



**NP General Series Battery**

NP General Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. NP series Batteries are the general purpose batteries with 5 years floating design life at 25°C. Meet with IEC, BS, JIS and Eurobat standard.



**Application**

- \*Emergency Power System
- \*Communication equipment
- \*Telecommunication systems
- \*Uninterruptible power supplies
- \*Electric bicycle and wheelchairs, etc.
- \*Power tools
- \*Alarm system
- \*Marine equipment
- \*Fire and Security System

**General Features**

- \*Safety Sealing
- \*Non-spillable construction
- \*High Reliability and Stability
- \*Sealed and Maintenance-free
- \*Safety and Quality certification
- \*Long Life and low self-discharge design

**Construction**

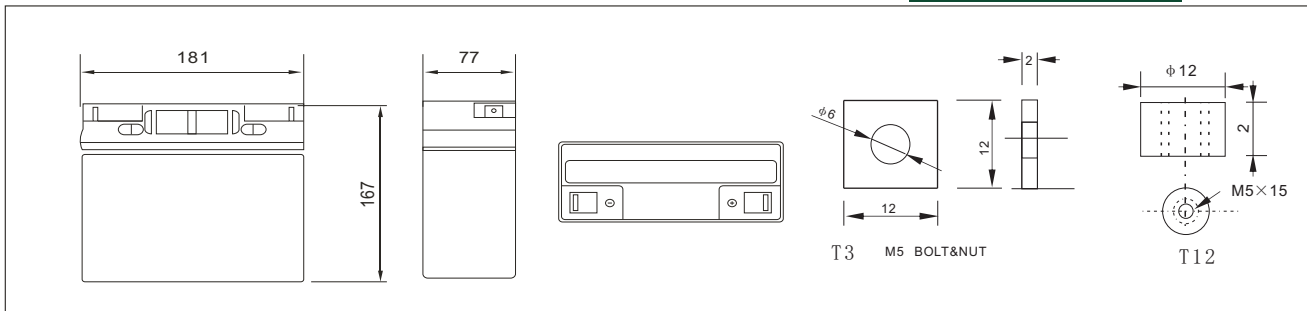
- \*Positive .....Lead dioxide
- \*Electrolyte .....Sulfuric acid
- \*Separator .....Fiber glass
- \*Container .....ABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- \*Negative .....Lead
- \*Safety Valve .....EPDR
- \*Terminal .....Copper

**Specification**

Battery Model	Nominal Voltage	12V		
	Rated capacity(20 Hour rate)	20Ah		
Dimensions	Length	Width	Height	Total Height
	181mm (7.13 inches)	77mm(3.03 inches)	167mm(6.57 inches)	167mm(6.57inches)
Approx Weight	5.5kg(12.12lbs) ±3%			
Capacity 25 °C	20 hour (1.0A,10.8V)	10 hour (1.84A,10.5V)	5 Hour ( 3.4A,10.2V)	1 Hour (12A,9.6V)
	20Ah	18.4Ah	17Ah	12Ah
Max.discharge current	200A (5 Sec.)			
Internal Resistance	Full charged at 25 °C: Approx :15mΩ			
Capacity affected by Temp. (20 HR)	40°C (104 °F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge at	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method	Cycle Use		Float Use	
	14.40-14.70V (Initial charging current less than 8.0A)		13.50-13.80V	

**Outer dimensions (mm)**

**Terminal Type (mm)**

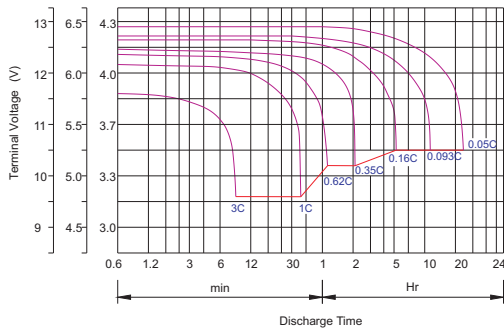


**Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)**

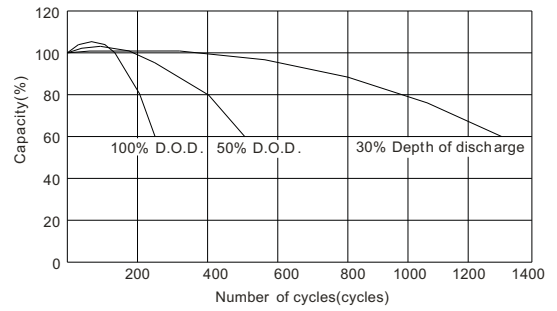
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	72.00	47.20	35.00	23.00	12.00	7.00	5.15	4.13	3.51	2.32	1.89	1.03
	W	849.20	533.30	403.30	244.20	138.30	81.00	59.58	47.83	40.58	26.75	21.92	12.00
10.20V	A	66.00	45.20	32.20	21.80	11.27	6.72	5.00	4.00	3.44	2.28	1.86	1.01
	W	799.20	505.00	379.20	242.50	130.00	77.80	57.92	46.33	39.83	26.33	21.50	11.67
10.50V	A	60.10	42.20	30.00	21.20	10.90	6.58	4.92	3.80	3.40	2.25	1.84	1.00
	W	771.70	490.00	362.50	240.00	126.20	76.30	56.92	44.00	39.58	26.08	21.33	11.58
10.80V	A	57.50	40.30	28.00	20.60	10.53	6.42	4.83	3.73	3.25	2.19	1.79	0.98
	W	676.70	475.00	349.20	239.20	122.50	74.70	56.25	43.46	37.83	25.00	20.83	11.33
11.10V	A	53.40	38.00	26.00	20.00	10.17	6.25	4.58	3.67	3.11	2.13	1.75	0.95
	W	654.20	459.20	332.50	237.50	120.80	74.20	54.58	43.33	37.00	24.17	20.42	11.25



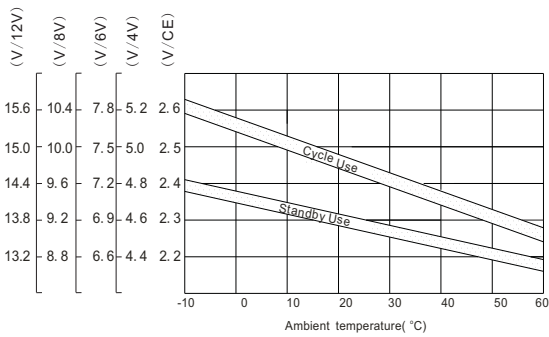
**Discharge characteristic Curve**



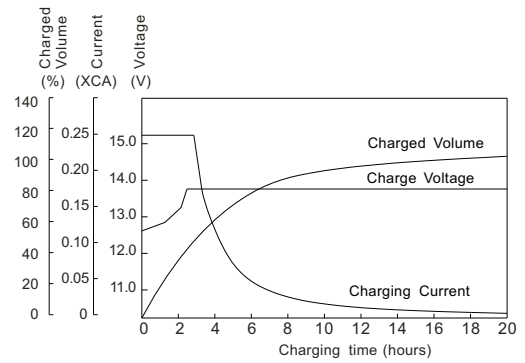
**Cycle service life in relation to depth of discharge**



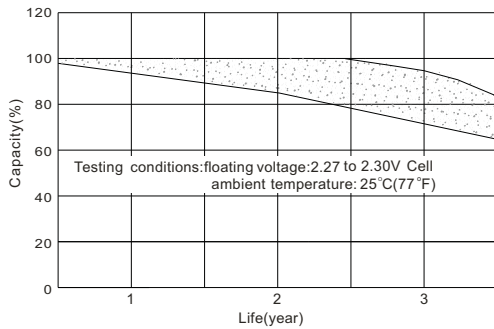
**Relationship between charging voltage and temperature**



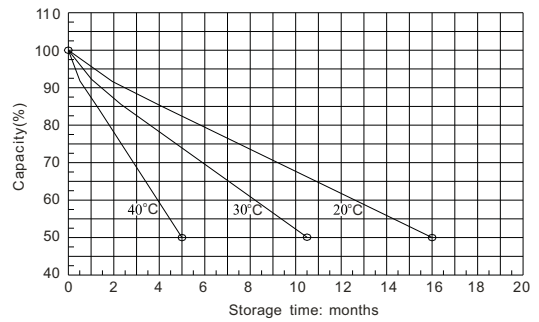
**Constant voltage charging characteristic (0.25CA, at 25°C)**



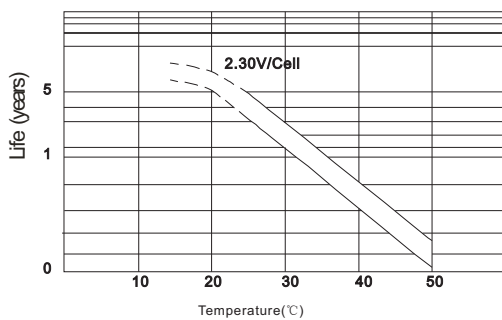
**Life characteristics of standby use**



**Self-discharge characteristic**



**Temperature effects on float life**



**Charge characteristic Curve for standby use**

