



### Applications

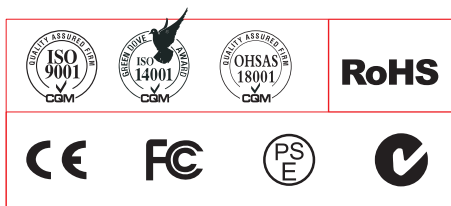
- > EPS/Power systems
- > Power tools
- > Security system/Fire alarm
- > Factory automation equipment
- > Emergency lighting/Auto control system
- > Portable electric device
- > Other general purpose

### Specification

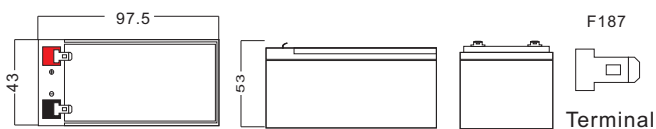
Nominal Voltage	12V
Nominal Capacity	1.3Ah
Design life	5 years
Terminal	F1
Approx. Weight	Approx 0.57kg (1.26lbs)
Container Material	ABS
Rated Capacity	<b>1.300Ah</b> 20Hour Rate (0.065A to 10.5V)
	<b>1.011Ah</b> 3Hour Rate (0.337A to 10.5V)
	<b>0.858Ah</b> 1Hour Rate (0.858A to 9.60V)
Internal resistance	Full charged at 25°C: 95.0 mΩ
Max. Discharge Current	19.5A(5S)
Operating Temperature	Discharge: -40 ~60°C (-40~ 140°F)
	Charge: -20 ~50°C (-4~ 122°F)
	Storage: -20 ~50°C (-4~ 122°F)
Charge current:	Max. 0.33A ; Recom.0.13A
Charge Method (25 °C)	Float Charge:13.5-13.8V,recom.13.5V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.4V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

### General Features

- > High corrosion resistant performance: Pb-Ca multi-alloy grid
- > High energy density and power density
- > Optimized capability of instant high-current discharging
- > Excellent charge acceptance ability
- > Strong high and low temperature performance
- > Precision sealing technology



Dimension: 97.5(L)×43(W) ×53(H) ×58(TH) Unit: mm



### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

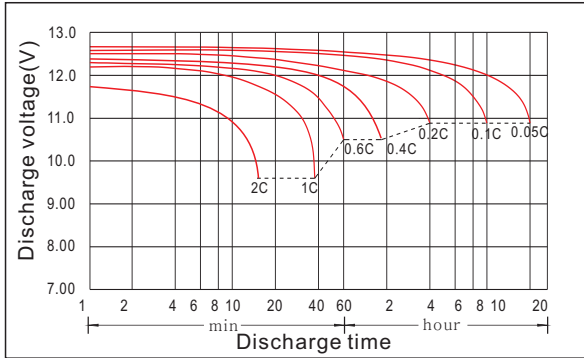
FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	5.15	3.37	2.51	1.64	0.858	0.491	0.359	0.287	0.244	0.161	0.129	0.069
1.65V	5.11	3.22	2.30	1.56	0.806	0.472	0.348	0.278	0.239	0.159	0.127	0.068
1.70V	4.19	3.03	2.15	1.51	0.780	0.463	0.342	0.264	0.237	0.156	0.125	0.066
1.75V	3.89	2.89	2.00	1.48	0.753	0.451	0.337	0.260	0.226	0.152	0.122	0.065
1.80V	3.58	2.72	1.86	1.43	0.727	0.439	0.319	0.255	0.217	0.148	0.120	0.062

### Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

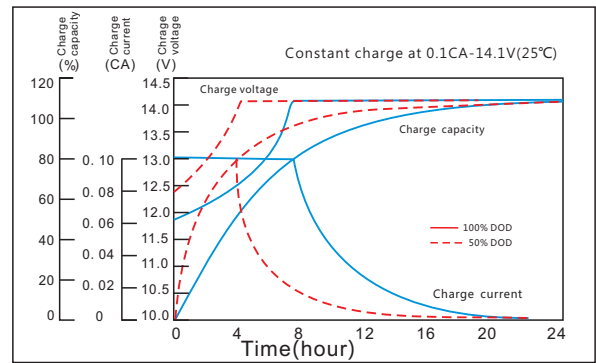
FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	9.66	6.07	4.59	2.78	1.57	0.921	0.678	0.544	0.462	0.304	0.249	0.137
1.65V	8.91	5.74	4.31	2.76	1.48	0.886	0.659	0.527	0.453	0.300	0.245	0.133
1.70V	8.15	5.57	4.12	2.75	1.43	0.869	0.648	0.501	0.440	0.297	0.243	0.132
1.75V	7.39	5.40	3.97	2.72	1.39	0.849	0.639	0.494	0.431	0.284	0.237	0.129
1.80V	6.63	5.22	3.79	2.70	1.37	0.843	0.622	0.490	0.420	0.275	0.232	0.128

# NP1213

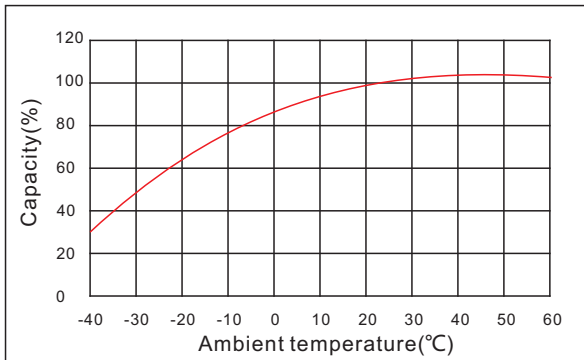
**Discharge characteristic**



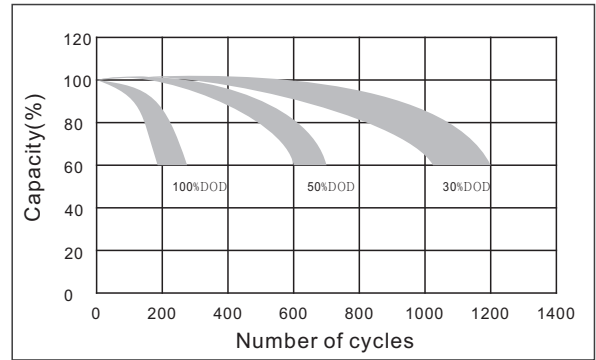
**Charging characteristic**



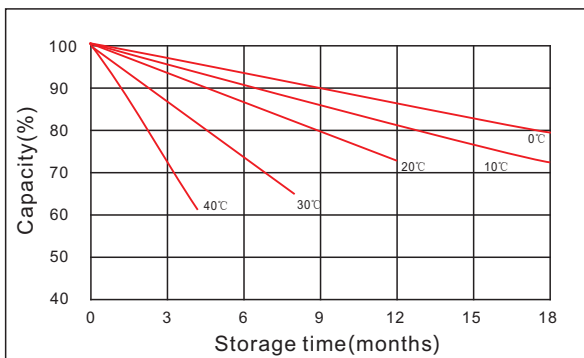
**The effect of temperature on capacity**



**The effect of discharge depth on cycle life**



**Curves of self-discharge**



**Curves of open circuit voltage vs. capacity**

