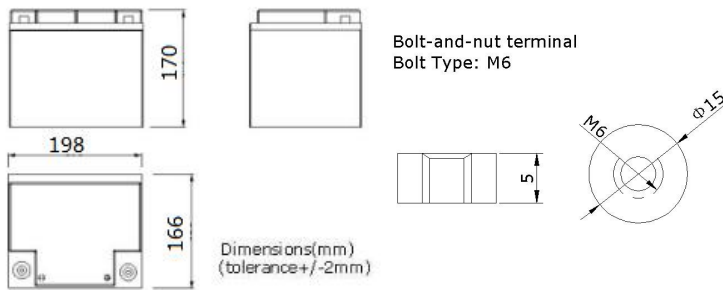


## PHYSICAL SPECIFICATION

Nominal Voltage		12V
Nominal Capacity (10HR)		40Ah
Dimension	Length	198±2mm (7.80 inches)
	Width	166±2mm (6.54 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Weight		Approx. 14.2 Kg ±3% (31.30lbs)
Standard Terminal		B3(Bolt-and-nut lead terminal) Bolt Type: M6



Shimastu NPH series High-Rate Discharge Batteries are suitable for high-power discharge by using strong grids and specially designed active material, it offers 20% more power output than the standard range, suitable for UPS/EPS, data centers where high current loads are required.

### Features:

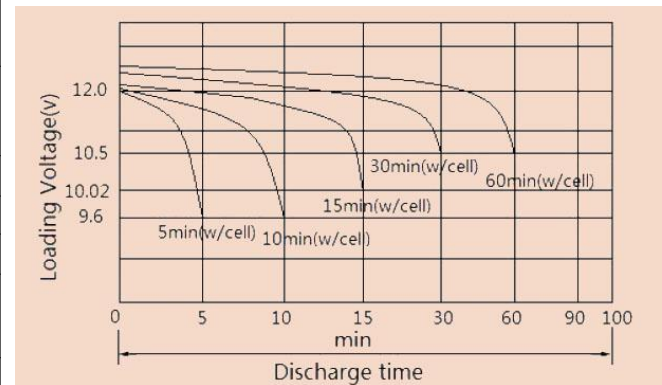
1. Extremely low self-discharge by using high pure material, allowing for a long rest period
2. High quality Adsorbed glass fiber separators, with a gas recombination efficiency of 99%, no need for replenishment with water
3. Long design life up to 10 years in float service at 25°C
4. PbCaSn alloy for plate grids, suitable for high-power discharge

## ELECTRICAL SPECIFICATION

### Characteristics

### Discharge curves @ 25°C (77 °F)

Capacity	15 min wattage @1.67vpc 10 hour rate(4.0A, 10.8V) 20 hour rate(2.12A, 10.8V)	170W/cell 40.0Ah 42.4Ah
Capacity affected by temperature	40°C (104 °F) 25°C (77 °F) 0°C (32 °F)	102% 100% 85%
Max Discharge Current	440A(5 Sec)	
Short Circuit Current	1010A	
Internal Resistance	Full charged battery (25°C, 77 °F) 9.8mΩ	
Constant Voltage Charge	Cycle	Initial Charging Current less than 10A 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



### CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	3MIN	5MIN	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN
1.60V	265.4	196.2	131.5	98.7	81.0	69.2	60.0	43.8	34.4
1.67V	237.0	179.2	123.6	93.0	77.6	66.2	57.4	42.3	34.0
1.70V	220.0	169.0	117.9	90.7	75.3	64.8	56.6	41.7	33.8
1.75V	198.5	155.4	111.1	86.2	72.6	62.1	54.4	40.1	33.1
1.80V	179.2	140.6	103.2	80.5	68.0	58.1	51.0	38.4	31.9

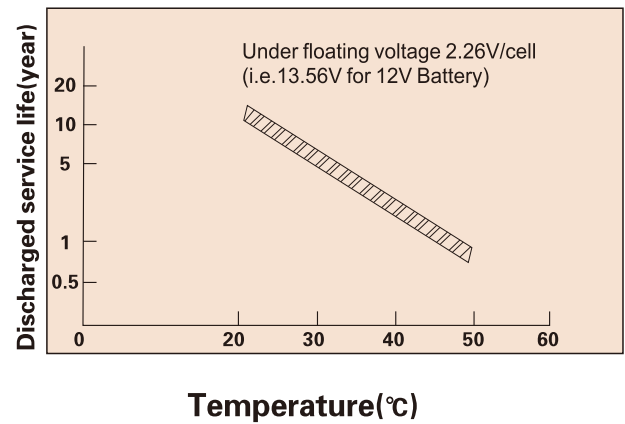
### CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	3MIN	5MIN	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN
1.60V	392.4	302.8	223.4	172.4	148.6	128.1	114.5	84.1	66.3
1.67V	372.0	293.7	214.3	170.0	145.2	124.7	111.1	82.9	66.1
1.70V	359.5	281.2	207.5	165.6	142.9	122.5	106.6	81.5	65.9
1.75V	332.3	265.4	193.9	155.4	134.9	117.9	104.3	79.4	64.3
1.80V	325.5	254.0	186.0	148.6	130.4	113.4	100.9	76.4	62.0

### Cycle service life



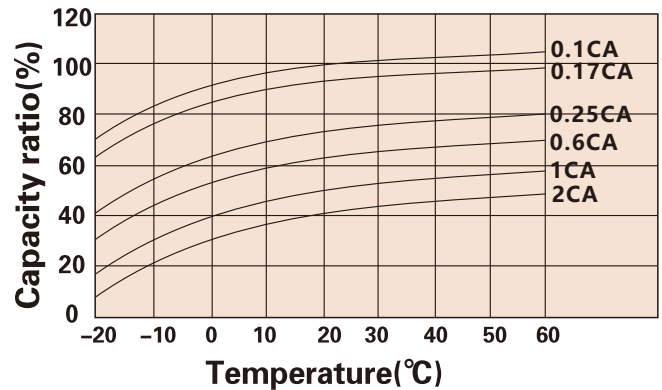
### Trickle(or float) service life



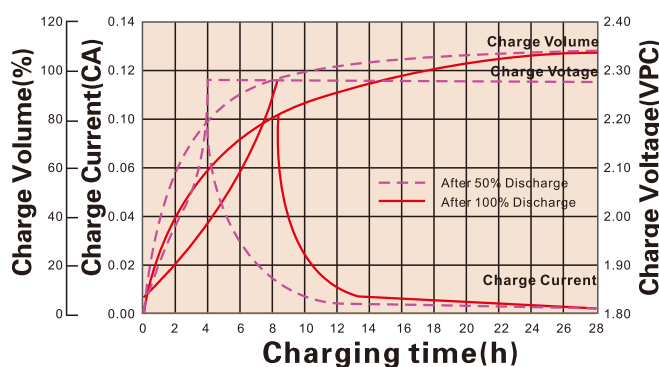
### Storage time(months)



### 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.