

COMPRESSOR DEFINITION

Designation	EM C32CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	701LA90

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	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
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)	8	[kg] (17.64 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	2.5(350)	[µF(VAC minimum)]
5 Motor protection	AE23AHNX	
6 Start winding resistance	36.40	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	40.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.68	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.36	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.51	[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]
320	81	94	53	0.23	1.00	6.10	1.54	1.79

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)	171	43	50	31	0.15	0.54	5.51	1.39	1.61	
-30 (-22)	249	63	73	39	0.17	0.78	6.42	1.62	1.88	
-25 (-13)	336	85	99	45	0.20	1.05	7.48	1.89	2.19	
-20 (- 4)	438	110	128	51	0.23	1.38	8.67	2.19	2.54	
-15 (+ 5)	558	141	164	56	0.26	1.76	9.96	2.51	2.92	
-10 (+14)	701	177	205	62	0.29	2.21	11.33	2.86	3.32	

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)	157	40	46	32	0.15	0.49	4.94	1.24	1.45	
-30 (-22)	231	58	68	40	0.18	0.72	5.74	1.45	1.68	
-25 (-13)	314	79	92	47	0.21	0.99	6.64	1.67	1.95	
-20 (- 4)	413	104	121	54	0.24	1.30	7.64	1.92	2.24	
-15 (+ 5)	529	133	155	61	0.28	1.67	8.70	2.19	2.55	
-10 (+14)	668	168	196	68	0.31	2.11	9.79	2.47	2.87	

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)	134	34	39	31	0.15	0.42	4.30	1.08	1.26	
-30 (-22)	204	52	60	40	0.18	0.64	5.04	1.27	1.48	
-25 (-13)	285	72	83	49	0.22	0.89	5.86	1.48	1.72	
-20 (- 4)	380	96	111	57	0.26	1.19	6.72	1.69	1.97	
-15 (+ 5)	494	124	145	65	0.30	1.56	7.60	1.92	2.23	
-10 (+14)	630	159	185	74	0.34	1.99	8.48	2.14	2.49	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32-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)	98	25	29	27	0.14	0.31	3.59	0.90	1.05
-30	(-22)	165	42	48	38	0.17	0.52	4.34	1.09	1.27
-25	(-13)	243	61	71	47	0.21	0.76	5.13	1.29	1.50
-20	(- 4)	336	85	98	57	0.26	1.06	5.92	1.49	1.73
-15	(+ 5)	448	113	131	67	0.31	1.41	6.69	1.69	1.96
-10	(+14)	582	147	171	79	0.37	1.84	7.41	1.87	2.17

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		