LHR Series-High Rate

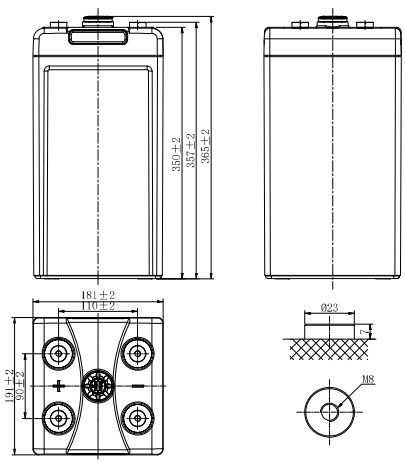
LHR1520W(2V1520W)

LEOCH BATTERY

Specifications

Rated Voltage		2V
Nominal Rate(W_{15},1.67V/cell) Nominal Capacity(C_{10},1.80V/cell)		1520W 500Ah
Dimension	Length	191±2mm (7.52 inches)
	Width	181±2mm (7.13 inches)
	Container Height	350±2mm (13.8 inches)
	Total Height	365±2mm (14.4 inches)
Approx Weight		30.3kg (66.8 lbs)
Terminal		M8
Container Material		ABS: UL 94 HB or V-0
Rated Capacity(25℃)	500.0 Ah	C10(50.0A,1.80V/cell)
	470.4 Ah	C8(58.8A,1.80V/cell)
	441.0 Ah	C5(88.2A,1.75V/cell)
	383.4 Ah	C3(127.8A,1.75V/cell)
	299.8 Ah	C1(299.8A,1.60V/cell)
Max. Discharge Current		4000A (5s)
Internal Resistance(25℃)		Approx 0.40mΩ
Operating Temp. Range	Discharge	-20 ~ 55℃ (-4 ~ 131℉)
	Charge	-20 ~ 40℃ (-4 ~ 104℉)
	Storage	-15 ~ 50℃ (5 ~ 122℉)
Nominal Operating Temp. Range		25±3℃ (77±5℉)
Max.Charging Current(25℃)		125A
Charge voltage(25℃)		Charge voltage / Temp. Coefficient
	Float	2.25 ~2.30V/cell / -3mV/cell/℃
	Equalization	2.30~2.40V/cell / -4mV/cell/℃
Effect of temp. to Capacity	40℃ (104℉)	106%
	25℃ (77℉)	100%
	0℃ (32℉)	86%
Self Discharge		≤3%/month @ 25℃

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	858.9	774.9	649.0	518.3	420.6	306.1	264.0	197.5	155.5	121.4	96.4	84.4	56.9	48.8
1.80V/cell	1002.7	861.0	704.2	562.5	438.3	322.5	275.0	206.3	162.5	125.3	98.3	86.2	58.8	50.0
1.75V/cell	1110.9	947.1	752.6	600.4	462.0	333.8	277.8	212.5	166.1	127.8	100.1	88.2	59.5	50.6
1.70V/cell	1156.4	1004.5	780.2	632.0	485.7	346.0	288.8	218.8	170.8	132.9	102.6	89.3	60.3	51.3
1.67V/cell	1183.1	1018.8	821.6	657.3	501.1	354.5	294.3	225.0	174.3	135.5	105.7	91.2	61.0	51.9
1.60V/cell	1199.7	1033.1	833.1	666.5	508.1	362.9	299.8	231.3	179.0	138.0	107.5	93.1	61.6	52.5

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	1589.0	1433.5	1200.7	958.8	778.0	587.7	506.9	389.1	306.3	239.2	189.9	166.2	113.8	97.5
1.80V/cell	1854.9	1592.8	1302.9	1040.6	810.9	619.2	528.0	406.3	320.2	246.7	193.6	169.9	117.5	100.0
1.75V/cell	2055.1	1752.1	1392.3	1110.8	854.7	640.9	533.3	418.6	327.2	251.8	197.2	173.8	119.0	101.3
1.70V/cell	2139.3	1858.3	1443.4	1169.2	898.6	664.2	554.4	430.9	336.4	261.8	202.1	176.0	120.5	102.5
1.67V/cell	2188.8	1884.8	1520.0	1216.0	927.0	680.6	565.0	443.3	343.4	266.9	208.2	179.7	122.0	103.8
1.60V/cell	2219.4	1911.2	1541.3	1233.0	940.0	696.9	575.5	455.6	352.7	271.9	211.8	183.4	123.3	105.0

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Applications

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

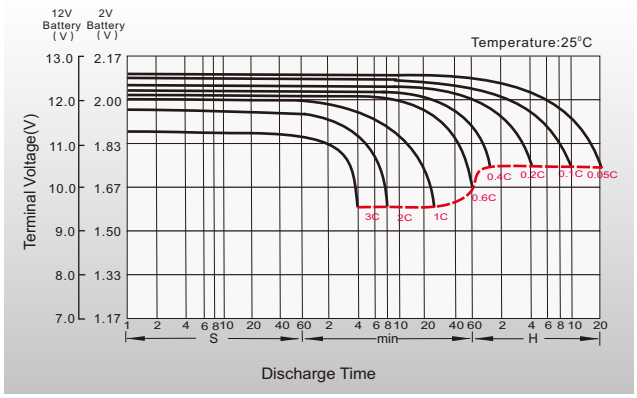
General Features

- 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

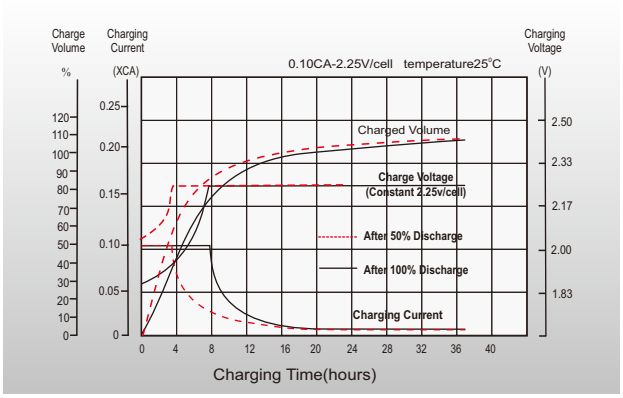
Standards

- Compliance with IEC 60896 standards
- Classified as “Long Life” according to Eurobat
- CE, UL, IEC Certified
- Manufactured in Leoch®IATF16949, ISO 45001,ISO 9001 and ISO 14001 certified production facilities

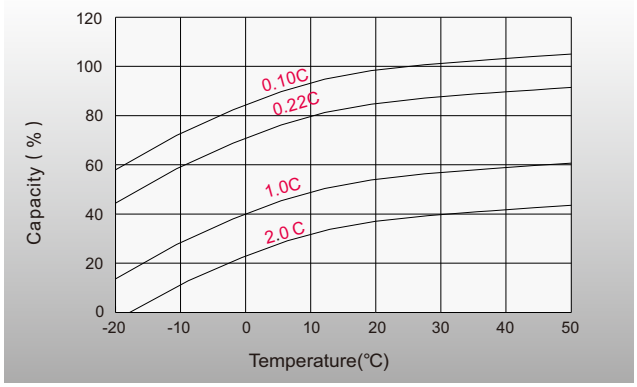
Discharge Characteristics



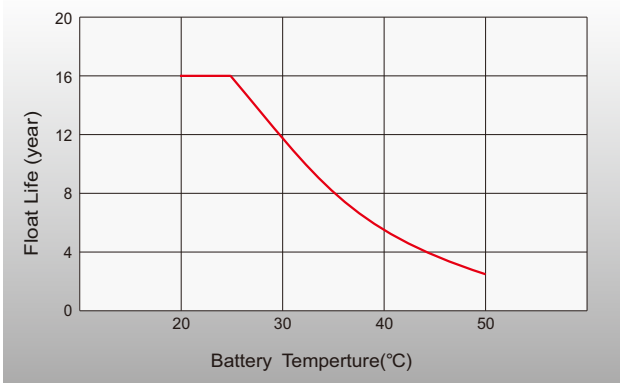
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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