



● NPM General Series Battery

NPD series VRLA batteries are superior deep cycle design with thick plates, high-density active materials And Slightly stronger electrolyte, Which can withstand repeated deep cyclic applications. Deep cycle series Batteries are the special design 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
- *Golf cars and buggies
- *Marine equipment
- *Solar and wind power system

● General Features

- *Safety Sealing
- *Non-spillable construction
- *High power density
- *Excellent recovery from Deep discharge
- *Thick plates and high active materials
- *Longer Life and low self-discharge design

● Specification

● Construction

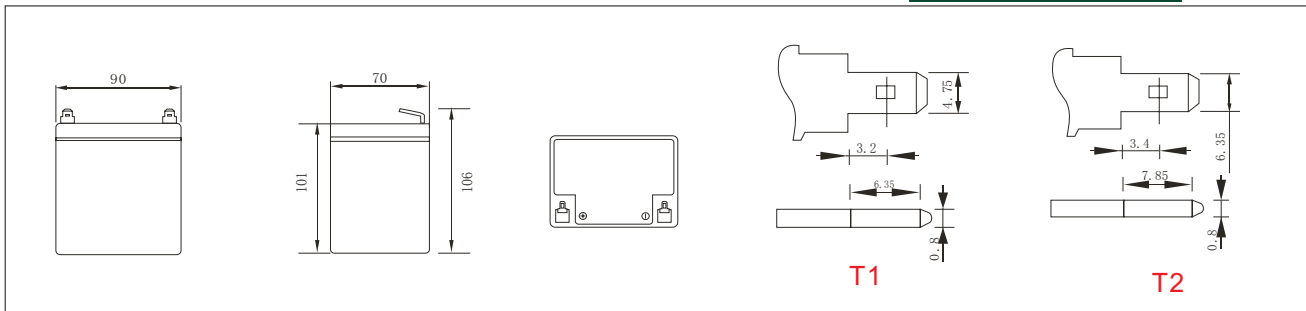
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid
- *SeparatorFiber glass
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper



Battery Model	Nominal Voltage		12V	
	Rated capacity(20 Hour rate)		5Ah	
Dimensions	Length	Width	Height	Total Height
	90mm (3.54 inches)	70mm(2.76 inches)	101mm(3.98 inches)	106mm (4.17inches)/T2/T1
Approx Weight	1.62kg(3.57lbs) ±3%			
Capacity 25°C (77°F)	20 hour (0.25A,10.8V)	10hour(0.46,10.5V)	5 Hour (0.86A,10.2V)	1 Hour (3.0A,9.6V)
	5.0AH	4.6AH	4.3Ah	3.0Ah
Max.discharge current	50A(5 Sec.)			
Internal Resistance	Full charged at 25 °C: Approx 21mΩ			
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 25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method 25°C (77°F)	Cycle Use		Float Use	
	14.40-14.70V (Initial charging current less than 2.0A)		13.50-13.80V	

● Outer dimensions (mm)

● Terminal Type (mm)

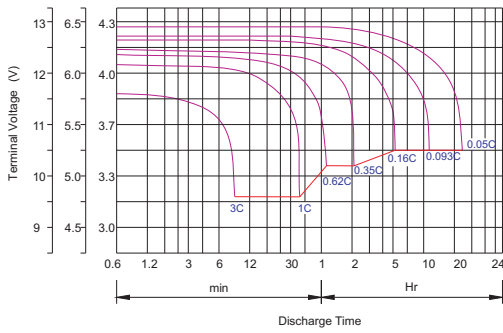


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

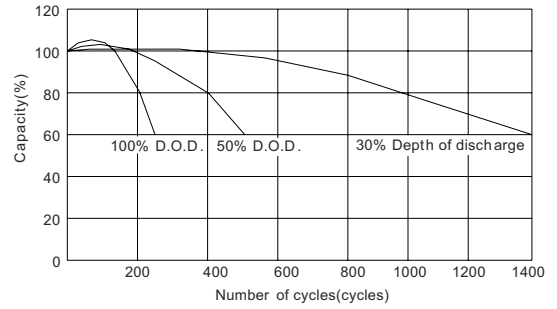
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	18.00	11.80	8.75	5.75	3.00	1.75	1.29	1.03	0.88	0.58	0.47	0.26
	W	212.30	133.30	100.78	61.00	34.60	20.30	14.90	11.96	10.15	6.69	5.48	3.00
10.20V	A	16.50	11.30	8.04	5.46	2.82	1.68	1.25	1.00	0.86	0.57	0.47	0.25
	W	199.80	126.30	94.80	60.60	32.50	19.40	14.48	11.58	9.96	6.58	5.38	2.92
10.50V	A	15.00	10.60	7.50	5.29	2.73	1.65	1.23	0.95	0.85	0.56	0.46	0.25
	W	192.90	122.50	90.60	60.00	31.50	19.10	14.23	11.00	9.90	6.52	5.33	2.90
10.80V	A	14.40	10.10	7.00	5.15	2.63	1.60	1.21	0.93	0.81	0.55	0.45	0.24
	W	169.20	118.80	87.30	59.80	30.60	18.70	14.06	10.86	9.46	6.25	5.21	2.83
11.10V	A	13.40	9.50	6.50	5.00	2.54	1.56	1.15	0.92	0.78	0.53	0.44	0.24
	W	163.50	114.80	83.10	59.40	30.20	18.50	13.65	10.83	9.25	6.04	5.10	2.81



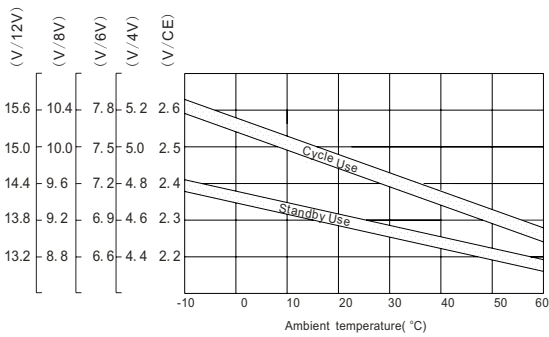
Discharge characteristic Curve



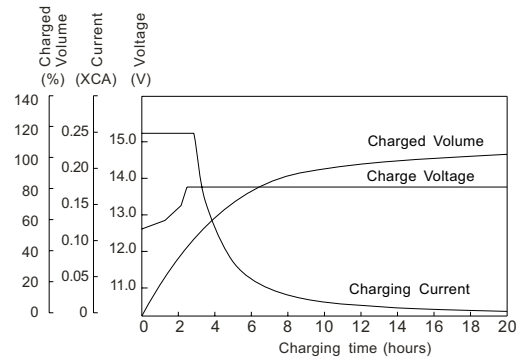
Cycle service life in relation to depth of discharge



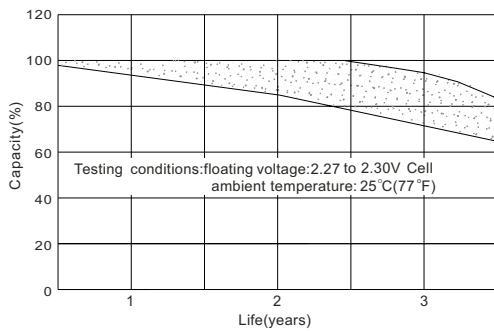
Relationship between charging voltage and temperature



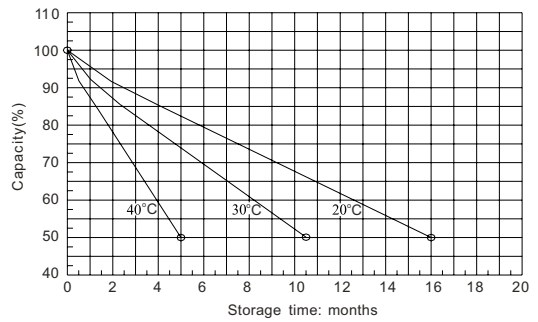
Constant voltage charging characteristic (0.25CA, at 25°C)



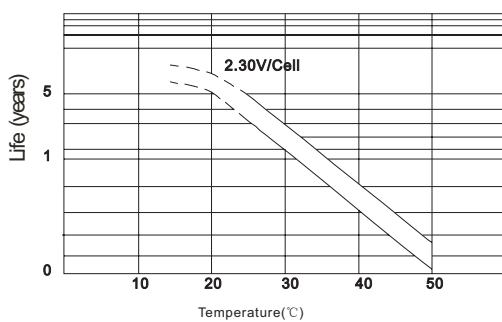
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

