

COMPRESSOR DEFINITION

Designation	EM Y40CLC
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	894LA57

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	7.23	[cm ³] (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	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	TSD	
2.1 Starting device	TSD-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	4(450)	[µF(VAC minimum)]
5 Motor protection	4TM142NFBYY-53	
6 Start winding resistance	29.90	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	35.28	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	2.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.34	[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]
414	104	121	77	0.36	1.30	5.36	1.35	1.57

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)	247	62	72	53	0.26	0.77	4.67	1.18	1.37
-30	(-22)	330	83	97	60	0.29	1.03	5.50	1.39	1.61
-25	(-13)	431	109	126	67	0.32	1.35	6.42	1.62	1.88
-20	(- 4)	552	139	162	75	0.35	1.73	7.41	1.87	2.17
-15	(+ 5)	696	175	204	82	0.38	2.19	8.48	2.14	2.49
-10	(+14)	863	218	253	90	0.41	2.72	9.63	2.43	2.82
-5	(+23)	1058	267	310	98	0.45	3.35	10.84	2.73	3.18

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)	230	58	67	54	0.27	0.72	4.29	1.08	1.26
-30	(-22)	311	78	91	62	0.30	0.97	4.99	1.26	1.46
-25	(-13)	409	103	120	71	0.33	1.28	5.76	1.45	1.69
-20	(- 4)	527	133	154	80	0.37	1.66	6.58	1.66	1.93
-15	(+ 5)	667	168	195	89	0.41	2.10	7.47	1.88	2.19
-10	(+14)	831	209	243	99	0.45	2.62	8.41	2.12	2.46
-5	(+23)	1021	257	299	109	0.49	3.23	9.41	2.37	2.76

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)	203	51	59	53	0.27	0.64	3.83	0.97	1.12
-30	(-22)	281	71	82	63	0.30	0.88	4.44	1.12	1.30
-25	(-13)	376	95	110	74	0.34	1.18	5.09	1.28	1.49
-20	(- 4)	489	123	143	84	0.38	1.54	5.79	1.46	1.70
-15	(+ 5)	625	157	183	95	0.43	1.97	6.53	1.65	1.91
-10	(+14)	784	197	230	107	0.48	2.47	7.32	1.84	2.14
-5	(+23)	969	244	284	119	0.54	3.06	8.13	2.05	2.38

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)	176	44	52	53	0.27	0.55	3.28	0.83	0.96
-30	(-22)	250	63	73	65	0.31	0.78	3.84	0.97	1.12
-25	(-13)	341	86	100	77	0.36	1.07	4.42	1.11	1.30
-20	(- 4)	450	113	132	89	0.41	1.41	5.04	1.27	1.48
-15	(+ 5)	580	146	170	102	0.46	1.83	5.68	1.43	1.66
-10	(+14)	733	185	215	116	0.52	2.31	6.35	1.60	1.86
-5	(+23)	912	230	267	130	0.59	2.89	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		