

COMPRESSOR DEFINITION

Designation	EM D55CLT
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513301735

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-600a		
3 Nominal voltage and frequency	115-127 / 60	[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	-	103 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	103 to 140 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	0.13	[hp]
2 Displacement	9.04	[cm ³] (0.552 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	20.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.6	[kg] (16.75 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	TSD	
2.1 Starting device	TSD- 115V/TSD2-115V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)/15(180)	[µF(VAC minimum)]
5 Motor protection	4TM319NFBYY-53	
6 Start winding resistance	5.41	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	4.26	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	11.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.31	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			ASHRAELBP32 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]
618	156	181	95	0.85	1.94	6.50	1.64	1.90

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	348	88	102	69	0.50	1.09	5.06	1.28	1.48	
-30 (-22)	487	123	143	77	0.61	1.53	6.31	1.59	1.85	
-25 (-13)	651	164	191	87	0.69	2.04	7.46	1.88	2.19	
-20 (- 4)	844	213	247	98	0.77	2.65	8.59	2.16	2.52	
-15 (+ 5)	1069	269	313	110	0.84	3.36	9.76	2.46	2.86	
-10 (+14)	1332	336	390	121	0.92	4.20	11.04	2.78	3.24	

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	337	85	99	71	0.53	1.05	4.75	1.20	1.39	
-30 (-22)	461	116	135	79	0.63	1.45	5.81	1.46	1.70	
-25 (-13)	613	154	180	90	0.72	1.92	6.77	1.71	1.98	
-20 (- 4)	796	201	233	103	0.81	2.50	7.70	1.94	2.26	
-15 (+ 5)	1015	256	297	117	0.90	3.20	8.67	2.18	2.54	
-10 (+14)	1274	321	373	131	0.99	4.02	9.74	2.45	2.85	

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	311	78	91	72	0.53	0.97	4.34	1.09	1.27	
-30 (-22)	423	107	124	80	0.64	1.32	5.28	1.33	1.55	
-25 (-13)	564	142	165	93	0.74	1.77	6.10	1.54	1.79	
-20 (- 4)	740	187	217	107	0.84	2.33	6.89	1.74	2.02	
-15 (+ 5)	955	241	280	124	0.94	3.01	7.70	1.94	2.26	
-10 (+14)	1212	305	355	140	1.06	3.82	8.61	2.17	2.52	

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		ASHRAE32 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)	272	69	80	71	0.51	0.85	3.80	0.96	1.11
-30	(-22)	372	94	109	81	0.63	1.17	4.66	1.18	1.37
-25	(-13)	506	127	148	94	0.74	1.59	5.41	1.36	1.59
-20	(- 4)	676	170	198	111	0.86	2.13	6.11	1.54	1.79
-15	(+ 5)	888	224	260	130	0.98	2.80	6.83	1.72	2.00
-10	(+14)	1146	289	336	149	1.13	3.62	7.63	1.92	2.24

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
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	Straight		
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	Straight		
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	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		