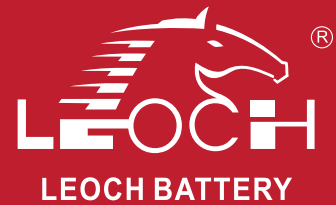




LHR Series-High Rate

LHR12690W(12V690W)

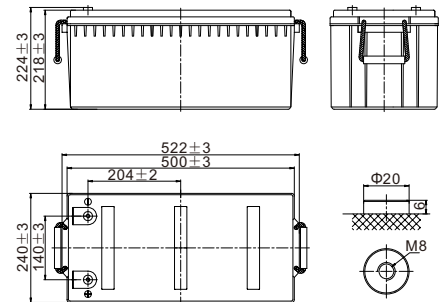


Specifications

Rated Voltage	12V	
Nominal Rate ($W_{15}, 1.67V/cell$)	690W	
Nominal Capacity($C_{10}, 1.80V/cell$)	200Ah	
Dimension	Length	522±3mm (20.55 inches)
	Width	240±3mm (9.45 inches)
	Container Height	218±3mm (8.58 inches)
	Total Height	224±3mm (8.82 inches)
Approx. Weight	62.2 Kg (137.1 lbs)	
Terminal	M8	
Container Material	ABS(UL94 V-0)	
Rated Capacity (25°C)	200.0 Ah	(10hr, 20.0A, 1.80V/cell)
	192.0 Ah	(8hr, 24.0A, 1.80V/cell)
	175.0 Ah	(5hr, 35.0A, 1.75V/cell)
	159.0 Ah	(3hr, 53.0A, 1.75V/cell)
	128.0 Ah	(1hr, 128.0A, 1.67V/cell)
Max. Discharge Current	2000A	
Internal Resistance (25°C)	Approx. 2.7mΩ	
Operating Temp. Range	Discharge	-20 ~ 55°C (4 ~ 131°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 50°C (5 ~ 122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max. Charging Current(25°C)	50.0A	
Charge voltage(25°C)	Float	13.5V
	Temp. Coefficient	-3mV/cell/°C
	Equalization	14.1~14.4V
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	416.3	310.7	258.8	217.5	167.2	124.7	105.4	79.0	63.3	47.7	38.0	31.8	22.4	18.7
1.80V/cell	485.2	366.4	301.0	250.6	189.0	139.5	116.6	86.5	68.8	51.6	41.0	34.2	24.0	20.0
1.75V/cell	529.5	392.9	318.4	263.0	197.5	145.2	120.9	89.4	70.9	53.0	42.0	35.0	24.4	20.3
1.70V/cell	573.5	419.1	336.5	276.7	206.2	150.7	125.4	92.4	73.2	54.6	43.1	35.8	24.9	20.6
1.67V/cell	598.8	434.4	347.1	284.5	211.4	154.0	128.0	94.1	74.4	55.4	43.7	36.2	25.1	20.8
1.60V/cell	660.0	470.0	372.0	303.0	223.4	162.0	134.2	98.3	77.5	57.4	45.1	37.4	25.7	21.3

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	830.4	624.5	528.1	440.0	339.2	254.0	204.8	154.1	123.6	93.5	74.7	62.5	44.3	37.1
1.80V/cell	953.4	727.6	606.4	502.1	380.3	281.9	225.2	167.6	133.8	100.8	80.2	67.2	47.3	39.5
1.75V/cell	1024.5	770.7	634.5	521.8	394.1	291.1	231.8	172.2	137.2	103.0	81.9	68.5	48.1	40.1
1.70V/cell	1091.5	811.2	663.5	543.6	407.8	299.8	238.7	177.0	140.8	105.6	83.7	69.8	48.8	40.6
1.67V/cell	1128.7	834.4	690.0	555.5	415.8	305.0	242.5	179.5	142.7	106.9	84.7	70.6	49.3	40.9
1.60V/cell	1140.0	884.5	708.1	582.2	433.7	317.3	251.9	186.0	147.5	110.2	87.0	72.4	50.3	41.7



LHR Series-High Rate

LHR12690W(12V690W)



Applications

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

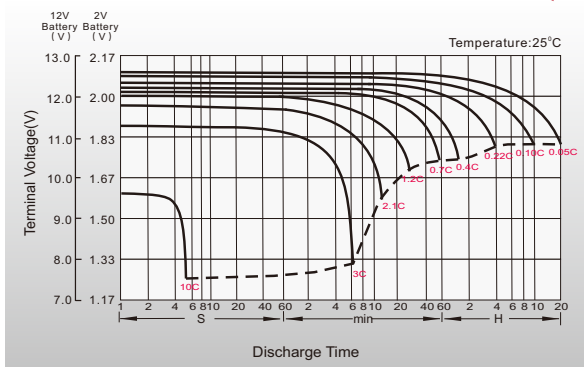
General Features

- ABS material: UL94 V-0
- Oxygen recombination efficiency: $\geq 98\%$
- High quality AGM separator: extend cycle life and prevent micro short circuit
- Unique vent valve design: reduce water losing and prevent air/spark going inside
- PbCaSn alloy for plate grids: less gassing, less self-discharging

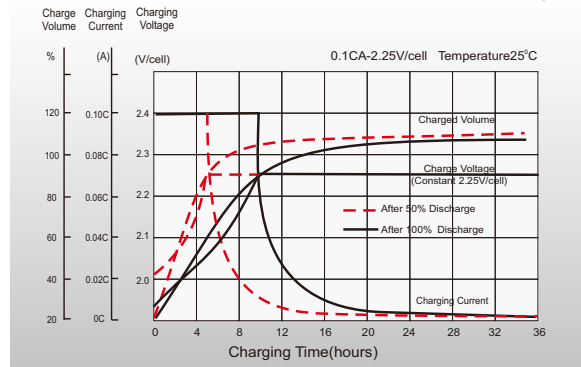
Standards

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch@IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

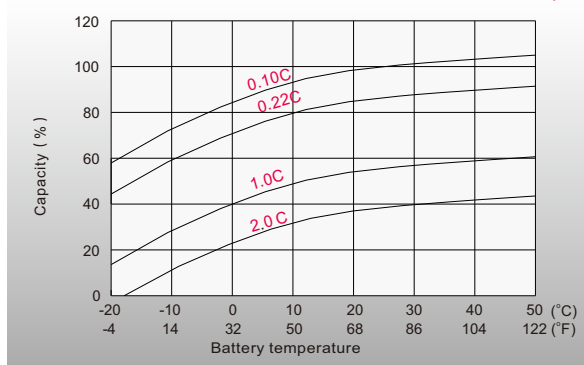
Discharge Characteristics



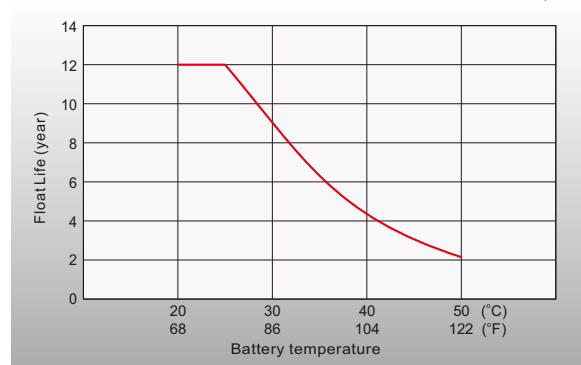
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life



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Publication No.: LB-LHR12690W-PD-EN-V1.1-201907