

COMPRESSOR DEFINITION

Designation	EG ZS60HLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513701003

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-134a		
3 Nominal voltage and frequency	115-127 / 60	[V / Hz]	
4 Application type	Low Back Pressure		
4.1 Evaporating temperature range	-35°C to -10°C	(-31°F to 14°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	-	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	-	98 to 140 V
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm ²] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm ²] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	5.09	[cm ³] (0.311 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	12.800	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO7	
4 Weight (with oil charge)	10.75	[kg] (23.70 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm ²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115-127 V 60 Hz 1 ~ (Single phase)	
2 Starting device type	PTC	
2.1 Starting device	5SP14X427K/5SP21X427K	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)/15(200)/20(200)	[µF(VAC minimum)]
5 Motor protection	5SP14X427KFX	
6 Start winding resistance	6.00	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.15	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	10.40	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @115V60Hz			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]
610	154	179	103	0.90	3.47	5.93	1.49	1.74

E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz			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)	314	79	92	68	0.60	1.78	4.64	1.17	1.36
-30 (-22)	423	107	124	81	0.71	2.40	5.30	1.34	1.55
-25 (-13)	600	151	176	97	0.85	3.41	6.18	1.56	1.81
-20 (- 4)	833	210	244	115	1.00	4.74	7.22	1.82	2.12
-15 (+ 5)	1109	280	325	132	1.15	6.33	8.41	2.12	2.46
-10 (+14)	1417	357	415	147	1.27	8.12	9.69	2.44	2.84

TEST CONDITIONS: @115V60Hz			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)	249	63	73	60	0.55	1.41	4.04	1.02	1.18
-30 (-22)	358	90	105	76	0.67	2.03	4.75	1.20	1.39
-25 (-13)	533	134	156	96	0.84	3.02	5.56	1.40	1.63
-20 (- 4)	762	192	223	117	1.02	4.33	6.46	1.63	1.89
-15 (+ 5)	1032	260	303	140	1.21	5.89	7.40	1.86	2.17
-10 (+14)	1332	336	390	161	1.39	7.63	8.35	2.10	2.45

TEST CONDITIONS: @115V60Hz			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)	155	39	45	54	0.50	0.88	2.91	0.73	0.85
-30 (-22)	267	67	78	71	0.63	1.51	3.82	0.96	1.12
-25 (-13)	444	112	130	93	0.81	2.52	4.75	1.20	1.39
-20 (- 4)	673	170	197	118	1.02	3.83	5.67	1.43	1.66
-15 (+ 5)	942	237	276	144	1.25	5.38	6.54	1.65	1.92
-10 (+14)	1239	312	363	170	1.48	7.10	7.32	1.85	2.15

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.2 +0.12/-0.08	[mm]	(0.323" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Straight		
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	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.3.1 Material	Copper		
3.3.2 Shape	Straight		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		