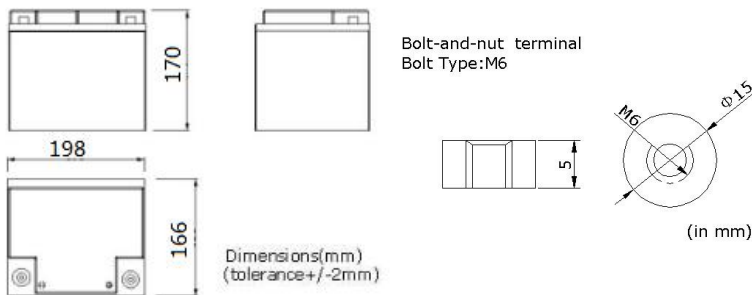


## PHYSICAL SPECIFICATION



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. 13Kg ±3% (28.66lbs)
Standard Terminal		Bolt-and-nut terminal Bolt Type: M6



Shimastu Gel series Gel Batteries are manufactured with special separators and silica gel immobilizing the electrolyte inside the battery, it is perfect for frequent cycling deep discharge or standby applications under harsh environments, and has a long service life.

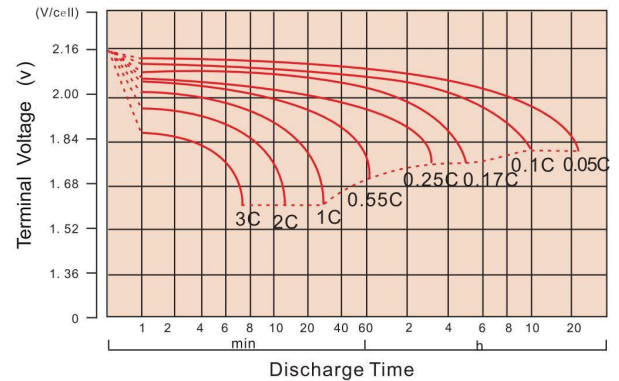
### Features:

1. Special polar plate design, which ensures a designed floating charge life of 15 years at 25°C (77 °F)
2. Equalized current distribution, the active material is not easy to fall off
3. High gas recombination efficiency
4. Good deep discharge resilience performance
5. No delamination phenomena in the electrolyte
6. Manufactured with high-porosity

## ELECTRICAL SPECIFICATION

Characteristics		
Capacity	10 hour rate (4A)	40Ah
	5 hour rate (6.8A)	34Ah
	3 hour rate (10A)	30Ah
	1 hour rate (22A)	22Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	400A(5 Sec)	
Short Circuit Current	920A	
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

### Discharge curves @ 25°C (77 °F)



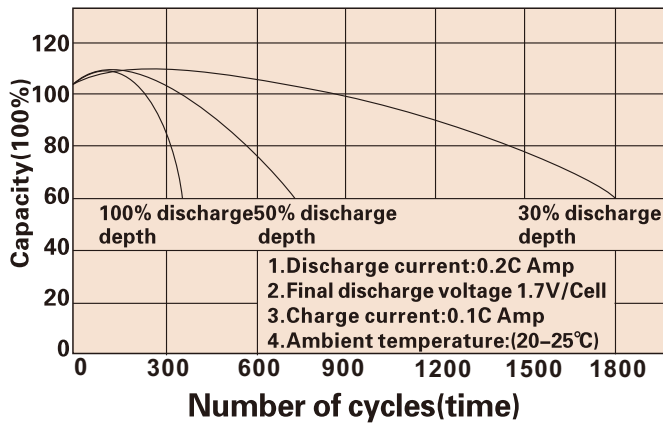
### CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	141.7	100.2	72.39	43.24	24.80	11.32	7.58	4.24	2.20
1.65V	131.8	94.64	69.22	41.58	23.86	10.97	7.37	4.18	2.18
1.70V	118.9	87.14	64.82	39.79	22.96	10.67	7.18	4.10	2.15
1.75V	106.5	79.75	60.34	37.89	22.00	10.34	6.99	4.05	2.12
1.80V	93.54	72.20	55.70	36.23	21.21	10.00	6.80	4.00	2.10

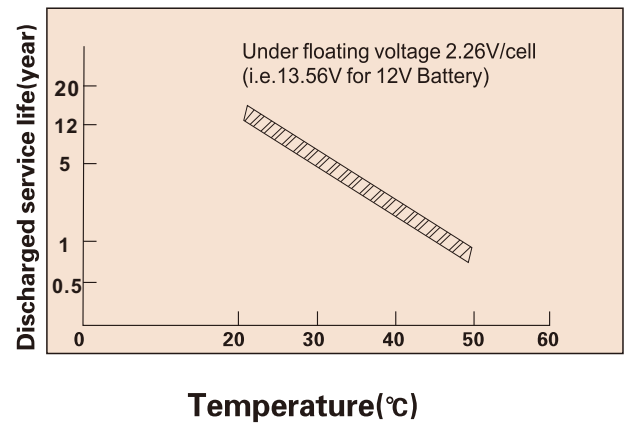
### CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	234.9	170.2	126.5	78.56	46.63	21.59	14.63	8.35	4.30
1.65V	221.0	164.0	122.8	76.33	45.11	21.04	14.25	8.20	4.27
1.70V	203.9	153.8	116.7	73.77	43.66	20.53	13.92	8.07	4.23
1.75V	186.8	143.2	110.2	70.98	42.09	20.03	13.62	8.00	4.18
1.80V	167.5	131.9	103.2	68.55	40.79	19.42	13.29	7.87	4.16

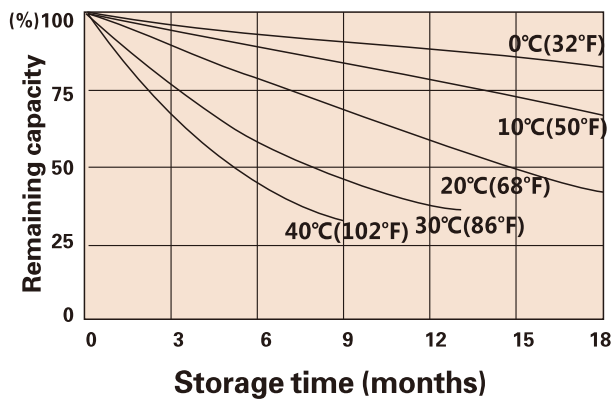
### Cycle service life



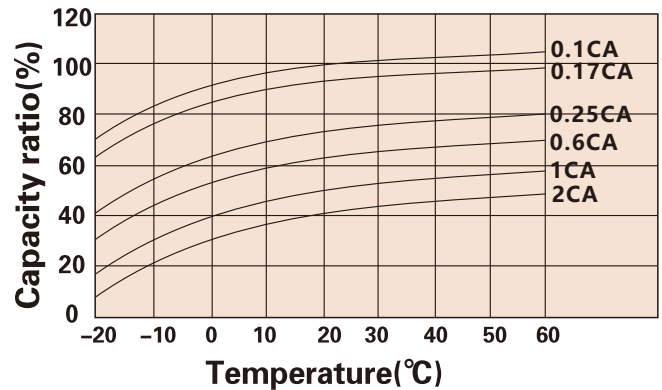
### Trickle(or float) service life



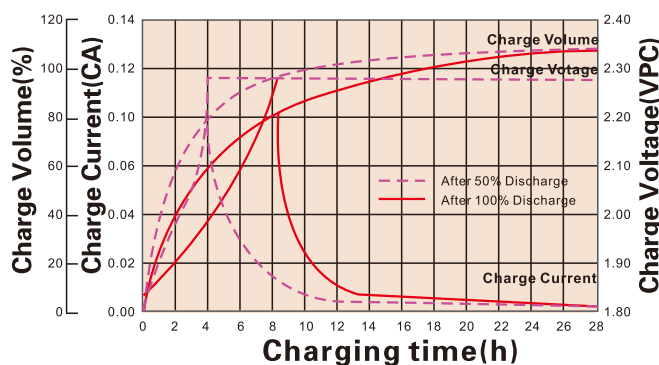
### Storage time(months)



### 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.