

NPD12-50Ah 12V50Ah

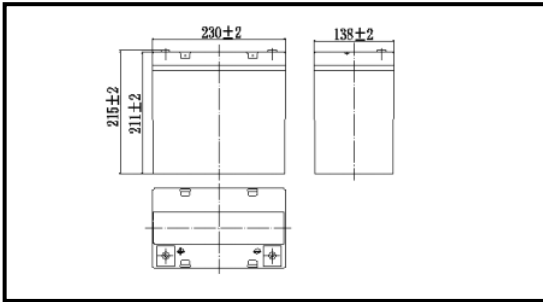
Valve Regulated Lead Acid Battery



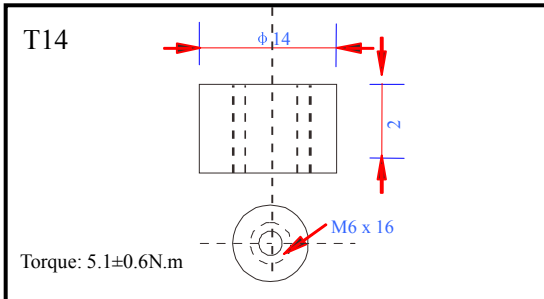
● Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (10HR)	50Ah/10.8V	
Dimensions	Length	230±2mm (9.06inch)
	Width	138±2mm (5.43inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Approx. weight	17.30kg (38.10lbs)±3%	

● Outer dimensions (mm)



● Terminal type (mm)



● Characteristics

Capacity (25°C)	10HR (10.8V)	50Ah
	3HR (10.8V)	39Ah
	1HR (10.5V)	30Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 6.5mΩ
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/Block
Cyclic charging voltage (25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C/Block
Maximum charging current		15A
Maximum discharge current		500A (5 sec.)
Design life	10 years for floating (25°C)	
	Eurobat (20°C): 6-9 years, general purpose.	

● 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: Ampere/Block (at 25°C, 77°F)

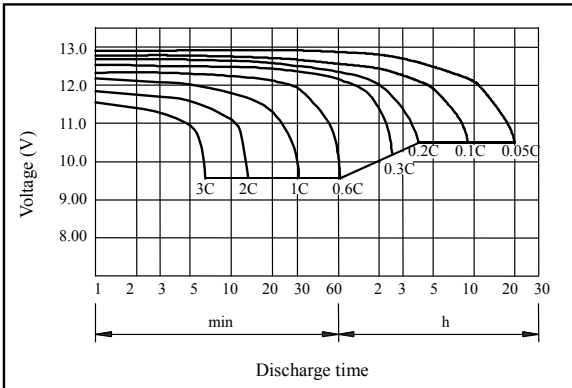
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	118	90.7	54.3	33.4	19.7	14.2	11.3	9.69	6.66	5.50	2.91
9.90V	114	88.5	53.2	32.9	19.6	14.1	11.3	9.64	6.63	5.49	2.91
10.2V	109	85.3	51.6	32.0	19.4	14.0	11.2	9.57	6.58	5.47	2.90
10.5V	105	82.4	50.3	31.0	19.1	13.9	11.1	9.50	6.53	5.44	2.88
10.8V	98.9	78.0	48.5	30.0	18.7	13.5	10.8	9.22	6.34	5.40	2.86

● Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

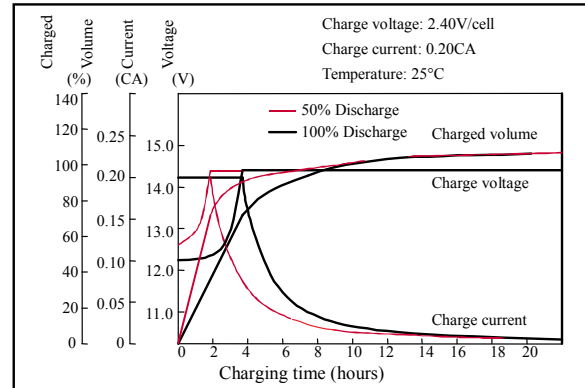
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1271	996	609	380	228	167	133	115	79.2	65.6	35.0
9.90V	1233	972	597	375	227	166	133	114	78.7	65.5	34.9
10.2V	1182	936	578	365	225	165	132	113	78.2	65.3	34.8
10.5V	1132	904	564	354	222	164	131	112	77.6	64.9	34.6
10.8V	1068	857	544	342	216	159	127	109	75.3	64.5	34.3

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

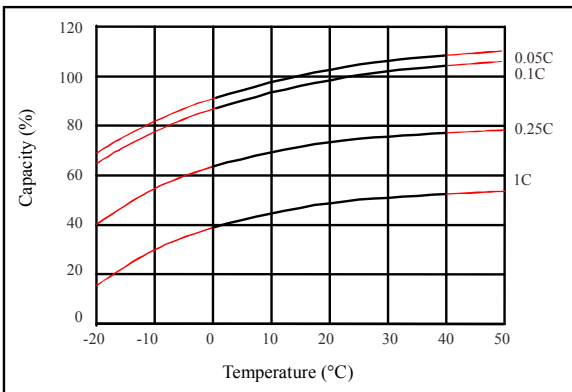
● Discharge characteristics (25°C)



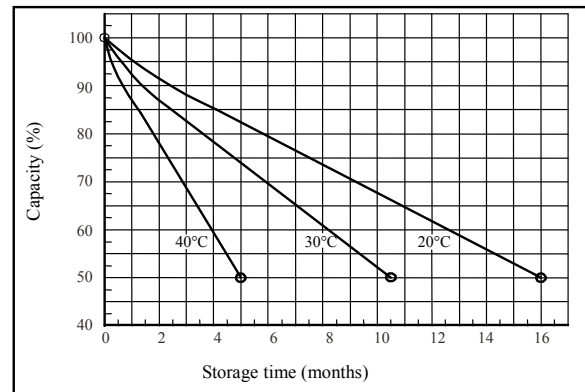
● Charging characteristics (25°C)



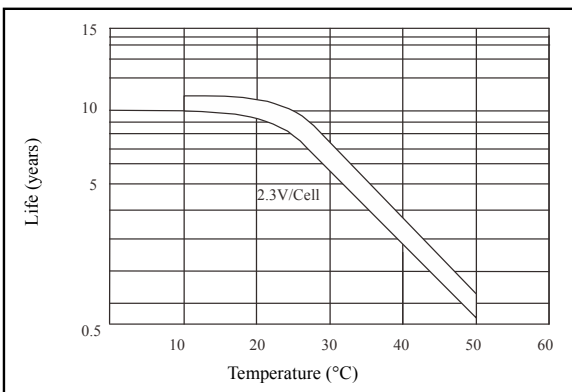
● Temperature effects on capacity



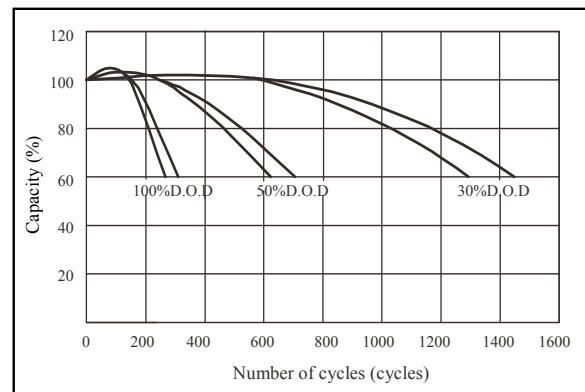
● Self-discharge characteristics



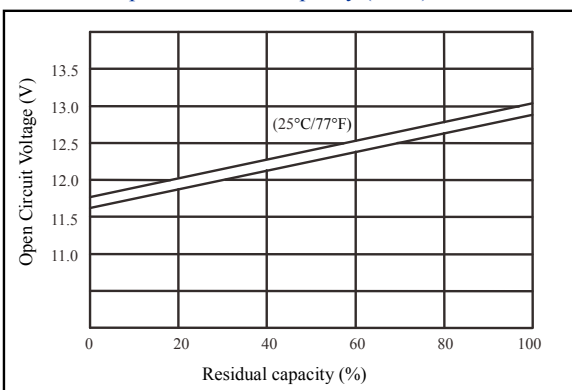
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

