

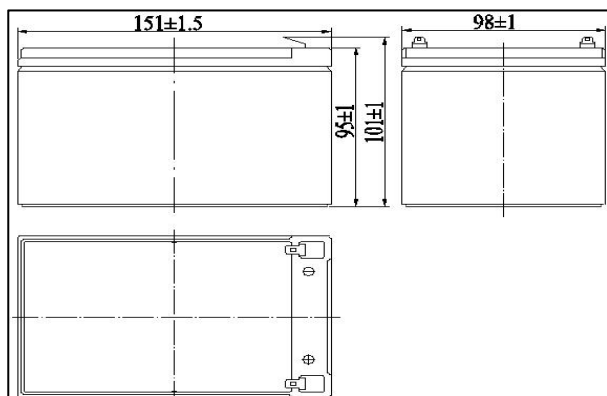
## NPD12-12Ah 12V12Ah

### Specifications

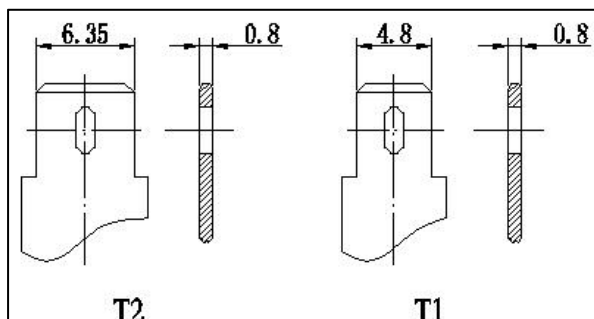
Nominal Voltage		12 V
Rated capacity(20HR)		12Ah
Dimension	Length	151±1.5mm (5.94inch)
	Width	98±1mm (3.86inch)
	Height	95±1mm (3.74inch)
	Total Height	101±1mm (3.98inch)
Approx. Weight		4.05kg (8.82lbs)±4%



### Outer dimensions (mm)



### Terminal



### Characteristics

Capacity (25°C)	20HR(10.5V)	12Ah
	10HR(10.5V)	11.7Ah
	1HR(9.60V)	7.8Ah
Terminal type		T2/T1
Internal resistance (Fully charged, 25°C)		Approx. 13mΩ
Capacity affected by temperature (20HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 month	Remaining Capacity: 91%
	6 month	Remaining Capacity: 82%
	12 month	Remaining Capacity: 65%
Nominal operating temperature		25°C±3°C(77°F±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(25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage(25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C
Maximum charging current		3.6A
Maximum discharge current		180A(5 sec.)
Designed floating life(20°C)		up to 8 years

### Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Sulfuric acid	Rubber	Copper

### Constant Current Discharge Characteristics (A, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	47.8	30.3	23.6	13.3	8.19	4.48	3.10	2.56	2.18	1.18	0.63
9.90V	46.3	29.3	23.1	13.0	8.06	4.45	3.08	2.55	2.17	1.18	0.63
10.2V	44.4	28.1	22.2	12.6	7.86	4.41	3.06	2.53	2.15	1.17	0.63
10.5V	42.5	26.9	21.5	12.3	7.70	4.35	3.04	2.51	2.14	1.17	0.63
10.8V	40.1	25.4	20.3	11.9	7.47	4.24	2.95	2.44	2.07	1.14	0.61

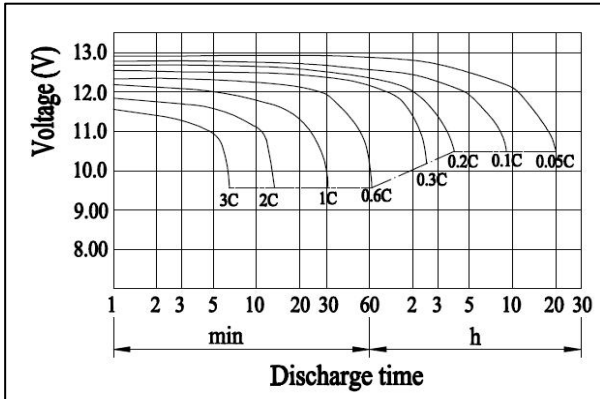
### Constant Power Discharge Characteristics (Watt, 25°C)

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	533	341	269	153	94.8	52.4	36.8	30.5	26.0	14.2	7.61
9.90V	517	331	263	150	93.4	52.1	36.6	30.3	25.9	14.1	7.58
10.2V	496	317	253	145	91.0	51.6	36.3	30.1	25.7	14.1	7.55
10.5V	474	304	245	141	89.2	50.9	36.1	29.9	25.5	14.0	7.50
10.8V	448	287	232	136	86.5	49.6	35.0	29.0	24.8	13.7	7.35

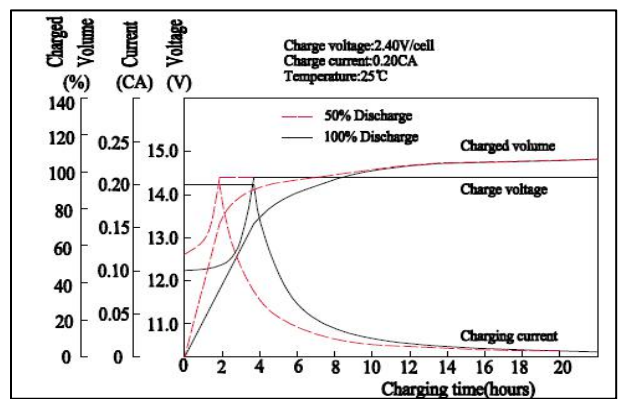
Note: The above characteristics data can be obtained within three charge or discharge cycles.

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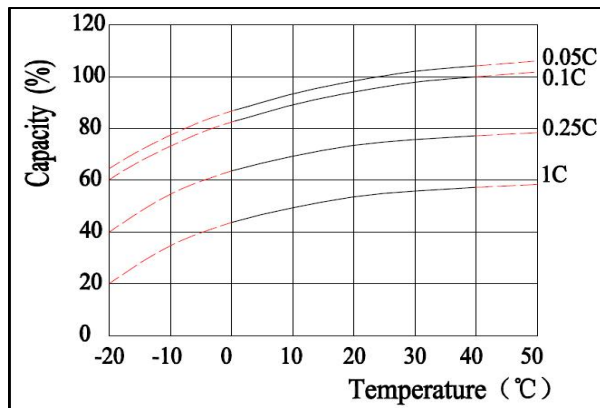
### ● Discharge characteristics(25°C)



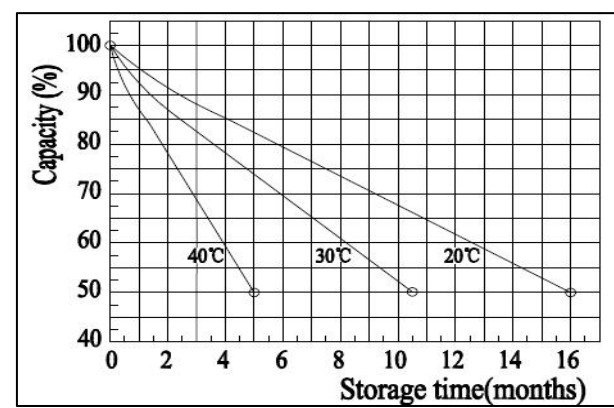
### ● Charging characteristics (25°C)



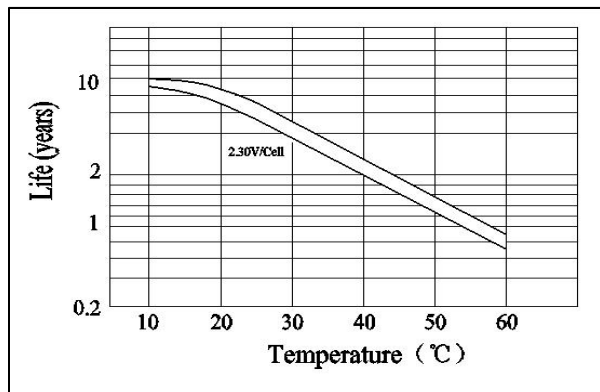
### ● Temperature effects on Capacity



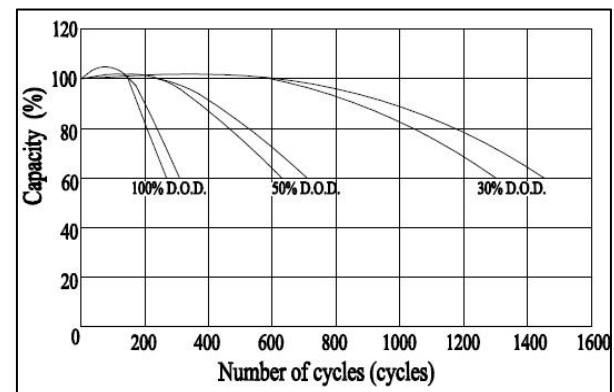
### ● Self-discharge characteristics



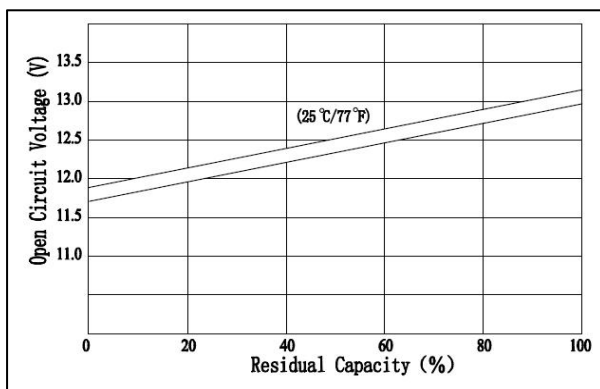
### ● Floating life on Temperature



### ● Cycle life on D.O.D (25°C)



### ● The relationship for OCV and Capacity (25°C)



### ● The relationship for Charging voltage and Temperature

