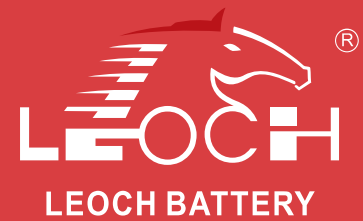




LHR Series-High Rate

LHR12510W(12V510W)

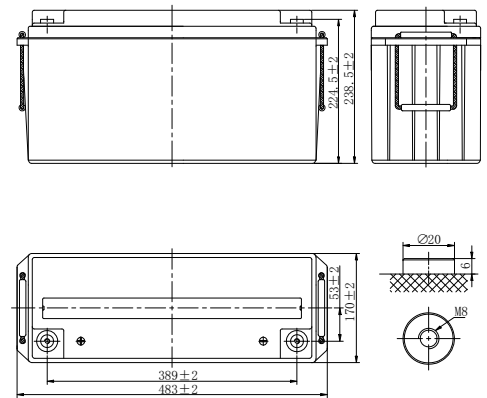


Specifications

Rated Voltage	12V		
Nominal Rate($W_{15}, 1.67V/cell$)	510W/cell		
Nominal Capacity($C_{10}, 1.80V/cell$)	140Ah		
Dimension	Length	483±2mm (19.0 inches)	
	Width	170±2mm (6.69 inches)	
	Container Height	238.5±2mm (9.39 inches)	
	Total Height	238.5±2mm (9.39 inches)	
Approx Weight	43.6kg (96.1 lbs)		
Terminal	M8		
Container Material	ABS: UL 94 HB or V-0		
Rated Capacity(25°C)	140.0 Ah	C10(14.0A, 1.80V/cell)	
	130.4 Ah	C8(16.3A, 1.80V/cell)	
	123.0 Ah	C5(24.6A, 1.75V/cell)	
	109.2 Ah	C3(36.4A, 1.75V/cell)	
	89.1 Ah	C1(89.1A, 1.60V/cell)	
Max. Discharge Current	1400A (5s)		
Internal Resistance(25°C)	Approx 3.6mΩ		
Operating Temp. Range	Discharge	-20 ~ 55°C (-4 ~ 131°F)	
	Charge	-20 ~ 40°C (-4 ~ 104°F)	
	Storage	-15 ~ 50°C (5 ~ 122°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)		
Max.Charging Current(25°C)	35.0A		
Charge voltage(25°C)	Charge voltage	Temp. Coefficient	
	Float	2.25 ~ 2.30V/cell	-3mV/cell/°C
Effect of temp. to Capacity	Equalization	2.30~2.40V/cell	-4mV/cell/°C
	40°C (104°F)	106%	
	25°C (77°F)	100%	
Self Discharge	0°C (32°F)	86%	
	≤3%/month @ 25°C		



Layout



Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	305.1	243.6	211.2	166.1	117.2	85.7	77.0	56.6	46.3	34.5	27.2	23.0	15.9	13.6
1.80V/cell	347.0	276.5	239.3	187.7	132.1	91.6	79.6	58.3	49.0	35.6	28.3	24.0	16.3	14.0
1.75V/cell	376.9	299.8	259.1	202.7	142.1	95.8	82.9	60.7	50.9	36.4	29.2	24.6	16.4	14.1
1.70V/cell	402.9	319.7	275.2	214.9	150.6	99.3	86.5	63.2	52.1	37.2	29.9	25.2	16.7	14.2
1.67V/cell	417.0	329.8	283.2	220.8	154.2	104.2	87.5	64.9	53.3	38.0	30.3	25.5	16.9	14.4
1.60V/cell	431.7	341.1	292.0	226.5	158.0	110.0	89.1	67.1	54.4	38.9	31.0	26.0	16.9	14.5

Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85V/cell	569.8	458.2	399.8	315.9	223.9	164.9	149.0	109.7	90.0	67.3	53.4	45.4	31.6	27.1
1.80V/cell	637.4	512.6	447.3	353.3	250.5	175.0	153.2	112.4	94.8	69.2	55.2	47.0	32.2	27.8
1.75V/cell	680.2	547.1	477.4	377.1	267.3	182.0	158.8	116.5	98.1	70.5	56.9	48.2	32.4	27.9
1.70V/cell	715.1	575.1	501.8	396.5	281.0	187.2	164.9	120.8	100.0	71.8	58.0	49.1	32.9	28.1
1.67V/cell	726.8	584.5	510.0	402.9	285.6	195.4	165.7	123.3	102.0	73.1	58.6	49.6	33.2	28.4
1.60V/cell	736.9	592.6	517.1	408.5	289.6	204.3	167.6	126.6	103.3	74.5	59.6	50.4	33.3	28.6



LHR Series-High Rate

LHR12510W(12V510W)

Applications

- UPS
- Hospitals & Testing Laboratories
- Emergency Power Supply
- Banks & Financial Markets
- Industrial Process Control Facilities
- Data & Network Operation Centers

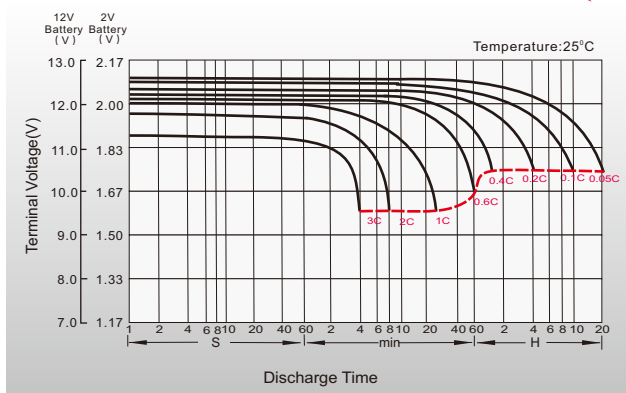
General Features

- High quality AGM separator: extend cycle life and prevent micro short circuit
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- Unique vent valve design: reduce water losing and prevent air/spark going inside

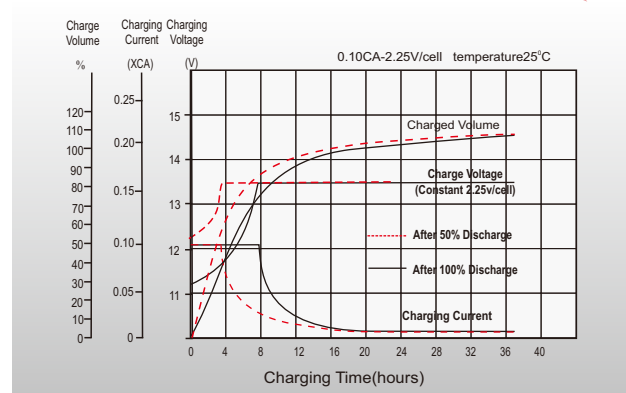
Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL, IEC Certified
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

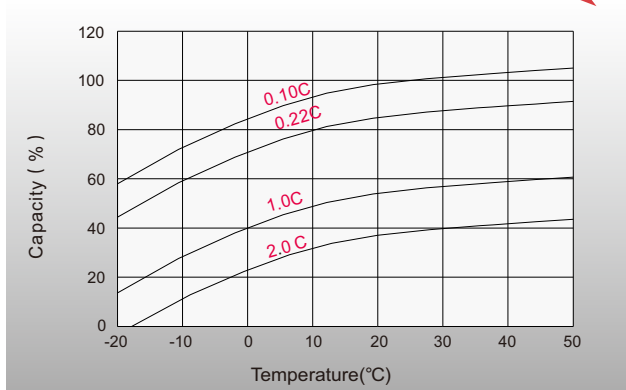
Discharge Characteristics



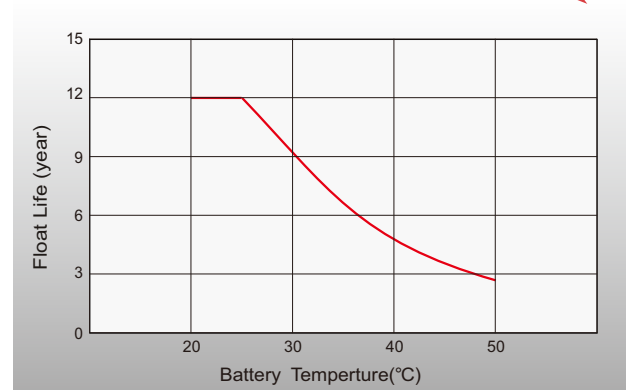
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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