LHR Series-High Rate

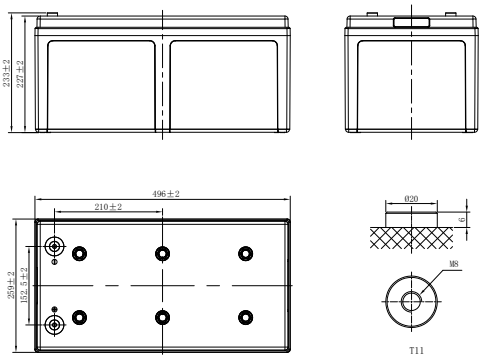
LHR12890W(12V890W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate(W_{15},1.67V/cell)		890W/cell
Nominal Capacity(C_{10},1.80V/cell)		235Ah
Dimension	Length	496±2mm (19.5 inches)
	Width	259±2mm (10.2 inches)
	Container Height	227±2mm (8.94 inches)
	Total Height	233±2mm (9.17 inches)
Approx Weight		77.0kg (169.8 lbs)
Terminal		M8
Container Material		ABS:UL94HB or V-0
Rated Capacity(25℃)	235.0 Ah	C10(23.5A,1.80V/cell)
	218.4 Ah	C8(27.3A,1.80V/cell)
	207.0 Ah	C5(41.4A,1.75V/cell)
	183.0 Ah	C3(61.0A,1.75V/cell)
	149.6 Ah	C1(149.6A,1.60V/cell)
Max. Discharge Current		2350A (5s)
Internal Resistance(25℃)		Approx 2.5mΩ
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℃)		58.75A
		Charge voltage / Temp. Coefficient
Charge voltage(25℃)	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	532.4	425.0	368.5	289.8	200.8	159.6	129.3	95.0	77.7	57.8	45.7	38.7	26.7	22.9
1.80V/cell	605.5	482.5	417.6	327.6	226.5	169.5	133.7	97.8	82.2	59.8	47.4	40.2	27.3	23.5
1.75V/cell	657.7	523.2	452.1	353.7	243.5	179.7	139.2	101.9	85.4	61.0	49.0	41.4	27.6	23.6
1.70V/cell	703.1	557.9	480.2	375.1	258.2	188.6	145.3	106.1	87.4	62.4	50.2	42.3	28.0	23.8
1.67V/cell	727.6	575.5	494.2	385.3	264.4	193.7	146.9	108.9	89.5	63.7	50.8	42.9	28.3	24.1
1.60V/cell	753.4	595.2	509.5	395.2	270.8	198.5	149.6	112.5	91.3	65.4	52.0	43.7	28.5	24.3

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	994.3	799.6	697.8	551.2	383.8	306.9	250.2	184.1	151.1	113.0	89.7	76.2	53.1	45.5
1.80V/cell	1112.3	894.5	780.5	616.6	429.3	323.7	257.2	188.7	159.2	116.2	92.7	78.9	54.0	46.7
1.75V/cell	1187.1	954.7	833.0	658.1	458.2	341.2	266.6	195.6	164.6	118.4	95.5	80.9	54.4	46.8
1.70V/cell	1248.0	1003.6	875.8	691.9	481.7	355.6	276.7	202.7	167.8	120.6	97.4	82.5	55.2	47.1
1.67V/cell	1268.3	1019.9	890.0	703.1	489.5	363.2	278.2	207.0	171.1	122.6	98.3	83.3	55.7	47.7
1.60V/cell	1286.0	1034.2	902.5	712.9	496.4	368.7	281.3	212.5	173.4	125.1	100.1	84.5	55.9	47.9

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

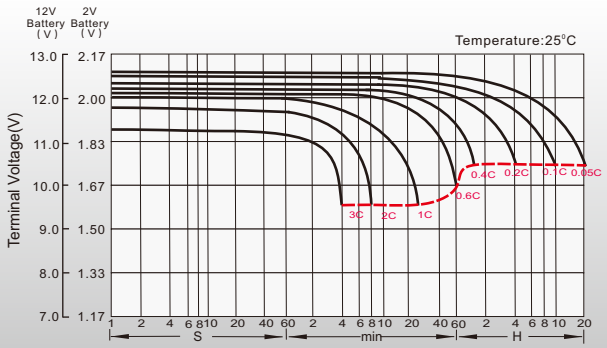
General Features

- 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

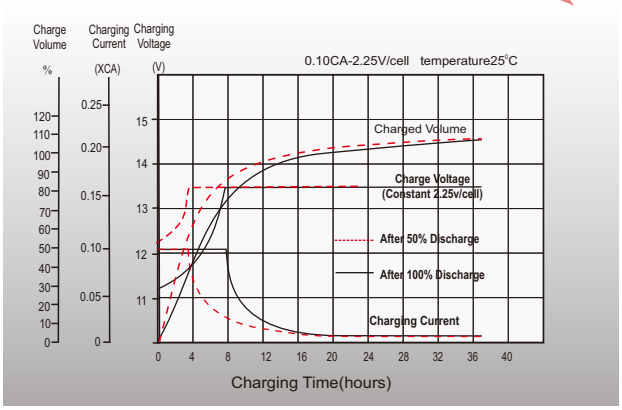
Standards

- 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

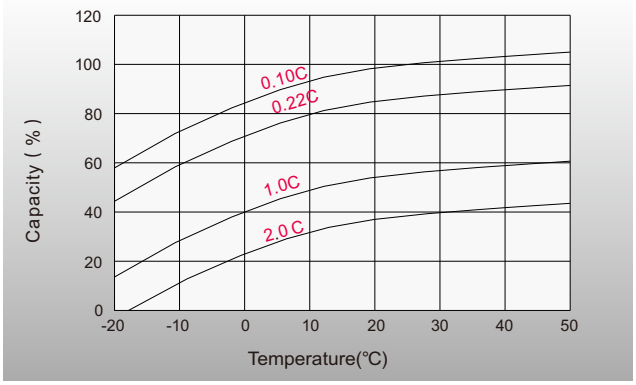
Discharge Characteristics



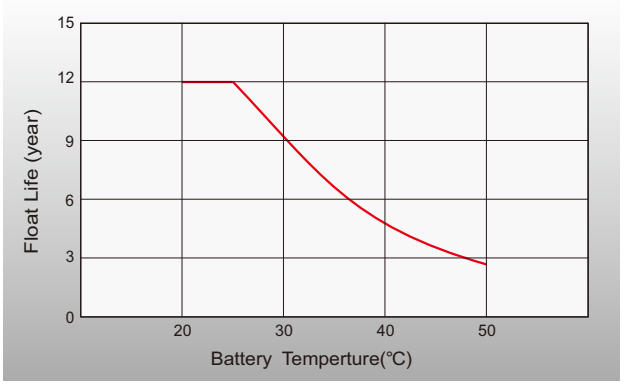
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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Publication No.: LB-LHR12890W-PD-EN-V1.1-202304