

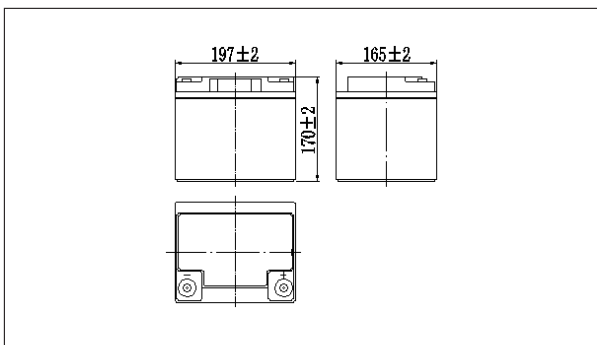
## NPD12-40Ah 12V40Ah

### Specifications

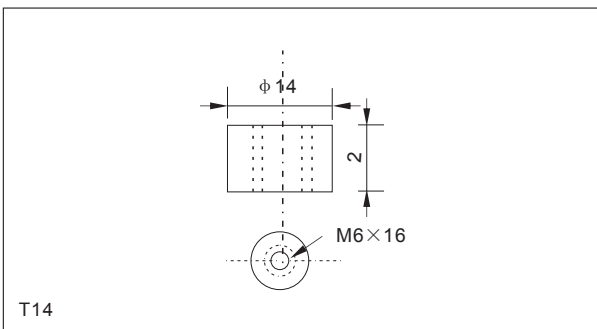
Nominal Voltage		12V
Rated capacity (10 hour rate)		40Ah
Dimensions	Length	197±2mm(7.76inch)
	Width	165±2mm(6.50inch)
	Height	170±2mm6.69inch)
	Total Height	170±2mm(6.69inch)
Approx. Weight		13.5kg(29.8lbs)±3%



### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (25°C)	10HR(10.8V)	40Ah
	3HR(10.8V)	31.5Ah
	1HR(10.5V)	23Ah
Terminal type		T14
Internal resistance (Fully charged,25°C)		Approx.8m Ω
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity:91%
	6 months	Remaining Capacity:82%
	12 months	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		12A
Maximum discharge current		400A(5 sec.)
Designed floating life(20°C)		10years

### 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 Unit:A(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	91.6	70.6	42.2	26.0	15.3	11.1	8.83	7.54	5.18	4.28	2.27
9.90V	88.8	68.9	41.4	25.6	15.3	11.0	8.77	7.50	5.15	4.27	2.26
10.2V	85.2	66.3	40.1	24.9	15.1	10.9	8.71	7.44	5.12	4.25	2.25
10.5V	81.5	64.1	39.1	24.1	14.9	10.8	8.65	7.39	5.08	4.23	2.24
10.8V	76.9	60.7	37.7	23.4	14.5	10.5	8.39	7.17	4.93	4.20	2.23

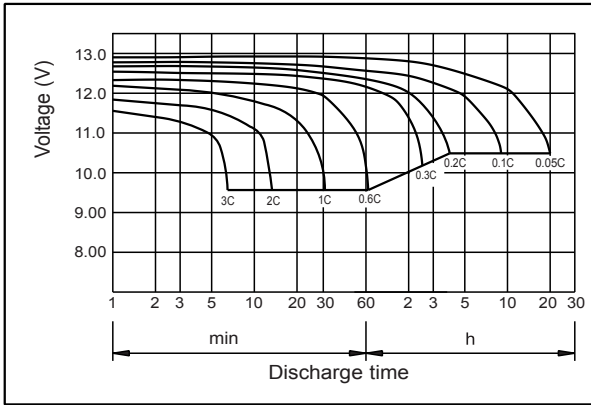
### Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	989	775	474	296	178	130	104	89.1	61.6	51.1	27.2
9.90V	959	756	464	291	177	129	103	88.6	61.2	51.0	27.1
10.2V	920	728	450	284	175	128	102	88.0	60.8	50.8	27.1
10.5V	880	703	439	275	172	127	102	87.4	60.4	50.5	26.9
10.8V	831	666	423	266	168	124	98.7	84.8	58.6	50.1	26.7

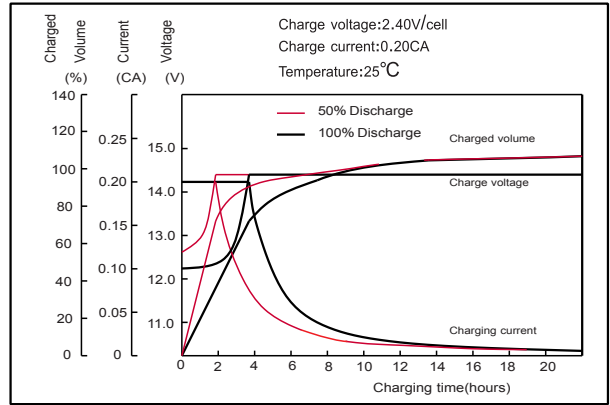
Note: The above characteristics data can be obtained within three charge or discharge cycles.

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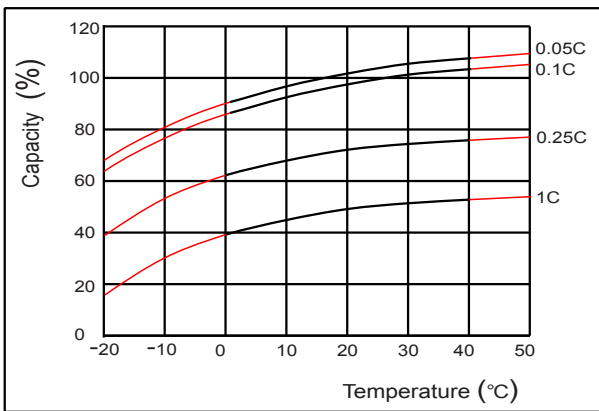
● **Discharge characteristics(25°C)**



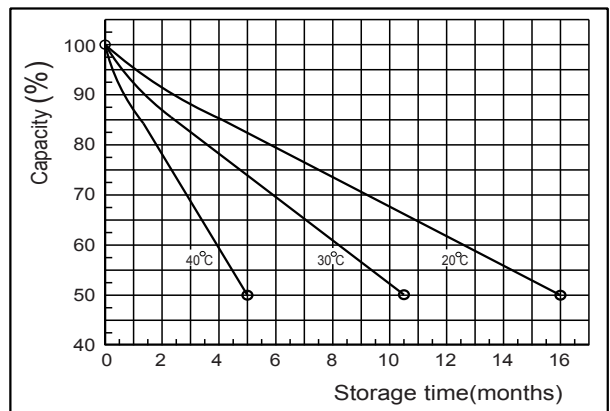
● **Charging characteristics (25°C)**



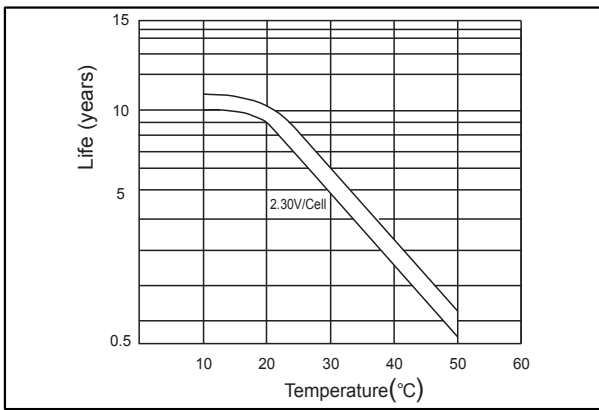
● **Temperature effects on Capacity**



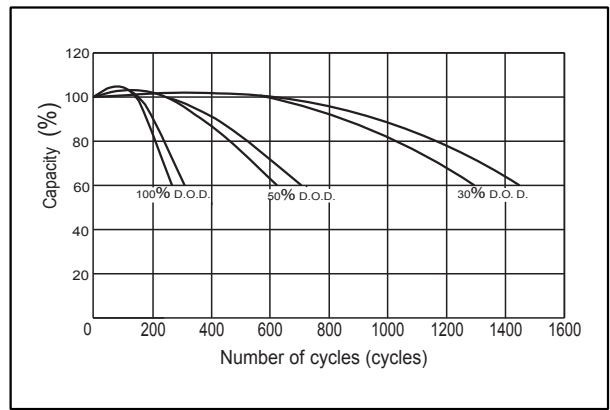
● **Self-discharge characteristics**



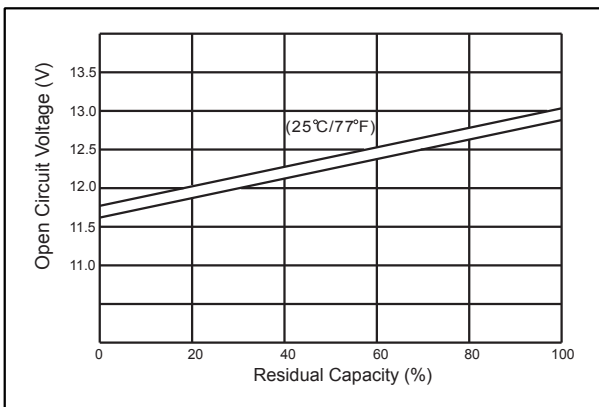
● **Floating life on Temperature**



● **Cycle life on D.O.D (25°C)**



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



● **The relationship for Charging voltage and Temperature**

