

### 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	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 pressures/temperature			
9.1 Operating (gauge)	7.7	[kgf/cm <sup>2</sup> ] (109 psig)	/ °C - °F
9.2 Peak (gauge)	9.8	[kgf/cm <sup>2</sup> ] (139 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation		[hp]
2 Displacement	8.59	[cm <sup>3</sup> ] (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 <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	V230	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	-	[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			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]
504	127	148	103	0.63	1.58	4.91	1.24	1.44

### 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)	299	75	88	67	0.56	0.94	4.42	1.11	1.30
-30	(-22)	382	96	112	77	0.58	1.20	4.99	1.26	1.46
-25	(-13)	494	124	145	87	0.61	1.55	5.73	1.44	1.68
-20	(- 4)	635	160	186	97	0.64	2.00	6.60	1.66	1.94
-15	(+ 5)	809	204	237	107	0.67	2.54	7.56	1.90	2.21
-10	(+14)	1015	256	297	118	0.71	3.20	8.54	2.15	2.50
-5	(+23)	1255	316	368	132	0.75	3.97	9.50	2.39	2.78

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)	266	67	78	66	0.56	0.83	4.05	1.02	1.19
-30	(-22)	357	90	105	79	0.59	1.12	4.55	1.15	1.33
-25	(-13)	474	119	139	91	0.62	1.49	5.21	1.31	1.53
-20	(- 4)	618	156	181	103	0.66	1.94	5.97	1.50	1.75
-15	(+ 5)	792	199	232	116	0.70	2.49	6.79	1.71	1.99
-10	(+14)	995	251	292	131	0.75	3.14	7.61	1.92	2.23
-5	(+23)	1231	310	361	147	0.80	3.89	8.38	2.11	2.46

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)	253	64	74	70	0.56	0.79	3.62	0.91	1.06
-30	(-22)	345	87	101	84	0.59	1.08	4.07	1.03	1.19
-25	(-13)	460	116	135	98	0.62	1.44	4.65	1.17	1.36
-20	(- 4)	599	151	176	112	0.67	1.88	5.32	1.34	1.56
-15	(+ 5)	765	193	224	127	0.72	2.41	6.01	1.51	1.76
-10	(+14)	959	242	281	144	0.78	3.03	6.69	1.69	1.96
-5	(+23)	1182	298	346	162	0.85	3.74	7.30	1.84	2.14

### 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)	238	60	70	73	0.56	0.75	3.27	0.82	0.96
-30	(-22)	323	81	95	87	0.59	1.01	3.69	0.93	1.08
-25	(-13)	429	108	126	102	0.63	1.35	4.21	1.06	1.23
-20	(- 4)	556	140	163	116	0.68	1.75	4.79	1.21	1.40
-15	(+ 5)	707	178	207	132	0.74	2.23	5.39	1.36	1.58
-10	(+14)	884	223	259	150	0.81	2.79	5.93	1.50	1.74
-5	(+23)	1087	274	318	169	0.89	3.44	6.39	1.61	1.87

### 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		