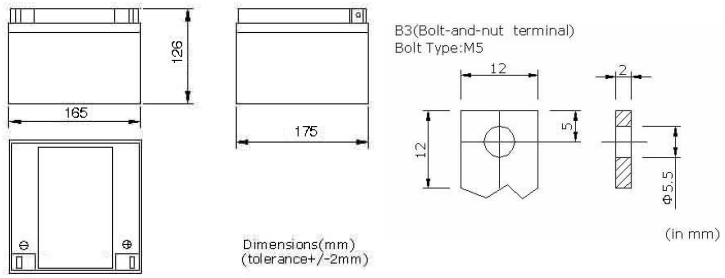
Shimastu NPC24-12(12V24AH)

MH28269 ISO 9001 ISO 14001

PHYSICAL SPECIFICATION

Nominal Voltage Nominal Capacity (10HR)		12V 24Ah
Dimension	Length Width Container Height Total Height	175±1mm (6.89 inches) 165±1mm (6.50 inches) 126±1mm (4.96 inches) 126±1mm (4.96 inches)
Weight		Approx. 8.1 Kg ±3% (17.86lbs)
Standard Terminal		Bolt-and-nut terminal Bolt Type: M5



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

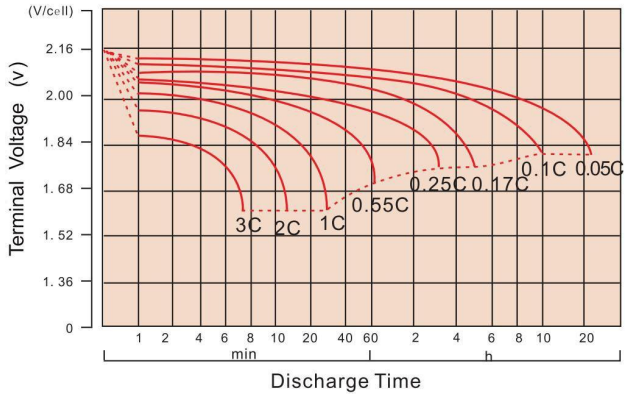
4.Special polar plate design, which ensures a long cycle life up to 10 years in floating service.

ELECTRICAL SPECIFICATION

Characteristics

Capacity		10 hour rate (2.4A) 5 hour rate (4.08A) 3 hour rate (6.0A) 1 hour rate (13.16A)	24Ah 20.4Ah 18Ah 13.2Ah
Capacity affected by temperature		40℃ （104 ºF） 25℃ （77 ºF） 0℃ （32 ºF）	102% 100% 85%
Max Discharge Current		240A(5 Sec)	
Short Circuit Current		850A	
Internal Resistance		Full charged battery (25℃,77 ºF) 10mΩ	
Designed life		≥700 Cycles @ 50% D.O.D(25℃)	
Constant Voltage Charge	Cycle	Initial Charging Current less than 6A Voltage 14.1~14.4V at 25℃ (77 ºF) Temperature Coefficient –30mV/℃	
	Standby	No limit on Initial Charging Current Voltage 13.5~13.8V at 25℃ (77 ºF) Temperature Coefficient –20mV/℃	

Discharge curves @ 25℃ (77 °F)



CONSTANT CURRENT DISCHARGE RATING A@25℃

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	86.77	61.32	44.32	26.25	14.69	6.77	4.53	2.54	1.32
1.65V	80.68	57.94	42.38	25.24	14.18	6.56	4.41	2.50	1.30
1.70V	72.80	53.35	39.69	24.15	13.67	6.39	4.30	2.46	1.28
1.75V	65.23	48.83	36.94	23.05	13.16	6.19	4.19	2.43	1.27
1.80V	57.27	44.20	34.10	22.04	12.73	6.00	4.08	2.40	1.26

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25℃

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	143.8	104.2	77.48	47.70	27.62	12.91	8.75	5.00	2.58
1.65V	135.3	100.4	75.18	46.33	26.81	12.58	8.52	4.91	2.55
1.70V	124.9	94.15	71.48	44.76	26.00	12.29	8.34	4.84	2.52
1.75V	114.3	87.70	67.48	43.18	25.19	11.99	8.16	4.80	2.51
1.80V	102.5	80.77	63.17	41.69	24.47	11.65	7.98	4.72	2.50

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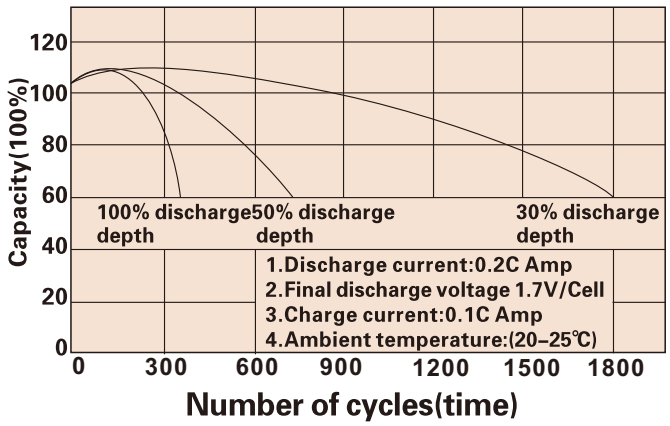
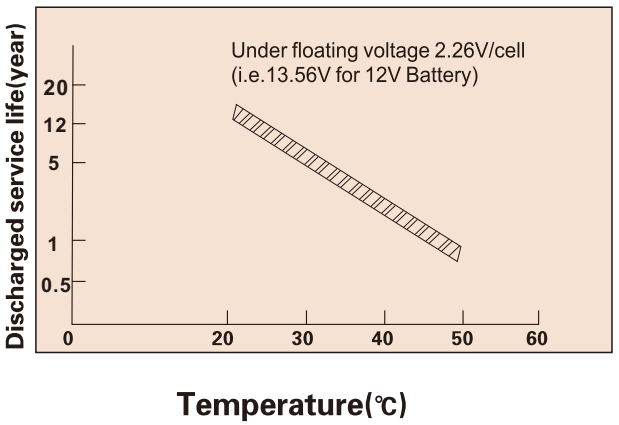
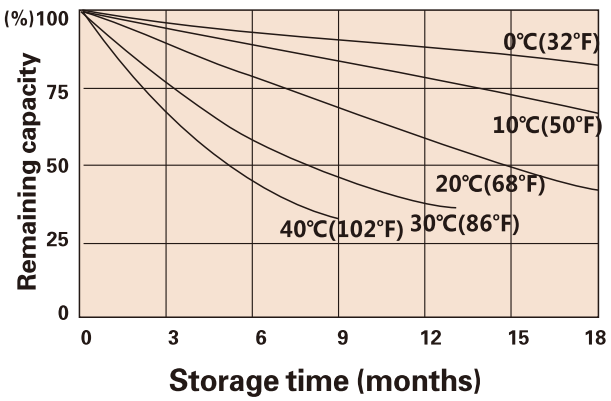
Cycle service life



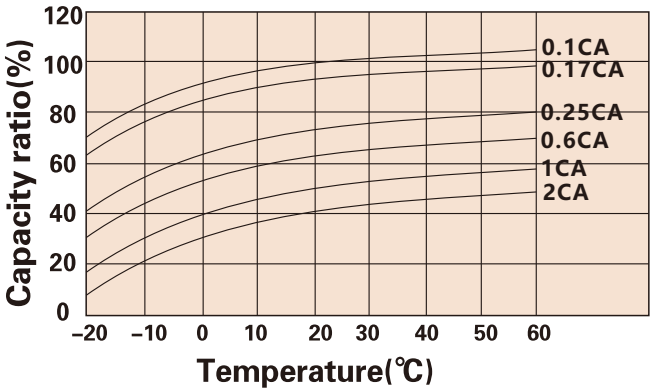
Trickle(or float) service life



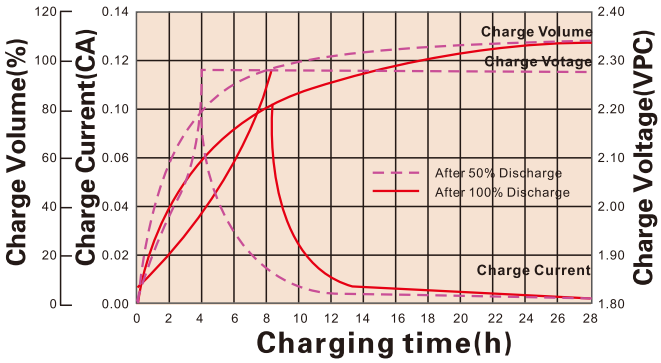
Storage time(months)



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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