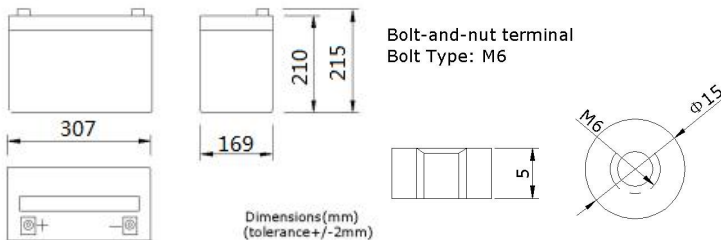


PHYSICAL SPECIFICATION

Nominal Voltage		12V
Nominal Capacity (10HR)		90Ah
Dimension	Length	307±2mm (12.09 inches)
	Width	169±2mm (6.65 inches)
	Container Height	210±2mm (8.27 inches)
	Total Height	215±2mm (8.46 inches)
Weight		Approx. 28.2 Kg ±3% (62.15lbs)
Standard Terminal		Bolt-and-nut 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.

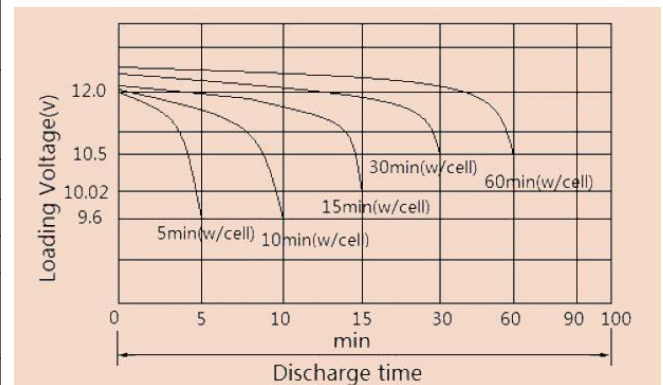
Features:

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		
Capacity	15 min wattage @1.67vpc 10 hour rate(9.0A, 10.8V) 20 hour rate(4.75A, 10.8V)	400W/cell 90.0Ah 95.0Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	990A(5 Sec)	
Short Circuit Current	2180A	
Internal Resistance	Full charged battery (25°C, 77 °F) 4mΩ	
Constant Voltage Charge	Cycle	Initial Charging Current less than 22.5A 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	3MIN	5MIN	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN
1.60V	445.1	375.2	285.4	214.6	181.6	160.7	144.7	99.8	71.1
1.67V	438.1	361.3	263.5	209.6	178.6	155.7	136.7	99.1	67.6
1.70V	424.2	351.3	250.5	199.6	170.7	147.7	128.7	85.9	65.0
1.75V	407.2	338.3	244.5	193.6	166.7	143.7	124.8	83.8	63.1
1.80V	396.2	317.4	235.5	187.6	155.7	136.7	119.8	82.4	60.4

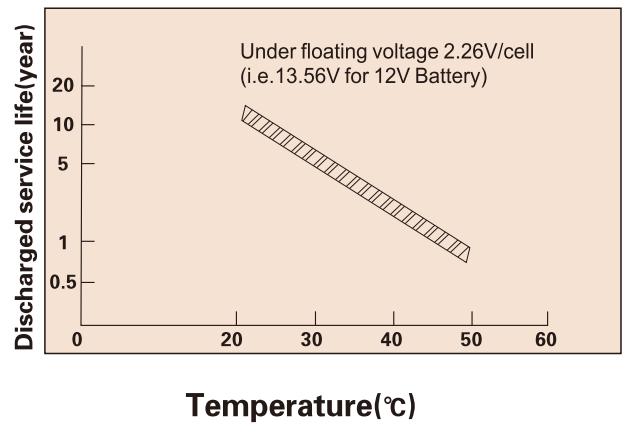
CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	3MIN	5MIN	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN
1.60V	872.3	717.6	524.0	411.2	348.3	299.4	258.5	186.6	140.7
1.67V	852.3	670.7	496.0	400.0	330.3	283.4	244.5	180.6	136.7
1.70V	819.4	640.7	486.0	289.4	320.4	273.5	234.5	169.7	131.7
1.75V	762.5	605.8	456.1	257.5	310.4	263.5	225.5	163.7	124.8
1.80V	706.6	565.9	426.1	343.3	295.4	257.5	220.6	158.7	120.8

Cycle service life



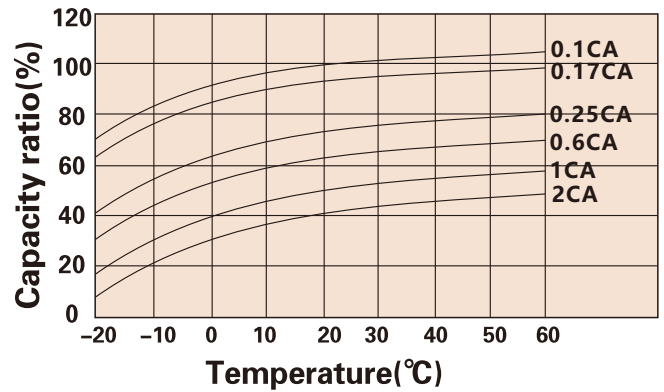
Trickle(or float) service life



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.