

NP4-4.5Ah

Valve-regulated lead-acid battery



GENERAL PURPOSE SERIES

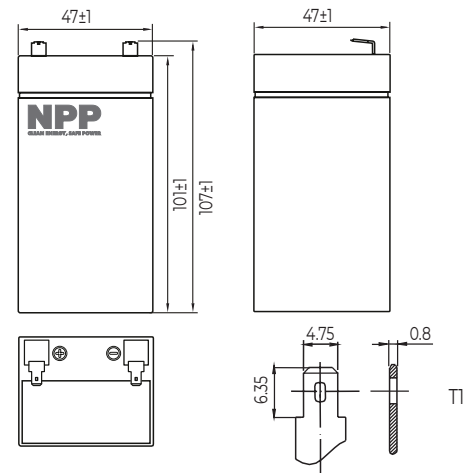
Characteristics

Nominal voltage	4V (2 cells per unit)	
Nominal capacity at 20 hours rate/3.5V (25°C)	4.5Ah	
Capacity (25°C)	10 Hours rate/3.5V	4.2Ah
	5 Hours rate/3.5V	3.85Ah
Terminal type	T1	
Torque	N/A	
Approx. internal resistance (25°C)	15.0mΩ	
Dimensions	Length	47±1mm (1.85inch)
	Width	47±1mm (1.85inch)
	Height	101±1mm (3.98inch)
	Total height	107±1mm (4.21inch)
Design Life (stand-by)	JIS at 25°C	5 years
	Eurobat at 20°C	3-5 years
Weight	0.52kg (1.15lbs)±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	4.53V~4.60V	
Cyclic charging voltage at 25°C	4.80V~5.00V	
Temperature compensation	Float charge	-6 mV/°C/Block
	Cycle charge	-10 mV/°C/Block
Max. charging current (A)	1.35A	
Max. discharge current for 5 seconds	68A	
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 (V-0 opt.)	AGM	Sulfuric Acid	Rubber	Copper

Constant current discharge characteristics at 25°C

(Ampere/battery)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
3.20V	17.2	10.9	8.51	4.79	2.95	1.61	1.12	0.92	0.78	0.43	0.23
3.30V	16.7	10.6	8.30	4.70	2.90	1.60	1.11	0.92	0.78	0.42	0.23
3.40V	16.0	10.1	7.99	4.55	2.83	1.59	1.10	0.91	0.77	0.42	0.23
3.50V	15.3	9.69	7.72	4.44	2.77	1.56	1.09	0.90	0.77	0.42	0.23
3.60V	14.4	9.15	7.31	4.28	2.69	1.52	1.06	0.88	0.75	0.41	0.22

Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
3.20V	63.9	40.9	32.3	18.3	11.4	6.29	4.42	3.66	3.12	1.70	0.91
3.30V	62.0	39.7	31.5	17.9	11.2	6.25	4.39	3.64	3.11	1.70	0.91
3.40V	59.5	38.1	30.4	17.4	10.9	6.20	4.36	3.62	3.08	1.69	0.91
3.50V	56.9	36.4	29.3	17.0	10.7	6.10	4.33	3.59	3.06	1.68	0.90
3.60V	53.7	34.4	27.8	16.3	10.4	5.95	4.20	3.48	2.97	1.65	0.88

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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