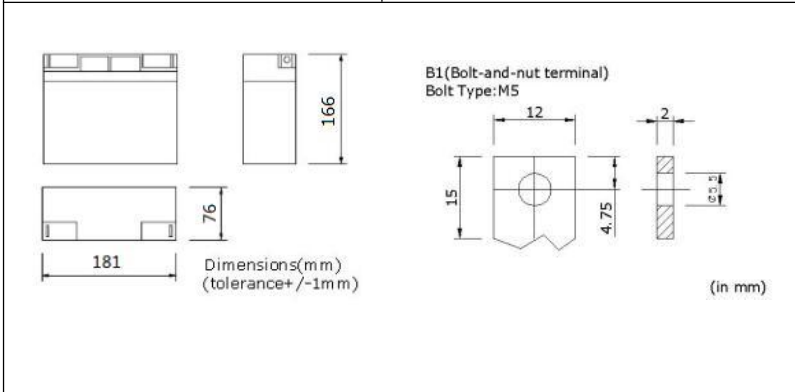


PHYSICAL SPECIFICATION

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. 5.1Kg ±3% (11.24lbs)
Standard Terminal		Bolt & nuts terminal Bolt Type:M5



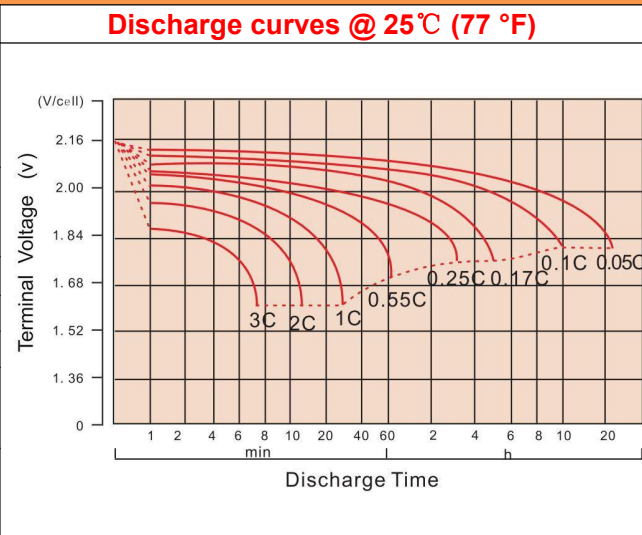
Shimastu NP series AGM VRLA Batteries have been developed as general purpose batteries, they're valve-regulated lead acid batteries with high quality Absorbed Glass Mat (AGM) separators & high purity raw materials, featured by perfectly good performance and reliable standby service life.

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	(0.9A) 18Ah
	10 hour rate	(1.683A) 16.8Ah
	5 hour rate	(3.058A) 15.3Ah
	3 hour rate	(4.499A) 13.5Ah
	1 hour rate	(9.899A) 9.9Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	180A(5 Sec)	
Short Circuit Current	750A	
Internal Resistance	Full charged battery (25°C, 77 °F) 15mΩ	
Constant Voltage Charge	Cycle	Initial Charging Current less than 5.4A Voltage 14.4~15V 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	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	68.43	48.37	34.96	20.08	11.02	5.076	3.395	1.776	0.937
1.65V	63.64	45.70	33.43	19.28	10.62	4.919	3.307	1.752	0.922
1.70V	57.41	42.07	31.30	18.43	10.27	4.786	3.221	1.727	0.911
1.75V	51.44	38.51	29.13	17.62	9.899	4.643	3.140	1.704	0.900
1.80V	45.17	34.86	26.90	16.83	9.521	4.499	3.058	1.683	0.891

CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	113.4	82.20	61.12	36.47	20.71	9.714	6.558	3.496	1.849
1.65V	106.7	79.18	59.30	35.38	20.11	9.454	6.412	3.458	1.823
1.70V	98.47	74.23	56.37	34.16	19.58	9.238	6.267	3.411	1.803
1.75V	90.18	69.18	53.22	32.99	18.98	9.001	6.130	3.370	1.783
1.80V	80.87	63.71	49.83	31.84	18.36	8.756	5.993	3.331	1.768

Cycle service life



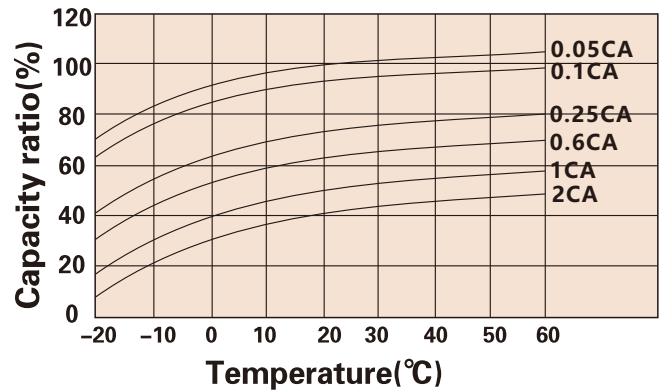
Trickle(or float) service life



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.