

COMPRESSOR DEFINITION

Designation	EM E32CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	711AA98

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	6.20	[cm ³] (0.378 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.600	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO2	
4 Weight (with oil charge)	8.2	[kg] (18.08 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	MI2021/V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2(350)/2.5(350)/3(350)/4(350)	[µF(VAC minimum)]
5 Motor protection	AE37FN	
6 Start winding resistance	31.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	31.30	[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			ASHRAE LBP-NOFAN 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]
331	83	97	52	0.23	1.04	6.43	1.62	1.88

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32-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)	205	52	60	35	0.15	0.64	5.87	1.48	1.72	
-30 (-22)	279	70	82	41	0.18	0.87	6.81	1.72	1.99	
-25 (-13)	371	94	109	47	0.21	1.17	7.90	1.99	2.31	
-20 (- 4)	484	122	142	53	0.23	1.52	9.11	2.30	2.67	
-15 (+ 5)	615	155	180	59	0.26	1.94	10.42	2.63	3.05	
-10 (+14)	766	193	224	65	0.29	2.42	11.79	2.97	3.45	

TEST CONDITIONS: @220V50Hz		ASHRAE32-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)	179	45	52	34	0.16	0.56	5.27	1.33	1.55	
-30 (-22)	249	63	73	41	0.19	0.78	6.10	1.54	1.79	
-25 (-13)	339	85	99	48	0.22	1.06	7.03	1.77	2.06	
-20 (- 4)	448	113	131	56	0.25	1.41	8.03	2.02	2.35	
-15 (+ 5)	577	145	169	64	0.28	1.82	9.06	2.28	2.66	
-10 (+14)	726	183	213	72	0.32	2.29	10.11	2.55	2.96	

TEST CONDITIONS: @220V50Hz		ASHRAE32-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)	147	37	43	33	0.15	0.46	4.43	1.12	1.30	
-30 (-22)	213	54	62	41	0.19	0.67	5.26	1.33	1.54	
-25 (-13)	299	75	88	49	0.22	0.94	6.13	1.54	1.80	
-20 (- 4)	405	102	119	58	0.26	1.27	7.01	1.77	2.05	
-15 (+ 5)	531	134	156	67	0.31	1.67	7.89	1.99	2.31	
-10 (+14)	676	170	198	78	0.35	2.13	8.71	2.20	2.55	

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	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 42° 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		