

Lead-Carbon Battery LLC-600



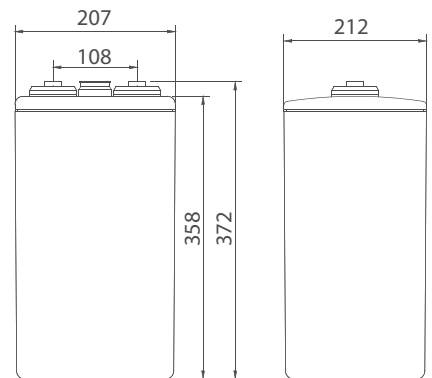
Main Applications

- ▶ Renewable energy (wind & solar) storage system
- ▶ Peak shifting of electrical power system
- ▶ Frequency regulation and load following service
- ▶ Smart-grid & micro-grid sites
- ▶ Off-grid & bad-grid sites

Benefits

- ▶ Extra long life design, design life is 20 years
- ▶ Superior PSoC and deep cycling performance
- ▶ Excellent quick charge performance, reduce charging time by 30%
- ▶ High potential fuel savings when used with hybrid genset applications

Dimensions



Technical Parameters

Nominal Voltage	2 V
Capacity	600 Ah @ 10hr to 1.80 V@ 25°C (77°F)
Weight	40.6 kg (89.5 lbs)
Dimensions	Length: 212 mm (8.35 in) Width: 207 mm (8.15 in) Height: 358 mm (14.09 in) Total height: 372 mm (14.65 in)
Internal Resistance (full charged)	0.29 mΩ
Short- circuit Current	7500 A
Self Discharge @25°C(77°F)	Less than 4% after 30 days storage
Operating Temperature Range	Discharge: -40°C ~ 50°C(-40°F ~ 122°F) Charge: -20°C ~ 45°C(-4°F ~ 113°F) Storage:-20°C ~ 40°C(-4°F ~ 104°F)
Recommended Operating Temperature	15°C ~ 25°C (59°F ~ 77°F)
Recommended Charging Current	90 A
Maximum Charging Current	180 A
Charging Voltage @25°C(77°F)	Float: 2.23 V/cell Equalize: 2.35 V/cell
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C ₁₀)	105% @ 40°C(104°F) 85% @ 0°C(32°F) 60% @ -20°C(-4°F)
Design Life @25°C(77°F)	20 years

Certification

- IEC 61427
- IEC 60896
- UL
- CE

Technical Features

- ▶ Adopt lead- carbon capacitance technology, reduce the cathode sulphation, ideal for PSoC cycle application and can deliver 4~5 times better cyclic life compared with normal VRLA
- ▶ Better charge acceptability and faster recharge performance
- ▶ Exquisite design for premium quality, high reliability and stability

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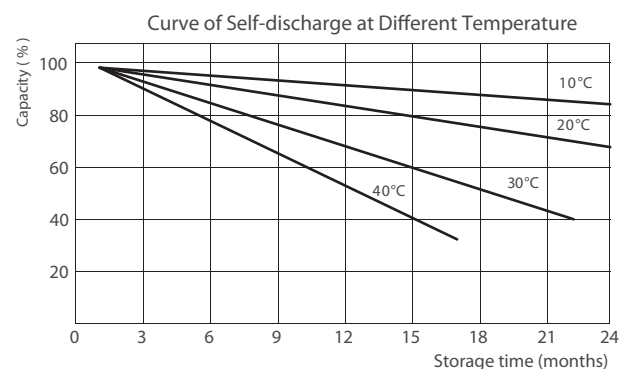
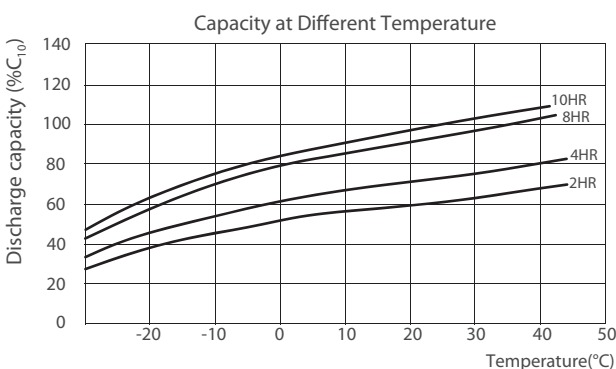
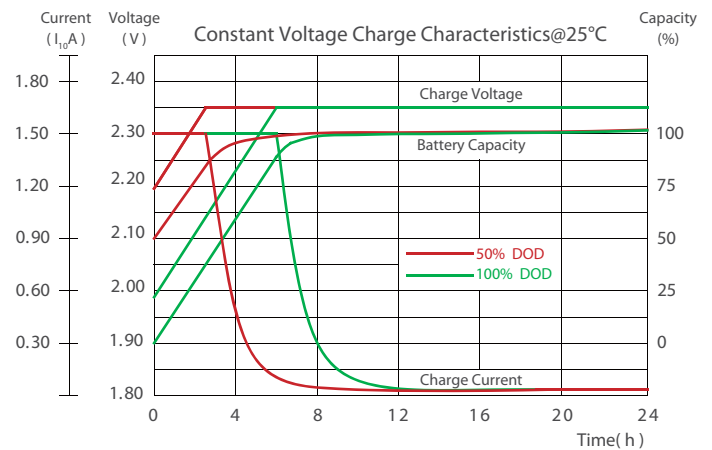
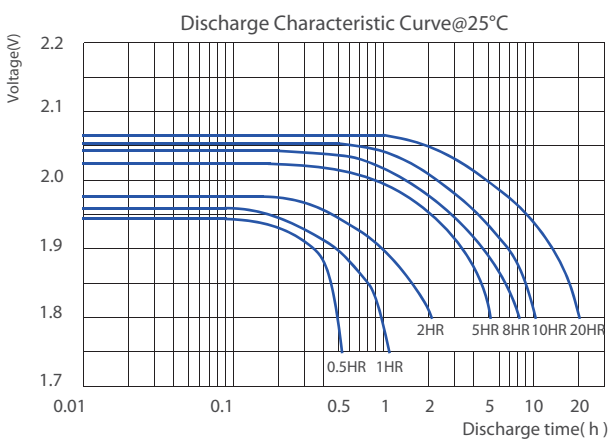
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	719	488	327	157	109	76	63	34.2	14.5
1.80V	609	457	316	152	106	74	61	33.6	14.3
1.85V	536	406	285	144	102	72	60	32.4	14.0
1.90V	440	347	246	122	85	60	50	28.7	13.5

Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	1218	962	611	307	206	141	124	66.8	30.4
1.80V	1166	837	600	300	204	139	122	66.2	29.9
1.85V	1025	779	586	285	200	137	117	62.8	28.8
1.90V	846	626	508	243	170	121	99	57.0	26.9

Performance Curve



*Declaration:

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