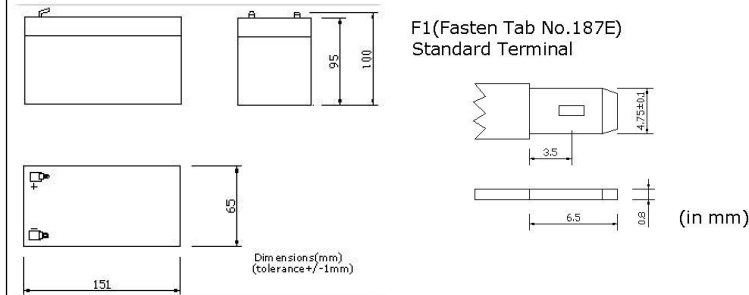
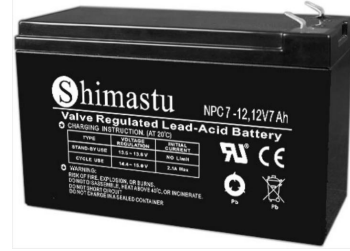


PHYSICAL SPECIFICATION

Nominal Voltage		12V
Nominal Capacity (20HR)		7.0Ah
Dimension	Length	151±1mm (5.94 inches)
	Width	65±1mm (2.56 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height	100±1mm (3.94 inches)
Weight		Approx. 2.3Kg ±3% (5.1lbs)
Standard Terminal		Fasten Tab No. 187E(F1)



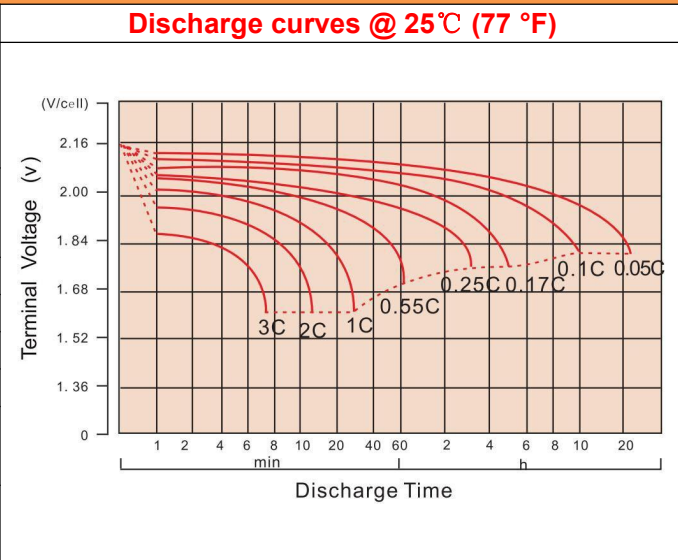
Shimastu NPC series Deep Cycle Batteries are deep-cycle battery designed to be regularly deeply discharged using most of its capacity, its the most common battery used for solar off-grid and hybrid energy storage, as well as many other applications.

Features:

1. Wide protected operation temperature ranges of -20°C (-4°F) to 50°C (122°F).
2. Monthly self-discharge rate below 2% at 25°C (77°F) .
3. The battery has perfect performance in maintenance-free, after 12 months, its storage still can reach to 65%, which is high cost-effective solutions for solar, wind power systems and other renewable energy systems
4. Special polar plate design, which ensures a long cycle life up to 8 years in floating service.

ELECTRICAL SPECIFICATION

Characteristics		
Capacity	20 hour rate	(0.36A) 7.0Ah
	10 hour rate	(0.67A) 6.7Ah
	5 hour rate	(1.22A) 6.2Ah
	3 hour rate	(1.8A) 5.4Ah
	1 hour rate	(3.96A) 4.0Ah
Capacity affected by temperature	40°C (104 °F)	102%
	25°C (77 °F)	100%
	0°C (32 °F)	85%
Max Discharge Current	70A(5 Sec)	
Short Circuit Current	360A	
Internal Resistance	Full charged battery (25°C, 77 °F) 18mΩ	
Designed life	≥600 Cycles @ 50% D.O.D(25°C)	
Constant Voltage Charge	Cycle	Initial Charging Current less than 2.2A 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



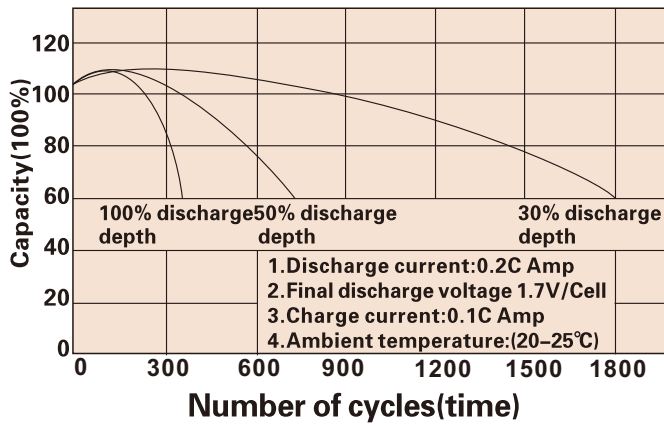
CONSTANT CURRENT DISCHARGE RATING A@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	27.59	19.50	14.10	8.095	4.428	2.039	1.362	0.711	0.375
1.65V	25.66	18.43	13.47	7.772	4.279	1.980	1.329	0.702	0.370
1.70V	23.15	16.96	12.62	7.428	4.118	1.919	1.293	0.695	0.364
1.75V	20.74	15.53	11.75	7.100	3.960	1.860	1.258	0.684	0.360
1.80V	18.21	14.06	10.85	6.787	3.816	1.800	1.224	0.676	0.355

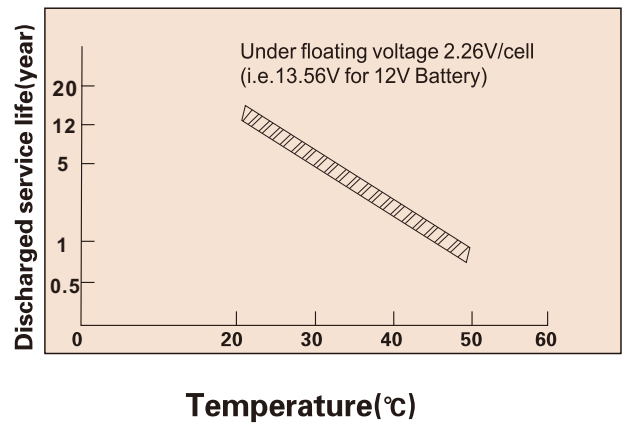
CONSTANT POWER DISCHARGE RATING WATT PER CELL@25°C

F.V/TIME	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	45.74	33.13	24.65	14.70	8.323	3.895	2.624	1.397	0.740
1.65V	43.01	31.94	23.90	14.27	8.088	3.797	2.571	1.384	0.728
1.70V	39.69	29.92	22.72	13.77	7.831	3.699	2.512	1.370	0.719
1.75V	36.36	27.90	21.47	13.30	7.576	3.599	2.451	1.350	0.712
1.80V	32.61	25.69	20.09	12.84	7.343	3.496	2.392	1.335	0.703

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.