COMPRESSOR DEFINITION

Designation	**EG Z100HLP**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513700138**

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 Expantion device	Capillary tube		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32ºC Ambient temperature)	Static	85 to 110 V	98 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	85 to 110 V	98 to 140 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	16.2	[kgf/cm²] (230 psig)	/ ºC - ºF
9.2 Peak (gauge)	20.6	[kgf/cm²] (293 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3	[hp]
2 Displacement	7.95	[cm³] (0.485 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	20.000	
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)	11.44	[kg] (25.22 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (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	8EA14C3/8EA1B3/8EA21C3/8EA3B3/8EA4B3	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	15(180)	[µF(VAC minimum)]
5 Motor protection	4TM445NFBYY-53	
6 Start winding resistance	5.90	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.75	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	17.00	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.70	[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]
1033	260	303	175	1.62	5.87	5.91	1.49	1.73

E - PERFORMANCE - CURVES

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **35ºC (+95ºF))**

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)**	616	155	181	121	1.13	3.49	5.10	1.28	1.49
-30	**(-22)**	809	204	237	138	1.26	4.59	5.88	1.48	1.72
-25	**(-13)**	1046	264	306	156	1.42	5.94	6.71	1.69	1.97
-20	**(- 4)**	1337	337	392	175	1.60	7.61	7.62	1.92	2.23
-15	**(+ 5)**	1693	427	496	195	1.79	9.67	8.65	2.18	2.54
-10	**(+14)**	2124	535	623	215	1.98	12.17	9.85	2.48	2.89

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **45ºC (+113ºF))**

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)**	553	139	162	118	1.22	3.13	4.67	1.18	1.37
-30	**(-22)**	757	191	222	139	1.36	4.29	5.45	1.37	1.60
-25	**(-13)**	1000	252	293	161	1.52	5.68	6.21	1.57	1.82
-20	**(- 4)**	1292	326	379	184	1.70	7.35	7.02	1.77	2.06
-15	**(+ 5)**	1643	414	481	207	1.90	9.38	7.89	1.99	2.31
-10	**(+14)**	2064	520	605	231	2.09	11.83	8.88	2.24	2.60

TEST CONDITIONS: **@115V60Hz** — **ASHRAE32** **Static** — (Condensing temperature **55ºC (+131ºF))**

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)**	466	117	137	113	1.21	2.64	4.11	1.04	1.20
-30	**(-22)**	683	172	200	139	1.38	3.87	4.91	1.24	1.44
-25	**(-13)**	934	235	274	166	1.57	5.30	5.66	1.43	1.66
-20	**(- 4)**	1228	309	360	193	1.78	6.99	6.39	1.61	1.87
-15	**(+ 5)**	1575	397	462	222	2.01	8.99	7.15	1.80	2.09
-10	**(+14)**	1988	501	582	250	2.23	11.39	7.97	2.01	2.34

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **65ºC (+149ºF))**
@115V60Hz **Static**

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)**	333	84	98	102	1.11	1.89	3.28	0.83	0.96
-30	**(-22)**	565	142	166	134	1.32	3.20	4.15	1.05	1.22
-25	**(-13)**	824	208	242	166	1.57	4.68	4.91	1.24	1.44
-20	**(- 4)**	1121	283	329	200	1.84	6.38	5.61	1.41	1.64
-15	**(+ 5)**	1467	370	430	234	2.12	8.37	6.29	1.58	1.84
-10	**(+14)**	1872	472	549	268	2.40	10.72	6.98	1.76	2.05

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal EG/F/AMEM version 2		
2 Tray holder	No		
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		