



LHR Series-High Rate

LHR12185W(12V185W)

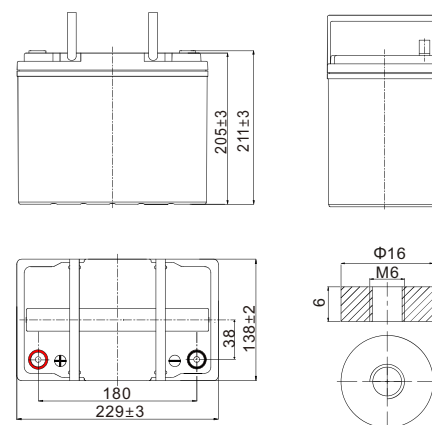


Specifications

Rated Voltage	12V		
Nominal Rate ($W_{15}, 1.67V/cell$)	185W		
Nominal Capacity($C_{10}, 1.80V/cell$)	55Ah		
Dimension	Length	229±3mm (9.02 inches)	
	Width	138±2mm (5.43 inches)	
	Container Height	205±3mm (8.07 inches)	
	Total Height	211±3mm (8.31 inches)	
Approx. Weight	16.2 Kg (35.7 lbs)		
Terminal	M6		
Container Material	ABS: UL 94 HB or V-0		
Rated Capacity (25°C)	55.0 Ah	(10hr, 5.50A, 1.80V/cell)	
	52.8 Ah	(8hr, 6.60A, 1.80V/cell)	
	48.2 Ah	(5hr, 9.63A, 1.75V/cell)	
	43.8 Ah	(3hr, 14.6A, 1.75V/cell)	
	35.2 Ah	(1hr, 35.2A, 1.67V/cell)	
Max. Discharge Current	660A		
Internal Resistance (25°C)	Approx. 9.0mΩ		
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)	13.75A		
Charge voltage(25°C)	Charge voltage	Temp. Coefficient	
	Float	2.25 ~2.30V/cell	-3mV/cell/°C
Effect of temp. to Capacity	Equalization	2.30~2.40V/cell	-4mV/cell/°C
	40°C (104°F)	106%	
	25°C (77°F)	100%	
Self Discharge	0°C (32°F)	86%	
	≤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	114.5	85.4	71.2	59.8	46.0	34.3	29.0	21.7	17.4	13.1	10.5	8.74	6.16	5.15
1.80V/cell	133.4	100.8	82.8	68.9	52.0	38.4	32.1	23.8	18.9	14.2	11.3	9.41	6.60	5.50
1.75V/cell	145.6	108.0	87.5	72.3	54.3	39.9	33.3	24.6	19.5	14.6	11.6	9.63	6.72	5.59
1.70V/cell	157.7	115.2	92.5	76.1	56.7	41.4	34.5	25.4	20.1	15.0	11.8	9.84	6.84	5.67
1.67V/cell	164.7	119.5	95.4	78.3	58.1	42.4	35.2	25.9	20.5	15.2	12.0	10.00	6.91	5.72
1.60V/cell	181.5	129.3	102.3	83.3	61.4	44.6	36.9	27.0	21.3	15.8	12.4	10.3	7.07	5.84

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	228.4	171.8	143.6	121.0	93.3	69.8	56.3	42.4	34.0	25.7	20.5	17.2	12.2	10.2
1.80V/cell	262.2	200.1	165.2	138.1	104.6	77.5	61.9	46.1	36.8	27.7	22.1	18.5	13.0	10.9
1.75V/cell	281.7	211.9	172.9	143.5	108.4	80.1	63.8	47.4	37.7	28.3	22.5	18.8	13.2	11.0
1.70V/cell	300.2	223.1	180.7	149.5	112.1	82.4	65.6	48.7	38.7	29.0	23.0	19.2	13.4	11.2
1.67V/cell	310.4	229.5	185.0	152.8	114.4	83.9	66.7	49.4	39.2	29.4	23.3	19.4	13.6	11.3
1.60V/cell	333.5	243.2	195.0	160.1	119.3	87.3	69.3	51.1	40.6	30.3	23.9	19.9	13.8	11.5



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Applications

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

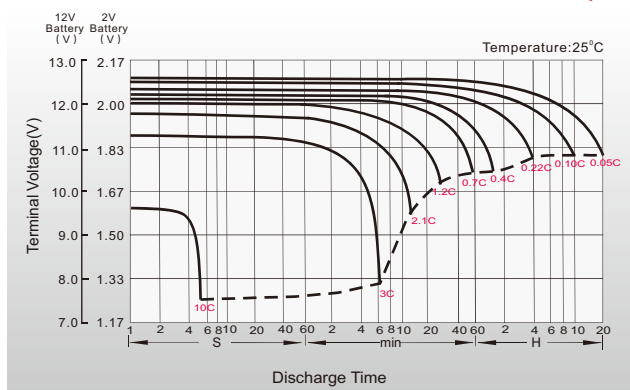
General Features

- 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

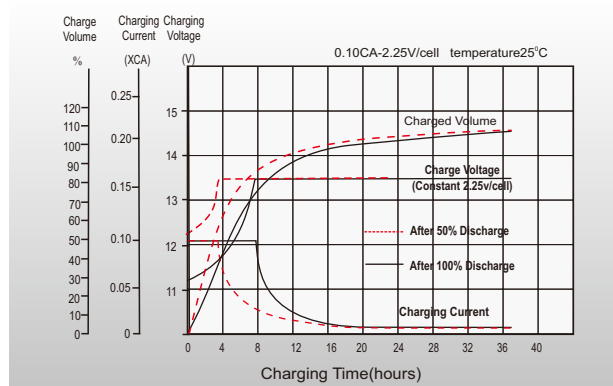
Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL, IEC Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

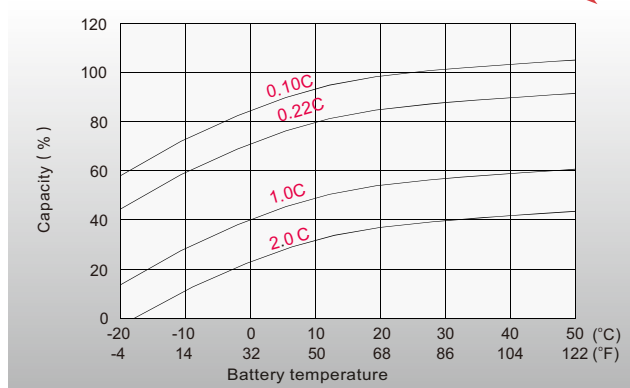
Discharge Characteristics



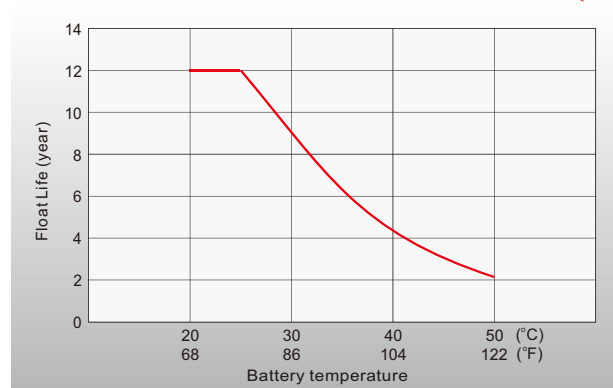
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



distributed by: Power Storage Deutschland GmbH

+49 (0)6081 96582-0

info@psd-power.de



www.psd-power.de



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