

COMPRESSOR DEFINITION

Designation	EM X55CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	701PA90

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 / 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	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	TSD	
2.1 Starting device	TSD-220V/TSD2-220V1.2/TSD2-D-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	5(350)/4(350)	[µF(VAC minimum)]
5 Motor protection	4TM232KDB	
6 Start winding resistance	16.55	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	25.00	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	-	[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			CECOMAFLBP-NOFAN Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
399	101	117	85	0.40	1.52	4.69	1.18	1.37

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-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)	298	75	87	62	0.30	0.95	4.74	1.20	1.39
-30	(-22)	391	99	115	72	0.34	1.25	5.47	1.38	1.60
-25	(-13)	510	129	150	81	0.38	1.64	6.32	1.59	1.85
-20	(- 4)	655	165	192	90	0.42	2.11	7.31	1.84	2.14
-15	(+ 5)	827	208	242	99	0.47	2.66	8.41	2.12	2.47
-10	(+14)	1026	258	301	107	0.51	3.31	9.63	2.43	2.82

TEST CONDITIONS: @220V50Hz		CECOMAF-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)	259	65	76	61	0.30	0.90	4.26	1.07	1.25
-30	(-22)	348	88	102	72	0.35	1.21	4.85	1.22	1.42
-25	(-13)	460	116	135	83	0.40	1.60	5.53	1.39	1.62
-20	(- 4)	597	150	175	94	0.45	2.08	6.30	1.59	1.85
-15	(+ 5)	758	191	222	106	0.50	2.65	7.16	1.80	2.10
-10	(+14)	945	238	277	117	0.56	3.31	8.08	2.04	2.37

TEST CONDITIONS: @220V50Hz		CECOMAF-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)	218	55	64	61	0.31	0.83	3.63	0.91	1.06
-30	(-22)	298	75	87	72	0.36	1.14	4.13	1.04	1.21
-25	(-13)	400	101	117	85	0.41	1.53	4.69	1.18	1.37
-20	(- 4)	524	132	154	98	0.47	2.00	5.30	1.34	1.55
-15	(+ 5)	671	169	197	112	0.53	2.57	5.95	1.50	1.74
-10	(+14)	840	212	246	127	0.60	3.22	6.63	1.67	1.94

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-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)	180	45	53	61	0.31	0.76	2.93	0.74	0.86
-30	(-22)	247	62	72	73	0.36	1.04	3.40	0.86	1.00
-25	(-13)	334	84	98	86	0.42	1.41	3.88	0.98	1.14
-20	(- 4)	441	111	129	101	0.48	1.87	4.37	1.10	1.28
-15	(+ 5)	568	143	166	117	0.56	2.41	4.86	1.23	1.42
-10	(+14)	716	180	210	134	0.63	3.05	5.35	1.35	1.57

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		