COMPRESSOR DEFINITION

Designation	**EM 2Z60HLT**
Nominal Voltage/Frequency	**115-127 V 60 Hz**
Engineering Number	**513304026**

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	-	98 to 140 V
8.2 LBP (43ºC Ambient temperature)	Static	-	98 to 140 V
8.3 HBP (32ºC Ambient temperature)	-	-	-
8.4 HBP (43ºC Ambient temperature)	-	-	-
9 Maximum condensing temperature			
9.1 Operating	14.2	[kgf/cm²] (202 psig)	/ ºC - ºF
9.2 Peak	15.9	[kgf/cm²] (226 psig)	/ ºC - ºF
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/5	[hp]
2 Displacement	5.54	[cm³] (0.338 cu.in)
2.1 Bore [mm]	21.000	
2.2 Stroke [mm]	16.000	
3 Lubricant charge	150	[ml] (5.07 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO10	
4 Weight (with oil charge)	8.36	[kg] (18.43 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	12(180)/15(180)	[µF(VAC minimum)]
5 Motor protection	BT127-120	
6 Start winding resistance	5.30	[Ω at 25ºC (77ºF)] +/- 8%
7 Run winding resistance	4.25	[Ω at 25ºC (77ºF)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	14.60	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	2.10	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	CE - UKCA - 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]
675	170	198	115	1.00	3.84	5.88	1.48	1.72

E - PERFORMANCE - CURVES

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **35ºC (+95ºF))**
@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)**	391	98	115	69	0.64	2.21	5.64	1.42	1.65
-30	**(-22)**	499	126	146	83	0.72	2.83	6.12	1.54	1.79
-25	**(-13)**	662	167	194	96	0.82	3.76	6.92	1.74	2.03
-20	**(- 4)**	876	221	257	110	0.93	4.99	7.95	2.00	2.33
-15	**(+ 5)**	1138	287	334	124	1.06	6.50	9.12	2.30	2.67
-10	**(+14)**	1445	364	423	139	1.20	8.28	10.37	2.61	3.04

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **45ºC (+113ºF))**
@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)**	364	92	107	71	0.68	2.06	5.14	1.29	1.50
-30	**(-22)**	472	119	138	86	0.78	2.68	5.55	1.40	1.63
-25	**(-13)**	630	159	185	101	0.89	3.58	6.26	1.58	1.83
-20	**(- 4)**	834	210	244	116	1.02	4.75	7.16	1.80	2.10
-15	**(+ 5)**	1081	272	317	132	1.16	6.17	8.18	2.06	2.40
-10	**(+14)**	1368	345	401	148	1.31	7.84	9.25	2.33	2.71

TEST CONDITIONS: **ASHRAE32** (Condensing temperature **55ºC (+131ºF))**
@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)**	338	85	99	74	0.71	1.91	4.57	1.15	1.34
-30	**(-22)**	445	112	130	90	0.82	2.52	4.94	1.24	1.45
-25	**(-13)**	597	150	175	107	0.95	3.39	5.57	1.40	1.63
-20	**(- 4)**	790	199	232	124	1.09	4.50	6.37	1.60	1.87
-15	**(+ 5)**	1022	257	299	141	1.25	5.83	7.25	1.83	2.13
-10	**(+14)**	1289	325	378	159	1.42	7.38	8.15	2.05	2.39

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)**	311	78	91	79	0.73	1.76	3.96	1.00	1.16
-30	**(-22)**	417	105	122	97	0.85	2.36	4.31	1.09	1.26
-25	**(-13)**	563	142	165	115	0.99	3.20	4.88	1.23	1.43
-20	**(- 4)**	745	188	218	133	1.15	4.24	5.59	1.41	1.64
-15	**(+ 5)**	961	242	282	152	1.32	5.49	6.37	1.60	1.87
-10	**(+14)**	1207	304	354	171	1.50	6.92	7.12	1.79	2.09

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard EUEM		
2 Tray holder	Yes		
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 42º up + 45° to Back		
3.2 DISCHARGE	5.1 +0.10/+0.00	[mm]	(0.201" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted 48° up + 24° to Back		
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 43° up + 45° to Back		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		