

COMPRESSOR DEFINITION

Designation	EM X55CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	898UA97

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	198 to 254 V	-
8.2 LBP (43°C Ambient temperature)	Static	198 to 254 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	180	[ml] (6.09 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ALQUILB / ISO5	
4 Weight (with oil charge)	7.95	[kg] (17.53 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	MI.E-START 2021	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	5(330)	[μF(VAC minimum)]
5 Motor protection	AE64FS	
6 Start winding resistance	14.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	22.20	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.70	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFLBP 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]
392	99	115	86	0.39	1.49	4.56	1.15	1.34

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz			CECOMAF 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)	303	76	89	61	0.29	0.97	4.95	1.25	1.45
-30	(-22)	403	102	118	70	0.33	1.29	5.75	1.45	1.69
-25	(-13)	527	133	154	80	0.37	1.69	6.63	1.67	1.94
-20	(- 4)	677	170	198	89	0.41	2.17	7.58	1.91	2.22
-15	(+ 5)	854	215	250	99	0.45	2.75	8.61	2.17	2.52
-10	(+14)	1063	268	311	110	0.50	3.43	9.70	2.44	2.84

TEST CONDITIONS: @220V50Hz			CECOMAF 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)	257	65	75	62	0.29	0.89	4.15	1.05	1.22
-30	(-22)	349	88	102	72	0.33	1.21	4.82	1.21	1.41
-25	(-13)	461	116	135	83	0.38	1.60	5.54	1.39	1.62
-20	(- 4)	597	151	175	95	0.43	2.08	6.30	1.59	1.85
-15	(+ 5)	759	191	222	107	0.48	2.65	7.10	1.79	2.08
-10	(+14)	947	239	278	119	0.53	3.32	7.95	2.00	2.33

TEST CONDITIONS: @220V50Hz			CECOMAF 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)	209	53	61	62	0.29	0.80	3.40	0.86	1.00
-30	(-22)	292	73	85	73	0.34	1.11	3.97	1.00	1.16
-25	(-13)	392	99	115	86	0.39	1.49	4.56	1.15	1.34
-20	(- 4)	514	129	150	99	0.45	1.96	5.17	1.30	1.51
-15	(+ 5)	657	166	193	113	0.51	2.52	5.80	1.46	1.70
-10	(+14)	826	208	242	128	0.57	3.17	6.44	1.62	1.89

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	166	42	49	61	0.29	0.70	2.72	0.69	0.80
-30	(-22)	239	60	70	73	0.34	1.01	3.23	0.81	0.95
-25	(-13)	327	82	96	87	0.40	1.38	3.74	0.94	1.09
-20	(- 4)	432	109	127	102	0.47	1.83	4.23	1.07	1.24
-15	(+ 5)	558	141	163	119	0.54	2.37	4.72	1.19	1.38
-10	(+14)	705	178	207	136	0.61	3.01	5.19	1.31	1.52

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°		
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	Straight		
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 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		