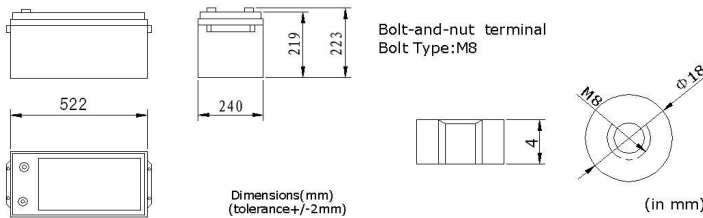


PHYSICAL SPECIFICATION

Nominal Voltage		12V
Nominal Capacity (10HR)		200Ah
Dimension	Length	522±2mm (20.55 inches)
	Width	240±2mm (9.45 inches)
	Container Height	219±2mm (8.62 inches)
	Total Height	223±2mm (8.78 inches)
Weight		Approx. 62.5Kg ±3% (137.79lbs)
Standard Terminal		Bolt-and-nut terminal Bolt Type: M8



Shimastu NPC series Deep Cycle Batteries are deep-cycle battery designed to be regularly deeply discharged using most of its capacity, it's the most common battery used for solar off-grid and hybrid energy storage, as well as many other applications.

Features:

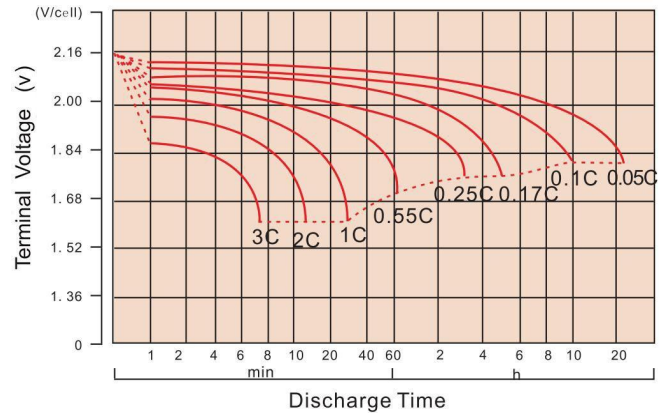
1. Wide protected operation temperature ranges of -20°C (-4°F) to 50°C (122°F).
2. Monthly self-discharge rate below 2% at 25°C (77°F).
3. The battery has perfect performance in maintenance-free, after 12 months, its storage still can reach to 65%, which is high cost-effective solutions for solar, wind power systems and other renewable energy systems
4. Special polar plate design, which ensures a long cycle life up to 12 years in floating service.

ELECTRICAL SPECIFICATION

Characteristics

Capacity	10 hour rate (20A)	200Ah
	5 hour rate (34A)	170Ah
	3 hour rate (50A)	150Ah
	1 hour rate (110A)	110Ah
Capacity affected by temperature	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
Max Discharge Current	2000A(5 Sec)	
Short Circuit Current	3430A	
Designed life	≥700 Cycles @ 50% D.O.D at 25°C (77°F)	
Internal Resistance	Full charged battery (25°C, 77°F) 4mΩ	
Constant Voltage Charge	Cycle	Initial Charging Current less than 50A Voltage 14.1~14.4V at 25°C (77°F) Temperature Coefficient -30mV/°C
	Standby	No limit on Initial Charging Current Voltage 13.5~13.8V at 25°C (77°F) Temperature Coefficient -20mV/°C

Discharge curves @ 25°C (77°F)



CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	477.1	352.1	216.7	124.0	56.6	37.9	25.4	21.2	11.0
1.65V	438.7	336.6	208.0	119.3	54.8	36.8	25.1	20.9	10.9
1.70V	404.0	315.3	198.9	114.8	53.3	35.9	24.7	20.5	10.7
1.75V	369.8	293.6	190.0	110.0	51.7	35.0	24.4	20.3	10.6
1.80V	334.8	271.0	181.8	106.1	50.0	34.0	24.0	20.0	10.5

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	789.4	615.7	397.7	233.2	108.0	73.1	50.0	41.8	21.7
1.65V	760.4	597.3	385.7	225.6	105.2	71.2	49.1	41.1	21.4
1.70V	712.9	567.7	372.4	218.3	102.7	69.6	48.5	40.6	21.1
1.75V	664.3	536.3	359.7	210.5	100.2	68.1	47.9	40.0	21.0
1.80V	611.7	502.2	347.2	204.0	97.1	66.5	47.3	39.3	20.8

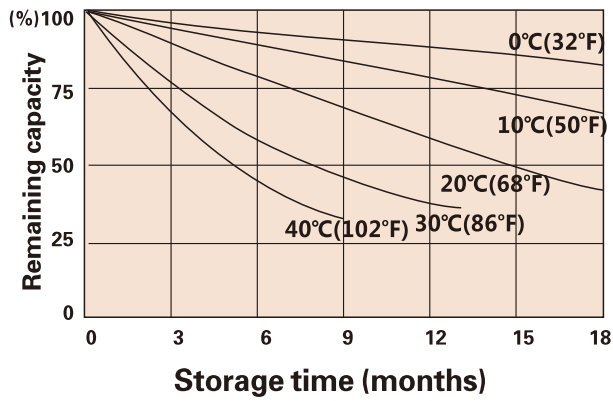
Cycle service life



Trickle(or float) service life



Storage time(months)



Temperature and discharge capacity



Charging characteristic



Storage Temperature	Supplementary Charge Interval	Charge Method
≤20°C	Every 12 months	Less or 24 hours with a constant voltage of 2.3V/cell
20-30°C	Every 8 months	12-18 hours with a constant voltage of 2.45V/cell
≥30°C	Storage to be avoided	8-12 hours with a constant current of 0.05CA

APPLICATIONS

Standby Usage:

- UPS
- Emergency Lights
- Alarm Systems
- Telecommunication Systems

Cyclic Usage:

- Medical Equipments
- Electric Instruments
- Toys
- Camcorder and Solar Systems

Motive Usage:

- Golf Cars
- Wheelchairs
- Lawnmowers
- Motorcycle

(Note) All above information shall be changed without prior notice, Shimastu reserves the right to explain and update the latest information.