

COMPRESSOR DEFINITION

Designation	EM C46CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	700DA90

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	PTC	
2.1 Starting device	MI2021XV230	
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	71	0.34	1.27	4.68	1.18	1.37

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)	231	58	68	49	0.23	0.74	4.73	1.19	1.39	
-30 (-22)	336	85	99	57	0.26	1.08	5.84	1.47	1.71	
-25 (-13)	458	115	134	66	0.30	1.47	6.96	1.75	2.04	
-20 (- 4)	598	151	175	74	0.34	1.92	8.10	2.04	2.37	
-15 (+ 5)	759	191	222	82	0.37	2.44	9.28	2.34	2.72	
-10 (+14)	942	237	276	90	0.41	3.04	10.50	2.65	3.08	

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)	206	52	60	49	0.24	0.72	4.16	1.05	1.22	
-30 (-22)	294	74	86	59	0.28	1.02	4.97	1.25	1.46	
-25 (-13)	398	100	117	69	0.32	1.38	5.78	1.46	1.69	
-20 (- 4)	520	131	152	79	0.37	1.81	6.61	1.67	1.94	
-15 (+ 5)	662	167	194	89	0.41	2.31	7.47	1.88	2.19	
-10 (+14)	826	208	242	99	0.46	2.89	8.36	2.11	2.45	

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)	173	44	51	50	0.24	0.66	3.48	0.88	1.02	
-30 (-22)	247	62	72	61	0.29	0.94	4.08	1.03	1.19	
-25 (-13)	336	85	98	72	0.33	1.28	4.68	1.18	1.37	
-20 (- 4)	443	112	130	83	0.39	1.69	5.30	1.34	1.55	
-15 (+ 5)	568	143	167	95	0.44	2.18	5.93	1.50	1.74	
-10 (+14)	716	180	210	108	0.50	2.75	6.59	1.66	1.93	

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)	135	34	39	47	0.23	0.57	2.86	0.72	0.84
-30	(-22)	197	50	58	58	0.28	0.83	3.36	0.85	0.98
-25	(-13)	273	69	80	71	0.33	1.16	3.85	0.97	1.13
-20	(- 4)	367	92	108	84	0.39	1.56	4.35	1.10	1.27
-15	(+ 5)	479	121	140	98	0.46	2.04	4.86	1.22	1.42
-10	(+14)	612	154	179	114	0.52	2.61	5.38	1.36	1.58

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 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 43° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		