



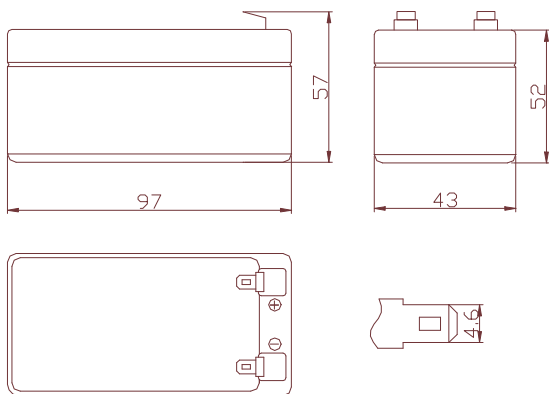
# NP1213 12V1.3Ah



The battery is constructed by plates, separators, safety valves and container.

Since the electrolyte is held by a glassmat separator and plates, the battery can use in any direction and position without leakage.

## Outer Dimensions



## Dimensions and Weight

Length ( mm / inch )	97 / 3.82
Width ( mm / inch )	43 / 1.69
Height ( mm / inch )	52 / 2.05
Total Height ( mm / inch )	57 / 2.24
Approx.Weight( Kg / lbs )	0.61 / 1.34

## Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	5 years
Nominal Capacity 77°F(25°C)	
20 hour rate(0.065A,10.5V)	1.3Ah
10 hour rate(0.11A,10.5V)	1.1Ah
5 hour rate (0.20 A,10.5V)	1.0Ah
1 hour rate(0.73A,9.6V)	0.73Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	90 mΩ
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operation Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max.Discharge Current 77°F(25°C)	14.4A(5s)
Short Circuit Current	18A

## Battery Construction

COMPONENT	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
RAW MATERIAL	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

## Charging Methods

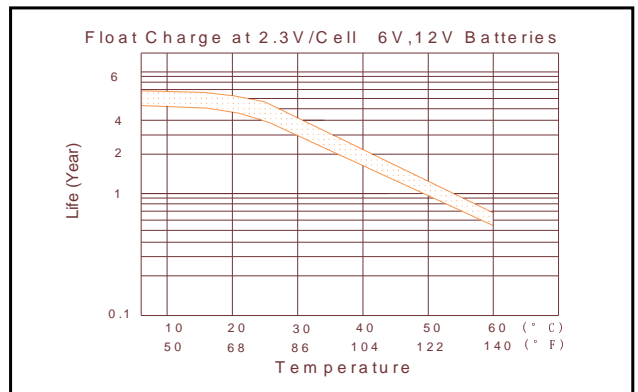
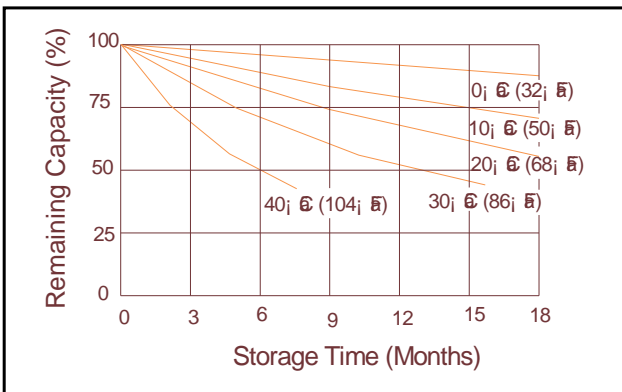
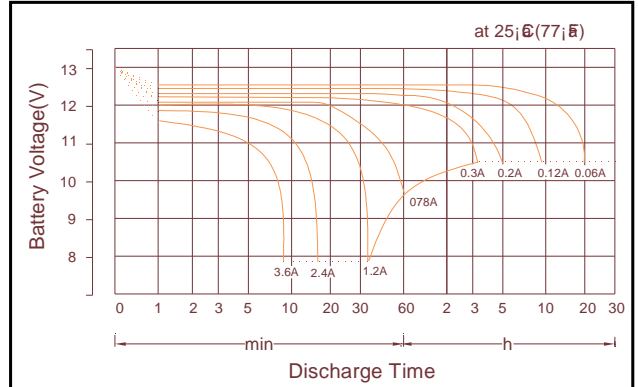
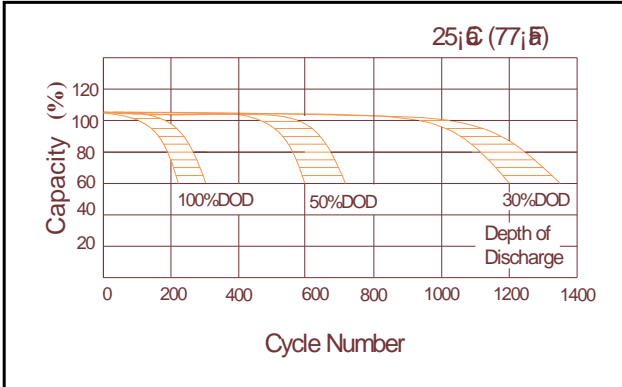
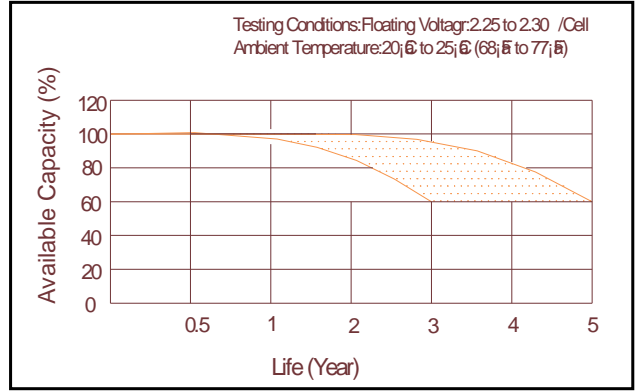
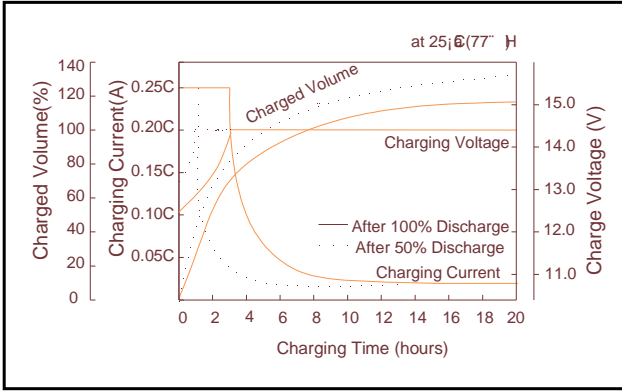
Application	Charging method	Charging Voltage at 25°C	Temperature compensation coefficient of charging voltage	Max.charging current	Charging time 25°C(h)		Temp (°C)
					100% discharge	50% discharge	
For standby power source	Constant voltage & Constant Current Charging (with current restriction)	13.4-13.8V	-18 mV/°C	0.36A	24	20	0~40 (32~104°F)
For cycle service		14.5-15.0V	-30 mV/°C	0.36A	16	10	

\*Temperature compensation of charging voltage is not needed when using the batteries within 15°C to 35°C range.



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**Discharge Constant Current (Amperes at 77°F/25°C)**

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	4.20	3.36	2.40	1.38	0.98	0.78	0.42	0.30	0.21	0.14	0.11	0.065
1.65V	4.08	3.24	2.28	1.36	0.97	0.77	0.42	0.30	0.21	0.14	0.11	0.065
1.70V	3.84	3.00	2.16	1.32	0.96	0.77	0.41	0.30	0.20	0.13	0.11	0.065
1.75V	3.36	2.52	2.04	1.25	0.95	0.76	0.41	0.30	0.20	0.13	0.11	0.065
1.80V	3.00	2.16	1.92	1.08	0.94	0.74	0.40	0.29	0.20	0.13	0.11	0.065

**Discharge Constant Power (Watts/cell at 77°F/25°C)**

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	7.64	6.13	4.42	2.68	1.87	1.50	0.81	0.59	0.40	0.26	0.22	0.12
1.65V	7.33	5.88	4.18	2.58	1.85	1.48	0.80	0.58	0.40	0.26	0.22	0.12
1.70V	6.98	5.53	3.98	2.46	1.82	1.48	0.79	0.58	0.39	0.26	0.22	0.12
1.75V	6.12	4.67	3.76	2.32	1.80	1.45	0.78	0.57	0.39	0.26	0.22	0.12
1.80V	5.46	4.20	3.54	2.00	1.78	1.43	0.76	0.56	0.39	0.26	0.21	0.11

