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NPP
CLEAN ENERGY, SAFE POWER

Standard | AGM | UPS | Security | IT Equipment | Medical Equipment

NP12-2.3Ah

Valve-regulated lead-acid battery



GENERAL PURPOSE SERIES

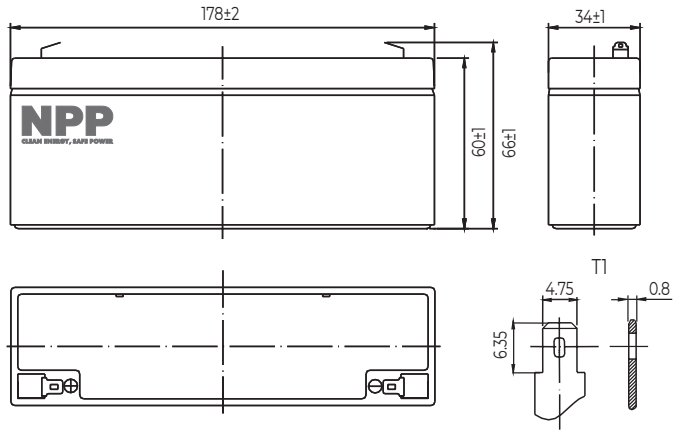
Characteristics

Nominal voltage		12V (6 cells per unit)
Nominal capacity at 20 hours rate/10.5V (25°C)		2.3Ah
Capacity (25°C)	10 Hours rate/10.5V	2.1Ah
	1 Hour rate/9.6V	1.4Ah
Terminal type		T1
Torque		N/A
Approx. internal resistance (25°C)		60.0 mΩ
Dimensions	Length	178±2mm (7.01inch)
	Width	34±1mm (1.69inch)
	Height	60±1mm (2.36inch)
	Total height	66±1mm (2.60inch)
Design Life (stand-by)	JIS at 25°C	5 years
	Eurobat at 20°C	3-5 years
Weight		0.88kg (1.94lbs)±5%
Nominal operating temperature		25±3°C (77°F±5)
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		13.6V~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)		0.69A
Max. discharge current for 5 seconds		34.5A
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	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9.60V	8.79	5.57	4.35	2.45	1.51	0.82	0.57	0.47	0.40	0.22	0.117
9.90V	8.52	5.40	4.24	2.40	1.48	0.82	0.57	0.47	0.40	0.22	0.116
10.2V	8.17	5.18	4.09	2.33	1.45	0.81	0.56	0.47	0.40	0.22	0.116
10.5V	7.82	4.95	3.95	2.27	1.42	0.80	0.56	0.46	0.39	0.21	0.115
10.8V	7.38	4.68	3.74	2.19	1.37	0.78	0.54	0.45	0.38	0.21	0.113

Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	5min	10min	15min	30min	60min	2hr	3hr	4hr	5hr	10hr	20hr
9.60V	98.1	62.8	49.6	28.1	17.4	9.64	6.77	5.62	4.79	2.61	1.40
9.90V	95.1	60.9	48.4	27.5	17.2	9.58	6.73	5.58	4.76	2.60	1.40
10.2V	91.2	58.4	46.6	26.7	16.7	9.50	6.69	5.54	4.73	2.59	1.39
10.5V	87.3	55.9	45.0	26.0	16.4	9.36	6.64	5.51	4.70	2.58	1.38
10.8V	82.4	52.7	42.6	25.1	15.9	9.12	6.44	5.34	4.56	2.52	1.35

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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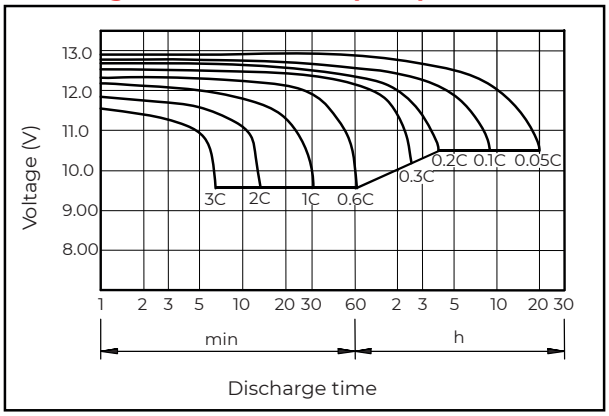
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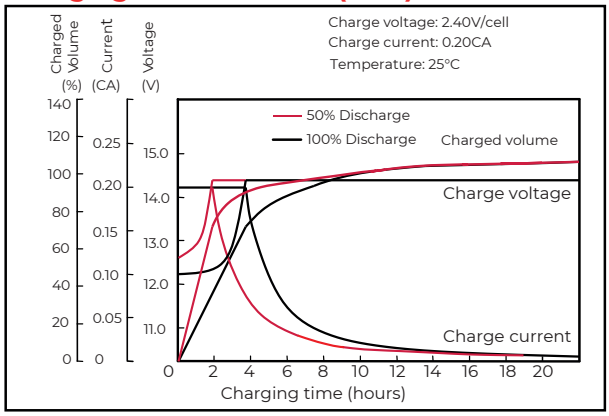
GENERAL PURPOSE

SERIES

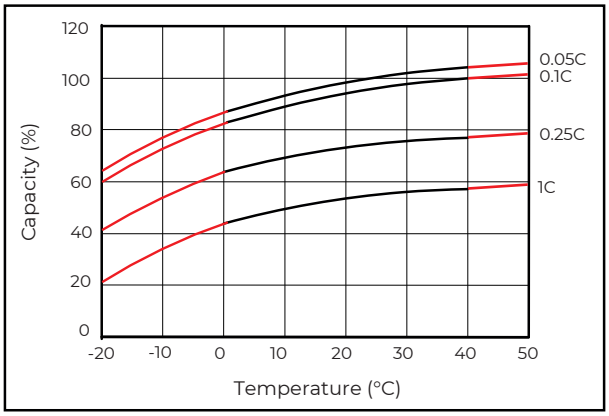
Discharge characteristics (25°C)



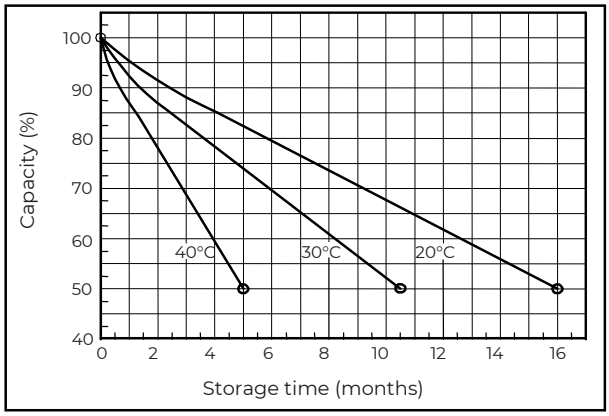
Charging characteristics (25°C)



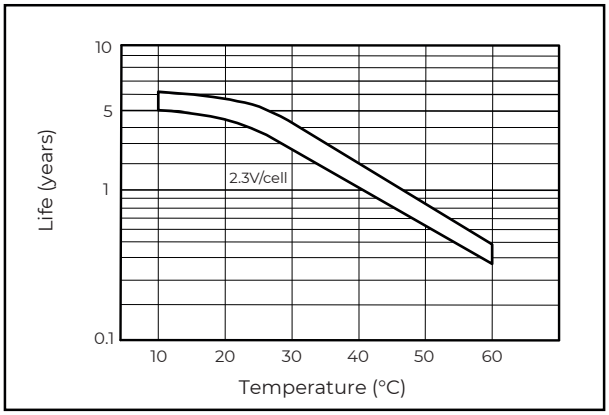
Temperature effects on capacity



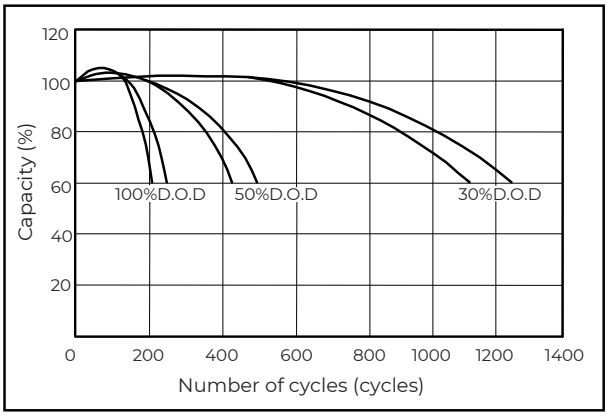
Self-discharge characteristics



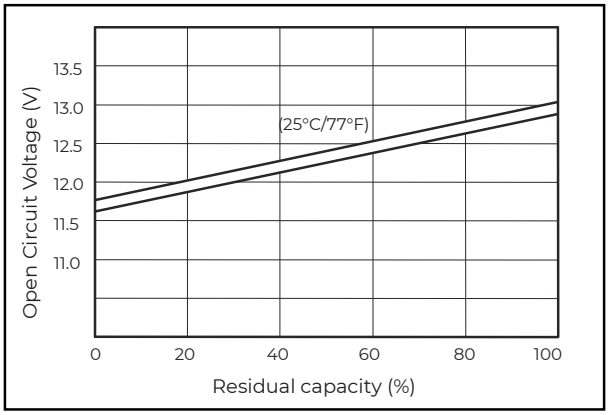
Floating life on temperature



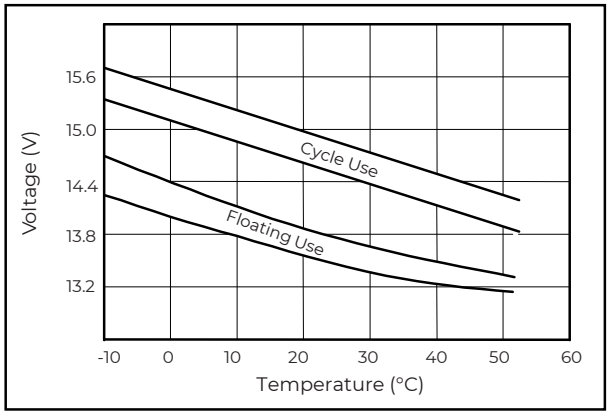
Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature



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