	161	104	0.88	1.72	5.30	1.34	1.55
-25 (-13)	710	179	208	116	0.91	2.23	6.13	1.55	1.80
-20 (- 4)	911	230	267	130	0.96	2.86	7.03	1.77	2.06
-15 (+ 5)	1156	291	339	145	1.01	3.64	7.96	2.01	2.33
-10 (+14)	1448	365	424	162	1.07	4.57	8.90	2.24	2.61

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]
-35 (-31)	402	101	118	96	0.86	1.26	4.19	1.06	1.23
-30 (-22)	521	131	153	109	0.89	1.63	4.79	1.21	1.40
-25 (-13)	675	170	198	123	0.93	2.12	5.50	1.39	1.61
-20 (- 4)	868	219	254	138	0.98	2.73	6.30	1.59	1.85
-15 (+ 5)	1103	278	323	155	1.04	3.47	7.15	1.80	2.09
-10 (+14)	1386	349	406	173	1.11	4.37	8.02	2.02	2.35



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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)	388	98	114	96	0.86	1.22	4.05	1.02	1.19
-30	(-22)	499	126	146	112	0.89	1.57	4.45	1.12	1.30
-25	(-13)	645	163	189	129	0.94	2.02	4.98	1.26	1.46
-20	(- 4)	829	209	243	148	1.00	2.61	5.61	1.41	1.64
-15	(+ 5)	1056	266	309	167	1.07	3.33	6.31	1.59	1.85
-10	(+14)	1329	335	390	189	1.15	4.20	7.05	1.78	2.07



COMPRESSOR TECHNICAL DATA

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		