

NPD2-500Ah 2V500Ah

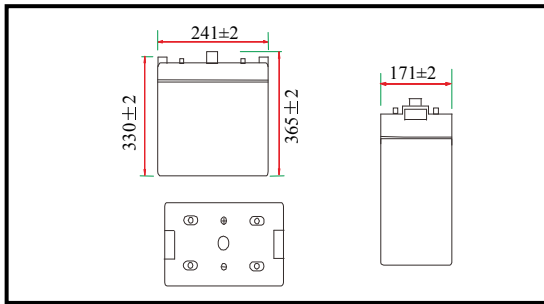
Valve Regulated Lead Acid Battery



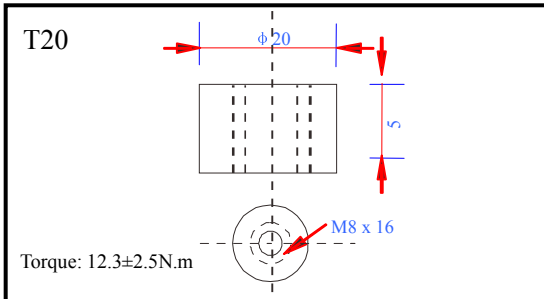
Specifications

Nominal voltage	2V (1 cell per unit)	
Rated capacity (10HR)	500Ah/1.8V	
Dimensions	Length	241±2mm (9.49inch)
	Width	171±2mm (6.73inch)
	Height	330±2mm (12.99inch)
	Total height	365±2mm (14.37inch)
Approx. weight	31.50kg (69.40lbs)±3%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	10HR (1.80V)	500Ah
	3HR (1.80V)	390Ah
	1HR (1.75V)	300Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.5mΩ
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)		2.25 to 2.30V Temperature compensation: -3mV/°C/Block
Cyclic charging voltage (25°C)		2.40 to 2.50V Temperature compensation: -5mV/°C/Block
Maximum charging current		100A
Maximum discharge current		3000A (5 sec.)
Design life	15 years for floating (25°C)	
	Eurobat (20°C) : >12 years, very long life.	

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)

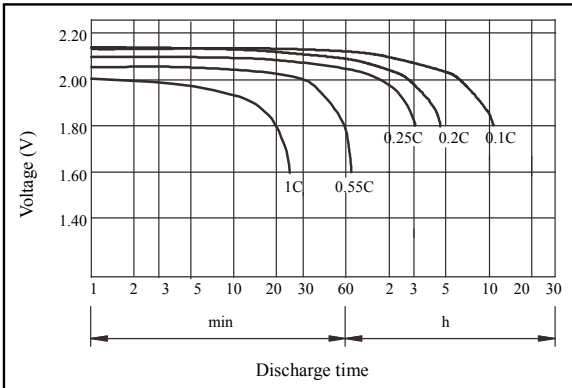
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	737	482	334	195	141	112	96.8	83.3	65.7	54.2	28.6
1.65V/cell	719	473	324	194	140	112	96.2	82.8	65.3	54.1	28.5
1.70V/cell	692	458	314	192	139	111	95.5	82.2	64.8	54.0	28.5
1.75V/cell	669	447	304	190	138	110	94.9	81.6	64.4	53.6	28.3
1.80V/cell	634	431	294	185	134	107	92.0	79.2	62.5	53.3	28.1

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

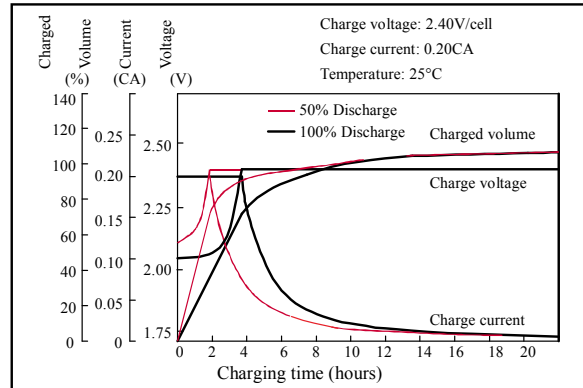
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	1348	902	634	377	275	220	191	164	131	108	57.2
1.65V/cell	1316	884	615	375	274	219	190	163	130	108	57.1
1.70V/cell	1267	857	596	371	272	218	188	162	129	107	56.9
1.75V/cell	1224	836	577	366	270	216	187	161	128	107	56.6
1.80V/cell	1159	805	558	356	262	210	181	156	124	106	56.2

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

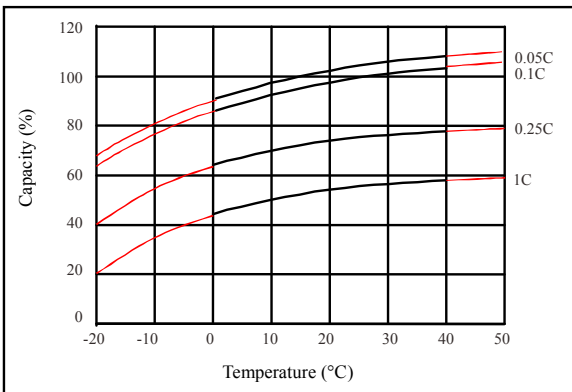
● Discharge characteristics (25°C)



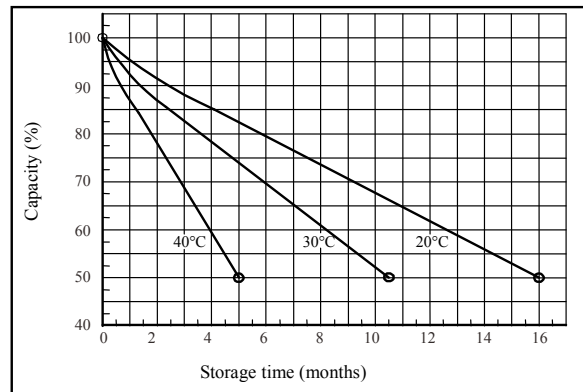
● Charging characteristics (25°C)



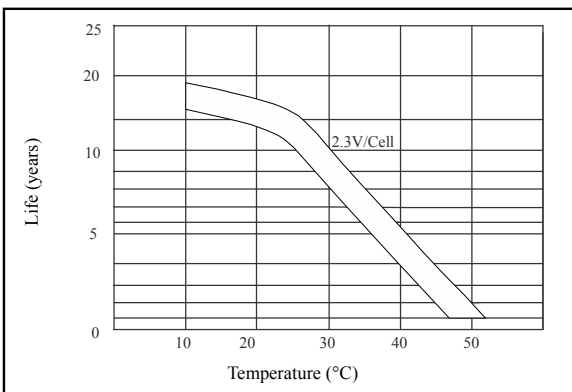
● Temperature effects on capacity



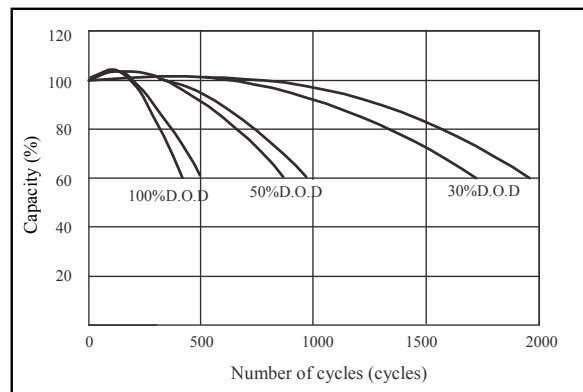
● Self-discharge characteristics



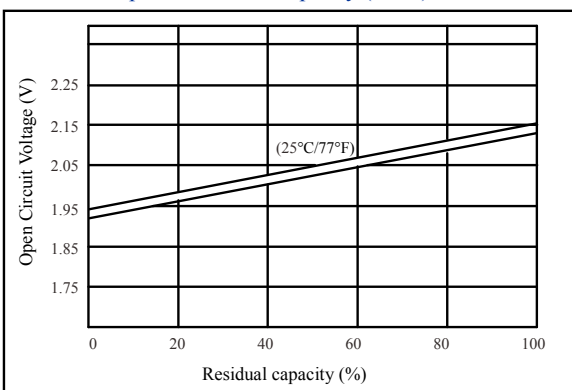
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

