



NP Series lead-acid battery

Applications

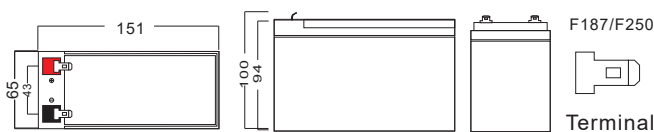
- › UPS/EPS
- › Power systems
- › Telecommunications system
- › Emergency lighting, Auto control system
- › Solar/wind generating storage cyclic
- › Other general purpose

General Features

- › High corrosion resistant performance: Pb-Ca multi-alloy grid
- › High energy density and power density
- › Optimized capability of instant high-current discharging
- › Excellent charge acceptance ability
- › Excellent deep cycle discharge capability
- › Strong high and low temperature performance
- › Precision sealing technology



Dimension: 151(L)×65(W)×94(H)×100(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	7.5Ah
Design life	5 years
Terminal	F187/F250
Approx. Weight	Approx 2.50kg (5.52lbs)
Container Material	ABS
Rated Capacity	7.50Ah 20Hour Rate (0.375A to 10.5V)
	5.82Ah 3Hour Rate (1.94A to 10.5V)
	4.95Ah 1Hour Rate (4.95A to 9.60V)
Internal resistance	Full charged at 25°C: 23.0 mΩ
Max. Discharge Current	113A(5S)
Operating Temperature	Discharge: -20 ~50 (-4~ 122°F)
	Charge: -20 ~50 (-4~ 122°F)
	Storage: -20 ~50 (-4~ 122°F)
Charge current: Max. 1.88A ; Recom.0.75A	
Charge Method (25 °C)	Float Charge:13.5-13.8V,recom.13.8V(-18mV/ °C)
	Equalize charge:13.8-14.1V,recom.14.1V(-24mV/ °C)
	Cycle charge:14.4-15.0V,recom.14.7V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

Constant Current Discharge Characteristics Unit: A (25C)

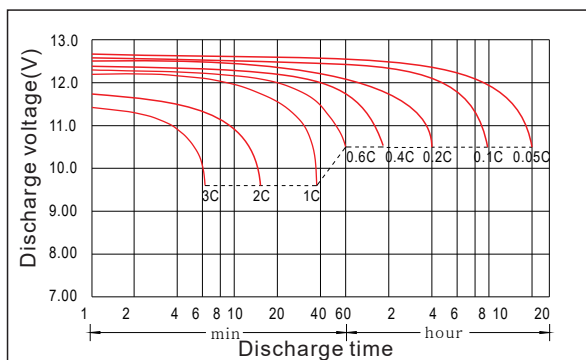
FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	29.7	19.4	14.5	9.49	4.95	2.84	2.07	1.66	1.41	0.930	0.743	0.398
1.65V	29.5	18.6	13.3	9.01	4.65	2.72	2.01	1.61	1.38	0.915	0.735	0.390
1.70V	24.2	17.5	12.4	8.73	4.50	2.67	1.97	1.52	1.37	0.900	0.720	0.383
1.75V	22.4	16.7	11.6	8.53	4.34	2.60	1.94	1.50	1.31	0.878	0.705	0.375
1.80V	20.6	15.7	10.7	8.25	4.19	2.54	1.84	1.47	1.25	0.855	0.690	0.360

Constant Power Discharge Characteristics Unit: W/cell(25C)

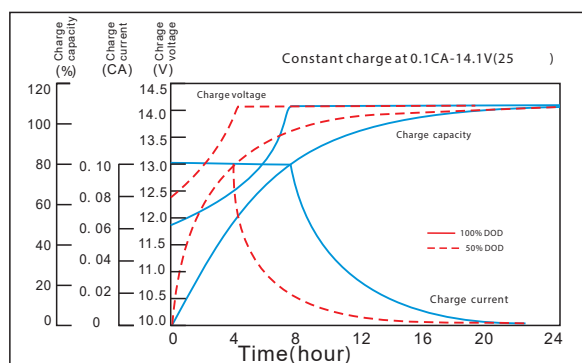
FV/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	55.8	35.0	26.5	16.0	9.08	5.31	3.91	3.14	2.66	1.76	1.44	0.788
1.65V	51.4	33.1	24.9	15.9	8.54	5.11	3.80	3.04	2.61	1.73	1.41	0.766
1.70V	47.0	32.1	23.8	15.9	8.28	5.01	3.74	2.89	2.54	1.71	1.40	0.760
1.75V	42.6	31.1	22.9	15.7	8.04	4.90	3.69	2.85	2.49	1.64	1.37	0.744
1.80V	38.3	30.1	21.9	15.6	7.93	4.86	3.59	2.83	2.43	1.59	1.34	0.739

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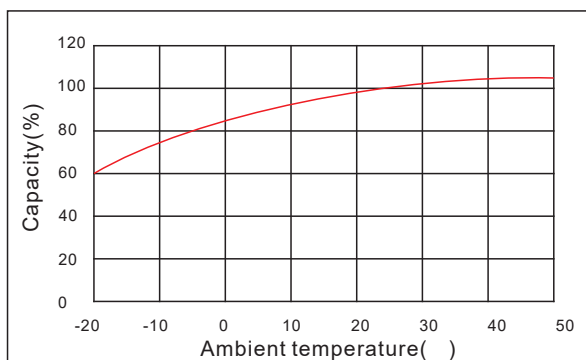
Discharge characteristic



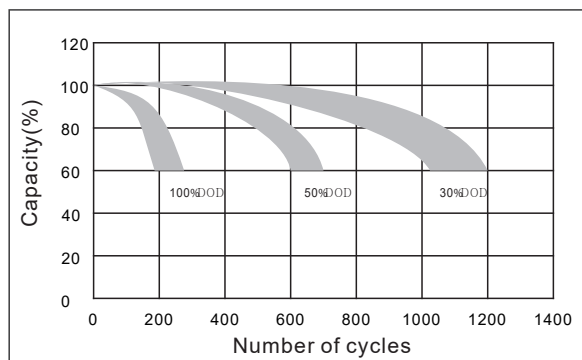
Charging characteristic



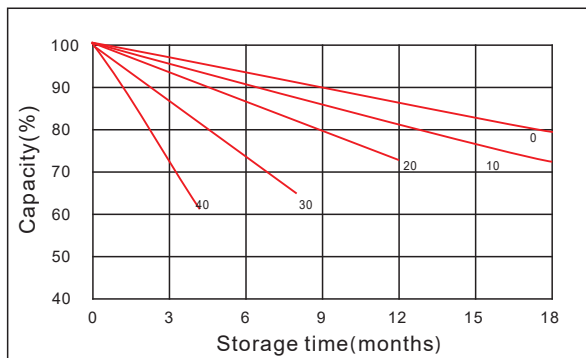
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



The effect of temperature on float life

