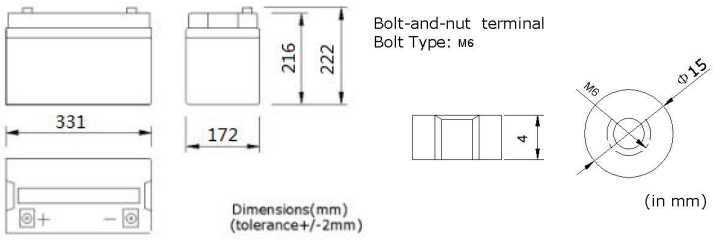
Shimastu NPC100-12(12V100AH)

ISO 9001
ISO 14001
MH28269

PHYSICAL SPECIFICATION

Nominal Voltage Nominal Capacity (10HR)		12V 100Ah
Dimension	Length Width Container Height Total Height	331±2mm （13.03 inches） 172±2mm (6.77 inches) 216±2mm (8.50 inches) 222±2mm (8.74 inches)
Weight		Approx. 31 Kg ±3% (68.32lbs)
Standard Terminal		B3(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℃ (-4℉) to 50℃ (122℉).

2. Monthly self-discharge rate below 2% at 25℃ (77℉) .

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

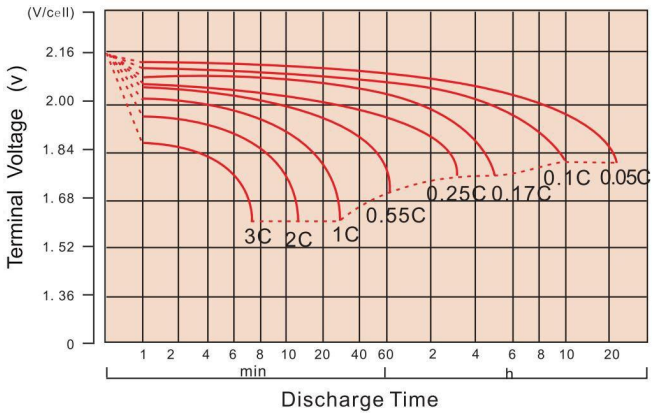
4.Special polar plate design, which ensures a long cycle life up to 12 years in floating service.

ELECTRICAL SPECIFICATION

Characteristics

Capacity		10 hour rate (10A) 5 hour rate (17A) 3 hour rate (25A) 1 hour rate (55A)	100Ah 85Ah 75Ah 55Ah
Capacity affected by temperature		40℃ （104 °F） 25℃ （77 °F） 0℃ （32 °F）	102% 100% 85%
Max Discharge Current		1000A(5 Sec)	
Short Circuit Current		2150A	
Internal Resistance		Full charged battery (25℃,77 °F) 6.8mΩ	
Designed life		≥700 Cycles @ 50% D.O.D(25℃)	
Constant Voltage Charge	Cycle	Initial Charging Current less than 25A Voltage 14.1~14.4V at 25℃ (77 °F) Temperature Coefficient –30mV/℃	
	Standby	No limit on Initial Charging Current Voltage 13.5~13.8V at 25℃ (77 °F) Temperature Coefficient –20mV/℃	

Discharge curves @ 25℃ (77 °F)



CONSTANT CURRENT DISCHARGE RATING A@25℃

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	240.4	181.0	108.1	62.0	28.3	18.9	12.7	10.6	5.51
1.65V	218.9	173.0	103.9	59.7	27.4	18.4	12.5	10.4	5.44
1.70V	198.9	162.1	99.5	57.4	26.7	17.9	12.4	10.3	5.36
1.75V	181.7	150.8	94.7	55.0	25.8	17.5	12.2	10.1	5.30
1.80V	165.0	139.2	90.6	53.0	25.0	17.0	12.0	10.0	5.25

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25℃

F.V/TIME	10MIN	15MIN	30MIN	1HR	3HR	5HR	8HR	10HR	20HR
1.60V	397.7	316.5	196.4	116.6	54.0	36.6	25.0	20.9	10.8
1.65V	379.4	307.0	190.8	112.8	52.6	35.6	24.6	20.6	10.7
1.70V	351.0	291.8	184.4	109.1	51.3	34.8	24.2	20.3	10.6
1.75V	326.3	275.5	177.3	105.2	50.1	34.0	23.9	20.0	10.5
1.80V	301.5	258.0	171.4	102.0	48.5	33.2	23.7	19.7	10.4

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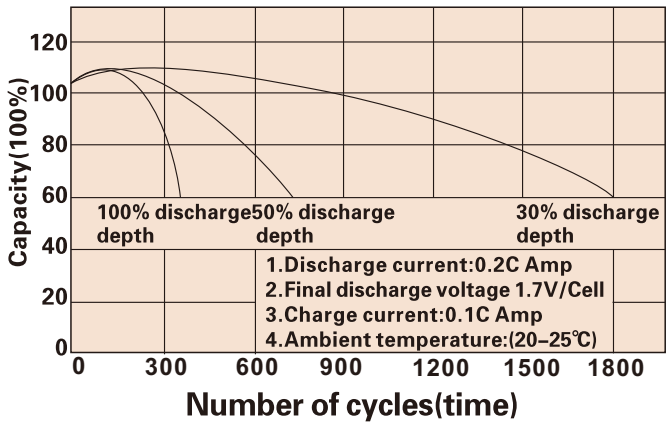
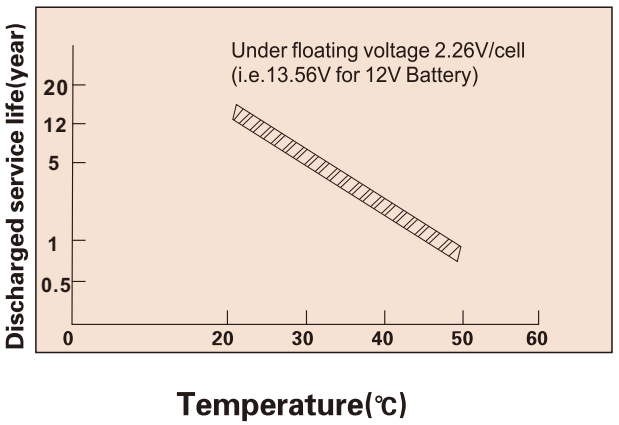
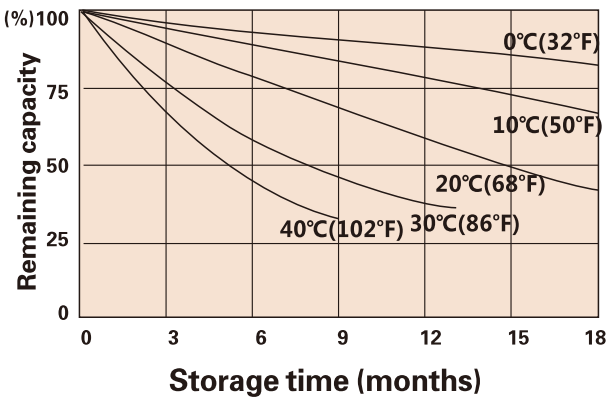
Cycle service life



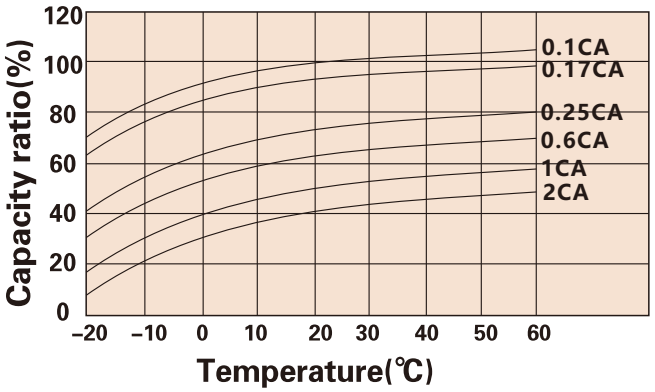
Trickle(or float) service life



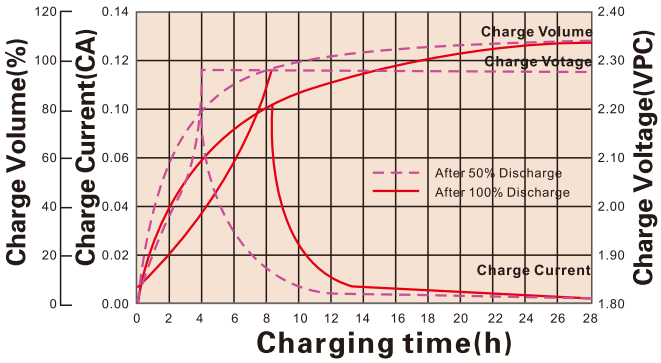
Storage time(months)



Temperature and discharge capacity



Charging characteristic



Storage Temperature	Supplementary Charge Interval	Charge Method
≤20℃	Every 12 months	Less or 24 hours with a constant voltage of 2.3V/cell
20-30℃	Every 8 months	12-18 hours with a constant voltage of 2.45V/cell
≥30℃	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.

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