

### COMPRESSOR DEFINITION

Designation	EG Z60HLP
Nominal Voltage/Frequency	115-127 V 60 Hz
Engineering Number	513700251

### 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	85 to 110 V	98 to 140 V
8.2 LBP (43°C Ambient temperature)	Static	85 to 110 V	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 <sup>2</sup> ] (230 psig)	/ °C - °F
9.2 Peak (gauge)	20.6	[kgf/cm <sup>2</sup> ] (293 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	5.56	[cm <sup>3</sup> ] (0.339 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	14.000	
3 Lubricant charge	280	[ml] (9.47 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	10.95	[kg] (24.14 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (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	TSD	
2.1 Starting device	TSD- 115V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	12(180)	[µF(VAC minimum)]
5 Motor protection	4TM319NFBYY-53	
6 Start winding resistance	5.70	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	5.10	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	9.30	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	1.50	[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]
660	166	193	113	1.00	3.75	5.87	1.48	1.72

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @115V60Hz		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)	402	101	118	76	0.69	2.27	5.28	1.33	1.55	
-30 (-22)	533	134	156	87	0.77	3.02	6.17	1.55	1.81	
-25 (-13)	699	176	205	99	0.85	3.97	7.13	1.80	2.09	
-20 (- 4)	904	228	265	110	0.94	5.14	8.19	2.06	2.40	
-15 (+ 5)	1151	290	337	122	1.04	6.57	9.39	2.37	2.75	
-10 (+14)	1445	364	423	134	1.14	8.28	10.75	2.71	3.15	

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)	346	87	101	75	0.70	1.96	4.58	1.15	1.34	
-30 (-22)	486	122	142	89	0.81	2.75	5.46	1.38	1.60	
-25 (-13)	658	166	193	104	0.94	3.73	6.35	1.60	1.86	
-20 (- 4)	865	218	253	119	1.07	4.92	7.28	1.83	2.13	
-15 (+ 5)	1111	280	326	135	1.20	6.34	8.27	2.08	2.42	
-10 (+14)	1402	353	411	150	1.34	8.03	9.35	2.36	2.74	

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)	252	64	74	68	0.63	1.43	3.69	0.93	1.08	
-30 (-22)	402	101	118	86	0.78	2.28	4.62	1.16	1.35	
-25 (-13)	580	146	170	105	0.95	3.30	5.49	1.38	1.61	
-20 (- 4)	791	199	232	125	1.12	4.50	6.33	1.60	1.86	
-15 (+ 5)	1038	262	304	144	1.30	5.92	7.17	1.81	2.10	
-10 (+14)	1325	334	388	164	1.48	7.59	8.03	2.02	2.35	

### E - PERFORMANCE - CURVES

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)	165	42	48	58	0.54	0.93	2.90	0.73	0.85
-30	(-22)	325	82	95	81	0.74	1.84	3.93	0.99	1.15
-25	(-13)	511	129	150	105	0.95	2.90	4.84	1.22	1.42
-20	(- 4)	725	183	213	129	1.16	4.13	5.65	1.42	1.66
-15	(+ 5)	973	245	285	154	1.38	5.55	6.38	1.61	1.87
-10	(+14)	1258	317	369	179	1.61	7.21	7.08	1.78	2.07

### F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-0.003")
3.1.1 Material	Copper		
3.1.2 Shape	Straight		
3.2 DISCHARGE	6.5 +0.12/-0.08	[mm]	(0.256" +0.005"/-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		