

Lead-Carbon Battery

LLC-400



power the future



• 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 10-15 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

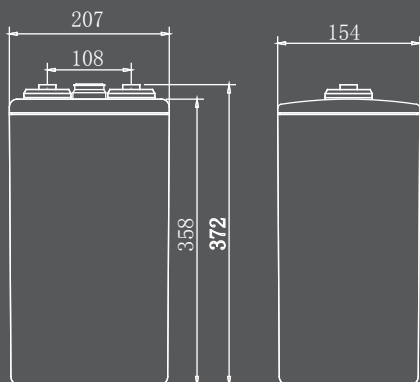
• Technical Features

- Comply with GB/T 22473、BS EN61427-1: 2013、IEC61427-2: 2015、UL、CE standards,etc
- Adopt lead carbon 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

• Technical Parameters

Normal Voltage	2V
Capacity	400 Ah @10hr to 1.80V per cell @ 25°C(77°F)
Weight	29.7 kg (65.5 lbs)
Dimensions	Length: 154 mm (6.06 in) Width: 207 mm (8.15 in) Height: 358 mm (14.09 in) Total height: 372 mm (14.65 in)
Internal Resistance (full charged)	0.30mΩ (According to IEC 60896-21)
Short- circuit current	7000A (According to IEC 60896-21)
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	60A
Charging Voltage @25°C(77°F)	2.30~2.35 V/cell
Terminal	M8
Capacity Affected by Temperature(C ₁₀)	105 % @ 40°C 90 % @ 0°C 40 % @ -20°C
Design life @25°C(77°F)	10-15 years

• Dimensions :



• Compliant standards :

- ☀ GB/T 22473-2008
- ☀ BS EN 61427-1: 2013
- ☀ IEC 61427-2: 2015
- ☀ IEC 60896-21/22

• Attain certificate :

- ☑ IEC 61427
- ☑ IEC 60896
- ☑ UL
- ☑ CE

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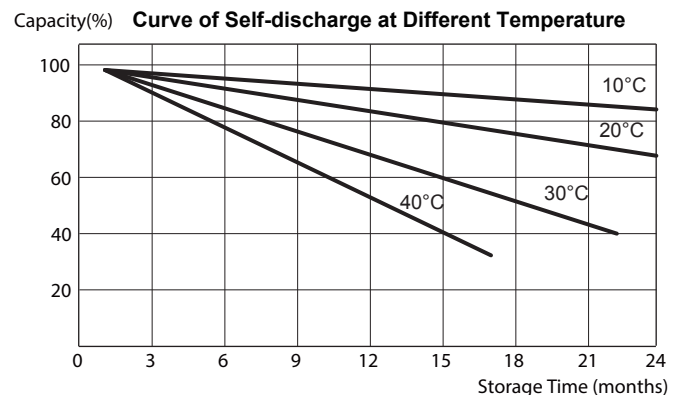
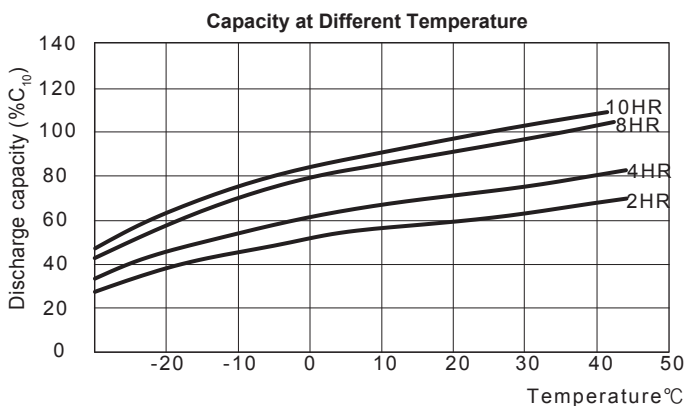
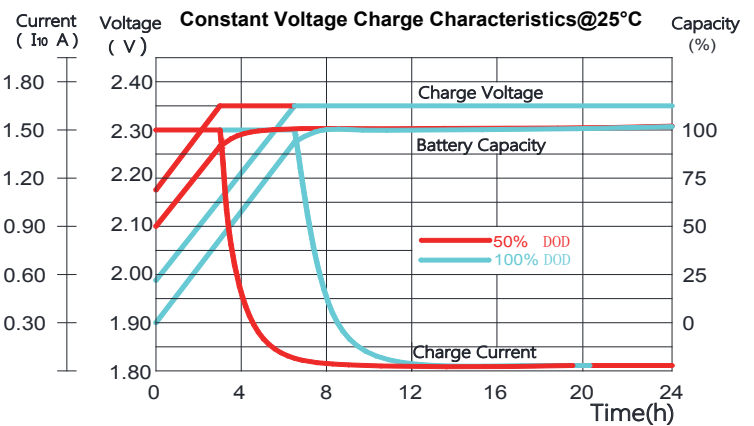
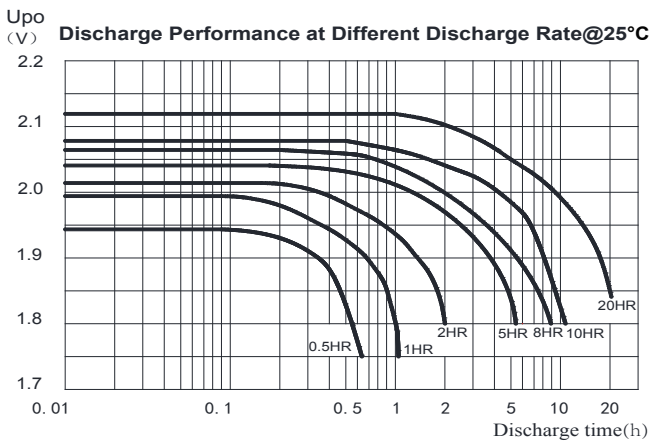
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	100hr
1.75V	544.0	345.6	231.2	106.4	73.7	51.6	43.0	23.1	5.18
1.80V	445.6	324.0	216.0	103.2	72.0	50.6	42.0	22.7	5.09
1.85V	392.0	288.8	195.2	97.6	69.5	49.1	40.9	21.9	4.93
1.90V	333.6	248.0	172.8	91.2	66.9	47.3	39.5	21.4	4.80

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

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	100hr
1.75V	865	689	466	218	144	101	84	48.35	10.83
1.80V	824	664	455	210	140	98	82	47.47	10.65
1.85V	750	590	414	199	135	94	79	45.60	10.25
1.90V	652	498	357	185	131	88	74	44.17	9.89

Performance curve :



Declaration: This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

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