



● NPG GEL Series Battery

NPG Series batteries are designed with special separator and GEL deep cycle technology to give Extra-durable cyclic performance at extreme temperature.

NPG series Batteries are the DEEP CYCLE batteries with 12 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
- *Solar power and wind power systems
- *Power tools
- *Power station
- *Marine equipment
- *Fire and Security System
- *Electric vehicle and wheelchairs etc.



● General Features

- *Safety Sealing
- *Non-spillable construction
- *High Reliability and Stability
- *Sealed and Maintenance-free
- *Safety and Quality certification
- *Longer Life in deep cycle application

● Construction

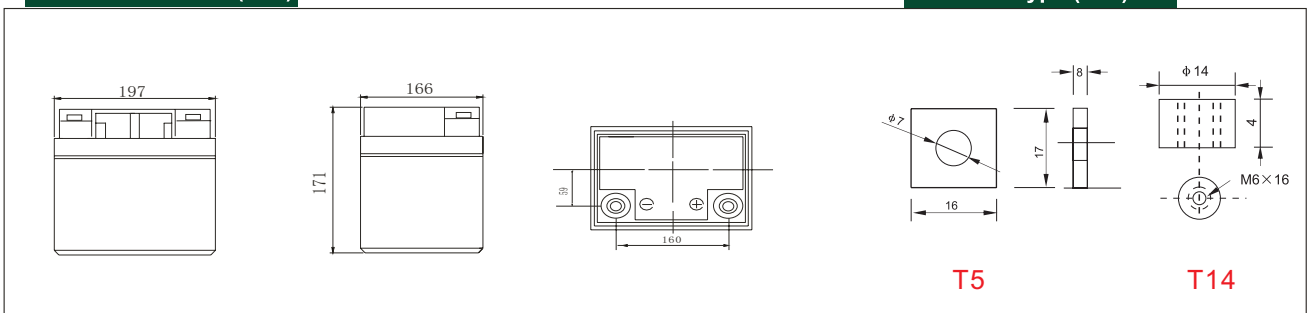
- *PositiveLead dioxide
- *ElectrolyteSulfuric acid thixotropic Gel
- *SeparatorMacromolecule polymer
- *ContainerABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- *NegativeLead
- *Safety ValveEPDR
- *TerminalCopper

● Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity(20 Hour rate)		40Ah	
Dimensions	Length	Width	Height	Total Height
	197mm (7.73 inches)	166mm(6.54 inches)	171mm(6.73 inches)	171mm(6.73 inches)
Approx Weight	13.0kg(28.66lbs) ±3%			
Capacity 25°C (77°F)	20 hour rate (2.0A,1.0.8V)	10 hour (3.68A,10.5V)	5 Hour (6.8A,10.2V)	1 Hour (24.0A,9.6V)
	40.0Ah	36.8Ah	34.0Ah	24.0Ah
Max.discharge current	400A(5 Sec.)			
Internal Resistance	Full charged at 25 °C: Approx 13.0mΩ			
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	
	14.10-14.40V(Initial charging current less than14.72A)		13.50-13.80V	

● Outer dimensions (mm)

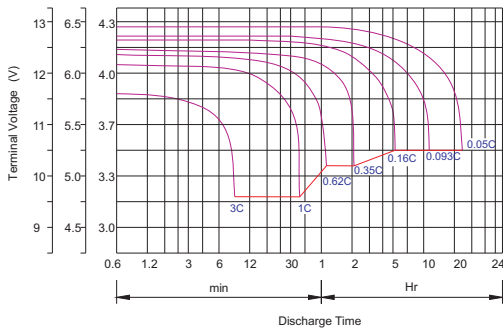
● Terminal Type (mm)



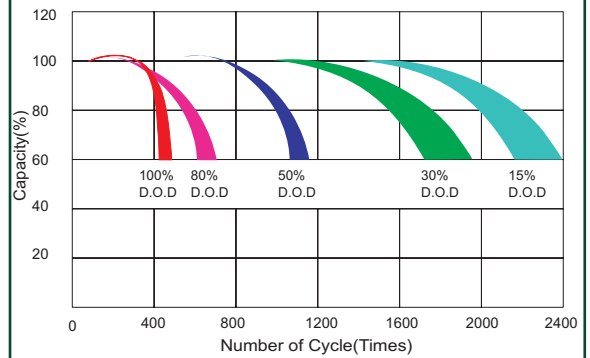
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)													
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	117.90	77.60	62.60	42.00	22.10	12.90	9.50	7.40	6.07	4.31	3.86	2.09
	W	1216.40	829.30	671.20	451.10	238.50	141.40	105.80	82.80	69.04	49.34	44.63	24.26
10.20V	A	114.20	70.1	59.00	40.10	20.80	12.30	9.20	7.20	5.96	4.20	3.79	2.02
	W	1219.20	782.40	659.70	450.30	234.70	140.80	105.40	82.60	68.78	49.08	44.53	23.78
10.50V	A	110.40	62.70	51.60	37.50	20.10	12.00	9.00	7.10	5.89	4.16	3.72	2.01
	W	1206.00	712.90	588.40	432.00	232.70	139.10	103.50	82.30	68.68	48.90	43.98	23.71
10.80V	A	106.40	59.10	47.90	34.60	19.40	11.70	8.80	7.00	5.74	4.05	3.68	1.99
	W	1194.10	681.10	552.00	400.80	226.20	137.10	103.30	82.10	67.86	47.97	43.74	23.67
11.10V	A	102.90	55.30	44.20	30.90	18.80	11.40	8.50	6.80	5.59	3.94	3.50	1.88
	W	1166.40	640.90	514.90	361.70	220.70	134.80	100.60	80.60	66.75	47.16	42.20	22.75



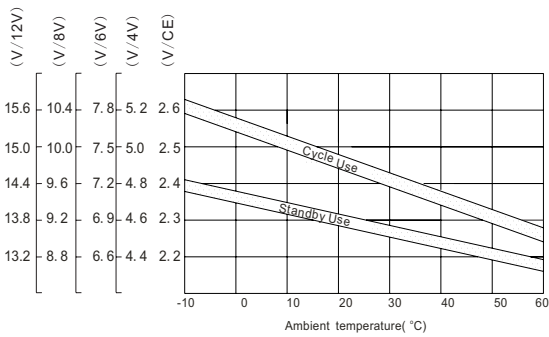
Discharge characteristic Curve



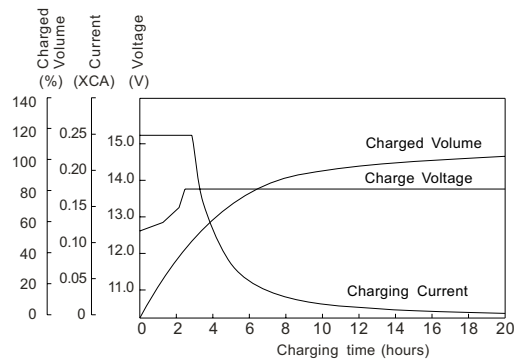
Cycle service life in relation to depth of discharge



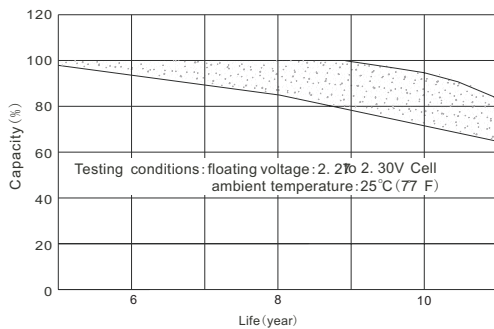
Relationship between charging voltage and temperature



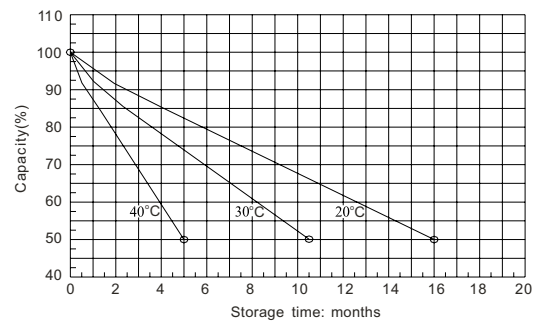
Constant voltage charging characteristic (0.25CA, at 25°C)



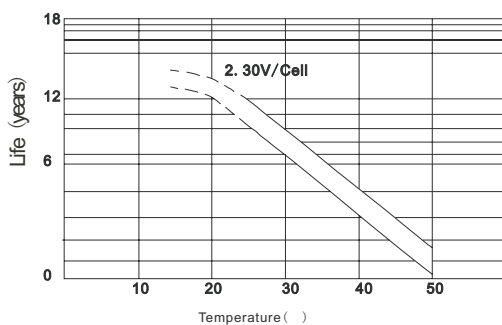
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

