

COMPRESSOR DEFINITION

Designation	EM C66CLT
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	701RA90

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)	8.2	[kg] (18.08 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	4(350)	[µF(VAC minimum)]
5 Motor protection	4TM222RFBYY-53	
6 Start winding resistance	20.91	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	15.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	6.83	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	1.05	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	1.30	[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]
625	158	183	100	0.46	1.96	6.28	1.58	1.84

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)	368	93	108	67	0.35	1.15	5.47	1.38	1.60
-30 (-22)	496	125	145	77	0.38	1.55	6.43	1.62	1.88
-25 (-13)	646	163	189	87	0.42	2.03	7.45	1.88	2.18
-20 (- 4)	822	207	241	97	0.46	2.58	8.52	2.15	2.50
-15 (+ 5)	1027	259	301	107	0.51	3.23	9.60	2.42	2.81
-10 (+14)	1264	319	370	118	0.56	3.99	10.70	2.70	3.13

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)	345	87	101	67	0.35	1.08	5.12	1.29	1.50
-30 (-22)	469	118	137	78	0.39	1.47	5.96	1.50	1.75
-25 (-13)	616	155	180	90	0.44	1.93	6.85	1.73	2.01
-20 (- 4)	790	199	231	101	0.49	2.48	7.78	1.96	2.28
-15 (+ 5)	993	250	291	114	0.55	3.13	8.72	2.20	2.56
-10 (+14)	1230	310	360	127	0.61	3.88	9.66	2.43	2.83

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)	304	77	89	69	0.35	0.95	4.46	1.12	1.31
-30 (-22)	423	107	124	82	0.40	1.33	5.19	1.31	1.52
-25 (-13)	566	143	166	95	0.46	1.78	5.96	1.50	1.75
-20 (- 4)	737	186	216	109	0.52	2.31	6.76	1.70	1.98
-15 (+ 5)	938	236	275	124	0.59	2.95	7.56	1.91	2.22
-10 (+14)	1172	295	343	140	0.66	3.70	8.35	2.10	2.45

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	67	0.35	0.87	4.13	1.04	1.21
-30	(-22)	389	98	114	82	0.40	1.22	4.76	1.20	1.39
-25	(-13)	527	133	154	97	0.47	1.65	5.42	1.37	1.59
-20	(- 4)	693	175	203	114	0.54	2.18	6.10	1.54	1.79
-15	(+ 5)	891	225	261	132	0.62	2.81	6.78	1.71	1.99
-10	(+14)	1123	283	329	151	0.70	3.54	7.43	1.87	2.18

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		