

### COMPRESSOR DEFINITION

Designation	EG 70CLP
Nominal Voltage/Frequency	220 V 50-60 Hz
Engineering Number	513700030

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	220 / 50-60	[ V / Hz ]	
4 Application type	Low-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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	187 to 242 V	187 to 242 V
8.2 LBP (43°C Ambient temperature)	Static	187 to 242 V	187 to 242 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	1/4	[hp]
2 Displacement	11.14	[cm <sup>3</sup> ] (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	MINERAL / ISO10	
4 Weight (with oil charge)	10.71	[kg] (23.61 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220 V 50-60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	8M220MC1/QPS2-A22MG1 092	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	4TM283NFBYY-53	
6 Start winding resistance	23.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	12.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50/60 Hz)	8.50/8.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50/60 Hz)	1.70/1.60	[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		

### 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]
612	154	179	142	1.25	1.92	4.31	1.09	1.26

TEST CONDITIONS: @220V60Hz			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]
747	188	219	158	1.14	2.35	4.72	1.19	1.38

### E - PERFORMANCE - CURVES

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)	332	84	97	108	1.20	1.04	3.10	0.78	0.91
-30	(-22)	448	113	131	120	1.21	1.40	3.75	0.94	1.10
-25	(-13)	597	150	175	133	1.23	1.87	4.48	1.13	1.31
-20	(- 4)	782	197	229	147	1.26	2.46	5.30	1.34	1.55
-15	(+ 5)	1009	254	296	162	1.29	3.18	6.20	1.56	1.82
-10	(+14)	1282	323	376	179	1.34	4.05	7.17	1.81	2.10
-5	(+23)	1607	405	471	196	1.38	5.08	8.20	2.07	2.40

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)	296	75	87	108	1.20	0.93	2.72	0.69	0.80
-30	(-22)	408	103	120	123	1.21	1.28	3.33	0.84	0.98
-25	(-13)	551	139	161	138	1.24	1.73	4.00	1.01	1.17
-20	(- 4)	729	184	214	154	1.27	2.29	4.73	1.19	1.39
-15	(+ 5)	946	238	277	172	1.32	2.98	5.52	1.39	1.62
-10	(+14)	1208	304	354	190	1.37	3.81	6.35	1.60	1.86
-5	(+23)	1518	383	445	210	1.43	4.80	7.22	1.82	2.12

### 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)	235	59	69	106	1.19	0.74	2.21	0.56	0.65	
-30 (-22)	351	89	103	123	1.21	1.10	2.84	0.72	0.83	
-25 (-13)	495	125	145	141	1.24	1.56	3.51	0.88	1.03	
-20 (- 4)	673	169	197	160	1.28	2.11	4.21	1.06	1.23	
-15 (+ 5)	887	224	260	180	1.33	2.79	4.94	1.24	1.45	
-10 (+14)	1144	288	335	201	1.39	3.61	5.69	1.43	1.67	
-5 (+23)	1447	365	424	224	1.46	4.58	6.46	1.63	1.89	

TEST CONDITIONS: @220V60Hz		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)	392	99	115	110	1.02	1.23	3.54	0.89	1.04	
-30 (-22)	542	137	159	129	1.06	1.70	4.23	1.07	1.24	
-25 (-13)	718	181	210	146	1.10	2.25	4.94	1.25	1.45	
-20 (- 4)	928	234	272	164	1.16	2.92	5.68	1.43	1.66	
-15 (+ 5)	1182	298	346	183	1.22	3.72	6.45	1.62	1.89	
-10 (+14)	1489	375	436	204	1.29	4.70	7.26	1.83	2.13	
-5 (+23)	1857	468	544	229	1.38	5.87	8.12	2.05	2.38	

TEST CONDITIONS: @220V60Hz		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)	324	82	95	106	1.01	1.01	3.04	0.77	0.89	
-30 (-22)	487	123	143	129	1.06	1.53	3.75	0.94	1.10	
-25 (-13)	670	169	196	150	1.12	2.10	4.44	1.12	1.30	
-20 (- 4)	884	223	259	172	1.18	2.78	5.13	1.29	1.50	
-15 (+ 5)	1137	286	333	195	1.26	3.58	5.82	1.47	1.71	
-10 (+14)	1437	362	421	220	1.34	4.54	6.53	1.64	1.91	
-5 (+23)	1795	452	526	248	1.44	5.68	7.25	1.83	2.12	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V60Hz		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)	273	69	80	100	1.00	0.85	2.73	0.69	0.80
-30	(-22)	441	111	129	127	1.06	1.38	3.42	0.86	1.00
-25	(-13)	625	157	183	153	1.13	1.96	4.06	1.02	1.19
-20	(- 4)	834	210	244	179	1.21	2.62	4.67	1.18	1.37
-15	(+ 5)	1078	272	316	206	1.30	3.39	5.25	1.32	1.54
-10	(+14)	1365	344	400	235	1.40	4.31	5.80	1.46	1.70
-5	(+23)	1704	429	499	268	1.52	5.39	6.35	1.60	1.86

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	Yes		
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		