LHR Series-High Rate

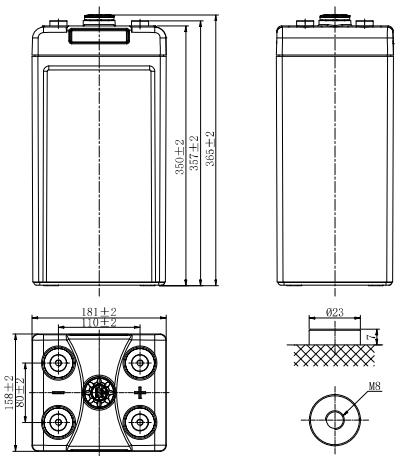
LHR1200W(2V1200W)

LEOCH BATTERY

Specifications

Rated Voltage		2V
Nominal Rate(W_{15},1.67V/cell) Nominal Capacity(C_{10},1.80V/cell)		1200W 400Ah
Dimension	Length	158±2mm (6.22 inches)
	Width	181±2mm (7.13 inches)
	Container Height	350±2mm (13.8 inches)
	Total Height	365±2mm (14.4 inches)
Approx Weight		24.1kg (53.1 lbs)
Terminal		M8
Container Material		ABS: UL 94 HB or V-0
Rated Capacity(25℃)	400.0 Ah	C10(40.0A,1.80V/cell)
	376.0 Ah	C8(47.0A,1.80V/cell)
	353.0 Ah	C5(70.6A,1.75V/cell)
	306.6 Ah	C3(102.2A,1.75V/cell)
	239.8 Ah	C1(239.8A,1.60V/cell)
Max. Discharge Current		3200A (5s)
Internal Resistance(25℃)		Approx 0.58mΩ
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℃)		100A
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	627.9	550.9	491.4	402.6	316.0	244.9	211.2	158.0	124.4	97.1	77.1	67.5	45.5	39.0
1.80V/cell	707.0	620.3	547.1	440.1	329.4	258.0	220.0	165.0	130.0	100.2	78.6	69.0	47.0	40.0
1.75V/cell	725.6	653.0	576.4	466.4	346.8	267.0	222.2	170.0	132.9	102.2	80.1	70.6	47.6	40.5
1.70V/cell	802.1	687.0	606.1	491.0	363.8	276.8	231.0	175.0	136.6	106.3	82.1	71.5	48.2	41.0
1.67V/cell	864.9	734.0	638.3	510.6	376.5	283.6	235.4	180.0	139.5	108.4	84.5	73.0	48.8	41.5
1.60V/cell	877.0	744.3	647.2	517.8	381.8	290.4	239.8	185.0	143.2	110.4	86.0	74.5	49.3	42.0

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	1180.5	1035.8	923.9	756.9	594.1	470.2	405.5	311.3	245.0	191.4	151.9	133.0	91.0	78.0
1.80V/cell	1329.2	1166.2	1028.6	827.3	619.2	495.4	422.4	325.1	256.2	197.4	154.8	135.9	94.0	80.0
1.75V/cell	1364.1	1227.6	1083.6	876.9	652.0	512.7	426.6	334.9	261.7	201.4	157.8	139.1	95.2	81.0
1.70V/cell	1508.0	1291.6	1139.5	923.1	684.0	531.4	443.5	344.8	269.2	209.5	161.7	140.8	96.4	82.0
1.67V/cell	1626.0	1380.0	1200.0	960.0	707.9	544.4	452.0	354.6	274.7	213.5	166.5	143.7	97.6	83.0
1.60V/cell	1648.8	1399.3	1216.8	973.4	717.8	557.5	460.4	364.5	282.1	217.5	169.4	146.7	98.6	84.0

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Applications

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

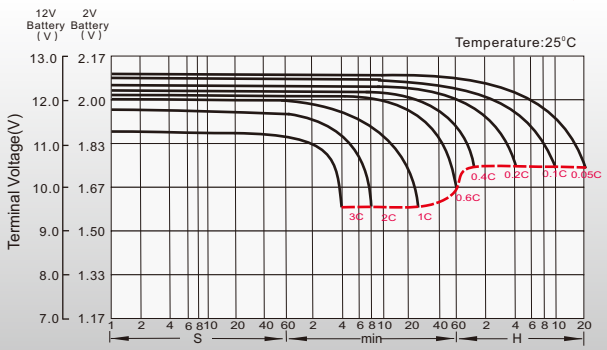
General Features

- 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

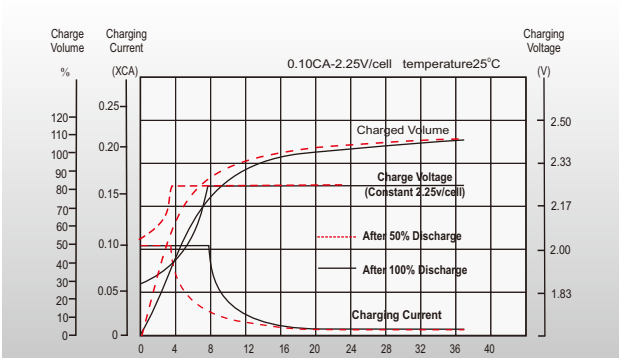
Standards

- 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

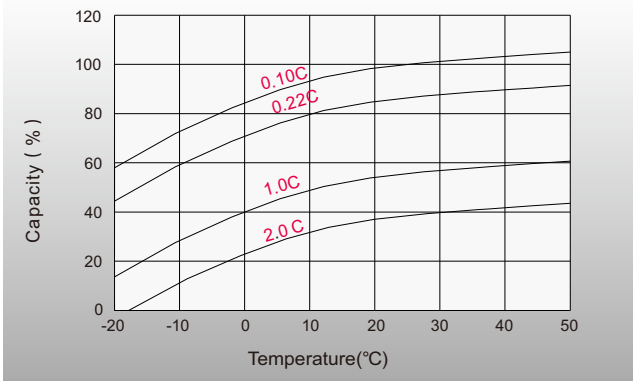
Discharge Characteristics



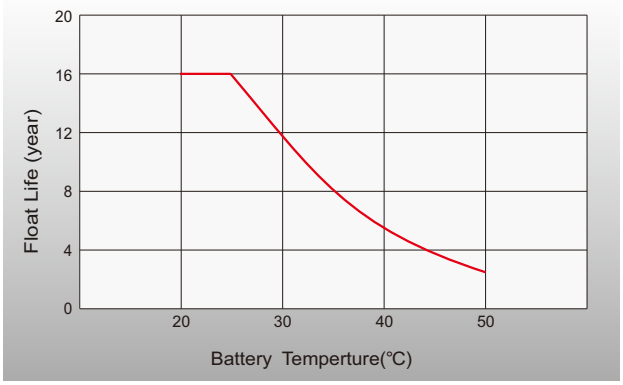
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Sales Offices Worldwide

China Sales Office
5th Floor, Xinbaohui Bldg., Nanhai Blvd., Nanshan, Shenzhen, China. 518052
Tel: +86-755-86036060 (100 lines)
Fax: +86-755-26067269
E-mail:export@leoch.com

HongKong Sales Office
Workshop C, 33/F, TML Tower, No. 3 Hoi Shing Road, Tsuen Wan, New Territories, Hong Kong
Tel: +852 35786666
Fax: +44 1452 690125
E-mail: sales.hk@leoch.com

Singapore Sales Office
No. 1 Tech Park Crescent, Singapore 638131
Tel: +65 68636078
Fax: +65 6863 6079
Email: sales.sg@Leoch.com

Australia Sales Office
2 /29 Tarlington Place, Smithfield. NSW 2164 Australia
Tel: 02 9756 0950
E-mail: sales.au@leoch.com

North America Sales Office
19751 Descartes Foothill Ranch, CA 92610, USA
Tel: 949-588-5853
Fax: 949-588-5966
E-mail: sales@leoch.us
Http:// www.leoch.us

UK Sales Office
9B Wheatstone Court. Waterwells, Business Park, Gloucester, GL2-2AQ, UK United Kingdom
Tel: +44(0) 1452 729428 / 1452 729696
Fax:+44 1452 690125
E-mail: Sales.Europe@leoch.com
Http:// www.leoch.eu

EMEA Sales Office
1 Deligiorgi St., 121 31 Athens, Greece
Tel: +30 210 5760318 (2 lines)
E-mail: support_EMEA@leoch.com
Http:// www.leoch.eu

India Sales Office
Shed no.A-53(b), 2nd Stage of Peenya Industrial Area, Bangalore North Taluk, Bangalore-560058, India
Tel: +91-80-23440018/23440019
Fax: +91-80-23440017
E-mail: indiasales@leoch.com

Http://www.leoch.com

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