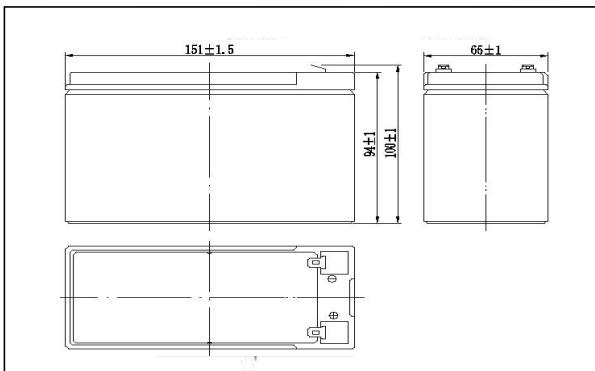


NP12-7Ah 12V7Ah

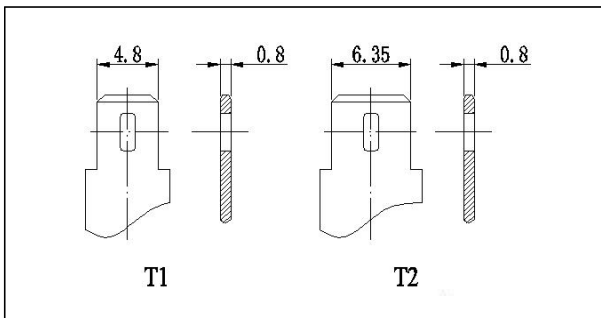
● **Specifications**

Nominal Voltage		12 V
Rated capacity(20HR)		4.5Ah
Dimension	Length	151±1.5mm (5.94inch)
	Width	65±1mm (2.56inch)
	Height	94±1mm (3.70inch)
	Total Height	100±1mm (3.94inch)
Approx. Weight		1.75kg (3.86lbs)±4%

● **Outer dimensions (mm)**



● **Terminal Type (mm)**



● **Characteristics**

Capacity (25°C)	20HR(10.5V)	4.5 Ah
	10HR(10.5V)	4.1Ah
	1HR(9.60V)	2.5Ah
Terminal type		T1/T2
Internal resistance (Fully charged, 25°C)		Approx. 50mΩ
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)	13.60 to 13.80V Temperature compensation:-18mV/°C	
Cyclic charging voltage(25°C)	14.50 to 15.00V Temperature compensation:-30mV/°C	
Maximum charging current	1.35A	
Maximum discharge current	67.5A(5 sec.)	
Designed floating life(20°C)	5 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 Unit:A(25°C,77°F)**

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	15.1	9.58	7.48	4.22	2.59	1.56	1.08	0.89	0.76	0.41	0.22
9.90V	14.7	9.30	7.30	4.13	2.55	1.55	1.08	0.89	0.76	0.41	0.22
10.2V	14.1	8.91	7.04	4.01	2.49	1.54	1.07	0.88	0.75	0.41	0.22
10.5V	13.5	8.53	6.80	3.91	2.44	1.52	1.06	0.88	0.75	0.41	0.22
10.8V	12.7	8.05	6.44	3.77	2.37	1.48	1.03	0.85	0.72	0.40	0.21

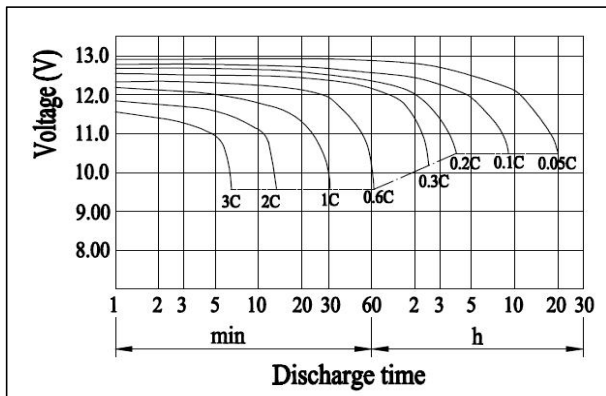
● **Constant Power Discharge Characteristics Unit:W(25°C,77°F)**

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	169	108	85.3	48.3	30.0	18.3	12.9	10.7	9.09	4.96	2.66
9.90V	164	105	83.3	47.4	29.6	18.2	12.8	10.6	9.04	4.94	2.65
10.2V	157	101	80.2	45.9	28.8	18.0	12.7	10.5	8.97	4.92	2.63
10.5V	150	96.2	77.5	44.8	28.3	17.8	12.6	10.4	8.91	4.89	2.62
10.8V	142	90.8	73.4	43.2	27.4	17.3	12.2	10.1	8.64	4.79	2.57

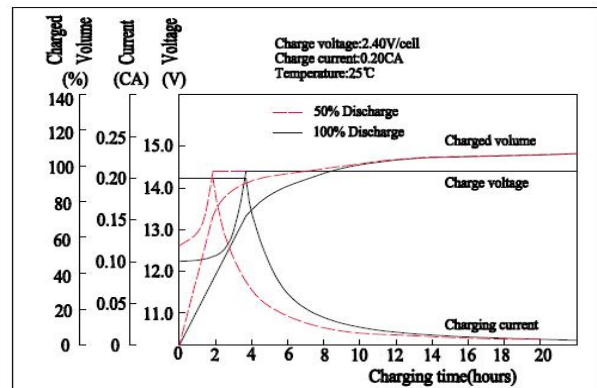
Note: The above characteristics data can be obtained within three charge or discharge cycles.

NP12-7Ah 12V7Ah

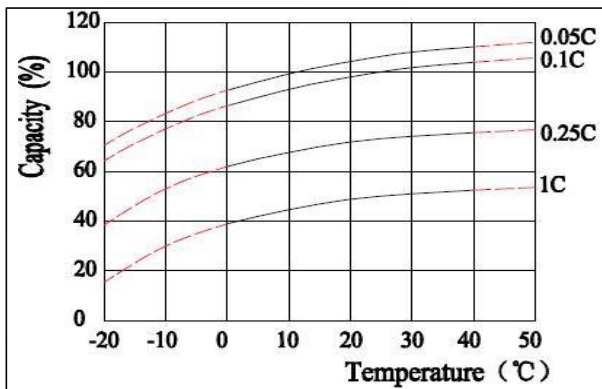
● Discharge Characteristic



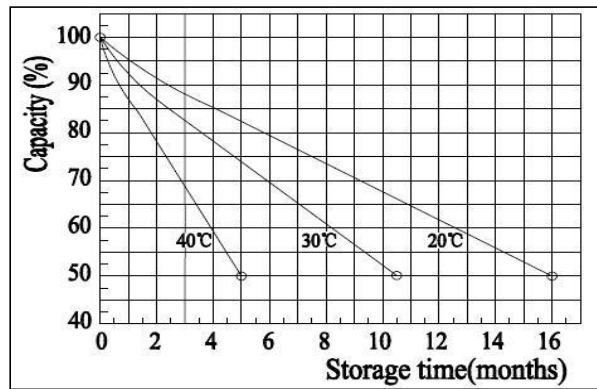
● Charging characteristics



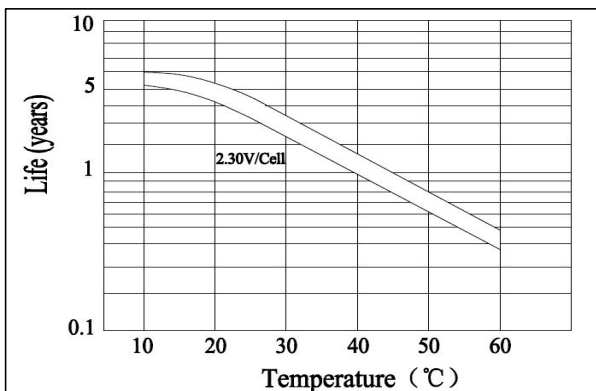
● Effect of Temperature on Capacity



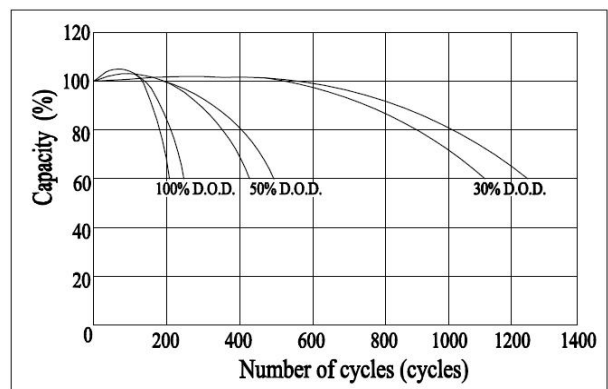
● Self-discharge characteristics



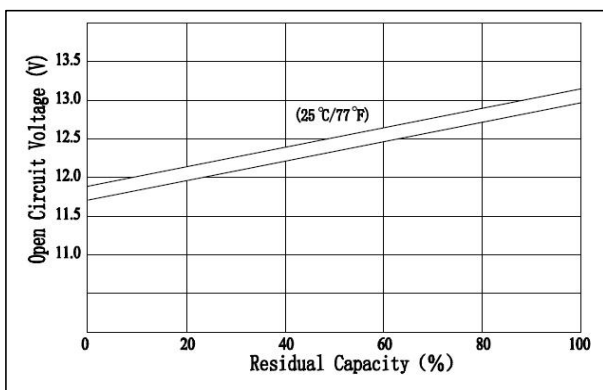
● Temperature effects on float life



● Cycle service life in relation to depth of discharge



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



● The relationship for Charging voltage and Temperature

