NAPEL POWER — NP12500G (12V50Ah)

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℃.
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

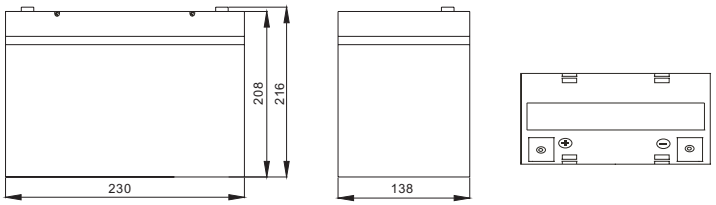
Construction

*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

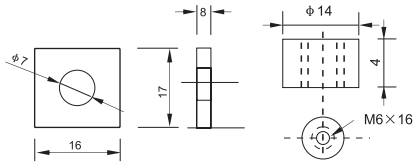
Specification

Battery Model	Nominal Voltage	12V		
	Rated capacity(20 Hour rate)	50Ah		
Dimensions	Length	Width	Height	Total Height
	230mm (9.06 inches)	138mm(5.43 inches)	208mm(8.19 inches)	216mm(8.50 inches)
Approx Weight	16.50kg(36.38lbs) ±3%			
Capacity 25℃ (77℉)	20 hour rate (2.5A,10.8V)	10 hour (4.6A,10.5V)	5 Hour (8.5A,10.2V)	1 Hour (30.0A,9.6V)
	50.0Ah	46.0Ah	42.5Ah	30Ah
Max.discharge current	500A(5 Sec.)			
Internal Resistance	Full charged at 25 ℃: Approx 12.0mΩ			
Capacity affected by Temp. (20 HR)	40℃ (104 ℉)	25℃ (77℉)	0℃ (32℉)	-15℃ (5℉)
	102%	100%	85%	65%
Self Discharge at 25℃ (77℉)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method 25℃ (77℉)	Cycle Use		Float Use	
	14.10-14.40V(Initial charging currentless than18.4A)		13.50-13.80V	

Outer dimensions (mm)



Terminal Type (mm)

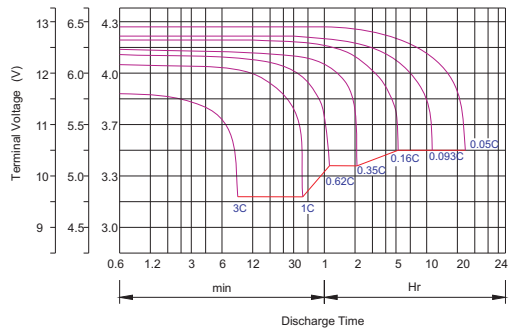


T5 T14

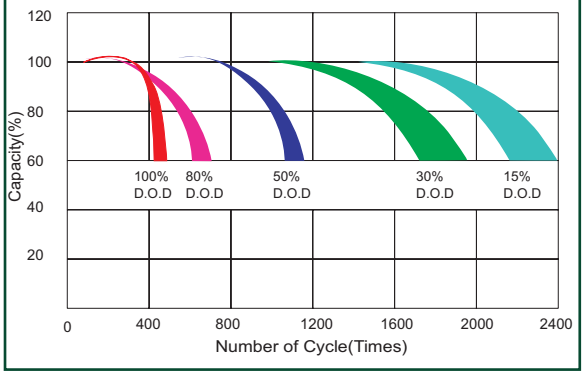
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃ (77℉)

Time		5min	10min	15min	30min	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	A	147.30	97.10	78.20	52.40	27.60	16.10	11.80	9.20	7.59	5.38	4.83	2.61
	W	1520.50	1036.60	839.00	563.80	298.10	176.80	132.30	103.50	86.30	61.68	55.79	30.33
10.20V	A	142.70	87.60	73.70	50.10	25.90	15.40	11.50	9.00	7.45	5.24	4.74	2.53
	W	1524.00	978.00	824.60	562.90	293.40	176.00	131.80	103.20	85.98	61.35	55.66	29.72
10.50V	A	138.00	78.30	64.40	46.90	25.10	15.00	11.20	8.80	7.36	5.20	4.65	2.51
	W	1507.50	891.20	735.50	540.00	290.80	173.90	129.40	102.90	85.85	61.13	54.97	29.64
10.80V	A	133.00	73.80	59.90	43.20	24.30	14.60	10.90	8.70	7.18	5.06	4.60	2.48
	W	1492.60	851.40	690.00	501.00	282.70	171.30	129.10	102.70	84.82	59.96	54.68	29.58
11.10V	A	128.60	69.20	55.30	38.60	23.50	14.30	10.60	8.50	6.99	4.92	4.37	2.35
	W	1458.00	801.20	643.60	452.10	275.90	168.60	125.70	100.80	83.44	58.95	52.75	28.43

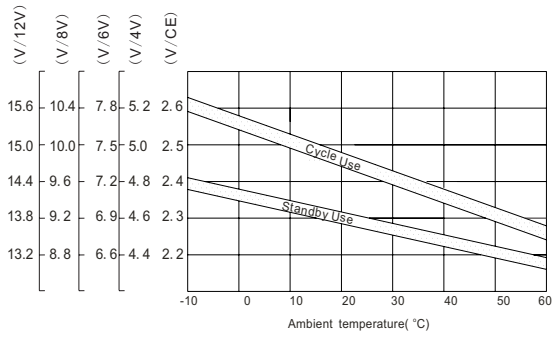
Discharge characteristic Curve



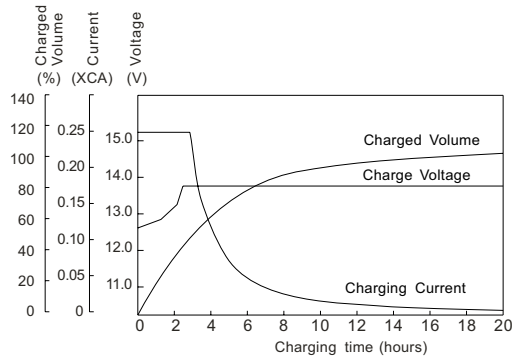
Cycle service life in relation to depth of discharge



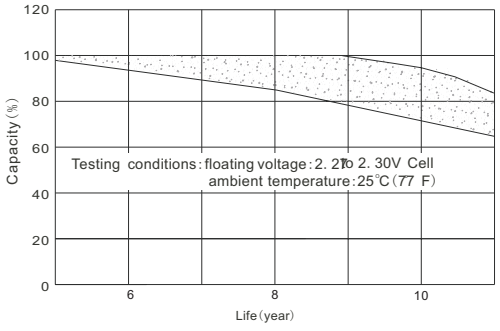
Relationship between charging voltage and temperature



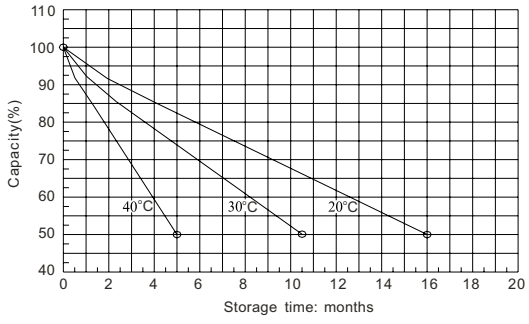
Constant voltage charging characteristic (0.25CA, at 25℃)



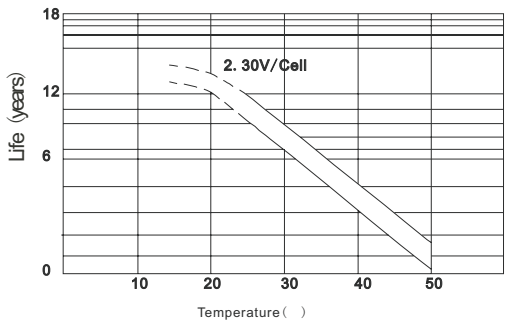
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use