

## NPG12-120Ah

Valve-regulated lead-acid battery



## DEEP CYCLE GEL SERIES

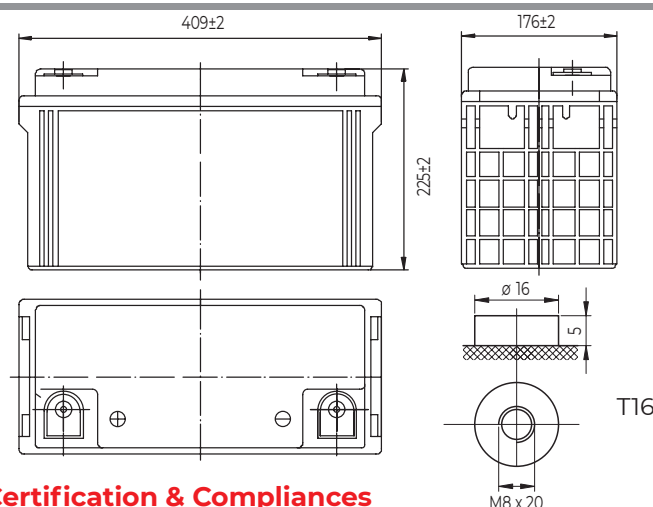
### Characteristics

Nominal voltage	12V (6 cell per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	120Ah	
Capacity (25°C)	20 Hours rate/10.8V	127.2Ah
	5 Hours rate/10.8V	19.8Ah
Terminal type	T16	
Torque	12.3±2.5N.m	
Approx. internal resistance (25°C)	4.5 mΩ	
Dimensions	Length	409±2mm (16.10inch)
	Width	176±2mm (6.93inch)
	Height	225±2mm (8.86inch)
	Total height	225±2mm (8.86inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	36.00kg (79.40lbs)±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)	24A	
Max. discharge current for 5 seconds	950A	
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	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	234	192	116	72.0	43.8	31.2	24.5	20.8	14.7	12.2	6.47
9.90V	227	187	114	70.9	43.6	31.0	24.3	20.7	14.6	12.2	6.46
10.2V	218	180	111	69.1	43.2	30.8	24.2	20.5	14.5	12.2	6.44
10.5V	208	174	108	67.0	42.6	30.6	24.0	20.4	14.4	12.1	6.40
10.8V	197	165	104	64.8	41.5	30.0	23.3	19.8	14.0	12.0	6.36

### Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2527	2108	1306	821	508	367	288	246	174	146	77.7
9.90V	2451	2058	1280	808	505	365	286	245	173	146	77.5
10.2V	2350	1982	1241	788	500	362	284	243	172	145	77.3
10.5V	2249	1914	1211	763	493	360	282	241	171	144	76.9
10.8V	2123	1813	1166	739	480	353	274	234	166	143	76.3

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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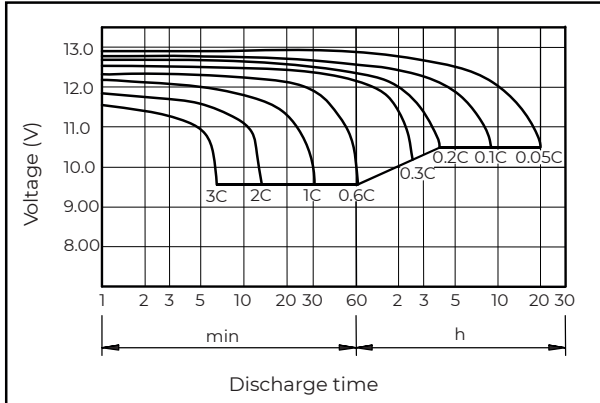
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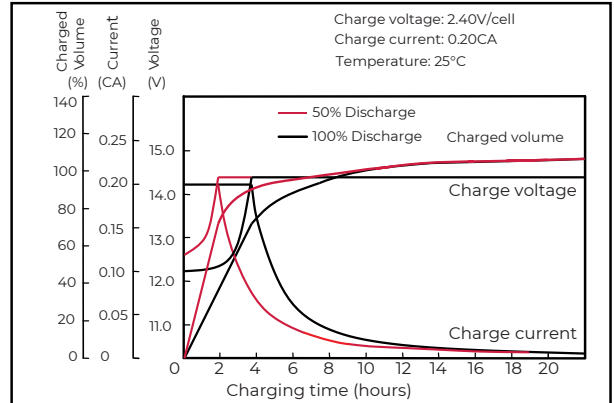
# DEEP CYCLE GEL

SERIES

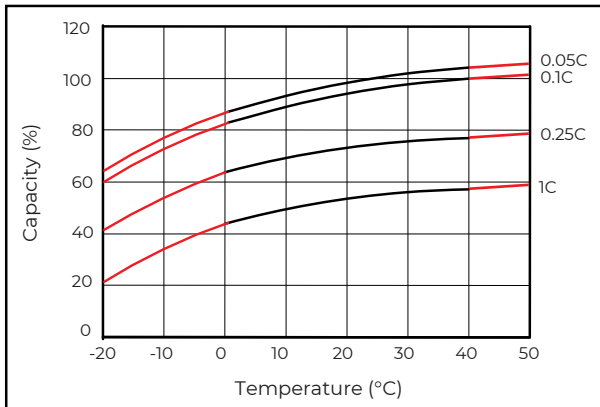
## Discharge characteristics (25°C)



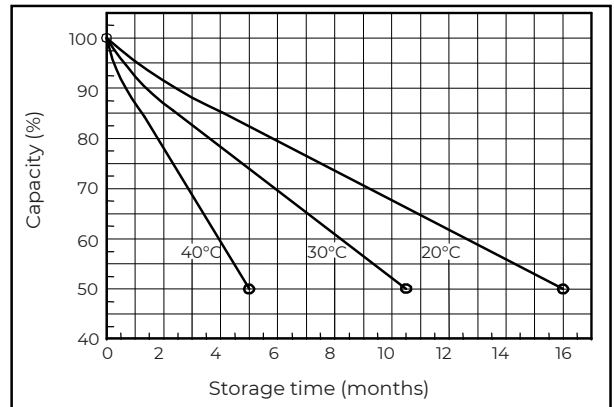
## Charging characteristics (25°C)



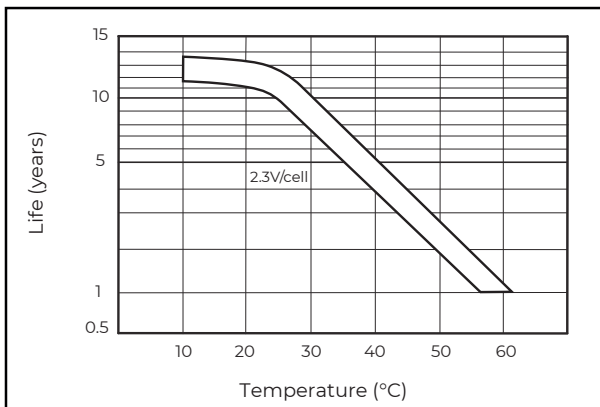
## Temperature effects on capacity



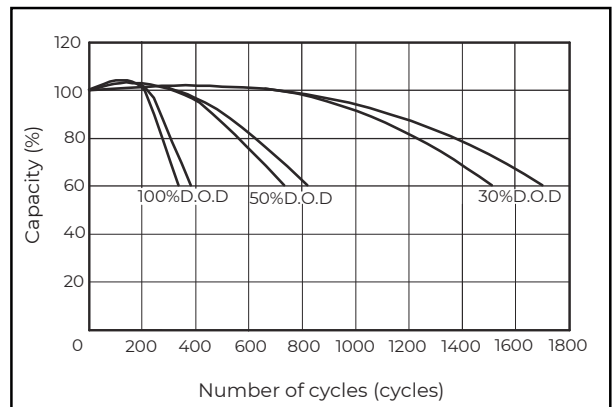
## Self-discharge characteristics



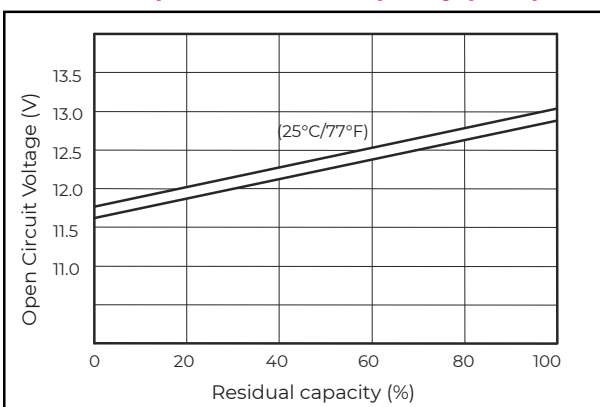
## Floating life on temperature



## Cycle life on D.O.D (25°C)



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



## Charging voltage VS temperature

