



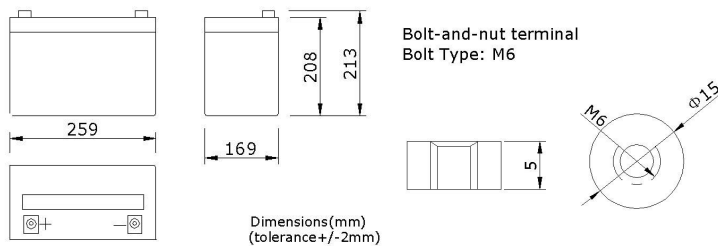
NPC80-12(12V80AH)



PHYSICAL SPECIFICATION



Nominal Voltage		12V
Nominal Capacity (10HR)		80Ah
Dimension	Length	259±2mm (10.20 inches)
	Width	168±2mm (6.61 inches)
	Container Height	208±2mm (8.23 inches)
	Total Height	213±2mm (8.94 inches)
Weight		Approx. 23.1 Kg ±3% (50.93bs)
Standard Terminal		Bolt-and-nut terminal Bolt Type: M6



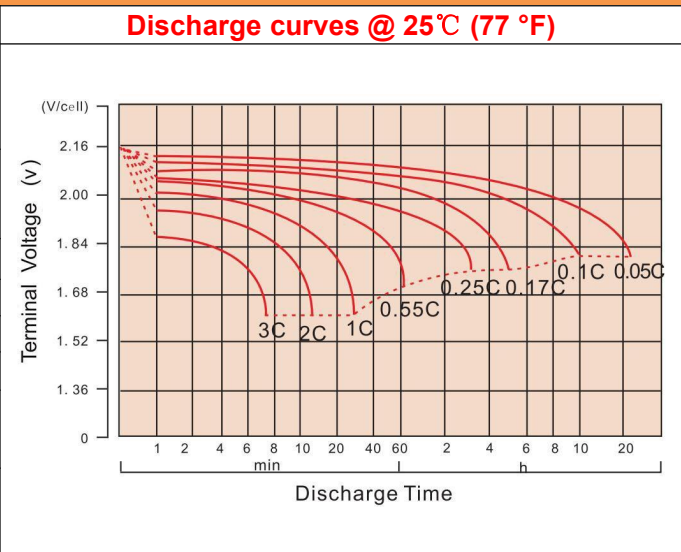
Shimastu NPC series Deep Cycle Batteries are deep-cycle battery designed to be regularly deeply discharged using most of its capacity, its the most common battery used for solar off-grid and hybrid energy storage, as well as many other applications.

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 (8A)	80Ah
	5 hour rate (13.6A)	68Ah
	3 hour rate (20A)	60Ah
	1 hour rate (44A)	44Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	800A(5 Sec)	
Short Circuit Current	1840A	
Internal Resistance	Full charged battery (25°C, 77 °F) 6mΩ	
Designed life	≥700 Cycles @ 50% D.O.D(25°C)	
Constant Voltage Charge	Cycle	Initial Charging Current less than 20A Voltage 14.1~14.4V at 25°C (77 °F) Temperature Coefficient -18mV/°C
	Standby	No limit on Initial Charging Current Voltage 13.5~13.8V at 25°C (77 °F) Temperature Coefficient -18mV/°C



CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	192.3	144.8	86.5	49.6	22.6	15.2	10.2	8.46	4.41
1.65V	181.7	138.4	83.2	47.7	21.9	14.7	10.0	8.35	4.35
1.70V	167.3	129.6	79.6	45.9	21.3	14.4	9.89	8.22	4.29
1.75V	153.1	120.7	75.8	44.0	20.7	14.0	9.75	8.10	4.24
1.80V	138.6	111.4	72.5	42.4	20.0	13.6	9.59	8.00	4.20

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	326.9	253.1	157.1	93.3	43.2	29.3	20.0	16.7	8.67
1.65V	314.8	245.6	152.7	90.2	42.1	28.5	19.7	16.5	8.56
1.70V	295.3	233.5	147.5	87.3	41.1	27.8	19.4	16.2	8.45
1.75V	275.0	220.4	142.0	84.2	40.1	27.2	19.2	16.0	8.37
1.80V	253.3	206.4	137.1	81.6	38.8	26.6	18.9	15.7	8.32

Cycle service life



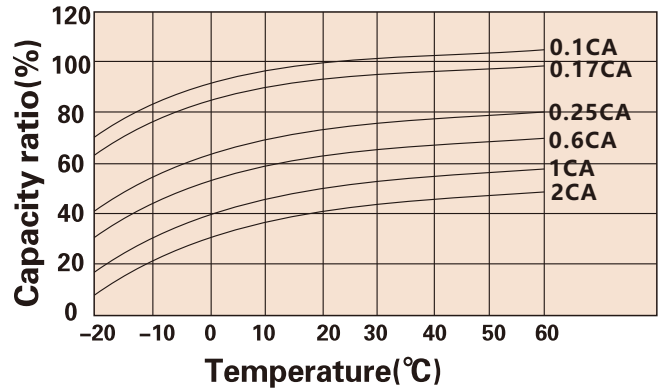
Trickle(or float) service life



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.