LHR Series-High Rate

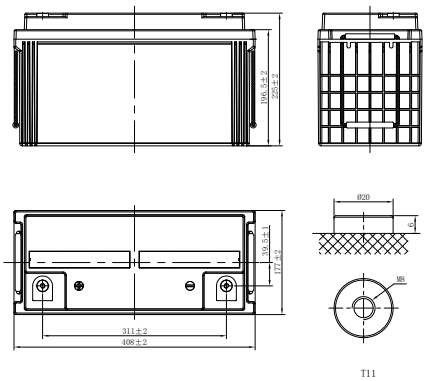
LHR12460W(12V460W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate(W_{15},1.67V/cell)		460W/cell
Nominal Capacity(C_{10},1.80V/cell)		120Ah
Dimension	Length	408±2mm (16.1 inches)
	Width	177±2mm (6.97 inches)
	Container Height	225±2mm (8.86 inches)
	Total Height	225±2mm (8.86 inches)
Approx Weight		37.5kg (82.7 lbs)
Terminal		M8
Container Material		ABS:UL94HB or V-0
Rated Capacity(25℃)	120.0 Ah	C10(12.0A,1.80V/cell)
	111.2 Ah	C8(13.9A,1.80V/cell)
	105.5 Ah	C5(21.1A,1.75V/cell)
	93.6 Ah	C3(31.2A,1.75V/cell)
	76.4 Ah	C1(76.4A,1.60V/cell)
Max. Discharge Current		1200A (5s)
Internal Resistance(25℃)		Approx3.8mΩ
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℃)		30.00A
		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	275.2	219.7	190.5	149.8	103.8	81.5	66.0	48.5	39.7	29.5	23.4	19.8	13.7	11.7
1.80V/cell	312.9	249.4	215.8	169.3	117.0	86.5	68.3	50.0	42.0	30.5	24.2	20.5	13.9	12.0
1.75V/cell	339.9	270.4	233.7	182.8	125.9	91.7	71.1	52.0	43.6	31.2	25.0	21.1	14.1	12.1
1.70V/cell	363.4	288.3	248.2	193.9	133.5	96.3	74.2	54.2	44.6	31.9	25.6	21.6	14.3	12.1
1.67V/cell	376.1	297.5	255.4	199.1	136.6	98.9	75.0	55.6	45.7	32.5	26.0	21.9	14.5	12.3
1.60V/cell	389.4	307.6	263.3	204.3	140.0	101.4	76.4	57.5	46.6	33.4	26.6	22.3	14.5	12.4

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	513.9	413.3	360.6	284.9	198.4	156.7	127.7	94.0	77.2	57.7	45.8	38.9	27.1	23.2
1.80V/cell	574.9	462.3	403.4	318.7	221.9	165.3	131.3	96.3	81.3	59.3	47.3	40.3	27.6	23.8
1.75V/cell	613.5	493.4	430.6	340.1	236.8	174.2	136.1	99.9	84.1	60.5	48.8	41.3	27.8	23.9
1.70V/cell	645.0	518.7	452.6	357.6	249.0	181.6	141.3	103.5	85.7	61.6	49.7	42.1	28.2	24.0
1.67V/cell	655.5	527.2	460.0	363.4	253.0	185.5	142.1	105.7	87.4	62.6	50.2	42.5	28.4	24.4
1.60V/cell	664.7	534.5	466.4	368.5	256.5	188.3	143.6	108.5	88.6	63.9	51.1	43.2	28.5	24.5

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

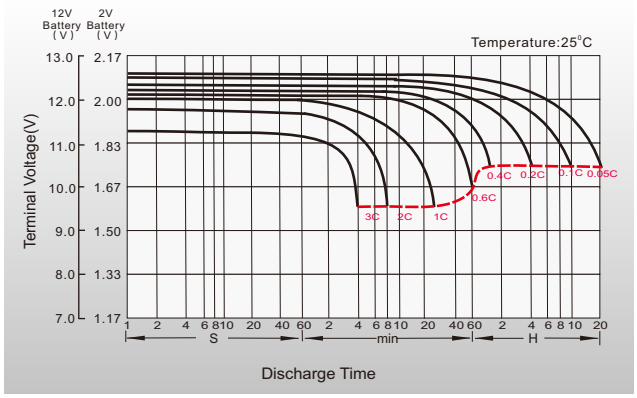
General Features

- 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

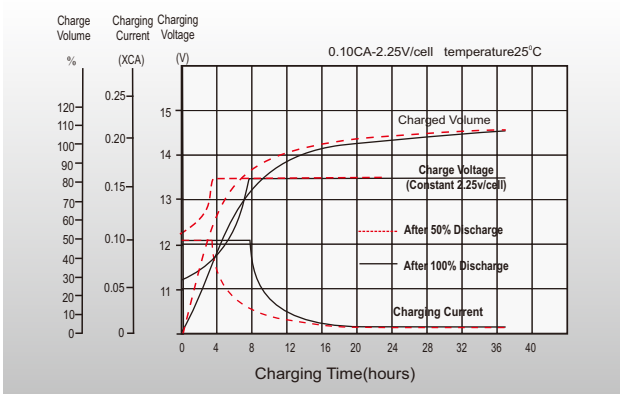
Standards

- 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

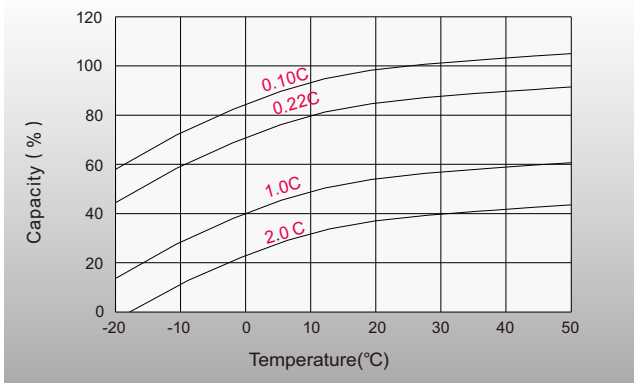
Discharge Characteristics



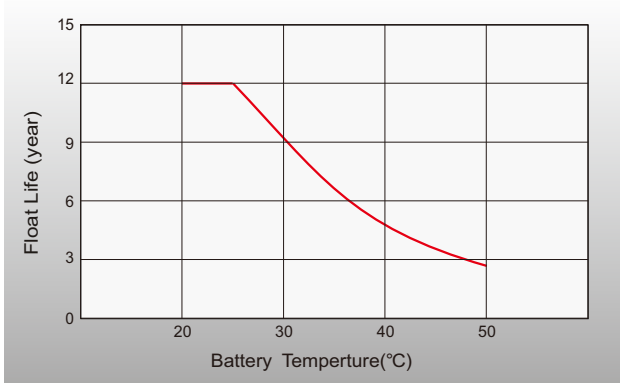
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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