

COMPRESSOR DEFINITION

Designation	EM X32CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	513301889

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	-	-
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	1/7	[hp]
2 Displacement	5.96	[cm ³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
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)	7.3	[kg] (16.09 lb.)
5 Nitrogen charge	-	[kgf/cm ²]

C - ELECTRICAL 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	MI2021XV230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(300)/2(300)/4(300)	[µF(VAC minimum)]
5 Motor protection	AX24BNXX	
6 Start winding resistance	22.72	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	42.27	[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 (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
237	60	69	53	0.26	0.90	4.44	1.12	1.30

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN Static				(Condensing temperature 35°C (+95°F))				
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	216	54	63	35	0.20	0.69	6.10	1.54	1.79
-30	(-22)	281	71	82	45	0.23	0.90	6.45	1.63	1.89
-25	(-13)	359	90	105	51	0.25	1.15	7.17	1.81	2.10
-20	(- 4)	453	114	133	56	0.28	1.46	8.18	2.06	2.40
-15	(+ 5)	568	143	167	60	0.30	1.83	9.40	2.37	2.76
-10	(+14)	707	178	207	65	0.32	2.28	10.75	2.71	3.15

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN Static				(Condensing temperature 45°C (+113°F))				
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	156	39	46	35	0.19	0.54	4.46	1.12	1.31
-30	(-22)	220	55	64	45	0.23	0.76	4.85	1.22	1.42
-25	(-13)	293	74	86	53	0.26	1.02	5.53	1.39	1.62
-20	(- 4)	380	96	111	59	0.29	1.33	6.41	1.61	1.88
-15	(+ 5)	484	122	142	65	0.32	1.69	7.41	1.87	2.17
-10	(+14)	610	154	179	72	0.35	2.13	8.46	2.13	2.48

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN Static				(Condensing temperature 55°C (+131°F))				
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	108	27	32	34	0.19	0.41	3.28	0.83	0.96
-30	(-22)	168	42	49	45	0.23	0.64	3.73	0.94	1.09
-25	(-13)	235	59	69	53	0.26	0.90	4.39	1.11	1.29
-20	(- 4)	313	79	92	60	0.30	1.20	5.16	1.30	1.51
-15	(+ 5)	405	102	119	68	0.34	1.55	5.97	1.50	1.75
-10	(+14)	515	130	151	76	0.38	1.98	6.73	1.70	1.97

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF-NOFAN Static			(Condensing temperature 65°C (+149°F))					
Evaporating temperature		Cooling capacity (Qe) +/- 5%			Input power (We) +/- 5%	Electric current +/- 5%	Mass flow rate +/- 5%	Efficiency EER & COP +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-35	(-31)	75	19	22	31	0.18	0.32	2.38	0.60	0.70
-30	(-22)	130	33	38	43	0.22	0.55	2.91	0.73	0.85
-25	(-13)	189	48	55	52	0.26	0.80	3.57	0.90	1.05
-20	(- 4)	256	64	75	61	0.30	1.08	4.25	1.07	1.25
-15	(+ 5)	334	84	98	70	0.34	1.42	4.89	1.23	1.43
-10	(+14)	427	108	125	80	0.39	1.82	5.39	1.36	1.58

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 + 24° to Back		
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 45° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		