

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	TSD	
2.1 Starting device	TSD-220V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	4(290)	[µF(VAC minimum)]
5 Motor protection	4TM189NFBYY-153	
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)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (50 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[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	93	0.42	1.58	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)	299	75	88	64	0.31	0.94	4.61	1.16	1.35
-30	(-22)	382	96	112	73	0.34	1.20	5.25	1.32	1.54
-25	(-13)	494	124	145	82	0.38	1.55	6.07	1.53	1.78
-20	(- 4)	635	160	186	91	0.41	2.00	7.04	1.77	2.06
-15	(+ 5)	809	204	237	100	0.45	2.54	8.12	2.05	2.38
-10	(+14)	1015	256	297	109	0.49	3.20	9.28	2.34	2.72
-5	(+23)	1255	316	368	120	0.53	3.97	10.47	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)	266	67	78	65	0.31	0.83	4.12	1.04	1.21
-30	(-22)	357	90	105	75	0.35	1.12	4.75	1.20	1.39
-25	(-13)	474	119	139	85	0.39	1.49	5.54	1.40	1.62
-20	(- 4)	618	156	181	96	0.43	1.94	6.43	1.62	1.88
-15	(+ 5)	792	199	232	106	0.48	2.49	7.40	1.86	2.17
-10	(+14)	995	251	292	118	0.53	3.14	8.40	2.12	2.46
-5	(+23)	1231	310	361	131	0.58	3.89	9.40	2.37	2.75

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	66	0.32	0.79	3.82	0.96	1.12
-30	(-22)	345	87	101	78	0.36	1.08	4.42	1.11	1.30
-25	(-13)	460	116	135	89	0.40	1.44	5.13	1.29	1.50
-20	(- 4)	599	151	176	101	0.45	1.88	5.92	1.49	1.74
-15	(+ 5)	765	193	224	113	0.50	2.41	6.75	1.70	1.98
-10	(+14)	959	242	281	127	0.56	3.03	7.57	1.91	2.22
-5	(+23)	1182	298	346	142	0.63	3.74	8.35	2.11	2.45

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	66	0.33	0.75	3.57	0.90	1.05
-30	(-22)	323	81	95	78	0.37	1.01	4.12	1.04	1.21
-25	(-13)	429	108	126	91	0.41	1.35	4.74	1.19	1.39
-20	(- 4)	556	140	163	104	0.46	1.75	5.39	1.36	1.58
-15	(+ 5)	707	178	207	118	0.52	2.23	6.05	1.52	1.77
-10	(+14)	884	223	259	133	0.59	2.79	6.67	1.68	1.95
-5	(+23)	1087	274	318	150	0.67	3.44	7.21	1.82	2.11

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		