COMPRESSOR DEFINITION

Designation	**EM X32CLC**
Nominal Voltage/Frequency	**220-240 V 50 Hz**
Engineering Number	**513300511**

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	176 to 255 V	-
8.2 LBP (43ºC Ambient temperature)	Static	176 to 255 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	6.20	[cm³] (0.378 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.600	
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)	6.9	[kg] (15.21 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	TSD	
2.1 Starting device	TY-QZ003	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(300)	[µF(VAC minimum)]
5 Motor protection	BT32-120A61	
6 Start winding resistance	17.15	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	34.14	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.82	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.78	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (50 Hz)	0.78	[A] - Measured according to UL 984
11 Approval boards certification	CCC	

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]
341	86	100	56	0.29	1.07	6.07	1.53	1.78

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@220V50Hz** — **ASHRAE32** **Static** — (Condensing temperature **35ºC (+95ºF))**

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)**	189	48	56	35	0.19	0.59	5.37	1.35	1.57
-30	**(-22)**	274	69	80	42	0.22	0.86	6.42	1.62	1.88
-25	**(-13)**	369	93	108	49	0.25	1.16	7.47	1.88	2.19
-20	**(- 4)**	479	121	140	56	0.28	1.51	8.57	2.16	2.51
-15	**(+ 5)**	607	153	178	62	0.31	1.91	9.78	2.46	2.86
-10	**(+14)**	757	191	222	68	0.34	2.39	11.12	2.80	3.26

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)**	170	43	50	36	0.20	0.53	4.68	1.18	1.37
-30	**(-22)**	249	63	73	44	0.23	0.78	5.61	1.41	1.65
-25	**(-13)**	339	85	99	52	0.26	1.06	6.51	1.64	1.91
-20	**(- 4)**	444	112	130	60	0.30	1.40	7.42	1.87	2.18
-15	**(+ 5)**	568	143	167	68	0.33	1.79	8.39	2.11	2.46
-10	**(+14)**	715	180	210	75	0.37	2.26	9.47	2.39	2.77

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)**	148	37	43	36	0.20	0.46	4.09	1.03	1.20
-30	**(-22)**	222	56	65	44	0.23	0.70	4.98	1.26	1.46
-25	**(-13)**	308	78	90	53	0.27	0.97	5.80	1.46	1.70
-20	**(- 4)**	411	104	120	62	0.31	1.29	6.59	1.66	1.93
-15	**(+ 5)**	533	134	156	72	0.35	1.68	7.40	1.87	2.17
-10	**(+14)**	679	171	199	82	0.40	2.14	8.28	2.09	2.43

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@220V50Hz **Static**

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)**	112	28	33	34	0.19	0.35	3.29	0.83	0.96
-30	**(-22)**	183	46	54	43	0.22	0.57	4.22	1.06	1.24
-25	**(-13)**	268	67	78	53	0.27	0.84	5.04	1.27	1.48
-20	**(- 4)**	369	93	108	64	0.31	1.16	5.79	1.46	1.70
-15	**(+ 5)**	491	124	144	75	0.37	1.55	6.52	1.64	1.91
-10	**(+14)**	637	160	187	87	0.42	2.01	7.27	1.83	2.13

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 25° up + 45° to Back		
3.2 DISCHARGE	4.9 +0.10/-0.05	[mm]	(0.193" +0.004"/-0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 0° up + 24° to Back		
3.3 PROCESS	6.2 +0.05/+0.05	[mm]	(0.244" +0.002"/+0.002")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 40° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		