LHR Series-High Rate

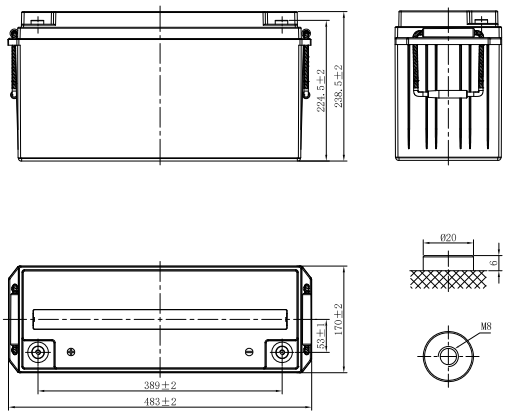
LHR12550W(12V550W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate(W_{15},1.67V/cell) Nominal Capacity(C_{10},1.80V/cell)		550W/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		46.1kg (101.6 lbs)
Terminal		M8
Container Material		ABS: UL 94 HB or V-0 optional
Rated Capacity(25℃)	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℃)		Approx 3.5mΩ
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℃)		35.0A
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	329.0	262.7	227.7	179.1	124.1	95.1	77.0	56.6	46.3	34.5	27.2	23.0	15.9	13.6
1.80V/cell	374.2	298.2	258.1	202.5	139.9	101.0	79.6	58.3	49.0	35.6	28.3	24.0	16.3	14.0
1.75V/cell	406.9	323.7	279.7	218.8	150.7	107.0	82.9	60.7	50.9	36.4	29.2	24.6	16.4	14.1
1.70V/cell	434.5	344.8	296.7	231.8	159.6	113.1	86.5	63.2	52.1	37.2	29.9	25.2	16.7	14.2
1.67V/cell	449.7	355.7	305.4	238.1	163.4	115.6	87.5	64.9	53.3	38.0	30.3	25.5	16.9	14.4
1.60V/cell	465.6	367.8	314.9	244.2	167.3	118.6	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	614.5	494.2	431.2	340.6	237.2	182.8	149.0	109.7	90.0	67.3	53.4	45.4	31.6	27.1
1.80V/cell	687.3	552.8	482.4	381.1	265.3	192.8	153.2	112.4	94.8	69.2	55.2	47.0	32.2	27.8
1.75V/cell	734.4	590.6	515.4	407.1	283.4	203.2	158.8	116.5	98.1	70.5	56.9	48.2	32.4	27.9
1.70V/cell	771.2	620.2	541.2	427.5	297.7	213.2	164.9	120.8	100.0	71.8	58.0	49.1	32.9	28.1
1.67V/cell	783.8	630.3	550.0	434.5	302.5	216.8	165.7	123.3	102.0	73.1	58.6	49.6	33.2	28.4
1.60V/cell	794.7	639.1	557.7	440.6	306.7	220.3	167.6	126.6	103.3	74.5	59.6	50.4	33.3	28.6

LHR Series-High Rate

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LEOCH BATTERY

Applications

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

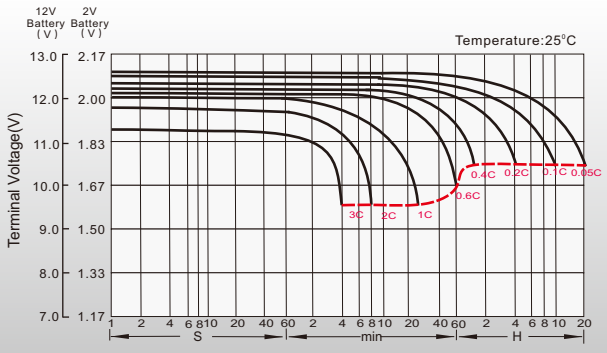
General Features

- 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

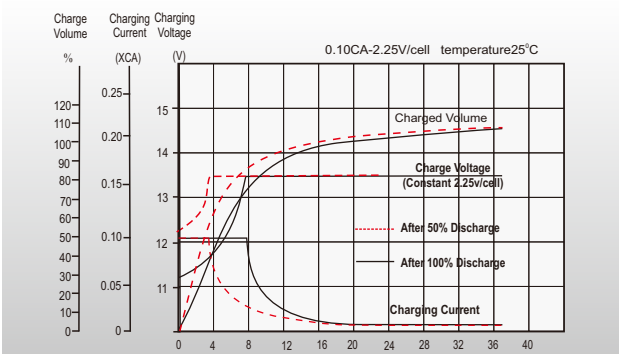
Standards

- 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

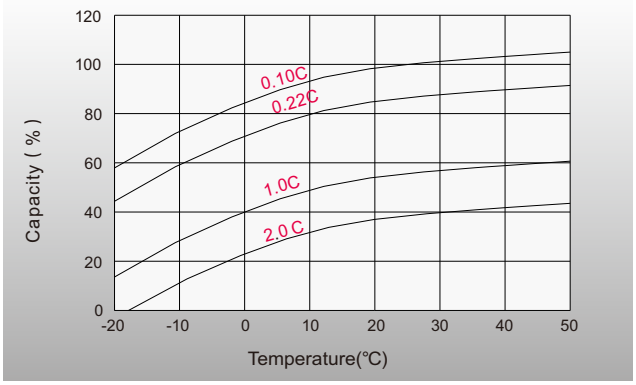
Discharge Characteristics



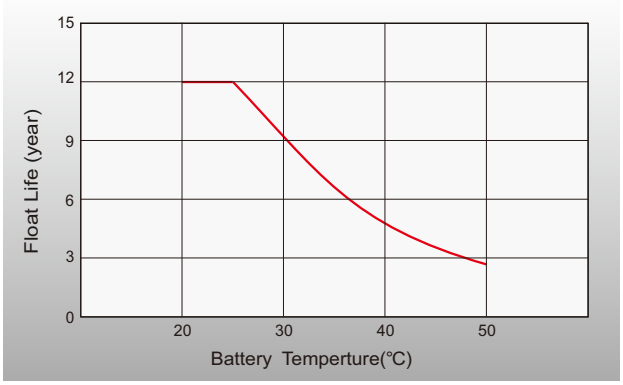
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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