

### 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	RSIR		
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 <sup>2</sup> ] (98 psig)	/ °C - °F
9.2 Peak	7.8	[kgf/cm <sup>2</sup> ] (111 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	7.96	[cm <sup>3</sup> ] (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 <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	2019	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	-	[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)	0.56	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	IRAM - VDE	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			CECOMAFLBP Static		Evaporating temperature (Condensing temperature		-25°C (-13°F) 55°C (131°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]
348	88	102	89	0.56	1.33	3.92	0.99	1.15

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	270	68	79	62	0.49	0.86	4.34	1.09	1.27
-30	(-22)	357	90	105	72	0.52	1.15	5.02	1.26	1.47
-25	(-13)	464	117	136	81	0.54	1.49	5.78	1.46	1.69
-20	(- 4)	592	149	174	90	0.57	1.90	6.60	1.66	1.93
-15	(+ 5)	744	187	218	100	0.61	2.39	7.45	1.88	2.18
-10	(+14)	922	232	270	110	0.65	2.97	8.31	2.09	2.44
-5	(+23)	1129	285	331	123	0.70	3.65	9.16	2.31	2.68

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	232	58	68	64	0.47	0.81	3.61	0.91	1.06
-30	(-22)	312	79	91	75	0.51	1.08	4.17	1.05	1.22
-25	(-13)	407	103	119	85	0.55	1.42	4.79	1.21	1.40
-20	(- 4)	522	132	153	96	0.59	1.82	5.45	1.37	1.60
-15	(+ 5)	658	166	193	107	0.63	2.30	6.12	1.54	1.79
-10	(+14)	817	206	239	120	0.69	2.86	6.77	1.71	1.98
-5	(+23)	1003	253	294	136	0.76	3.52	7.39	1.86	2.17

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	190	48	56	65	0.49	0.72	2.95	0.74	0.86
-30	(-22)	262	66	77	76	0.53	1.00	3.41	0.86	1.00
-25	(-13)	347	87	102	88	0.57	1.32	3.91	0.99	1.15
-20	(- 4)	448	113	131	101	0.62	1.71	4.43	1.12	1.30
-15	(+ 5)	568	143	166	115	0.68	2.18	4.94	1.24	1.45
-10	(+14)	709	179	208	131	0.75	2.72	5.41	1.36	1.59
-5	(+23)	874	220	256	150	0.83	3.36	5.83	1.47	1.71

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		CECOMAF 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)	150	38	44	64	0.49	0.63	2.36	0.59	0.69
-30	(-22)	213	54	62	77	0.54	0.90	2.74	0.69	0.80
-25	(-13)	288	73	84	91	0.59	1.22	3.14	0.79	0.92
-20	(- 4)	376	95	110	106	0.64	1.59	3.54	0.89	1.04
-15	(+ 5)	480	121	141	124	0.71	2.04	3.92	0.99	1.15
-10	(+14)	603	152	177	143	0.79	2.57	4.23	1.07	1.24
-5	(+23)	747	188	219	167	0.88	3.19	4.47	1.13	1.31

### 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		