

COMPRESSOR DEFINITION

Designation	EM D55CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	721CA98

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	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 / ISO2	
4 Weight (with oil charge)	8.05	[kg] (17.75 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	TSD2-220V/TSD2-220V1.2/TSD2-D-220V	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	3(350)/4(350)	[μF(VAC minimum)]
5 Motor protection	4TM232KDB	
6 Start winding resistance	28.20	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	21.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.50	[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]
528	133	155	82	0.40	1.66	6.46	1.63	1.89

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)	322	81	94	54	0.27	1.01	5.90	1.49	1.73
-30 (-22)	422	106	124	63	0.30	1.32	6.73	1.70	1.97
-25 (-13)	552	139	162	72	0.34	1.73	7.71	1.94	2.26
-20 (- 4)	712	180	209	81	0.38	2.24	8.82	2.22	2.58
-15 (+ 5)	903	227	265	90	0.43	2.84	10.01	2.52	2.93
-10 (+14)	1123	283	329	100	0.47	3.54	11.26	2.84	3.30

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)	291	73	85	55	0.28	0.91	5.26	1.33	1.54
-30 (-22)	391	99	115	66	0.32	1.23	5.98	1.51	1.75
-25 (-13)	521	131	153	76	0.37	1.64	6.83	1.72	2.00
-20 (- 4)	680	171	199	87	0.42	2.14	7.77	1.96	2.28
-15 (+ 5)	867	219	254	99	0.47	2.73	8.76	2.21	2.57
-10 (+14)	1083	273	317	111	0.52	3.42	9.77	2.46	2.86

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)	254	64	74	55	0.28	0.80	4.61	1.16	1.35
-30 (-22)	354	89	104	67	0.33	1.11	5.27	1.33	1.55
-25 (-13)	481	121	141	80	0.39	1.51	6.03	1.52	1.77
-20 (- 4)	636	160	186	93	0.45	2.00	6.83	1.72	2.00
-15 (+ 5)	818	206	240	107	0.51	2.58	7.66	1.93	2.24
-10 (+14)	1027	259	301	122	0.58	3.24	8.46	2.13	2.48

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