

# EXC

## Extreme Cyclic Battery

### EXC-500



### Main Applications

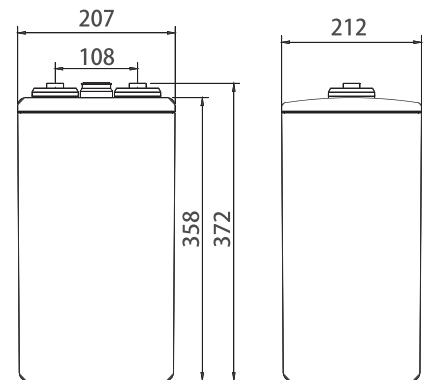
- ▣ Renewable energy (wind & solar ) storage system
- ▣ Peak shifting of electrical power system
- ▣ Frequency regulation and load following service
- ▣ Smart-grid & micro-grid sites
- ▣ All extreme environment (off-grid & bad-grid sites)



### Benefits

- ▣ Designing life is long which can help user reduce a lot of operating cost
- ▣ Ultra-high cycling performance in both PSoC and deep cycling
- ▣ Super fast charging performance, reducing charging time by 50%
- ▣ Less storage cost per kW-h

### Dimensions



### Technical Parameters

Nominal Voltage	2 V
Capacity	500 Ah @ 10hr to 1.80 V @ 25°C (77°F)
Weight	40.8 kg (89.9 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)	0.25 mΩ
Short- circuit Current	8030 A
Self Discharge @25°C(77°F)	Less than 7% after 90 days
Operating Temperature Range	Discharge: -20°C ~ 45°C(-4°F ~ 113°F) Charge: -20°C ~ 45°C(-4°F ~ 113°F) Storage: -20°C ~ 45°C(-4°F ~ 113°F)
Recommended Operating Temperature	15°C ~ 30°C (59°F ~ 86°F)
Recommended Charging Current	100 A
Maximum Charging Current	175 A
Charging Voltage @25°C(77°F)	Equalize: 2.35 V/cell Temperature Compensation Factor of Battery: -3mV/(cell·°C)
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C <sub>10</sub> )	110% @ 40°C ( 104°F ) 90% @ 0°C ( 32°F ) 65% @ -20°C ( -4°F )

### Certification

- ISO9001  
(NO.03009Q10083R2M)
- ISO14001  
(NO.03010E10145R0M)
- GB/T28001  
(NO.03010S10141 R0M)

### Technical Features

- ▣ Adopt lead- carbon capacitance technology, reducing sulphation of the cathode, ideal for PSoC cycle application and delivering 7~8 times cyclic life compared with normal VRLA
- ▣ Exceptional fast charging acceptability
- ▣ Distinctive design for premium quality, high reliability and stability

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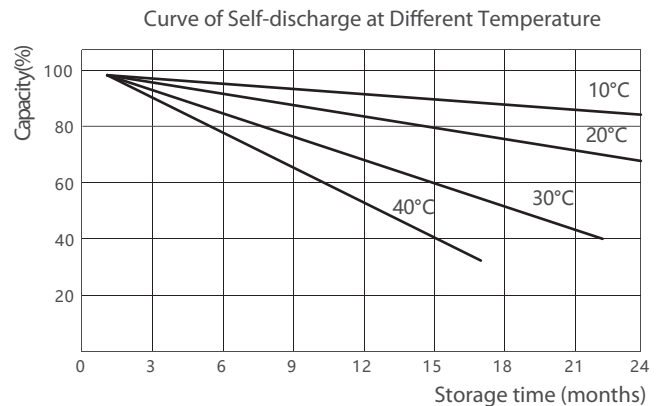
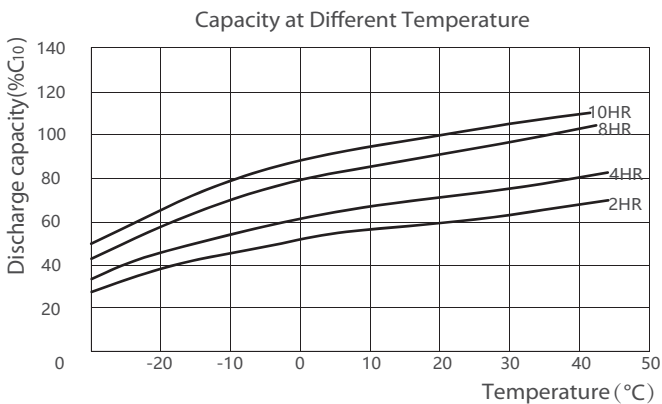
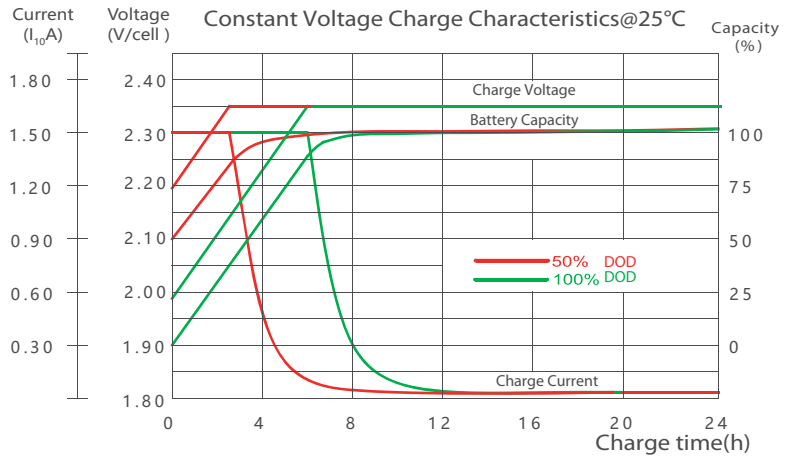
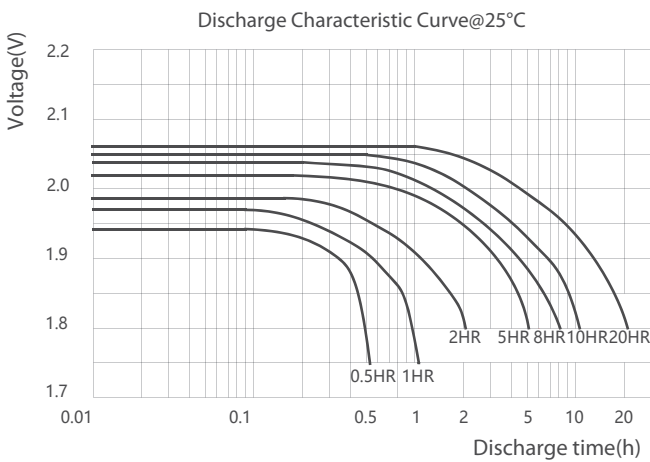
#### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	3hr	5hr	8hr	10hr	20hr	48hr
1.75V	705	498	330	140	98	69	58	31.3	13.1
1.80V	661	471	300	135	95	67	56	30.8	12.7
1.85V	528	391	270	129	90	65	52	29.8	12.3
1.90V	426	340	218	109	84	60	49	27.2	12.0

#### 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	1280	924	591	286	185	132	112	60.5	27.0
1.80V	1180	854	567	276	180	128	110	57.5	26.5
1.85V	1006	774	518	263	178	124	106	55.1	25.6
1.90V	834	638	442	225	160	116	97	52.8	23.3

#### Performance Curve



#### \*Declaration:

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