

COMPRESSOR DEFINITION

Designation	EM Y46CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	894MA57

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 ²] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm ²] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	7.96	[cm ³] (0.486 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	17.600	
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 ²]

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	4(450)	[µF(VAC minimum)]
5 Motor protection	4TM142NFBYY-53	
6 Start winding resistance	22.47	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	26.85	[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]
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]
462	116	135	87	0.41	1.45	5.32	1.34	1.56

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)	275	69	81	60	0.27	0.86	4.61	1.16	1.35
-30	(-22)	365	92	107	67	0.31	1.14	5.44	1.37	1.59
-25	(-13)	474	120	139	75	0.34	1.49	6.33	1.59	1.85
-20	(- 4)	605	152	177	83	0.38	1.90	7.28	1.84	2.13
-15	(+ 5)	760	191	223	91	0.42	2.39	8.30	2.09	2.43
-10	(+14)	942	237	276	100	0.46	2.97	9.37	2.36	2.75
-5	(+23)	1154	291	338	110	0.50	3.65	10.50	2.65	3.08

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)	256	65	75	61	0.28	0.80	4.19	1.06	1.23
-30	(-22)	345	87	101	70	0.32	1.08	4.91	1.24	1.44
-25	(-13)	451	114	132	79	0.36	1.42	5.69	1.43	1.67
-20	(- 4)	578	146	169	89	0.40	1.82	6.51	1.64	1.91
-15	(+ 5)	729	184	214	99	0.45	2.30	7.37	1.86	2.16
-10	(+14)	906	228	266	110	0.50	2.86	8.26	2.08	2.42
-5	(+23)	1112	280	326	121	0.55	3.52	9.19	2.32	2.69

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)	229	58	67	62	0.28	0.72	3.72	0.94	1.09
-30	(-22)	316	80	93	72	0.33	0.99	4.38	1.10	1.28
-25	(-13)	420	106	123	83	0.38	1.32	5.06	1.28	1.48
-20	(- 4)	543	137	159	94	0.43	1.71	5.77	1.45	1.69
-15	(+ 5)	689	174	202	106	0.48	2.17	6.50	1.64	1.90
-10	(+14)	861	217	252	119	0.54	2.72	7.25	1.83	2.12
-5	(+23)	1062	267	311	133	0.60	3.36	8.01	2.02	2.35

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)	202	51	59	61	0.28	0.63	3.29	0.83	0.97
-30	(-22)	286	72	84	73	0.33	0.90	3.91	0.99	1.15
-25	(-13)	387	97	113	85	0.38	1.21	4.53	1.14	1.33
-20	(- 4)	506	128	148	98	0.44	1.59	5.16	1.30	1.51
-15	(+ 5)	648	163	190	112	0.50	2.04	5.79	1.46	1.70
-10	(+14)	814	205	239	127	0.57	2.57	6.41	1.62	1.88
-5	(+23)	1008	254	295	143	0.65	3.19	7.03	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	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		