

## NPG12-250Ah

Valve-regulated lead-acid battery



## DEEP CYCLE GEL SERIES

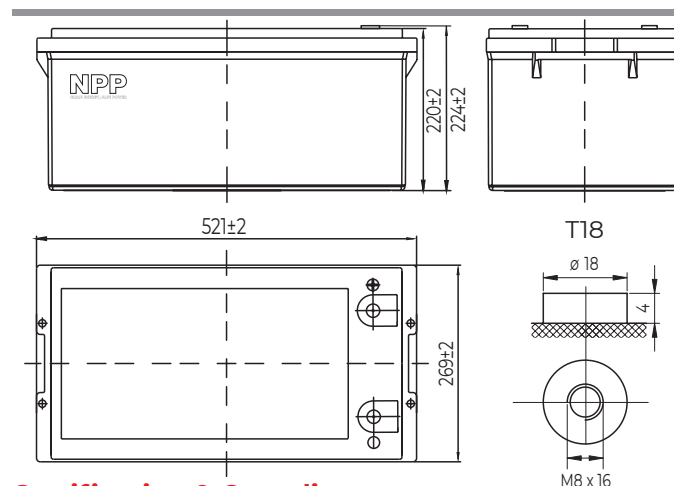
### Characteristics

Nominal voltage	12V (6 cell per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	250Ah	
Capacity (25°C)	20 Hours rate/10.8V	266Ah
	5 Hours rate/10.8V	206Ah
Terminal type	T16	
Torque	12.3±2.5N.m	
Approx. internal resistance (25°C)	2.8 mΩ	
Dimensions	Length	521±2mm (20.51inch)
	Width	269±2mm (10.59inch)
	Height	220±2mm (8.66inch)
	Total height	224±2mm (8.82inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	75.50kg (166.45lbs)±3%	
Nominal operating temperature	25°C±3 (77±5°F)	
Operating temperature range	Discharge	-15°C~50°C (5°F~122°F)
	Charge	-10°C~50°C (14°F~122°F)
	Storage	-20°C~50°C (-4°F~122°F)
Float charging voltage at 25°C	13.5V~13.8V	
Cyclic charging voltage at 25°C	14.5V~14.7V	
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)	50A	
Max. discharge current for 5 seconds	1500A	
Self discharge rate (25°C)	≤3%/month	
Battery container ABS UL94-HB	V-0 optional	

### Overview

NPP Power AGM GEL Series are manufactured following the highest demands in the deep cycle and renewable energy applications. The batteries use colloidal or foamed silica gel to immobilize the electrolyte, which further enhances the cycling stability. Available in top and front terminal types.

### Dimensions & Terminal Type (mm)



### Certification & Compliances



Compliant to: EUROBAT, RoHS, WEEE's and Reach.  
Manufactured according to IEC 60896-21 / 22

### Construction

Component	Positive Plate	Negative plate	Container	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS (V-0 opt.)	AGM	Sulfuric Acid Gel	Rubber	Copper

### Constant current discharge characteristics at 25°C

(Ampere/battery)

F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	400	243	150	91.4	65.0	51.0	43.4	38.3	30.6	25.5	13.5
9.90V	390	238	148	90.8	64.6	50.7	43.1	38.0	30.4	25.4	13.5
10.2V	376	230	144	90.0	64.2	50.4	42.8	37.8	30.2	25.3	13.4
10.5V	363	225	140	88.7	63.8	50.0	42.5	37.5	30.0	25.2	13.3
1.80V/cell	23.4	14.8	11.9	6.94	4.36	2.47	1.72	1.42	1.21	0.67	0.36

### Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	4392	2721	1710	1058	765	600	512	452	364	304	162
9.90V	4287	2666	1684	1052	760	596	509	449	361	303	162
10.2V	4128	2585	1642	1042	755	592	506	446	359	302	161
10.5V	3988	2522	1590	1027	750	588	502	443	356	301	160
10.8V	3777	2430	1539	1001	735	570	487	430	346	299	159

The above characteristics represent average values and can be obtained within three charge and discharge cycles. The batteries must be fully charged before testing. The data in this document is subject to change without notice and become contractual only after written confirmation. Please contact NPP Power for the latest available version.

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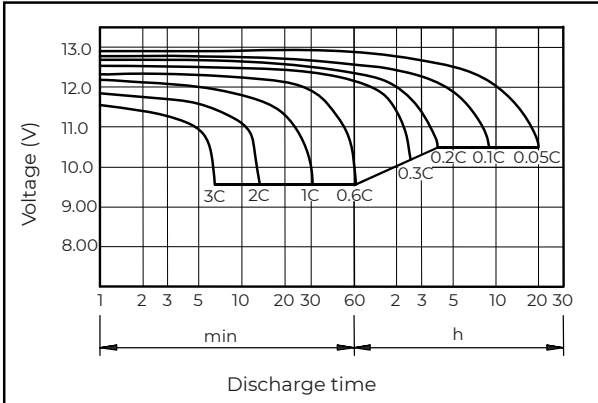
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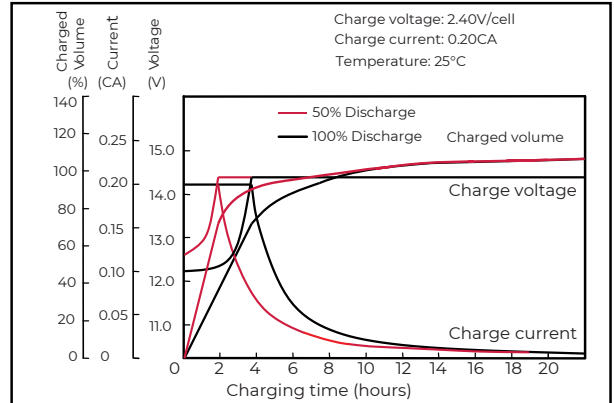
# DEEP CYCLE GEL

## SERIES

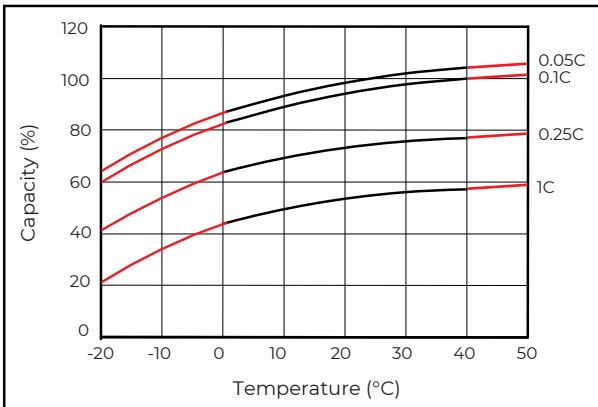
### Discharge characteristics (25°C)



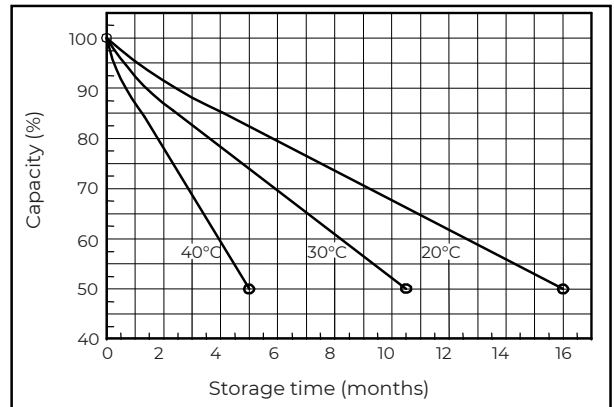
### Charging characteristics (25°C)



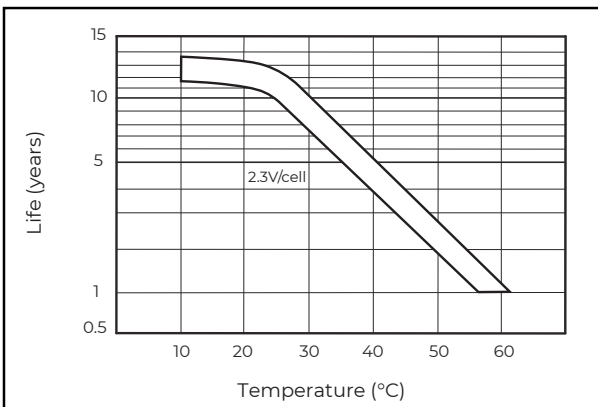
### Temperature effects on capacity



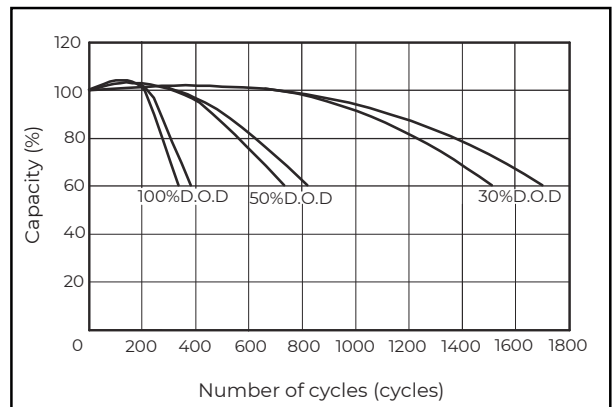
### Self-discharge characteristics



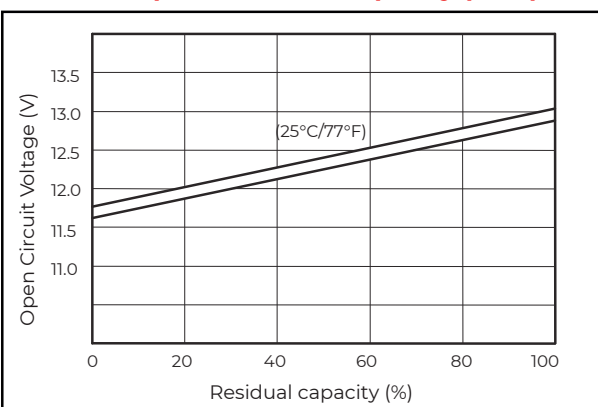
### Floating life on temperature



### Cycle life on D.O.D (25°C)



### Relationship for OCV and capacity (25°C)



### Charging voltage VS temperature

