

**COMPRESSOR DEFINITION**

Designation	<b>EG YS90CLP</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>513701363</b>

**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 (gauge)	[60]	[ °C ]	
9.2 Peak (gauge)	[70]	[ °C ]	
10 Maximum winding temperature	130	[ °C ]	

**B - MECHANICAL DATA**

1 Commercial designation	1/4+	[hp]
2 Displacement	12,21	[cm <sup>3</sup> ] (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 <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	7M220MC1/8EA17C1/8M220MC1/QPS2-A22MG1/QPS2-A22MG1	
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	

**D - PERFORMANCE - CHECK POINT DATA**

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAELBP32</b> <b>Static</b>		Evaporating temperature (Condensing temperature	<b>-23,3°C (-9,94°F)</b> <b>54,4°C (129,92°F)</b>		
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

TEST CONDITIONS: <b>@220V50Hz</b>			<b>CECOMAFLBP</b> <b>Static</b>		Evaporating temperature (Condensing temperature	<b>-25°C (-13°F)</b> <b>55°C (131°F)</b>		
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]
554	140	162	122	0,92	2,11	4,54	1,14	1,33

**E - PERFORMANCE - CURVES**

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAE32</b> <b>Static</b>		(Condensing temperature <b>35°C (+95°F)</b> )				
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]
<b>-35 (-31)</b>	443	112	130	86	0,84	1,39	5,15	1,30	1,51
<b>-30 (-22)</b>	578	146	169	97	0,87	1,81	5,95	1,50	1,74
<b>-25 (-13)</b>	749	189	219	110	0,90	2,35	6,84	1,72	2,00
<b>-20 (- 4)</b>	959	242	281	123	0,94	3,01	7,77	1,96	2,28
<b>-15 (+ 5)</b>	1212	305	355	139	0,98	3,81	8,72	2,20	2,56
<b>-10 (+14)</b>	1513	381	443	157	1,02	4,77	9,66	2,43	2,83
<b>-5 (+23)</b>									

TEST CONDITIONS: <b>@220V50Hz</b>			<b>ASHRAE32</b> <b>Static</b>		(Condensing temperature <b>45°C (+113°F)</b> )				
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]
<b>-35 (-31)</b>	420	106	123	92	0,85	1,32	4,57	1,15	1,34
<b>-30 (-22)</b>	548	138	161	104	0,88	1,72	5,30	1,34	1,55
<b>-25 (-13)</b>	710	179	208	116	0,91	2,23	6,13	1,55	1,80
<b>-20 (- 4)</b>	911	230	267	130	0,96	2,86	7,03	1,77	2,06
<b>-15 (+ 5)</b>	1156	291	339	145	1,01	3,64	7,96	2,01	2,33
<b>-10 (+14)</b>	1448	365	424	162	1,07	4,57	8,90	2,24	2,61
<b>-5 (+23)</b>									

**E - PERFORMANCE - CURVES**

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 55°C (+131°F))					
@220V50Hz		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-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
-5	(+23)									

TEST CONDITIONS:		ASHRAE32			(Condensing temperature 65°C (+149°F))					
@220V50Hz		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 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
-5	(+23)									

TEST CONDITIONS:		CECOMAF			(Condensing temperature 35°C (+95°F))					
@220V50Hz		Static								
Evaporating temperature		Cooling capacity			Power consumption	Current consumption	Gas flow rate	EFFICIENCY RATE		
		+/- 5%			+/- 5%	+/- 5%	+/- 5%	+/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	433	109	127	86	0,84	1,39	5,03	1,27	1,47
-30	(-22)	565	142	165	97	0,87	1,81	5,82	1,47	1,71
-25	(-13)	731	184	214	110	0,90	2,35	6,68	1,68	1,96
-20	(- 4)	937	236	275	123	0,94	3,01	7,59	1,91	2,22
-15	(+ 5)	1185	299	347	139	0,98	3,81	8,52	2,15	2,50
-10	(+14)	1479	373	433	157	1,02	4,77	9,44	2,38	2,77
-5	(+23)									

**E - PERFORMANCE - CURVES**

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	379	96	111	92	0,85	1,32	4,12	1,04	1,21
-30	(-22)	494	124	145	104	0,88	1,72	4,79	1,21	1,40
-25	(-13)	640	161	188	116	0,91	2,23	5,53	1,39	1,62
-20	(- 4)	822	207	241	130	0,96	2,86	6,34	1,60	1,86
-15	(+ 5)	1042	263	305	145	1,01	3,64	7,18	1,81	2,10
-10	(+14)	1304	329	382	162	1,07	4,57	8,02	2,02	2,35
-5	(+23)									

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	331	83	97	96	0,86	1,26	3,44	0,87	1,01
-30	(-22)	429	108	126	109	0,89	1,63	3,94	0,99	1,15
-25	(-13)	556	140	163	123	0,93	2,12	4,53	1,14	1,33
-20	(- 4)	714	180	209	138	0,98	2,73	5,19	1,31	1,52
-15	(+ 5)	907	229	266	155	1,04	3,47	5,89	1,48	1,72
-10	(+14)	1139	287	334	173	1,11	4,37	6,60	1,66	1,93
-5	(+23)									

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	288	73	84	96	0,86	1,22	3,02	0,76	0,88
-30	(-22)	372	94	109	112	0,89	1,57	3,30	0,83	0,97
-25	(-13)	479	121	140	129	0,94	2,02	3,69	0,93	1,08
-20	(- 4)	615	155	180	148	1,00	2,61	4,16	1,05	1,22
-15	(+ 5)	782	197	229	167	1,07	3,33	4,68	1,18	1,37
-10	(+14)	984	248	288	189	1,15	4,20	5,22	1,32	1,53
-5	(+23)									

**F - EXTERNAL CHARACTERISTICS**

1 Base plate	Universal 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	6,5 +0.12/-0.08	[mm]	(0.256" +0.005"/-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	Slanted		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		