

COMPRESSOR DEFINITION

Designation	EM D66CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	701TA77

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	10.61	[cm ³] (0.647 cu.in)
2.1 Bore [mm]	26.000	
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)	8.1	[kg] (17.86 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	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)	[µF(VAC minimum)]
5 Motor protection	4TM232KFBYY-53	
6 Start winding resistance	15.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	20.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	5.41	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.69	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.01	[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]
626	158	183	97	0.45	1.97	6.47	1.63	1.90

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]
-35 (-31)	369	93	108	64	0.33	1.15	5.73	1.45	1.68
-30 (-22)	491	124	144	73	0.36	1.54	6.71	1.69	1.97
-25 (-13)	640	161	187	83	0.40	2.01	7.74	1.95	2.27
-20 (- 4)	817	206	240	93	0.45	2.57	8.82	2.22	2.58
-15 (+ 5)	1025	258	300	103	0.49	3.23	9.91	2.50	2.91
-10 (+14)	1264	319	370	115	0.54	3.99	11.01	2.77	3.23

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]
-35 (-31)	343	87	101	64	0.33	1.08	5.37	1.35	1.57
-30 (-22)	462	116	135	74	0.37	1.45	6.21	1.57	1.82
-25 (-13)	609	153	178	85	0.42	1.91	7.12	1.79	2.08
-20 (- 4)	784	198	230	97	0.47	2.46	8.05	2.03	2.36
-15 (+ 5)	990	250	290	110	0.53	3.12	8.99	2.27	2.63
-10 (+14)	1229	310	360	124	0.59	3.88	9.92	2.50	2.91

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]
-35 (-31)	303	76	89	65	0.33	0.95	4.67	1.18	1.37
-30 (-22)	418	105	122	78	0.38	1.31	5.40	1.36	1.58
-25 (-13)	560	141	164	91	0.44	1.76	6.17	1.56	1.81
-20 (- 4)	733	185	215	105	0.50	2.30	6.97	1.76	2.04
-15 (+ 5)	936	236	274	120	0.57	2.95	7.77	1.96	2.28
-10 (+14)	1173	296	344	137	0.64	3.70	8.55	2.15	2.50

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)	277	70	81	63	0.33	0.87	4.34	1.09	1.27
-30	(-22)	386	97	113	78	0.38	1.21	4.96	1.25	1.45
-25	(-13)	523	132	153	93	0.44	1.64	5.62	1.42	1.65
-20	(- 4)	691	174	203	110	0.52	2.17	6.29	1.58	1.84
-15	(+ 5)	891	225	261	128	0.60	2.81	6.95	1.75	2.04
-10	(+14)	1124	283	329	148	0.69	3.55	7.58	1.91	2.22

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	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		