

FT12-50Ah

Valve-regulated lead-acid battery



FRONT TERMINAL SERIES

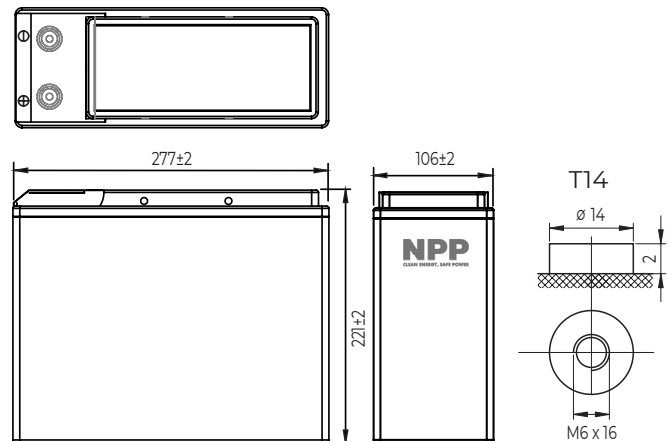
Characteristics

Nominal voltage	12V (6 cells per unit)	
Nominal capacity at 10 hours rate/10.8V (25°C)	50Ah	
Capacity (25°C)	20 Hours rate/10.8V	53Ah
	5 Hours rate/10.8V	42.7Ah
Terminal type	T14	
Torque	Torque: 5.1±0.6N.m	
Approx. internal resistance (25°C)	7.5 mΩ	
Dimensions	Length	277±2mm (10.91inch)
	Width	106±2mm (4.17inch)
	Height	221±2mm (8.70inch)
	Total height	221±2mm (8.70inch)
Design Life (stand-by)	JIS at 25°C	12 years
	Eurobat at 20°C	10/12 years
Weight	16.00kg (35.30lbs)±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)	15A	
Max. discharge current for 5 seconds	400A	
Self discharge rate (25°C)	≤3%/month	
Battery container ABS UL94-HB	V-0 optional	

Overview

NPP Power Front Terminal Series batteries are mainly used in the area of communication. By adopting a new AGM separator and centralized venting system, the battery can be installed in different positions while maintaining high reliability. Available in gel technology also.

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	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	107	82.3	49.2	30.3	18.3	13.2	10.5	8.98	6.17	5.09	2.70
9.90V	104	80.3	48.3	29.8	18.2	13.1	10.4	8.92	6.13	5.08	2.69
10.2V	99.3	77.4	46.8	29.1	18.0	13.0	10.4	8.86	6.09	5.07	2.68
10.5V	95.1	74.7	45.7	28.2	17.7	12.9	10.3	8.80	6.05	5.04	2.67
10.8V	89.7	70.8	44.0	27.3	17.3	12.5	10.0	8.54	5.87	5.00	2.65

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	1154	904	553	345	212	155	124	106	73.3	60.8	32.4
9.90V	1119	882	541	340	210	154	123	105	72.9	60.7	32.2
10.2V	1073	850	525	331	208	153	122	105	72.4	60.5	32.2
10.5V	1027	821	512	321	205	152	121	104	71.9	60.1	30.0
10.8V	969	777	493	311	200	147	117	101	69.7	59.7	31.8

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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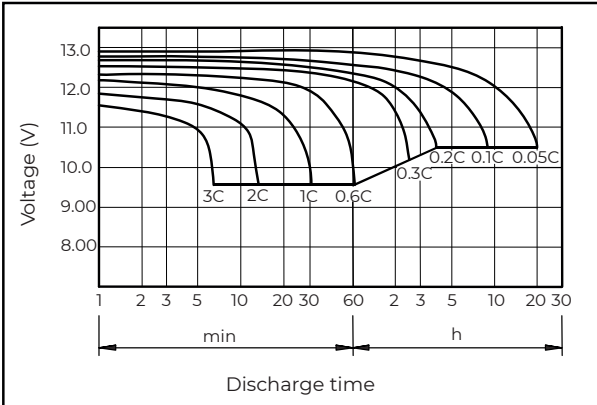
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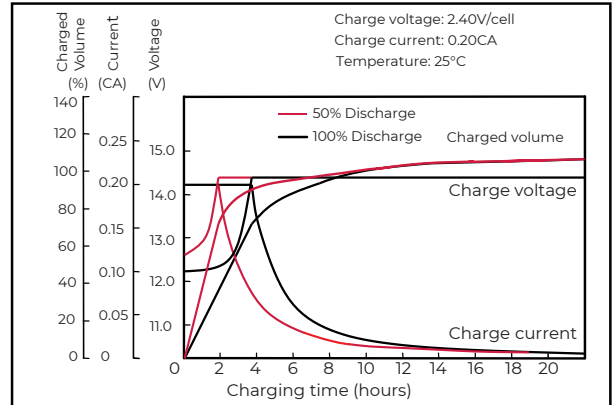
FRONT TERMINAL

SERIES

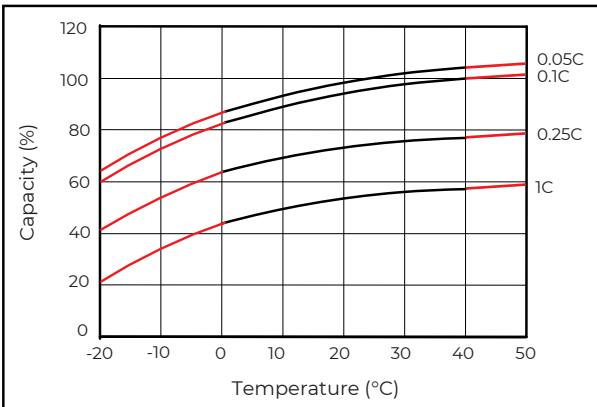
Discharge characteristics (25°C)



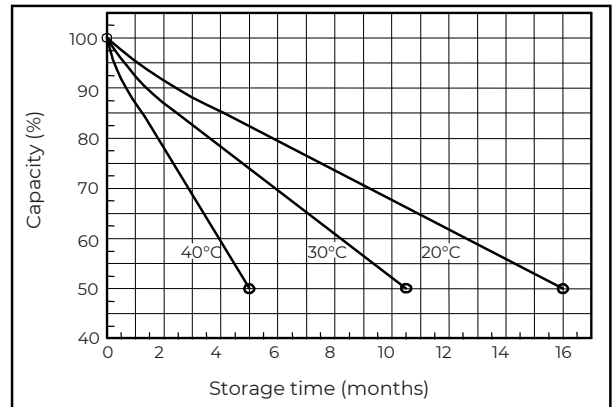
Charging characteristics (25°C)



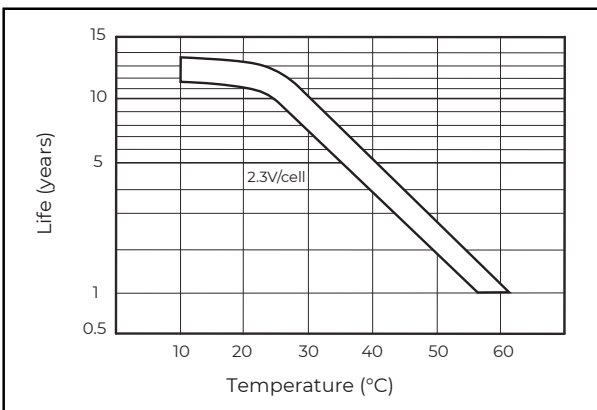
Temperature effects on capacity



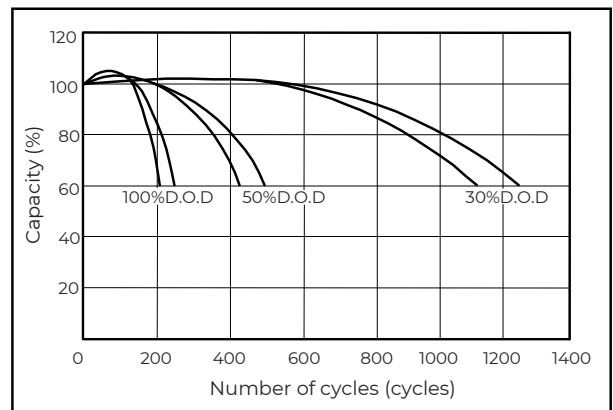
Self-discharge characteristics



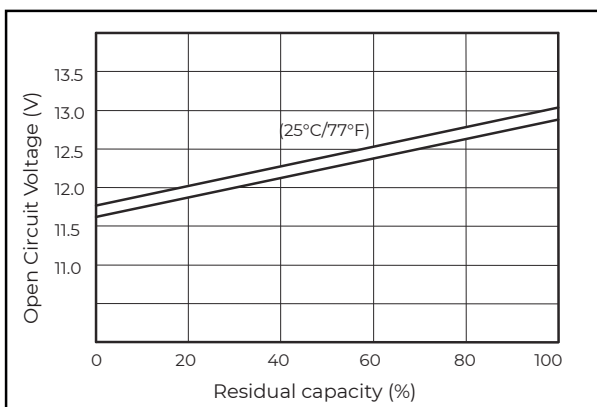
Floating life on temperature



Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Charging voltage VS temperature

