

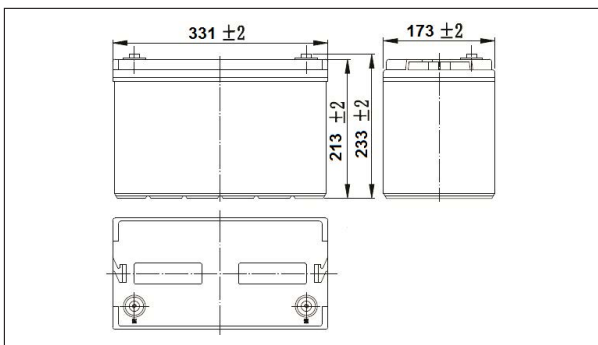
## NPD12-110Ah 12V110Ah

### Specifications

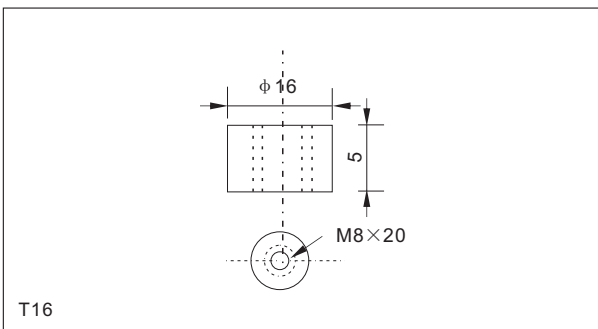
Nominal Voltage		12V
Rated capacity (20 hour rate)		110Ah
Dimensions	Length	331±2mm(13.03inch)
	Width	173±2mm(6.81inch)
	Height	213±2mm(8.39inch)
	Total Height	233±2mm(9.17inch)
Approx. Weight		32kg(70.4lbs)±3%



### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (25°C)	20HR(10.8V)	110Ah
	3HR(10.8V)	82.5Ah
	1HR(10.5V)	60.5Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4.5m Ω
Capacity affected by temperature (20HR)	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		30A
Maximum discharge current		800A(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	237.5	183	110.2	67.4	39.9	28.7	22.9	19.6	13.5	11.1	5.9
9.90V	231.1	178.7	107	66.4	39.7	28.6	22.8	19.5	13.4	11.1	5.9
10.2V	221.5	172.3	104.2	64.7	39.3	28.4	22.7	19.4	13.3	11	5.9
10.5V	211.9	166.9	101.7	62.7	38.7	28.1	22.5	19.3	13.2	11	5.8
10.8V	200.1	157.3	97.9	60.7	37.8	27.3	21.8	18.6	12.8	10.9	5.8

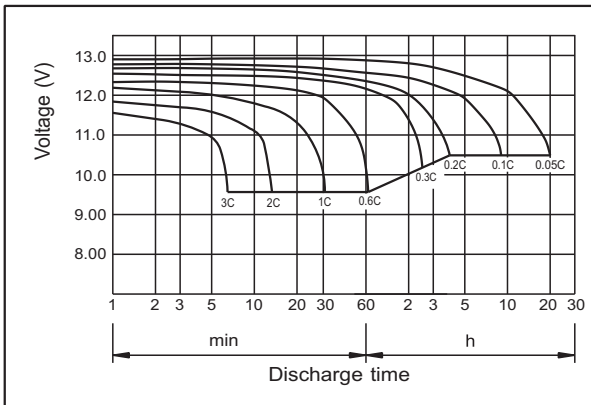
### Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2569.1	2013.7	1230.5	769.3	462.2	338.1	269.6	231.1	160.5	132.7	70.6
9.90V	2492	1964.5	1205.9	757.6	459	336	268.6	230.1	159.4	132.7	70.5
10.2V	2389.3	1892.8	1169.5	738.3	454.8	333.8	266.4	229	158.4	131.6	70.3
10.5V	2286.6	1827.6	1140.6	714.8	448.3	330.6	264.3	226.8	157.3	131.6	69.9
10.8V	2158.2	1731.3	1098.9	692.3	436.6	321	256.8	220.4	151.9	130.5	69.4

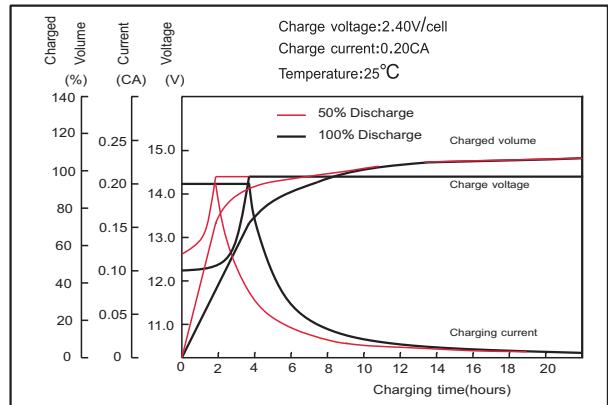
Note: The above characteristics data can be obtained within three charge or discharge cycles.

**NPD12-110Ah 12V110Ah**

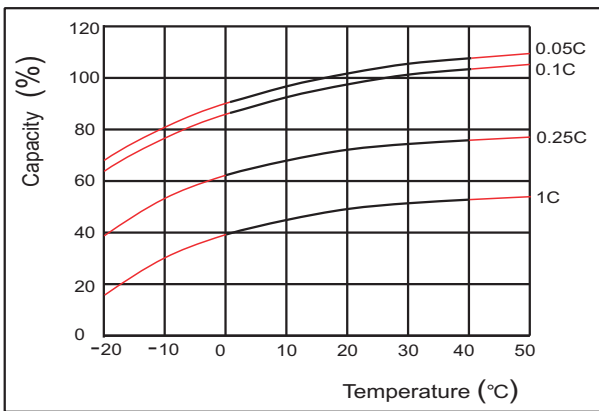
● Discharge characteristics(25°C)



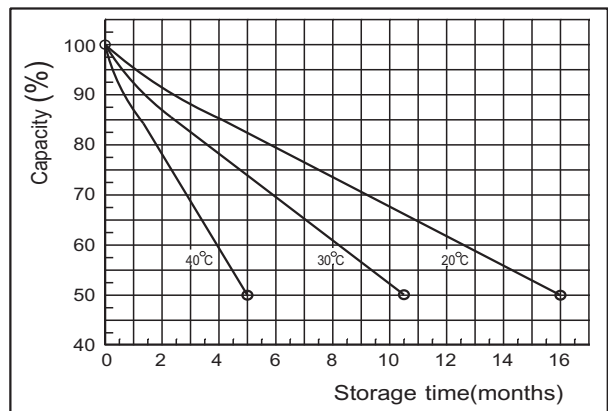
● Charging characteristics (25°C)



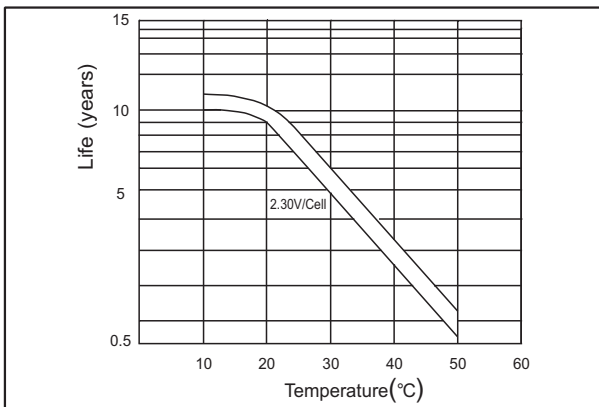
● Temperature effects on Capacity



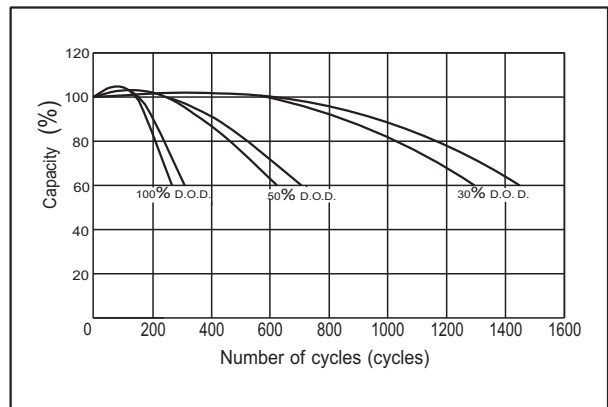
● Self-discharge characteristics



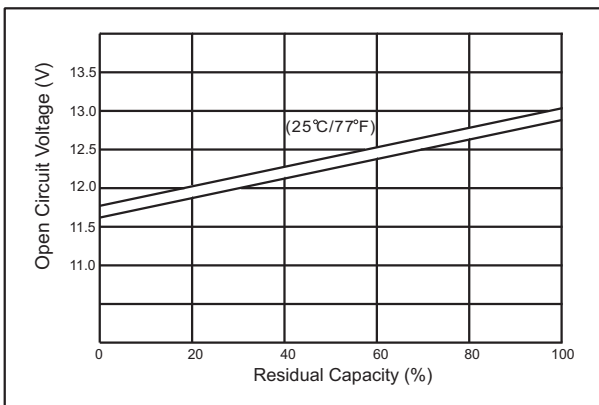
● Floating life on Temperature



● Cycle life on D.O.D (25°C)



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



● The relationship for Charging voltage and Temperature

