



● 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
- *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

- *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

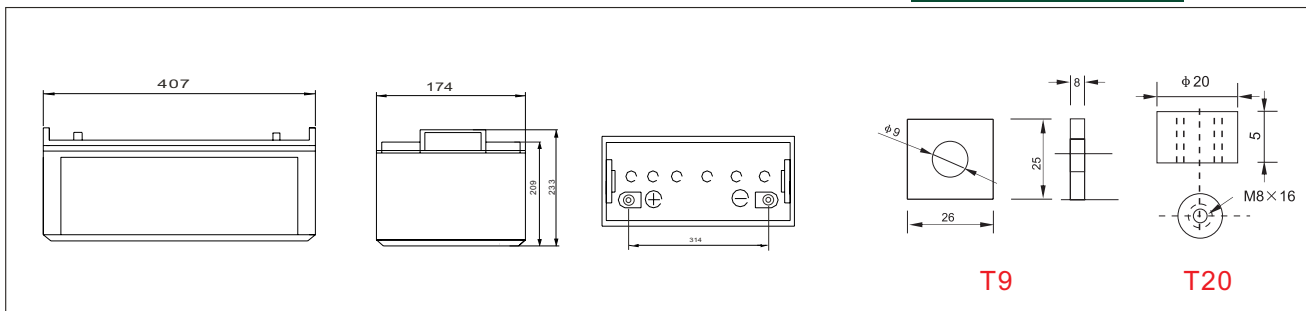


● Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (20 Hour rate)		120Ah	
Dimensions	Length	Width	Height	Total Height
	407mm (16.02 inches)	174mm(6.85inches)	209mm(8.23 inches)	233mm(9.17 inches)
Approx Weight	37.0kg(81.57lbs)±3%			
Capacity 25°C (77°F)	20 hour (6A,10.8V)	10 hour (11A,10.5V)	5 Hour (20.4A,10.2V)	1 Hour (72A,9.6V)
	120Ah	110 Ah	102Ah	72Ah
Max.discharge current	1200A(5 Sec.)			
Internal Resistance	Full charged at 25 °C: Approx 8.0 mΩ			
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 than 44A)		13.50-13.80V	

● Outer dimensions (mm)

● Terminal Type (mm)

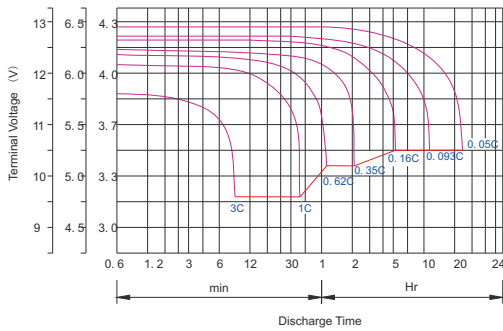


Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

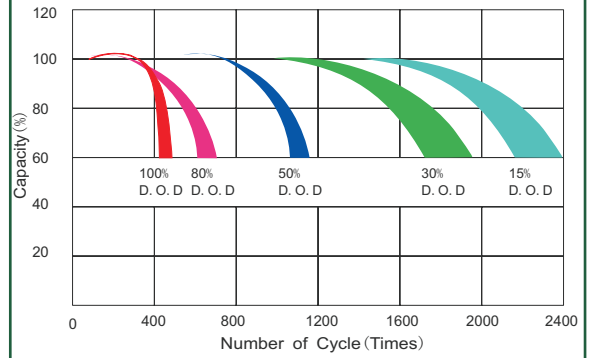
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	352.0	232.0	187.0	125.0	66.0	39.0	28.3	22.0	18.2	12.9	11.6	6.2
	W	3636.0	2479.0	2006.0	1348.0	713.0	423.0	314.6	247.5	206.4	147.5	133.4	72.5
10.20V	A	341.0	209.0	176.0	120.0	62.0	37.0	27.5	21.5	17.8	12.5	11.3	6.1
	W	3644.0	2339.0	1972.0	1346.0	702.0	423.0	318.5	249.4	207.4	146.7	133.1	71.0
10.50V	A	330.0	187.0	154.0	112.0	60.0	36.0	26.8	21.1	17.6	12.4	11.1	6.1
	W	3605.0	2131.0	1759.0	1291.0	695.0	416.0	312.7	247.1	206.3	146.2	131.5	71.5
10.80V	A	318.0	177.0	143.0	103.0	58.0	35.0	26.2	20.8	17.2	12.1	11.0	5.9
	W	3569.0	2036.0	1650.0	1198.0	676.0	410.0	308.7	245.5	202.8	143.4	130.7	70.7
11.10V	A	307.0	165.0	132.0	92.0	56.0	34.0	25.3	20.2	16.7	11.8	10.5	5.6
	W	3486.0	1916.0	1539.0	1081.0	660.0	403.0	300.6	241.1	199.5	141.0	126.2	68.0



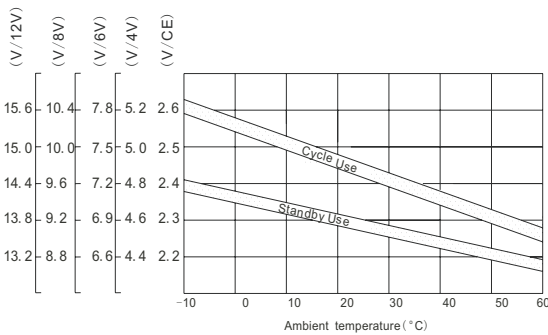
Discharge characteristic Curve



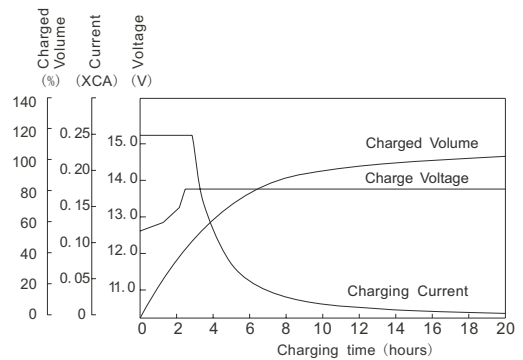
Cycle service life in relation to depth of discharge



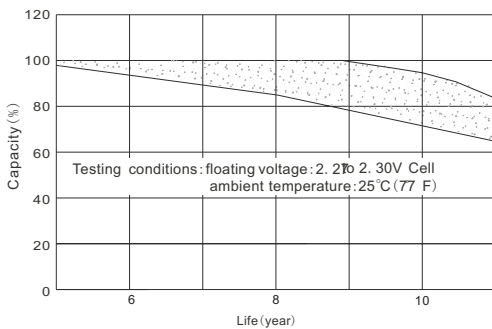
Relationship between charging voltage and temperature



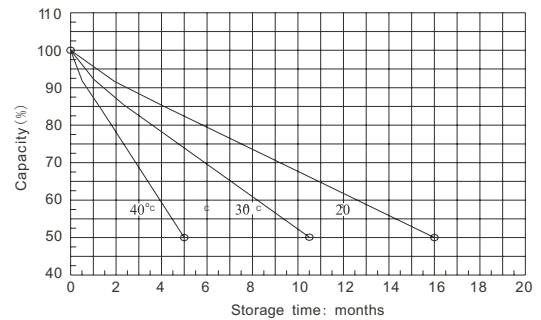
Constant voltage charging characteristic (0.25CA, at 25°C)



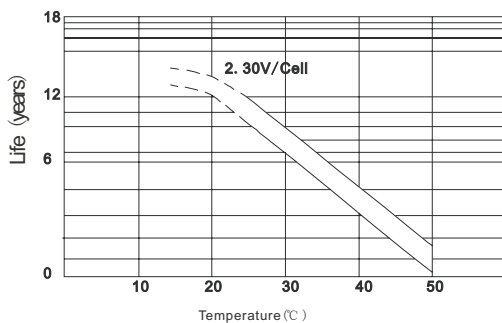
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

