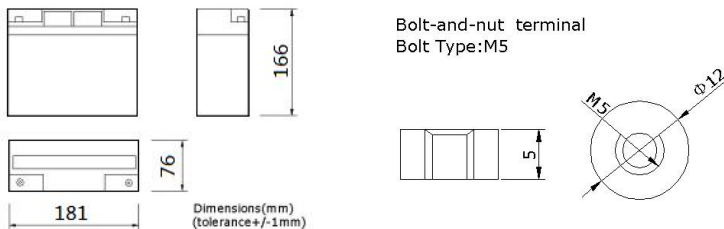


PHYSICAL SPECIFICATION



Nominal Voltage		12V
Nominal Capacity (20HR)		20Ah
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. 5.7Kg ±3% (12.56bs)
Standard Terminal		Bolt & nuts terminal Bolt Type:M5



Shimastu NP series AGM VRLA Batteries have been developed as general purpose batteries, they're valve-regulated lead acid batteries with high quality Absorbed Glass Mat (AGM) separators & high purity raw materials, featured by perfectly good performance and reliable standby service life.

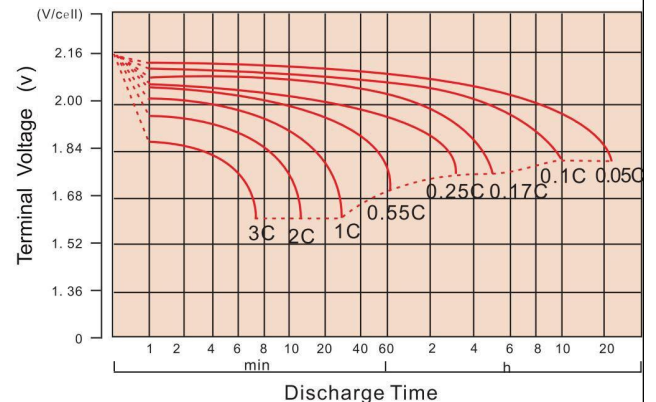
Features:

1. Non-spillable
2. Sealed and Maintenance-free Operation
3. High Quality and High Reliability
4. Less gassing, low Self-discharge
5. Low internal resistance
6. Long design life up to 6 years in float service at 25°C (77 °F)

ELECTRICAL SPECIFICATION

Characteristics		
Capacity	20 hour rate (1.0A)	20Ah
	10 hour rate (1.87A)	18.7Ah
	5 hour rate (3.398A)	17Ah
	3 hour rate (4.999A)	15Ah
	1 hour rate (11A)	11Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	200A(5 Sec)	
Short Circuit Current	820A	
Internal Resistance	Full charged battery (25°C, 77 °F) 13mΩ	
Constant Voltage Charge	Cycle	Initial Charging Current less than 6A Voltage 7.20~7.50V at 25°C (77 °F) Temperature Coefficient -15mV/°C
	Standby	No limit on Initial Charging Current Voltage 6.75~6.90V at 25°C (77 °F) Temperature Coefficient -10mV/°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	76.03	53.74	38.84	22.31	12.24	5.640	3.772	1.973	1.040
1.65V	70.71	50.78	37.14	21.42	11.80	5.466	3.674	1.947	1.024
1.70V	63.79	46.75	34.78	20.47	11.41	5.318	3.579	1.919	1.012
1.75V	57.16	42.79	32.36	19.57	11.00	5.159	3.489	1.893	1.000
1.80V	50.19	38.73	29.89	18.70	10.58	4.999	3.398	1.870	0.990

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	126.0	91.34	67.91	40.53	23.01	10.79	7.287	3.884	2.054
1.65V	118.6	87.98	65.89	39.31	22.34	10.50	7.124	3.842	2.025
1.70V	109.4	82.48	62.64	37.95	21.75	10.26	6.963	3.790	2.003
1.75V	100.2	76.86	59.13	36.65	21.09	10.00	6.811	3.744	1.981
1.80V	89.86	70.79	55.37	35.38	20.40	9.729	6.659	3.701	1.964

Cycle service life



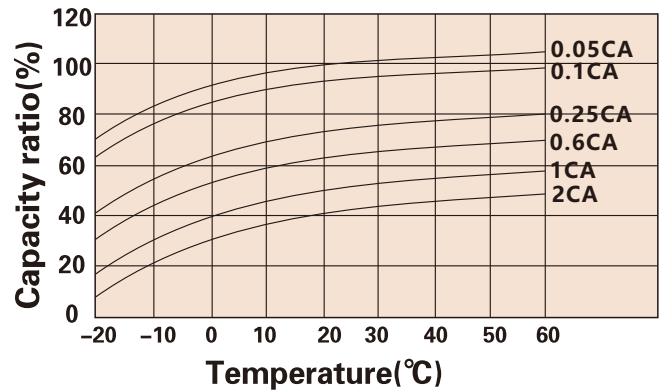
Trickle(or float) service life



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.