

### COMPRESSOR DEFINITION

Designation	EG M90CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513700285

### 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	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 <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/5	[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	MINERAL / ISO10	
4 Weight (with oil charge)	11	[kg] (24.25 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	7M220MD2/7M220MD3/8EA17C3/8EA5B3/8M220MD2	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-53	
6 Start winding resistance	25.50	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	18.40	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.82	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	IRAM - 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]
745	188	218	134	0.60	2.34	5.56	1.40	1.63

### 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)	398	100	117	93	0.42	1.25	4.28	1.08	1.25
-30 (-22)	546	138	160	108	0.47	1.71	5.04	1.27	1.48
-25 (-13)	713	180	209	123	0.53	2.24	5.81	1.46	1.70
-20 (- 4)	911	230	267	138	0.60	2.86	6.61	1.66	1.94
-15 (+ 5)	1149	290	337	154	0.68	3.62	7.45	1.88	2.18
-10 (+14)	1439	363	422	172	0.76	4.54	8.35	2.11	2.45

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)	371	93	109	95	0.43	1.16	3.91	0.99	1.15
-30 (-22)	516	130	151	111	0.49	1.62	4.62	1.17	1.35
-25 (-13)	681	171	199	128	0.56	2.14	5.32	1.34	1.56
-20 (- 4)	874	220	256	145	0.64	2.75	6.02	1.52	1.76
-15 (+ 5)	1108	279	325	164	0.73	3.49	6.74	1.70	1.97
-10 (+14)	1391	351	408	186	0.83	4.39	7.48	1.89	2.19

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)	346	87	101	97	0.44	1.08	3.56	0.90	1.04
-30 (-22)	482	121	141	113	0.51	1.51	4.24	1.07	1.24
-25 (-13)	635	160	186	131	0.58	1.99	4.87	1.23	1.43
-20 (- 4)	817	206	240	150	0.67	2.57	5.48	1.38	1.60
-15 (+ 5)	1038	262	304	172	0.77	3.27	6.07	1.53	1.78
-10 (+14)	1308	330	383	196	0.88	4.13	6.66	1.68	1.95

### 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		