NPP
CLEAN ENERGY, SAFE POWER

NPD12-100Ah

Valve-regulated lead-acid battery

Cyclic | AGM | UPS | Solar & Wind | EV | Mobility

DEEP CYCLE SERIES

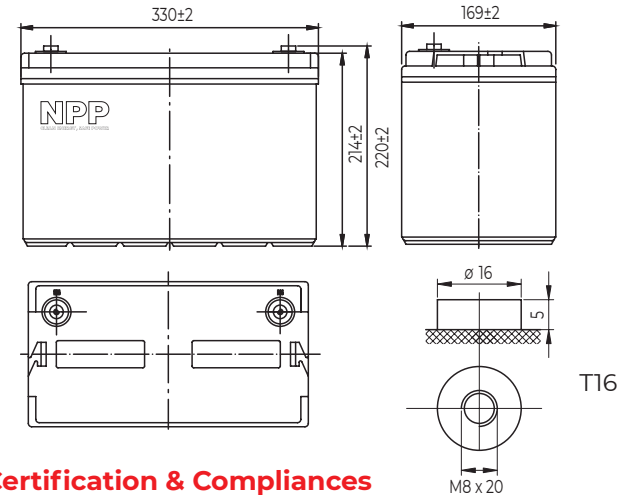
Characteristics

Nominal voltage		12V (6 cell per unit)
Nominal capacity at 10 hours rate/10.8V (25°C)		102Ah
Capacity (25°C)	20 Hours rate/10.8V	108.2Ah
	5 Hours rate/10.8V	87Ah
Terminal type		T16
Torque		12.3±2.5N.m
Approx. internal resistance (25°C)		4.5 mΩ
Dimensions	Length	330±2mm (12.99inch)
	Width	171±2mm (6.73inch)
	Height	214±2mm (8.43inch)
	Total height	220±2mm (8.66inch)
Design Life (stand-by)	JIS at 25°C	10 years
	Eurobat at 20°C	10/12 years
Weight		30.50kg (64.24lbs)±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)		30.0A
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 Deep Cycle Series are manufactured specifically to provide outstanding performance in deep cycling applications. The batteries are designed using enhanced alloy contents plates and active paste materials.

Dimensions & Terminal Type (mm)



Certification & Compliances

ISO 9001 | ISO 14001 | OHSAS 18001 | UL | IEC | CQC | TLC

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	10min	15min	30min	60min	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	222	171	103	63.0	37.3	26.8	21.4	18.3	12.6	10.4	5.50
9.90V	216	167	100	62.1	37.1	26.7	21.3	18.2	12.5	10.4	5.49
10.2V	207	161	97.4	60.5	36.7	26.5	21.2	18.1	12.4	10.3	5.48
10.5V	198	156	95.0	58.6	36.2	26.3	21.0	18.0	12.3	10.3	5.44
10.8V	187	147	91.5	56.7	35.3	25.5	20.4	17.4	12.0	10.2	5.41

Constant power discharge characteristics at 25°C

(Watts/battery)

F.V/Time	10min	15min	30min	60min	2hr	3hr	4hr	5hr	8hr	10hr	20hr
9.60V	2401	1882	1150	719	432	316	252	216	150	124	66.0
9.90V	2329	1836	1127	708	429	314	251	215	149	124	65.9
10.2V	2233	1769	1093	690	425	312	249	214	148	123	65.7
10.5V	2137	1708	1066	668	419	309	247	212	147	123	65.3
10.8V	2017	1618	1027	647	408	300	240	206	142	122	64.9

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.

Copyright © 2021 Guangzhou NPP Power Co, Ltd. All rights reserved.