

### 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 <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	TSD	
2.1 Starting device	TSD-220V	
3 Start capacitor	-	[μF(VAC minimum)]
4 Run capacitor	4(450)	[μF(VAC minimum)]
5 Motor protection	4TM158MFBYY-73	
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	85	0.38	1.45	5.42	1.37	1.59

### 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	56	0.27	0.86	4.86	1.22	1.42
-30	(-22)	365	92	107	67	0.30	1.14	5.53	1.39	1.62
-25	(-13)	474	120	139	75	0.34	1.49	6.40	1.61	1.88
-20	(- 4)	605	152	177	82	0.38	1.90	7.42	1.87	2.17
-15	(+ 5)	760	191	223	89	0.42	2.39	8.48	2.14	2.49
-10	(+14)	942	237	276	98	0.46	2.97	9.53	2.40	2.79
-5	(+23)	1154	291	338	110	0.50	3.65	10.49	2.64	3.07

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	58	0.28	0.80	4.39	1.11	1.29
-30	(-22)	345	87	101	69	0.32	1.08	4.99	1.26	1.46
-25	(-13)	451	114	132	78	0.36	1.42	5.78	1.46	1.69
-20	(- 4)	578	146	169	86	0.40	1.82	6.69	1.69	1.96
-15	(+ 5)	729	184	214	95	0.45	2.30	7.64	1.93	2.24
-10	(+14)	906	228	266	106	0.50	2.86	8.56	2.16	2.51
-5	(+23)	1112	280	326	119	0.55	3.52	9.36	2.36	2.74

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	59	0.28	0.72	3.88	0.98	1.14
-30	(-22)	316	80	93	71	0.32	0.99	4.41	1.11	1.29
-25	(-13)	420	106	123	82	0.37	1.32	5.12	1.29	1.50
-20	(- 4)	543	137	159	92	0.42	1.71	5.93	1.50	1.74
-15	(+ 5)	689	174	202	102	0.48	2.17	6.77	1.71	1.99
-10	(+14)	861	217	252	114	0.54	2.72	7.56	1.91	2.22
-5	(+23)	1062	267	311	129	0.60	3.36	8.22	2.07	2.41

### 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	58	0.29	0.63	3.49	0.88	1.02
-30	(-22)	286	72	84	72	0.33	0.90	3.96	1.00	1.16
-25	(-13)	387	97	113	84	0.38	1.21	4.59	1.16	1.35
-20	(- 4)	506	128	148	95	0.44	1.59	5.31	1.34	1.56
-15	(+ 5)	648	163	190	108	0.50	2.04	6.04	1.52	1.77
-10	(+14)	814	205	239	122	0.57	2.57	6.71	1.69	1.97
-5	(+23)	1008	254	295	139	0.65	3.19	7.23	1.82	2.12

### 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		