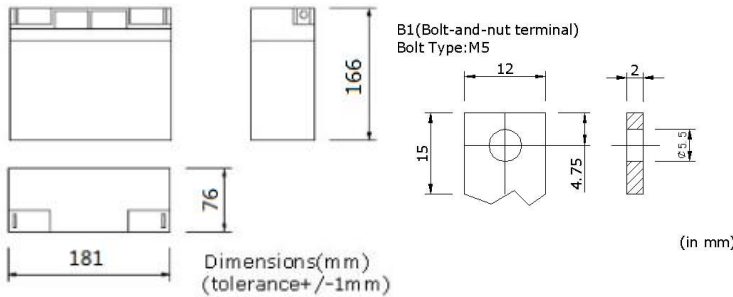


PHYSICAL SPECIFICATION

Nominal Voltage		12V
Nominal Capacity (20HR)		18Ah
Dimension	Length	181±1mm (7.13 inches)
	Width	76±1mm (2.99 inches)
	Container Height	166±1mm (6.54 inches)
	Total Height	166±1mm (6.54 inches)
Weight		Approx. 6.1Kg ±3% (13.44lbs)
Standard Terminal		Bolt & nuts terminal Bolt Type:M5



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 6 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(1.7A,10.8V) 20 hour rate(0.9A,10.8V)	78W/cell 17.0Ah 18.0Ah		
Capacity affected by temperature	40°C (104 °F) 25°C (77 °F) 0°C (32 °F)	102% 100% 85%		
Max Discharge Current	190A(5 Sec)			
Short Circuit Current	820A			
Internal Resistance	Full charged battery (25°C,77 °F) 15mΩ			
Constant Voltage Charge	Cycle	Initial Charging Current less than 5.1A Voltage 14.4~15.0V 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		

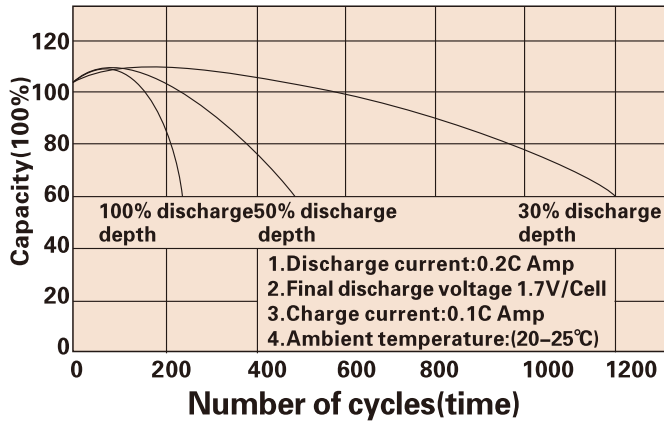
CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	91.53	80.47	65.72	57.56	45.17	35.51	25.30	14.19	10.06
1.67V	83.07	73.02	60.10	53.06	42.25	33.52	23.98	13.52	9.63
1.70V	79.48	69.87	57.71	51.13	40.95	32.62	23.38	13.23	9.45
1.75V	73.62	64.71	53.76	47.91	38.68	31.00	22.41	12.78	9.16
1.80V	67.43	59.27	49.70	44.70	36.73	29.53	21.42	12.30	8.84

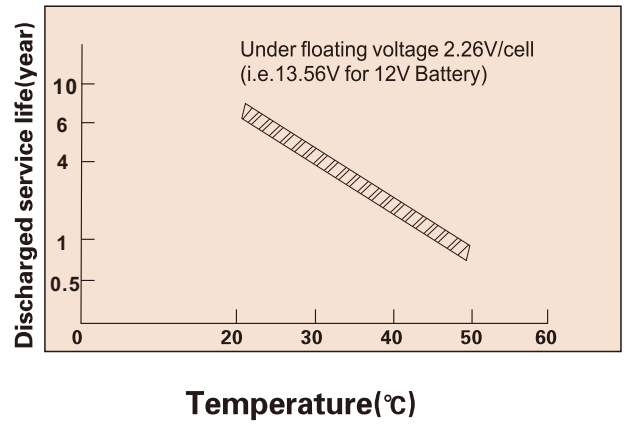
CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	164.5	144.6	118.6	104.2	82.55	65.37	46.76	26.60	19.04
1.67V	151.1	132.9	109.9	97.4	78.00	62.39	45.02	25.60	18.39
1.70V	146.0	128.3	106.4	94.5	76.37	61.05	43.96	25.19	18.11
1.75V	136.5	120.0	100.1	89.7	72.80	58.73	42.57	24.49	17.64
1.80V	126.8	111.3	93.71	84.57	69.55	56.41	41.17	23.79	17.17

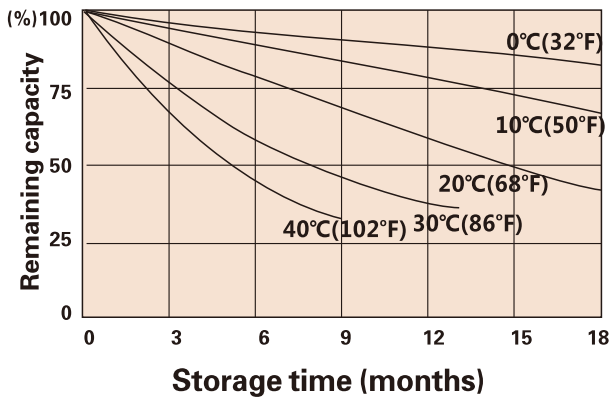
Cycle service life



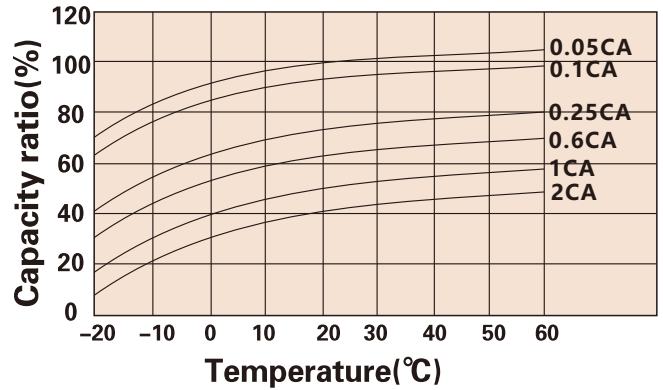
Trickle(or float) service life



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.