

### COMPRESSOR DEFINITION

Designation	EM Y32CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	894IA52

### 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-Medium Back Pressure		
4.1 Evaporating temperature range	-35°C to -5°C	(-31°F to 23°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 pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 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	MINERAL / ISO7	
4 Weight (with oil charge)	7.7	[kg] (16.98 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	PTC	
2.1 Starting device	MSDA3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	2.5(450)	[µF(VAC minimum)]
5 Motor protection	4TM110NFBYY-53	
6 Start winding resistance	32.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	43.30	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.20	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.27	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	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]
330	83	97	64	0.30	1.04	5.16	1.30	1.51

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	200	50	59	46	0.21	0.63	4.32	1.09	1.27
-30	(-22)	266	67	78	51	0.23	0.83	5.18	1.31	1.52
-25	(-13)	346	87	101	57	0.26	1.09	6.08	1.53	1.78
-20	(- 4)	442	111	130	63	0.28	1.39	7.03	1.77	2.06
-15	(+ 5)	556	140	163	69	0.31	1.75	8.05	2.03	2.36
-10	(+14)	689	174	202	75	0.33	2.17	9.13	2.30	2.68
-5	(+23)	843	212	247	82	0.36	2.66	10.31	2.60	3.02

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	180	45	53	47	0.21	0.56	3.80	0.96	1.11
-30	(-22)	247	62	72	54	0.24	0.77	4.62	1.16	1.35
-25	(-13)	328	83	96	60	0.27	1.03	5.44	1.37	1.59
-20	(- 4)	425	107	124	68	0.30	1.33	6.28	1.58	1.84
-15	(+ 5)	538	136	158	75	0.33	1.69	7.15	1.80	2.10
-10	(+14)	670	169	196	83	0.36	2.11	8.07	2.03	2.37
-5	(+23)	822	207	241	91	0.40	2.60	9.06	2.28	2.65

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	156	39	46	47	0.21	0.49	3.36	0.85	0.98
-30	(-22)	223	56	65	54	0.24	0.70	4.13	1.04	1.21
-25	(-13)	303	76	89	62	0.28	0.95	4.87	1.23	1.43
-20	(- 4)	397	100	116	71	0.31	1.25	5.61	1.41	1.64
-15	(+ 5)	508	128	149	80	0.35	1.60	6.35	1.60	1.86
-10	(+14)	637	161	187	90	0.39	2.01	7.11	1.79	2.08
-5	(+23)	786	198	230	100	0.44	2.49	7.91	1.99	2.32

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 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)	129	33	38	44	0.20	0.41	2.90	0.73	0.85
-30	(-22)	193	49	57	53	0.24	0.61	3.63	0.91	1.06
-25	(-13)	270	68	79	63	0.28	0.85	4.30	1.08	1.26
-20	(- 4)	360	91	106	73	0.32	1.13	4.94	1.24	1.45
-15	(+ 5)	467	118	137	84	0.37	1.47	5.55	1.40	1.63
-10	(+14)	591	149	173	96	0.42	1.86	6.16	1.55	1.80
-5	(+23)	734	185	215	108	0.48	2.32	6.77	1.71	1.98

### 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	4.94 +0.08/-0.08	[mm]	(0.194" +0.003"/-0.003")
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		