

COMPRESSOR DEFINITION

Designation	EM Y55CLP
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	894ZA73

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	8.59	[cm ³] (0.524 cu.in)
2.1 Bore [mm]	24.000	
2.2 Stroke [mm]	19.000	
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	PTC	
2.1 Starting device	V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	4(290)	[µF(VAC minimum)]
5 Motor protection	T0520/07	
6 Start winding resistance	28.80	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	21.70	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	4.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	0.70	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	0.85	[A]
11 Approval boards certification	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]
379	96	111	90	0.42	1.45	4.19	1.06	1.23

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)	291	73	85	66	0.32	0.93	4.36	1.10	1.28
-30	(-22)	373	94	109	74	0.35	1.20	5.06	1.28	1.48
-25	(-13)	483	122	141	82	0.38	1.55	5.91	1.49	1.73
-20	(- 4)	622	157	182	91	0.42	2.00	6.86	1.73	2.01
-15	(+ 5)	792	200	232	100	0.46	2.55	7.90	1.99	2.31
-10	(+14)	994	250	291	110	0.50	3.20	8.98	2.26	2.63
-5	(+23)	1228	309	360	122	0.55	3.97	10.08	2.54	2.95

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)	241	61	71	67	0.32	0.83	3.62	0.91	1.06
-30	(-22)	322	81	94	76	0.36	1.12	4.24	1.07	1.24
-25	(-13)	428	108	125	86	0.40	1.49	4.96	1.25	1.45
-20	(- 4)	558	141	163	96	0.44	1.95	5.77	1.45	1.69
-15	(+ 5)	714	180	209	107	0.49	2.50	6.62	1.67	1.94
-10	(+14)	898	226	263	120	0.54	3.14	7.49	1.89	2.20
-5	(+23)	1109	279	325	133	0.60	3.89	8.35	2.10	2.45

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)	208	52	61	68	0.33	0.79	3.06	0.77	0.90
-30	(-22)	283	71	83	79	0.37	1.08	3.59	0.90	1.05
-25	(-13)	378	95	111	90	0.42	1.44	4.20	1.06	1.23
-20	(- 4)	494	124	145	101	0.46	1.89	4.85	1.22	1.42
-15	(+ 5)	631	159	185	114	0.52	2.41	5.52	1.39	1.62
-10	(+14)	790	199	232	128	0.58	3.03	6.17	1.56	1.81
-5	(+23)	973	245	285	144	0.65	3.74	6.78	1.71	1.99

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)	176	44	52	68	0.34	0.74	2.57	0.65	0.75
-30	(-22)	240	60	70	79	0.38	1.01	3.01	0.76	0.88
-25	(-13)	319	80	93	91	0.42	1.34	3.49	0.88	1.02
-20	(- 4)	413	104	121	104	0.48	1.75	3.99	1.00	1.17
-15	(+ 5)	525	132	154	119	0.54	2.23	4.47	1.13	1.31
-10	(+14)	655	165	192	134	0.61	2.79	4.90	1.23	1.44
-5	(+23)	804	203	236	152	0.69	3.44	5.26	1.32	1.54

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	4.95 +0.05/+0.05	[mm]	(0.195" +0.002"/+0.002")
3.2.1 Material	Copper		
3.2.2 Shape	Vertical		
3.3 PROCESS	6 +0.08/-0.08	[mm]	(0.236" +0.003"/-0.003")
3.3.1 Material	Copper(OD)		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		