

COMPRESSOR DEFINITION

Designation	EM C46CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	700DA77

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	1/7	[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)	7.4	[kg] (16.31 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	M.I.E-START 2021	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	4(350)/3(350)	[µF(VAC minimum)]
5 Motor protection	AE37FN	
6 Start winding resistance	21.45	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	26.20	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.15	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.69	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.84	[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]
333	84	98	69	0.33	1.27	4.82	1.21	1.41

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)	239	60	70	47	0.23	0.76	5.09	1.28	1.49	
-30 (-22)	340	86	100	55	0.26	1.09	6.13	1.55	1.80	
-25 (-13)	460	116	135	64	0.30	1.48	7.22	1.82	2.11	
-20 (- 4)	599	151	175	72	0.34	1.93	8.35	2.10	2.45	
-15 (+ 5)	759	191	222	80	0.37	2.44	9.52	2.40	2.79	
-10 (+14)	942	237	276	88	0.41	3.04	10.74	2.71	3.15	

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)	207	52	61	47	0.24	0.72	4.37	1.10	1.28	
-30 (-22)	293	74	86	57	0.28	1.02	5.13	1.29	1.50	
-25 (-13)	397	100	116	67	0.32	1.38	5.93	1.49	1.74	
-20 (- 4)	519	131	152	77	0.37	1.81	6.76	1.70	1.98	
-15 (+ 5)	661	167	194	87	0.41	2.31	7.63	1.92	2.24	
-10 (+14)	826	208	242	97	0.46	2.89	8.54	2.15	2.50	

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)	175	44	51	48	0.24	0.67	3.65	0.92	1.07	
-30 (-22)	247	62	72	59	0.29	0.94	4.21	1.06	1.23	
-25 (-13)	336	85	98	70	0.33	1.28	4.80	1.21	1.41	
-20 (- 4)	442	111	130	81	0.39	1.69	5.42	1.37	1.59	
-15 (+ 5)	569	143	167	93	0.44	2.18	6.06	1.53	1.78	
-10 (+14)	716	181	210	106	0.50	2.75	6.73	1.70	1.97	

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	45	0.23	0.59	3.12	0.79	0.91
-30	(-22)	200	50	59	56	0.28	0.84	3.55	0.89	1.04
-25	(-13)	276	69	81	69	0.33	1.16	4.00	1.01	1.17
-20	(- 4)	368	93	108	82	0.39	1.56	4.47	1.13	1.31
-15	(+ 5)	480	121	141	96	0.46	2.04	4.97	1.25	1.46
-10	(+14)	612	154	179	112	0.52	2.61	5.48	1.38	1.61

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		