

COMPRESSOR DEFINITION

Designation	EM D46CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	700MA77

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	187 to 255 V	-
8.2 LBP (43°C Ambient temperature)	Static	187 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		[hp]
2 Displacement	7.96	[cm ³] (0.486 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	17.600	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.75	[kg] (17.09 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	TSD	
2.1 Starting device	TSD2-220V/TSD2-220V1.2	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	3(350)	[µF(VAC minimum)]
5 Motor protection	4TM197JDBYY-73	
6 Start winding resistance	21.95	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	23.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFLBP-NOFAN Static		Evaporating temperature (Condensing temperature	-25°C (-13°F) 55°C (131°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]
330	83	97	65	0.33	1.26	5.07	1.28	1.49

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN 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)	263	66	77	46	0.24	0.84	5.71	1.44	1.67	
-30 (-22)	353	89	103	54	0.27	1.13	6.55	1.65	1.92	
-25 (-13)	466	117	136	62	0.31	1.49	7.51	1.89	2.20	
-20 (- 4)	602	152	176	71	0.34	1.94	8.58	2.16	2.51	
-15 (+ 5)	763	192	223	79	0.37	2.46	9.76	2.46	2.86	
-10 (+14)	947	239	278	86	0.41	3.06	11.05	2.78	3.24	

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN 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)	221	56	65	46	0.24	0.77	4.78	1.21	1.40	
-30 (-22)	301	76	88	55	0.28	1.04	5.45	1.37	1.60	
-25 (-13)	402	101	118	64	0.32	1.40	6.20	1.56	1.82	
-20 (- 4)	525	132	154	74	0.37	1.83	7.02	1.77	2.06	
-15 (+ 5)	670	169	196	85	0.41	2.34	7.91	1.99	2.32	
-10 (+14)	839	211	246	95	0.46	2.94	8.87	2.23	2.60	

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN 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)	177	45	52	47	0.25	0.68	3.87	0.98	1.13	
-30 (-22)	246	62	72	55	0.29	0.93	4.44	1.12	1.30	
-25 (-13)	334	84	98	66	0.34	1.27	5.04	1.27	1.48	
-20 (- 4)	442	111	130	77	0.38	1.69	5.68	1.43	1.66	
-15 (+ 5)	572	144	168	90	0.44	2.19	6.35	1.60	1.86	
-10 (+14)	723	182	212	102	0.49	2.77	7.04	1.77	2.06	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN 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)	140	35	41	46	0.25	0.59	2.99	0.75	0.88
-30	(-22)	196	49	57	56	0.29	0.83	3.52	0.89	1.03
-25	(-13)	270	68	79	67	0.34	1.14	4.05	1.02	1.19
-20	(- 4)	363	91	106	80	0.40	1.54	4.57	1.15	1.34
-15	(+ 5)	475	120	139	94	0.46	2.02	5.08	1.28	1.49
-10	(+14)	607	153	178	109	0.52	2.59	5.58	1.41	1.64

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42° up + 45° to Back		
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	Slanted 0° up + 45° to Back		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		