

NP12-90Ah

Valve-regulated lead-acid battery



GENERAL PURPOSE SERIES

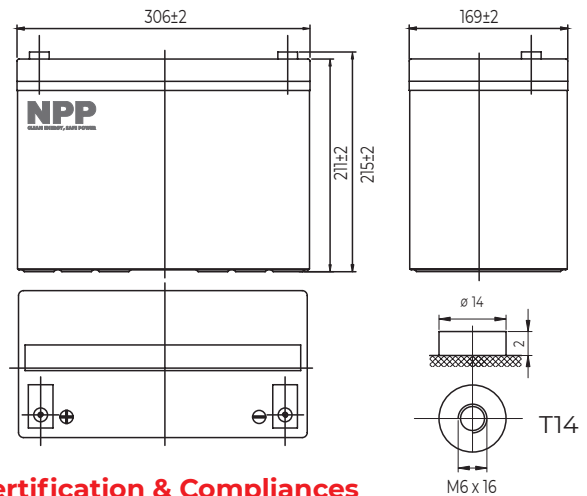
Characteristics

Nominal voltage	12V (6 cells per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	90Ah	
Capacity (25°C)	3 Hours rate/10.8V	67.5Ah
	1 Hour rate/10.5V	50Ah
Terminal type	T14	
Torque	5.1±0.6N.m	
Approx. internal resistance (25°C)	5.0mΩ	
Dimensions	Length	306±2mm (12.05inch)
	Width	169±2mm (6.65inch)
	Height	211±2mm (8.31inch)
	Total height (T14)	215±2mm (8.46inch)
Design Life (stand-by)	JIS at 25°C	10 years
	Eurobat at 20°C	10/12 years
Weight	27.00kg (59.50lbs)±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~15.0V	
Temperature compensation	Float charge	-18 mV/°C/Block
	Cycle charge	-30 mV/°C/Block
Max. charging current (A)	27A	
Max. discharge current for 5 seconds	800A	
Self discharge rate (25°C)	≤3%/month	
Battery container ABS UL94-HB	V-0 optional	

Overview

NPP Power General Purpose series batteries are designed with state-of-the-art AGM (absorbent glass mat) technology, high-performance plates and electrolyte. With excellent value and characteristics, this range is suitable for all general purpose applications.

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	AGM	Sulfuric Acid	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	196	151	90.5	55.6	32.9	23.7	18.9	16.2	11.1	9.16	4.86
9.90V	190	148	88.6	54.8	32.7	23.5	18.8	16.1	11.0	9.14	4.85
10.2V	182	142	85.9	53.4	32.4	23.4	18.7	16.0	11.0	9.12	4.83
10.5V	175	137	83.8	51.7	31.9	23.2	18.5	15.8	10.9	9.06	4.80
10.8V	165	130	80.8	50.1	31.1	22.5	18.0	15.4	10.6	9.00	4.77

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	2119	1660	1015	634	381	279	222	191	132	109	58.3
9.90V	2055	1620	995	625	379	277	221	190	131	109	58.2
10.2V	1971	1561	964	609	375	275	220	189	130	109	58.0
10.5V	1886	1507	941	590	370	273	218	187	129	108	57.6
10.8V	1780	1428	906	571	360	265	211	182	125	107	57.2

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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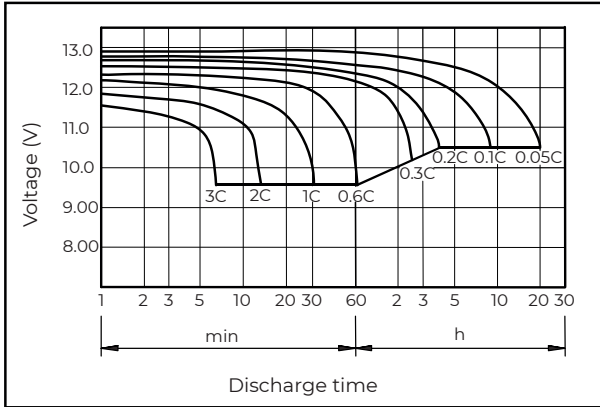
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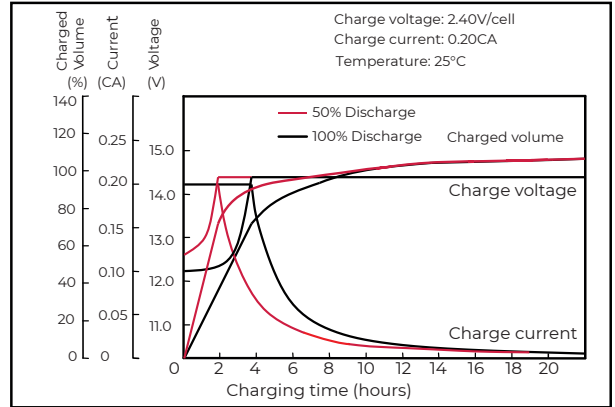
GENERAL PURPOSE

SERIES

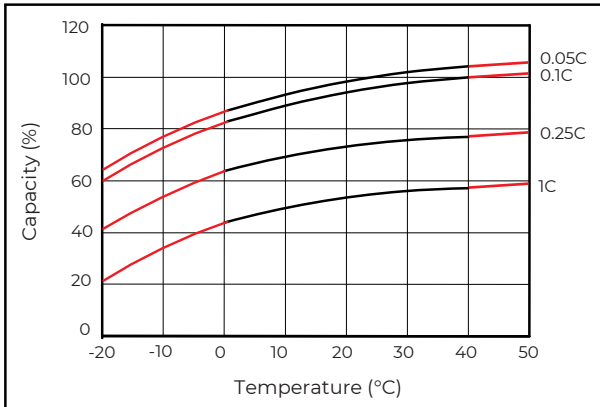
Discharge characteristics (25°C)



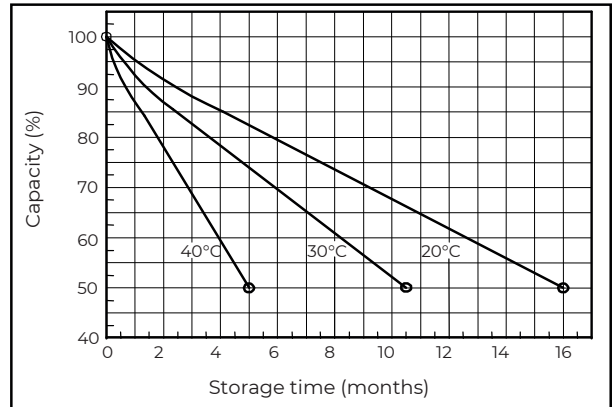
Charging characteristics (25°C)



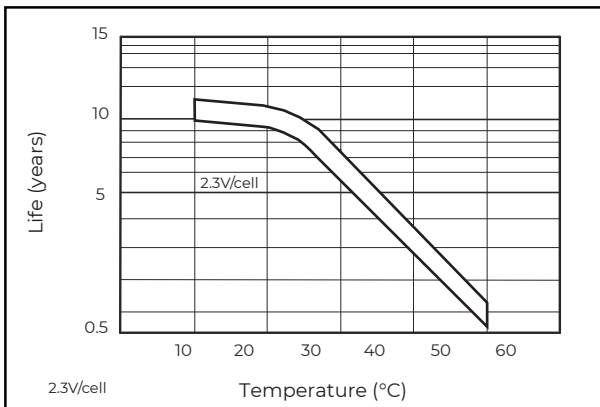
Temperature effects on capacity



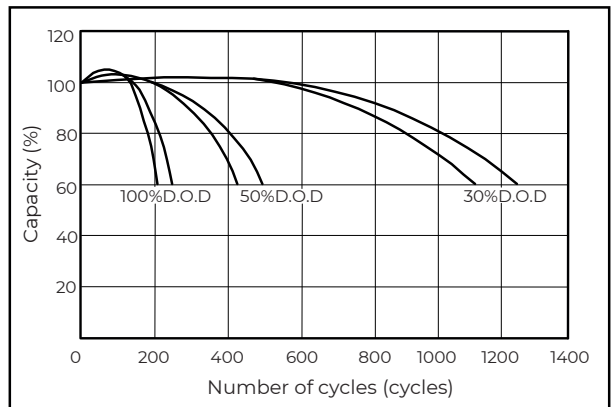
Self-discharge characteristics



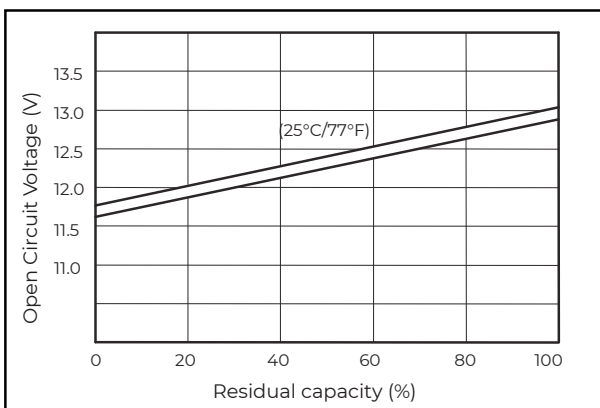
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

