LHR Series-High Rate

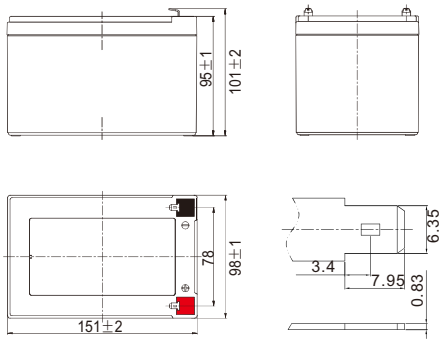
LHR1255W(12V55W)

LEOCH BATTERY

Specifications

Rated Voltage		12V
Nominal Rate (W_{15},1.67V/cell)		55W
Nominal Capacity(C_{10},1.80V/cell)		13.0Ah
Dimension	Length	151±2mm (5.94 inches)
	Width	98±1mm (3.86 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height	101±2mm (3.98 inches)
Approx. Weight		3.78 Kg (8.33 lbs)
Terminal		T2
Container Material		ABS: UL 94 HB or V-0
Rated Capacity (25°C)	13.0 Ah	(10hr, 1.30A,1.80V/cell)
	12.8 Ah	(8hr, 1.60 A,1.80V/cell)
	12.0 Ah	(5hr, 2.39A,1.75V/cell)
	10.7 Ah	(3hr, 3.57A,1.75V/cell)
	8.99 Ah	(1hr, 8.99A,1.67V/cell)
Max. Discharge Current		210A
Internal Resistance (25°C)		Approx. 14mΩ
Operating Temp.Range	Discharge	-20 ~ 55°C (-4 ~ 131°F)
	Charge	-20~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 50°C (5 ~ 122°F)
Nominal Operating Temp. Range		25±3°C (77±5°F)
Max.Charging Current(25°C)		3.5A
		Charge voltage / Temp. Coefficient
Charge voltage(25°C)	Float	2.25 ~2.30V/cell / -3mV/cell/°C
	Equalization	2.30~2.40V/cell / -4mV/cell/°C
Effect of temp. to Capacity	40°C (104°F)	106%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge		⩽3%/month @ 25°C

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	38.9	26.0	21.0	16.5	12.2	9.18	7.40	5.53	4.43	3.22	2.60	2.17	1.49	1.22
1.80V/cell	45.3	30.6	24.4	19.0	13.8	10.3	8.19	6.05	4.82	3.48	2.81	2.34	1.60	1.30
1.75V/cell	49.4	32.9	25.8	19.9	14.4	10.7	8.49	6.26	4.97	3.57	2.88	2.39	1.62	1.32
1.70V/cell	53.5	35.1	27.3	20.9	15.1	11.1	8.80	6.47	5.12	3.68	2.95	2.45	1.65	1.34
1.67V/cell	56.0	36.4	28.1	21.5	15.5	11.3	8.99	6.58	5.21	3.73	2.99	2.48	1.67	1.35
1.60V/cell	61.7	39.5	30.1	22.9	16.3	11.9	9.41	6.88	5.43	3.87	3.09	2.55	1.71	1.38

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	74.1	49.8	41.4	31.7	23.6	17.8	14.4	10.8	8.65	6.30	5.12	4.27	2.95	2.41
1.80V/cell	85.3	58.0	47.5	36.2	26.5	19.8	15.8	11.7	9.37	6.79	5.50	4.59	3.15	2.57
1.75V/cell	91.9	61.5	50.6	37.6	27.4	20.4	16.3	12.1	9.60	6.94	5.61	4.68	3.20	2.61
1.70V/cell	98.2	64.9	52.9	39.2	28.4	21.0	16.8	12.4	9.86	7.11	5.73	4.77	3.25	2.64
1.67V/cell	101.6	66.8	55.0	40.1	28.9	21.4	17.0	12.6	10.0	7.20	5.80	4.82	3.28	2.67
1.60V/cell	110.7	71.4	57.3	42.1	30.2	22.2	17.7	13.0	10.3	7.42	5.96	4.95	3.34	2.71

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LEOCH BATTERY

Applications

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

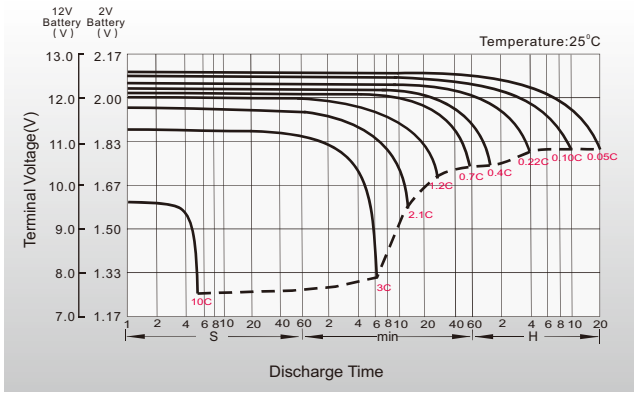
General Features

- 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

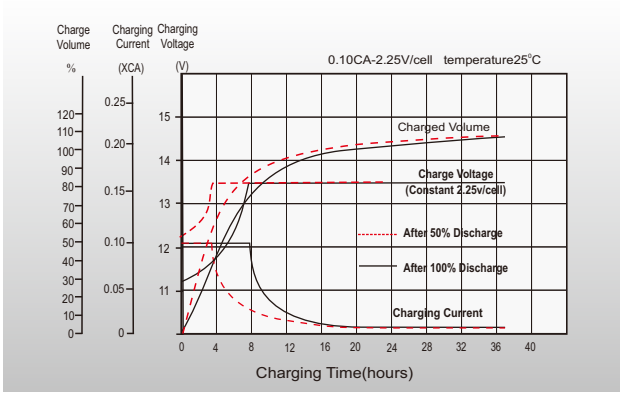
Standards

- Compliance with IEC 60896 standards
- Classified as “General Purpose” according to Eurobat
- CE, UL, IEC Certified
- Manufactured in Leoch®IATF16949, ISO 45001,ISO 9001 and ISO 14001 certified production facilities

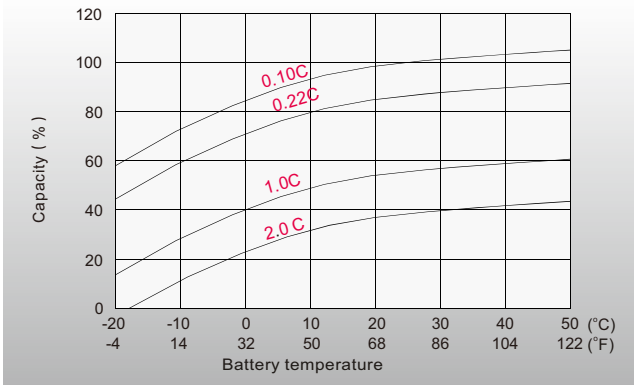
Discharge Characteristics



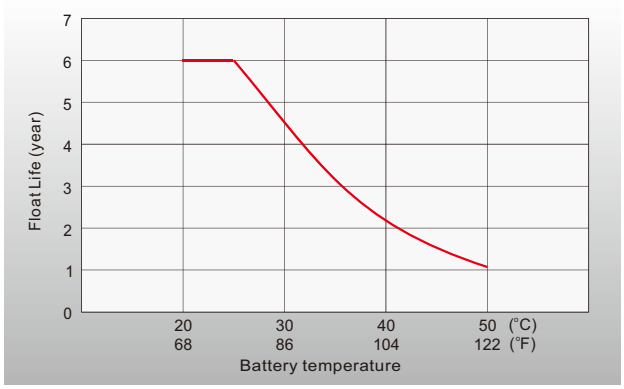
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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