

COMPRESSOR DEFINITION

Designation	EM 2C66CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513304601

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 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	1/5	[hp]
2 Displacement	10.61	[cm ³] (0.647 cu.in)
2.1 Bore [mm]	26.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	MINERAL / ISO5	
4 Weight (with oil charge)	8.36	[kg] (18.43 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	7M220MD3/8EA17C3/QPS2-A22MD3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(310)/4(310)	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-53	
6 Start winding resistance	13.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	18.50	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.77	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification		

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]
457	115	134	95	0.45		4.81	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)	342	86	100	64	0.31	1.09	5.29	1.33	1.55	
-30 (-22)	462	117	136	76	0.36	1.49	6.10	1.54	1.79	
-25 (-13)	608	153	178	87	0.42	1.95	6.98	1.76	2.05	
-20 (- 4)	783	197	229	99	0.47	2.52	7.94	2.00	2.33	
-15 (+ 5)	991	250	290	111	0.52	3.19	8.95	2.25	2.62	
-10 (+14)	1235	311	362	123	0.57	3.98	10.01	2.52	2.93	

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)	291	73	85	66	0.32	1.01	4.44	1.12	1.30	
-30 (-22)	401	101	118	78	0.38	1.39	5.11	1.29	1.50	
-25 (-13)	533	134	156	91	0.44	1.86	5.84	1.47	1.71	
-20 (- 4)	691	174	202	104	0.49	2.41	6.62	1.67	1.94	
-15 (+ 5)	878	221	257	118	0.55	3.07	7.44	1.88	2.18	
-10 (+14)	1099	277	322	132	0.62	3.85	8.30	2.09	2.43	

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)	241	61	71	67	0.32	0.92	3.64	0.92	1.07	
-30 (-22)	340	86	100	81	0.39	1.29	4.20	1.06	1.23	
-25 (-13)	457	115	134	95	0.45	1.74	4.80	1.21	1.41	
-20 (- 4)	596	150	175	110	0.51	2.28	5.43	1.37	1.59	
-15 (+ 5)	762	192	223	125	0.58	2.92	6.08	1.53	1.78	
-10 (+14)	958	241	281	142	0.65	3.68	6.75	1.70	1.98	

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)	193	49	57	67	0.32	0.81	2.88	0.73	0.85
-30	(-22)	278	70	82	82	0.39	1.17	3.36	0.85	0.98
-25	(-13)	379	95	111	98	0.46	1.60	3.85	0.97	1.13
-20	(- 4)	499	126	146	115	0.53	2.11	4.36	1.10	1.28
-15	(+ 5)	641	162	188	132	0.61	2.73	4.87	1.23	1.43
-10	(+14)	811	204	238	151	0.70	3.46	5.38	1.36	1.58

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	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 parallel BP+24°to Back		
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	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		