

### COMPRESSOR DEFINITION

Designation	<b>EM X32CLC</b>
Nominal Voltage/Frequency	<b>220-240 V 50 Hz</b>
Engineering Number	<b>898CA83</b>

### 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 <sup>2</sup> ] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm <sup>2</sup> ] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	5.96	[cm <sup>3</sup> ] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
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)	7.8	[kg] (17.20 lb.)
5 Nitrogen charge	-	[kgf/cm <sup>2</sup> ]

### 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	2.5(440)	[μF(VAC minimum)]
5 Motor protection	AE23AHNX	
6 Start winding resistance	34.75	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	37.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.60	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.23	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	IRAM - 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]
249	63	73	54	0.25	0.95	4.60	1.16	1.35

### E - PERFORMANCE - CURVES

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)	163	41	48	38	0.18	0.57	4.30	1.08	1.26
-30	(-22)	221	56	65	45	0.21	0.77	4.95	1.25	1.45
-25	(-13)	291	73	85	52	0.24	1.01	5.65	1.42	1.65
-20	(- 4)	376	95	110	59	0.27	1.31	6.43	1.62	1.89
-15	(+ 5)	480	121	141	65	0.30	1.67	7.34	1.85	2.15
-10	(+14)	606	153	178	72	0.33	2.12	8.39	2.12	2.46

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)	125	32	37	37	0.18	0.47	3.41	0.86	1.00
-30	(-22)	183	46	54	46	0.21	0.70	4.01	1.01	1.17
-25	(-13)	249	63	73	54	0.25	0.95	4.59	1.16	1.35
-20	(- 4)	326	82	95	63	0.29	1.25	5.19	1.31	1.52
-15	(+ 5)	417	105	122	71	0.32	1.60	5.84	1.47	1.71
-10	(+14)	527	133	154	80	0.36	2.02	6.57	1.66	1.93

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)	94	24	27	36	0.18	0.40	2.61	0.66	0.76
-30	(-22)	151	38	44	46	0.22	0.64	3.24	0.82	0.95
-25	(-13)	213	54	62	56	0.26	0.90	3.78	0.95	1.11
-20	(- 4)	281	71	82	66	0.30	1.19	4.27	1.08	1.25
-15	(+ 5)	360	91	105	76	0.35	1.53	4.74	1.19	1.39
-10	(+14)	453	114	133	87	0.39	1.93	5.22	1.32	1.53

### 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	4.95 +0.05/+0.05	[mm]	(0.195" +0.002"/+0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Vertical		
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 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		