COMPRESSOR DEFINITION

Designation	**EG Z90HLP**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513700177**

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	1/4+	[hp]
2 Displacement	7.55	[cm³] (0.461 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	19.000	
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)	11.52	[kg] (25.40 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	TSD	
2.1 Starting device	TSD- 115V	
3 Start capacitor	-	[µF(VAC minimum)]
4 Run capacitor	15(180)	[µF(VAC minimum)]
5 Motor protection	4TM437NFBYY-53	
6 Start winding resistance	6.05	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	2.95	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	15.10	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.40	[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]
963	243	282	160	1.43	5.47	6.03	1.52	1.77

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)**	612	154	179	113	0.91	3.46	5.40	1.36	1.58
-30	**(-22)**	786	198	230	128	1.04	4.45	6.17	1.55	1.81
-25	**(-13)**	1009	254	296	143	1.17	5.73	7.06	1.78	2.07
-20	**(- 4)**	1285	324	377	159	1.31	7.32	8.08	2.04	2.37
-15	**(+ 5)**	1621	408	475	175	1.46	9.25	9.24	2.33	2.71
-10	**(+14)**	2020	509	592	191	1.61	11.58	10.55	2.66	3.09

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)**	525	132	154	109	1.04	2.97	4.86	1.23	1.42
-30	**(-22)**	709	179	208	127	1.18	4.02	5.60	1.41	1.64
-25	**(-13)**	938	236	275	147	1.33	5.33	6.41	1.62	1.88
-20	**(- 4)**	1218	307	357	166	1.49	6.93	7.30	1.84	2.14
-15	**(+ 5)**	1553	391	455	187	1.66	8.87	8.28	2.09	2.42
-10	**(+14)**	1949	491	571	208	1.84	11.17	9.35	2.36	2.74

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)**	440	111	129	104	1.01	2.49	4.22	1.06	1.24
-30	**(-22)**	634	160	186	127	1.19	3.59	4.98	1.25	1.46
-25	**(-13)**	870	219	255	152	1.37	4.94	5.74	1.45	1.68
-20	**(- 4)**	1153	291	338	177	1.57	6.56	6.53	1.65	1.91
-15	**(+ 5)**	1489	375	436	203	1.78	8.50	7.36	1.85	2.16
-10	**(+14)**	1882	474	552	229	2.00	10.78	8.23	2.07	2.41

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)**	326	82	96	93	0.92	1.84	3.49	0.88	1.02
-30	**(-22)**	531	134	155	123	1.15	3.01	4.28	1.08	1.26
-25	**(-13)**	774	195	227	153	1.39	4.40	5.04	1.27	1.48
-20	**(- 4)**	1062	268	311	184	1.64	6.04	5.78	1.46	1.69
-15	**(+ 5)**	1398	352	410	216	1.90	7.98	6.49	1.64	1.90
-10	**(+14)**	1789	451	524	249	2.18	10.25	7.19	1.81	2.11

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		