

COMPRESSOR DEFINITION

Designation	EM Y46CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	894RA57

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 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		[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	2019	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	4(450)	[μF(VAC minimum)]
5 Motor protection	AD37FN10	
6 Start winding resistance	22.10	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	25.90	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	3.70	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.38	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	IRAM - 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]
461	116	135	87	0.40	1.45	5.30	1.34	1.55

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	58	0.28	0.86	4.69	1.18	1.38
-30	(-22)	365	92	107	69	0.31	1.14	5.36	1.35	1.57
-25	(-13)	474	120	139	77	0.35	1.49	6.23	1.57	1.83
-20	(- 4)	605	152	177	84	0.39	1.90	7.24	1.82	2.12
-15	(+ 5)	760	191	223	91	0.43	2.39	8.30	2.09	2.43
-10	(+14)	942	237	276	100	0.47	2.97	9.35	2.35	2.74
-5	(+23)	1154	291	338	112	0.52	3.65	10.30	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)	256	65	75	60	0.29	0.80	4.25	1.07	1.24
-30	(-22)	345	87	101	71	0.33	1.08	4.85	1.22	1.42
-25	(-13)	451	114	132	80	0.37	1.42	5.63	1.42	1.65
-20	(- 4)	578	146	169	88	0.41	1.82	6.54	1.65	1.92
-15	(+ 5)	729	184	214	97	0.46	2.30	7.48	1.89	2.19
-10	(+14)	906	228	266	108	0.52	2.86	8.40	2.12	2.46
-5	(+23)	1112	280	326	121	0.57	3.52	9.21	2.32	2.70

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	61	0.29	0.72	3.76	0.95	1.10
-30	(-22)	316	80	93	73	0.33	0.99	4.29	1.08	1.26
-25	(-13)	420	106	123	84	0.38	1.32	5.00	1.26	1.47
-20	(- 4)	543	137	159	94	0.43	1.71	5.81	1.46	1.70
-15	(+ 5)	689	174	202	104	0.49	2.17	6.64	1.67	1.95
-10	(+14)	861	217	252	116	0.55	2.72	7.43	1.87	2.18
-5	(+23)	1062	267	311	131	0.62	3.36	8.10	2.04	2.37

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	60	0.30	0.63	3.38	0.85	0.99
-30	(-22)	286	72	84	74	0.34	0.90	3.85	0.97	1.13
-25	(-13)	387	97	113	86	0.39	1.21	4.48	1.13	1.31
-20	(- 4)	506	128	148	97	0.45	1.59	5.20	1.31	1.52
-15	(+ 5)	648	163	190	110	0.52	2.04	5.93	1.49	1.74
-10	(+14)	814	205	239	124	0.59	2.57	6.60	1.66	1.93
-5	(+23)	1008	254	295	141	0.67	3.19	7.13	1.80	2.09

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		