



**● 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**

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

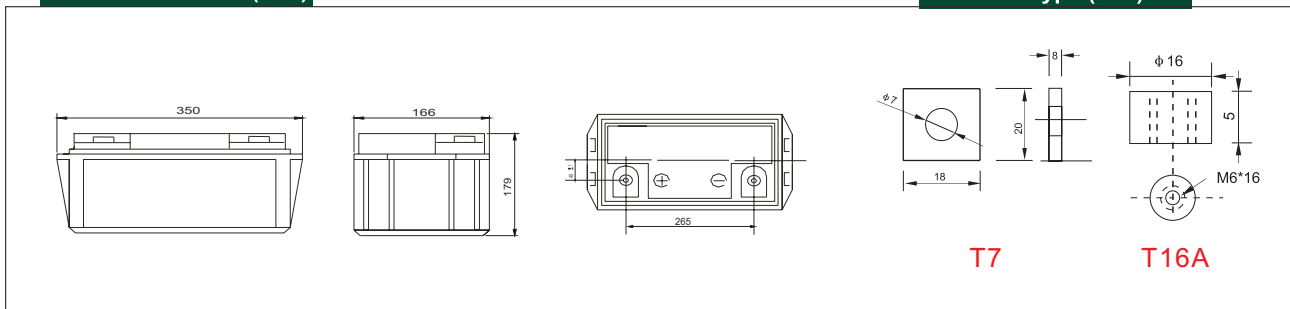


**● Specification**

Battery Model	Nominal Voltage		12V	
	Rated capacity(20 Hour rate)		65Ah	
Dimensions	Length	Width	Height	Total Height
	350mm (13.78 inches)	166mm(6.54 inches)	179mm(7.05 inches)	179mm(7.05 inches)
Approx Weight	23.0kg(50.72lbs) ±3%			
Capacity 25°C (77°F)	20 hour rate (3.25A,10.8V)	10 hour (6A,10.5V)	5 Hour (10.4A,10.2V)	1 Hour (39A,9.6V)
	65Ah	60Ah	52Ah	39Ah
Max. discharge current	650A(5 Sec.)			
Internal Resistance	Full charged at 25 °C: Approx 11.0mΩ			
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 than 24A)		13.50-13.80V	

**● Outer dimensions (mm)**

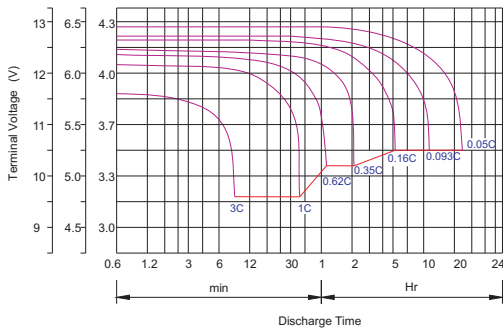
**● Terminal Type (mm)**



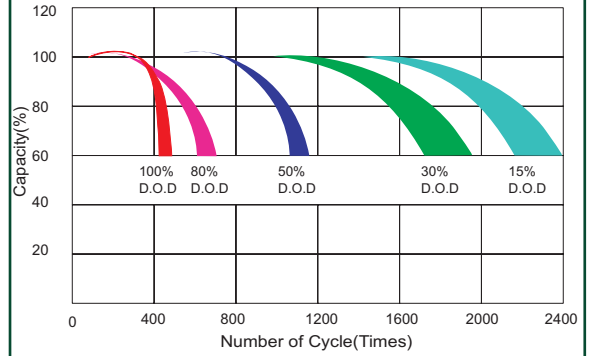
Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	192.00	127.00	102.00	68.00	36.00	21.00	15.40	12.00	9.90	7.00	6.30	3.40
	W	1983.00	1352.00	1094.00	735.00	389.00	231.00	171.60	135.00	112.60	80.40	72.80	39.60
10.20V	A	186.00	114.00	96.00	65.00	34.00	20.00	15.00	11.70	9.70	6.80	6.20	3.30
	W	1988.00	1276.00	1076.00	734.00	383.00	231.00	173.70	136.00	113.30	80.00	72.60	38.70
10.50V	A	180.00	102.00	84.00	61.00	33.00	20.00	14.60	11.50	9.60	6.80	6.10	3.30
	W	1966.00	1162.00	959.00	704.00	379.00	227.00	170.60	134.80	112.60	79.70	71.70	39.00
10.80V	A	174.00	96.00	78.00	56.00	32.00	19.00	14.30	11.30	9.40	6.60	6.00	3.20
	W	1947.00	1111.00	900.00	653.00	369.00	223.00	168.40	133.90	110.60	78.20	71.30	38.60
11.10V	A	168.00	90.00	72.00	50.00	31.00	19.00	13.80	11.00	9.10	6.40	5.70	3.10
	W	1902.00	1045.00	839.00	590.00	360.00	220.00	163.90	131.50	108.80	76.90	68.80	37.10



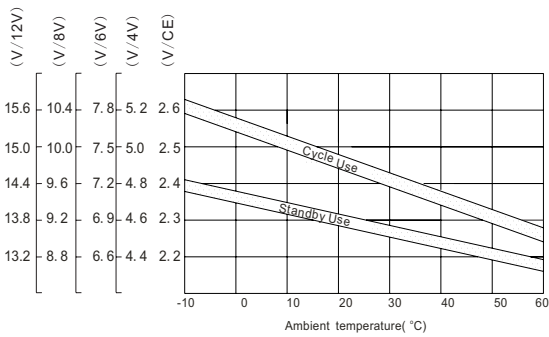
Discharge characteristic Curve



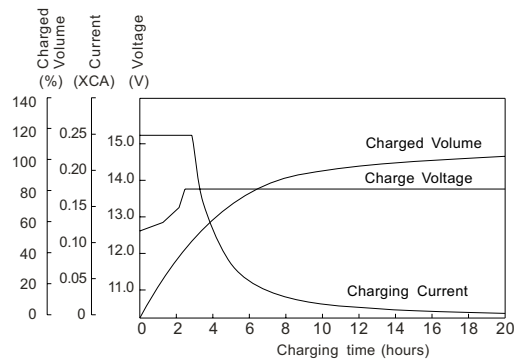
Cycle service life in relation to depth of discharge



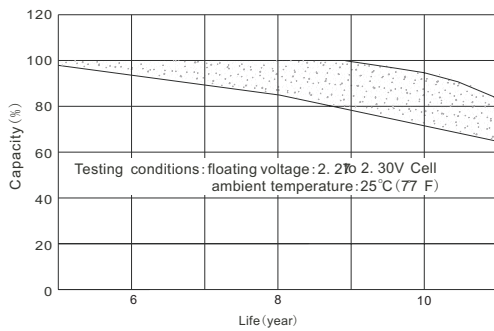
Relationship between charging voltage and temperature



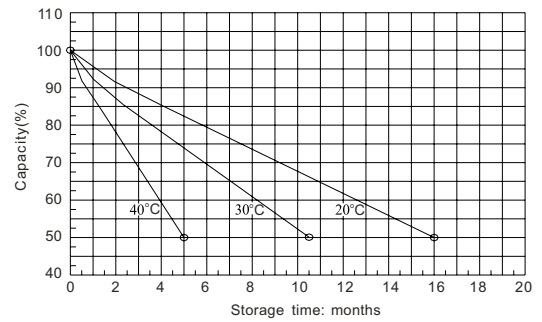
Constant voltage charging characteristic (0.25CA, at 25°C)



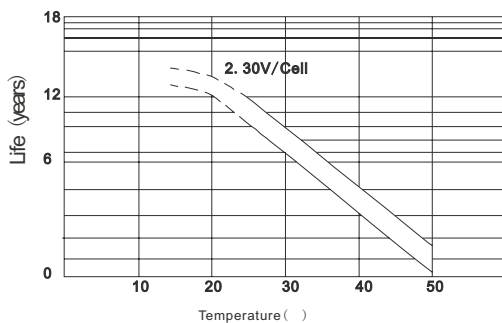
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

