

Lead-Carbon Battery LLC-500



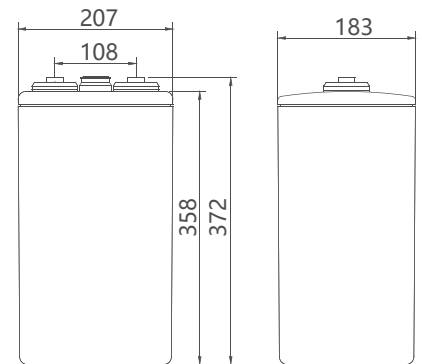
Main Applications

- ▶ 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	500 Ah @ 10hr to 1.80 V@ 25°C (77°F)
Weight	35.5 kg (78.3 lbs)
Dimensions	Length: 183 mm (7.20 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	7300 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	75 A
Maximum Charging Current	150 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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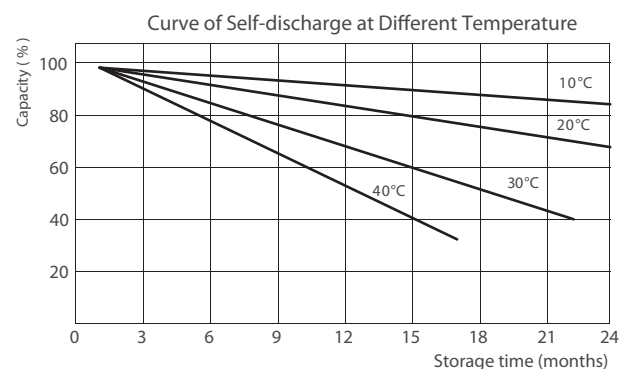
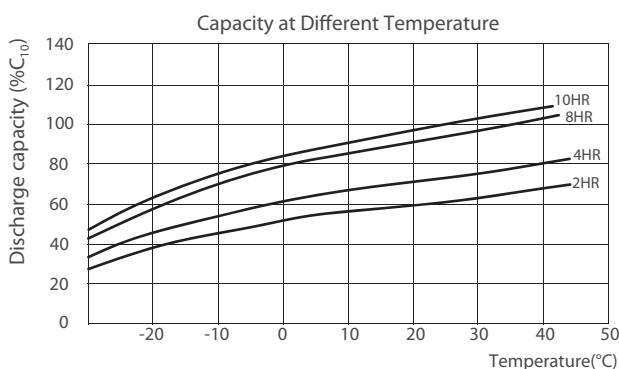
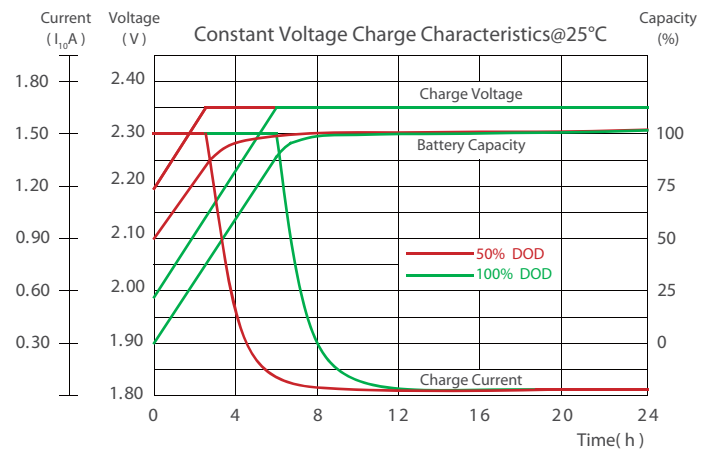
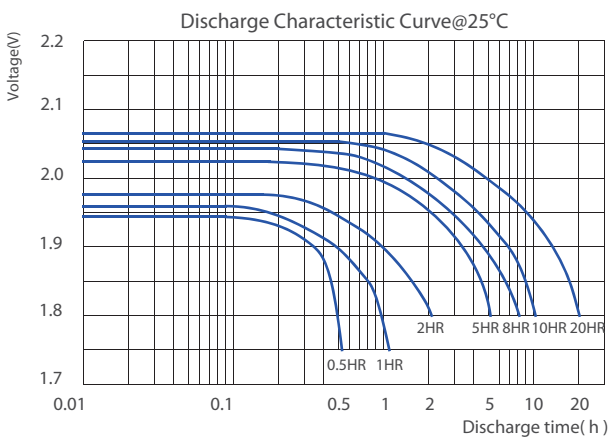
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	628	432	280	133	92	64	53	28.9	12.3
1.80V	567	405	270	129	90	63	52	28.4	12.1
1.85V	490	361	244	122	86	61	51	27.4	11.7
1.90V	372	293	211	103	72	51	42	24.3	11.4

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	1081	833	523	260	174	119	105	56.5	25.7
1.80V	1030	726	513	254	173	118	103	56	25.3
1.85V	938	678	502	249	169	116	99	53.1	24.3
1.90V	716	548	436	218	158	107	92	48.2	22.8

Performance Curve



*Declaration:

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