

COMPRESSOR DEFINITION

Designation	EM D55CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513300465

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	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
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	0.215	[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)	7.98	[kg] (17.59 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	4(350)/3(350)	[µF(VAC minimum)]
5 Motor protection	4TM134NFBYY-53	
6 Start winding resistance	21.36	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	18.81	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.63	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.87	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.07	[A] - Measured according to UL 984
11 Approval boards certification	CCC	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			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]
550	139	161	87	0.40	1.73	6.34	1.60	1.86

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			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)	301	76	88	58	0.27	0.94	5.14	1.29	1.51
-30 (-22)	405	102	119	67	0.31	1.27	6.10	1.54	1.79
-25 (-13)	532	134	156	75	0.35	1.67	7.09	1.79	2.08
-20 (- 4)	682	172	200	84	0.39	2.14	8.13	2.05	2.38
-15 (+ 5)	857	216	251	93	0.43	2.70	9.21	2.32	2.70
-10 (+14)	1058	267	310	102	0.47	3.34	10.33	2.60	3.03

TEST CONDITIONS: @220V50Hz			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)	281	71	82	58	0.27	0.88	4.84	1.22	1.42
-30 (-22)	388	98	114	68	0.32	1.22	5.70	1.44	1.67
-25 (-13)	516	130	151	79	0.37	1.62	6.57	1.65	1.92
-20 (- 4)	668	168	196	90	0.42	2.10	7.46	1.88	2.19
-15 (+ 5)	845	213	248	101	0.47	2.66	8.39	2.11	2.46
-10 (+14)	1048	264	307	113	0.52	3.31	9.35	2.36	2.74

TEST CONDITIONS: @220V50Hz			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)	252	63	74	57	0.27	0.79	4.44	1.12	1.30
-30 (-22)	359	91	105	69	0.32	1.13	5.21	1.31	1.53
-25 (-13)	488	123	143	81	0.38	1.53	5.98	1.51	1.75
-20 (- 4)	640	161	188	94	0.44	2.01	6.77	1.71	1.98
-15 (+ 5)	817	206	239	108	0.50	2.57	7.57	1.91	2.22
-10 (+14)	1020	257	299	121	0.56	3.22	8.39	2.11	2.46

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		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)	224	57	66	56	0.27	0.70	4.03	1.01	1.18
-30	(-22)	330	83	97	70	0.32	1.04	4.74	1.19	1.39
-25	(-13)	457	115	134	84	0.39	1.44	5.45	1.37	1.60
-20	(- 4)	608	153	178	99	0.45	1.91	6.15	1.55	1.80
-15	(+ 5)	782	197	229	114	0.53	2.46	6.85	1.73	2.01
-10	(+14)	983	248	288	130	0.60	3.10	7.56	1.90	2.21

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EUEM		
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	4.95 +0.05/+0.05	[mm]	(0.195" +0.002"/+0.002")
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		