



LHR Series-High Rate

LHR1285W(12V85W)

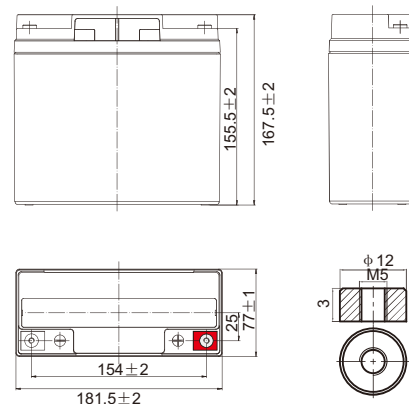


Specifications

Rated Voltage	12V		
Nominal Rate ($W_{15}, 1.67V/cell$)	85W		
Nominal Capacity($C_{10}, 1.80V/cell$)	18.6Ah		
Dimension	Length	181.5±2mm (7.14 inches)	
	Width	77±1mm (3.03 inches)	
	Container Height	167.5±2mm (6.59 inches)	
	Total Height	167.5±2mm (6.59 inches)	
Approx. Weight	6.00 Kg (12.23 lbs)		
Terminal	M5		
Container Material	ABS: UL 94 HB or V-0		
Rated Capacity (25°C)	18.6 Ah	(10hr, 1.86A, 1.80V/cell)	
	18.2 Ah	(8hr, 2.28A, 1.80V/cell)	
	17.2 Ah	(5hr, 3.44A, 1.75V/cell)	
	15.8 Ah	(3hr, 5.26A, 1.75V/cell)	
	13.3 Ah	(1hr, 13.3A, 1.67V/cell)	
Max. Discharge Current	300A		
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)	5.0A		
Charge voltage(25°C)	Charge voltage	Temp. Coefficient	
	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	52.6	37.4	32.4	26.3	18.5	13.7	10.9	7.90	6.33	4.74	3.75	3.12	2.13	1.74
1.80V/cell	61.4	44.1	37.7	30.3	21.0	15.4	12.1	8.65	6.88	5.12	4.04	3.36	2.28	1.86
1.75V/cell	66.9	47.3	39.9	31.8	21.9	16.0	12.6	8.94	7.09	5.26	4.14	3.44	2.32	1.89
1.70V/cell	72.5	50.5	42.2	33.5	22.9	16.6	13.0	9.24	7.32	5.41	4.24	3.52	2.36	1.92
1.67V/cell	75.8	52.5	43.5	34.4	23.4	17.0	13.3	9.41	7.44	5.50	4.30	3.56	2.39	1.94
1.60V/cell	83.6	56.9	46.6	36.5	24.7	17.8	13.9	9.83	7.75	5.70	4.45	3.67	2.44	1.98

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	114.0	78.7	64.4	50.7	35.8	26.6	21.3	15.4	12.4	9.28	7.36	6.15	4.21	3.45
1.80V/cell	128.8	90.6	73.9	57.9	40.2	29.6	23.4	16.8	13.4	10.0	7.91	6.60	4.50	3.68
1.75V/cell	138.9	95.6	77.2	60.1	41.6	30.5	24.1	17.2	13.7	10.2	8.08	6.73	4.57	3.73
1.70V/cell	147.6	100.4	81.7	62.7	43.1	31.4	24.8	17.7	14.1	10.5	8.25	6.86	4.64	3.78
1.67V/cell	153.0	103.2	85.0	64.0	43.9	32.0	25.2	17.9	14.3	10.6	8.35	6.93	4.68	3.81
1.60V/cell	155.2	109.9	87.7	67.2	45.8	33.3	26.2	18.6	14.8	10.9	8.58	7.12	4.78	3.88



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Applications

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

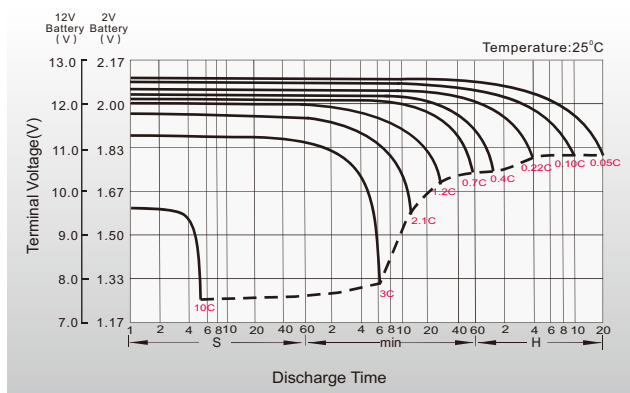
General Features

- 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

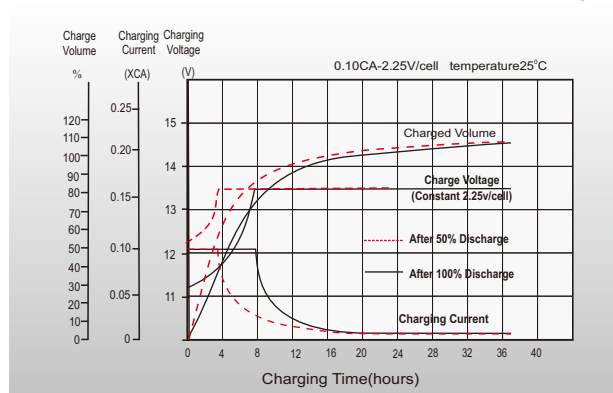
Standards

- Compliance with IEC 60896 standards
- Classified as "General Purpose" according to Eurobat
- CE, UL, IEC Certified
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

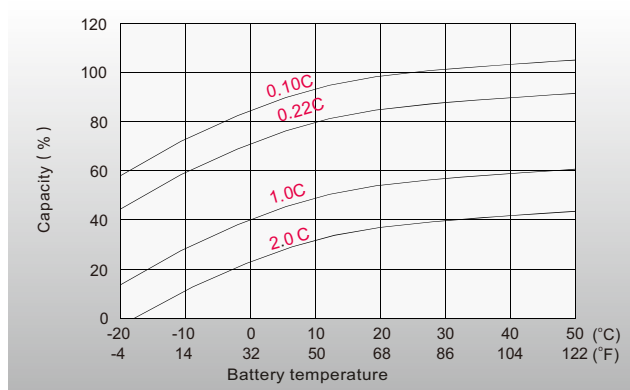
Discharge Characteristics



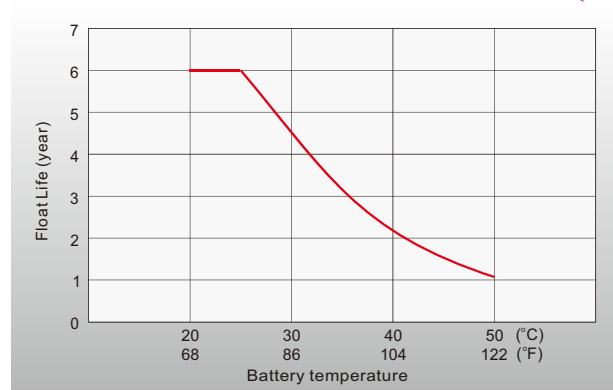
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



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