COMPRESSOR DEFINITION

Designation	**EM X40CLC**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**898DA89**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	198 to 254 V	-
8.2 LBP (43ºC Ambient temperature)	Static	198 to 254 V	-
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	6.9	[kgf/cm²] (98 psig)	/ ºC - ºF
9.2 Peak	7.8	[kgf/cm²] (111 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	7.23	[cm³] (0.441 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	16.000	
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)	7.9	[kg] (17.42 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	MI2021	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	4(440)	[µF(VAC minimum)]
5 Motor protection	AE37FN10	
6 Start winding resistance	22.40	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	28.80	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.30	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	IRAM - VDE	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: **@220V50Hz**			**ASHRAELBP32** **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]
412	104	121	73	0.33	1.29	5.63	1.42	1.65

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz**		**ASHRAE32** **Static**			(Condensing temperature **45ºC (+113ºF))**					
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)**	213	54	62	48	0.23	0.67	4.45	1.12	1.30
-30	**(-22)**	297	75	87	58	0.27	0.93	5.14	1.30	1.51
-25	**(-13)**	396	100	116	67	0.31	1.24	5.95	1.50	1.74
-20	**(- 4)**	513	129	150	75	0.35	1.61	6.85	1.73	2.01
-15	**(+ 5)**	651	164	191	83	0.39	2.05	7.82	1.97	2.29
-10	**(+14)**	814	205	239	92	0.43	2.57	8.82	2.22	2.58

TEST CONDITIONS: **@220V50Hz**		**ASHRAE32** **Static**			(Condensing temperature **55ºC (+131ºF))**					
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)**	188	47	55	49	0.23	0.59	3.88	0.98	1.14
-30	**(-22)**	273	69	80	60	0.27	0.86	4.54	1.15	1.33
-25	**(-13)**	372	94	109	70	0.32	1.17	5.30	1.34	1.55
-20	**(- 4)**	489	123	143	80	0.36	1.54	6.12	1.54	1.79
-15	**(+ 5)**	626	158	183	90	0.41	1.97	6.97	1.76	2.04
-10	**(+14)**	788	199	231	101	0.46	2.49	7.83	1.97	2.29

TEST CONDITIONS: **@220V50Hz**		**ASHRAE32** **Static**			(Condensing temperature **65ºC (+149ºF))**					
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)**	170	43	50	48	0.23	0.53	3.53	0.89	1.03
-30	**(-22)**	251	63	74	60	0.28	0.79	4.17	1.05	1.22
-25	**(-13)**	347	87	102	71	0.33	1.09	4.87	1.23	1.43
-20	**(- 4)**	460	116	135	82	0.38	1.45	5.60	1.41	1.64
-15	**(+ 5)**	593	150	174	94	0.44	1.87	6.33	1.60	1.86
-10	**(+14)**	751	189	220	107	0.50	2.37	7.04	1.77	2.06

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	No		
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	Slanted 42°		
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		