LHR Series-High Rate

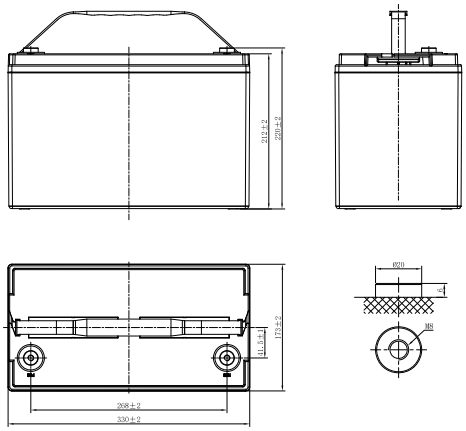
LHR12390W(12V390W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate(W_{15},1.67V/cell)		390W/cell
Nominal Capacity(C_{10},1.80V/cell)		100Ah
Dimension	Length	330±2mm (13.0 inches)
	Width	173±2mm (6.81 inches)
	Container Height	212±2mm (8.35 inches)
	Total Height	220±2mm (8.66 inches)
Approx Weight		33.0kg (72.6 lbs)
Terminal		M8
Container Material		ABS: UL 94 HB or V-0 optional
Rated Capacity(25℃)	100.0 Ah	C10(10.0A,1.80V/cell)
	96.8 Ah	C8(11.6A,1.80V/cell)
	88.0 Ah	C5(17.6A,1.75V/cell)
	78.0 Ah	C3(26.0A,1.75V/cell)
	63.6 Ah	C1(63.6A,1.60V/cell)
Max. Discharge Current		1000A (5s)
Internal Resistance(25℃)		Approx 5.0mΩ
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℃)		25.0A
		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	233.3	186.3	161.5	127.0	88.0	67.9	55.0	40.4	33.1	24.6	19.5	16.5	11.4	9.73
1.80V/cell	265.3	211.4	183.0	143.6	99.2	72.1	56.9	41.6	35.0	25.4	20.2	17.1	11.6	10.0
1.75V/cell	288.5	229.5	198.3	155.2	106.8	76.5	59.2	43.3	36.3	26.0	20.9	17.6	11.7	10.0
1.70V/cell	308.1	244.5	210.4	164.4	113.1	80.8	61.8	45.2	37.2	26.5	21.4	18.0	11.9	10.1
1.67V/cell	318.8	252.2	216.5	168.8	115.8	82.6	62.5	46.3	38.1	27.1	21.6	18.2	12.0	10.3
1.60V/cell	330.1	260.8	223.3	173.2	118.7	84.7	63.6	47.9	38.8	27.8	22.1	18.6	12.1	10.3

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	435.7	350.4	305.8	241.6	168.2	130.6	106.5	78.3	64.3	48.1	38.2	32.4	22.6	19.3
1.80V/cell	487.4	392.0	342.0	270.2	188.1	137.7	109.4	80.3	67.7	49.5	39.4	33.6	23.0	19.9
1.75V/cell	520.7	418.8	365.4	288.7	201.0	145.2	113.4	83.2	70.0	50.4	40.6	34.4	23.1	19.9
1.70V/cell	546.9	439.8	383.8	303.2	211.1	152.3	117.8	86.3	71.4	51.3	41.4	35.1	23.5	20.0
1.67V/cell	555.8	446.9	390.0	308.1	214.5	154.8	118.4	88.1	72.8	52.2	41.8	35.4	23.7	20.3
1.60V/cell	563.5	453.2	395.5	312.4	217.5	157.4	119.7	90.4	73.8	53.2	42.6	36.0	23.8	20.4

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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

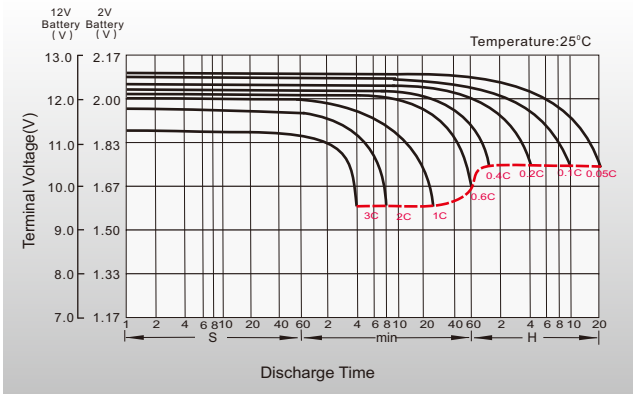
General Features

- 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

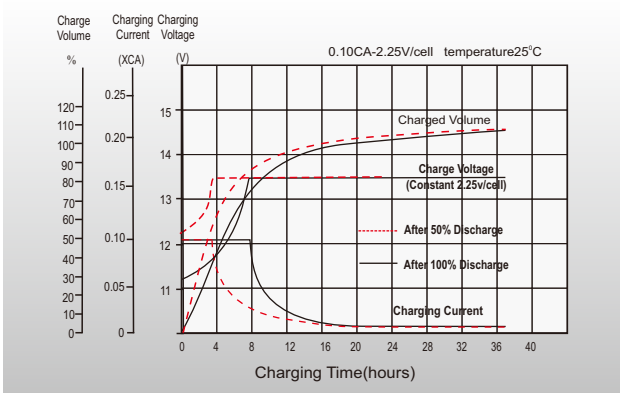
Standards

- 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

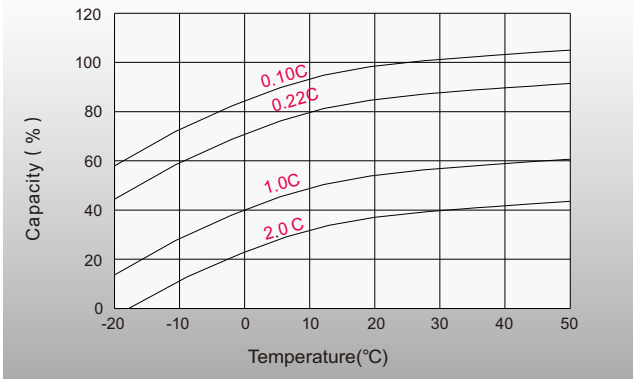
Discharge Characteristics



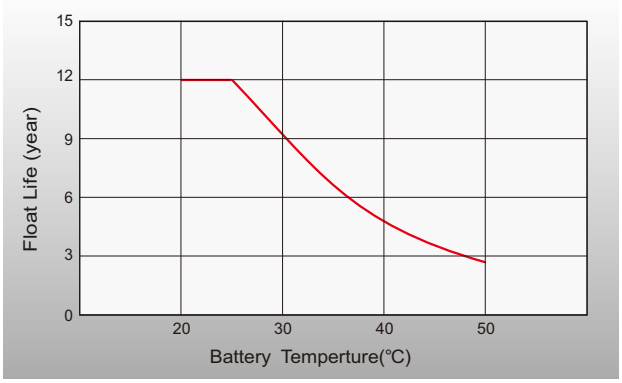
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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