

NPG2-500Ah 2V500Ah

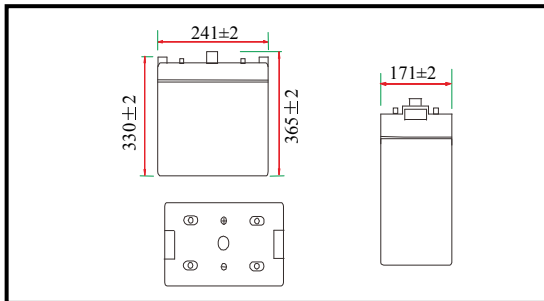
Valve Regulated Lead Acid Battery



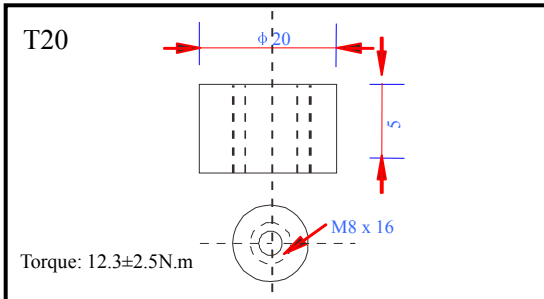
● Specifications

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 (69.40 lbs)±3%	

● Outer dimensions (mm)



● Terminal type (mm)



● Characteristics

Capacity (25°C)	10HR (1.80V)	500Ah
	3HR (1.80V)	375Ah
	1HR (1.75V)	275Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.55mΩ
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 2.45V Temperature compensation: -5mV/°C/Block
Maximum charging current		100A
Maximum discharge current		3000A (5 sec.)
Design life	18 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	Gel	Rubber	Copper

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

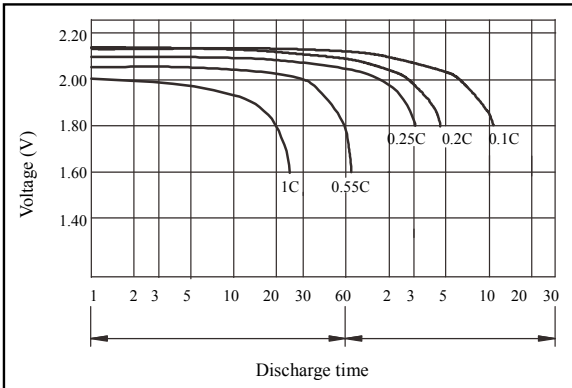
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	625	435	300	180	131	103	85.7	75.5	60.2	50.9	26.7
1.65V/cell	610	426	294	179	130	102	85.2	75.0	59.8	50.8	26.7
1.70V/cell	588	413	285	178	129	102	84.6	74.5	59.4	50.7	26.6
1.75V/cell	568	403	279	175	128	101	84.0	74.0	59.0	50.4	26.4
1.80V/cell	538	388	270	170	125	98	81.5	71.8	57.2	50.0	26.3

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

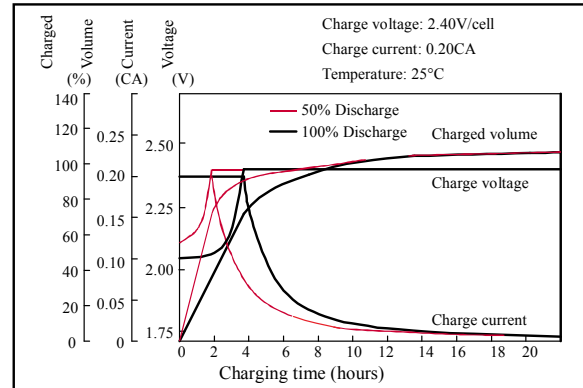
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	1144	813	570	348	256	202	169	149	120	101	53.4
1.65V/cell	1116	797	559	346	254	201	168	148	119	101	53.3
1.70V/cell	1075	773	542	343	253	199	167	147	118	101	53.2
1.75V/cell	1039	754	530	337	251	198	165	146	117	100	52.9
1.80V/cell	984	726	513	329	246	192	161	141	114	99.5	52.5

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

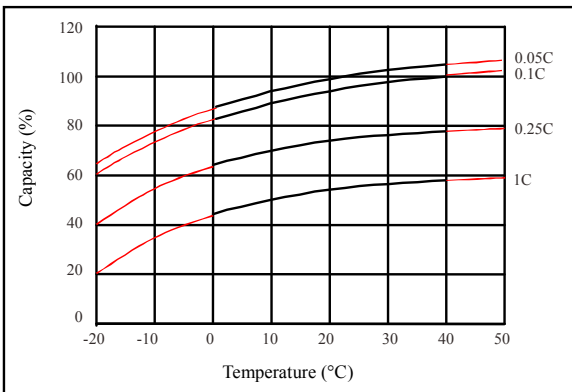
● Discharge characteristics (25°C)



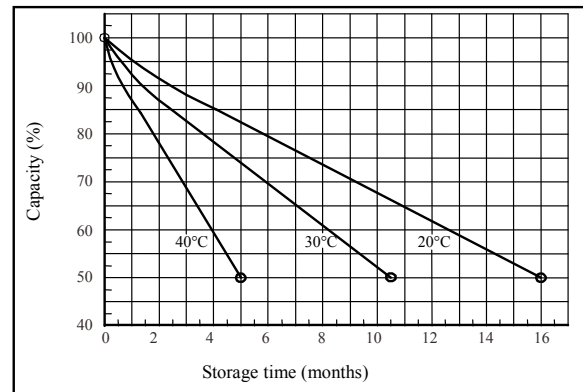
● Charging characteristics (25°C)



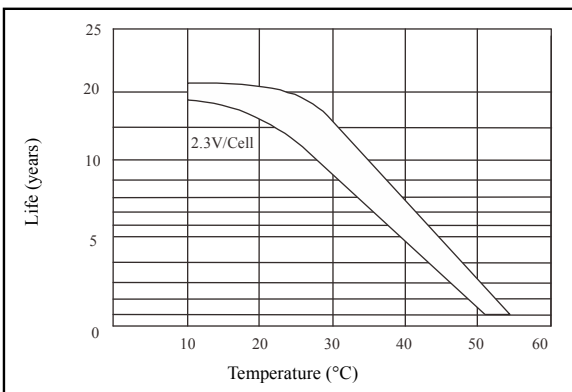
● Temperature effects on capacity



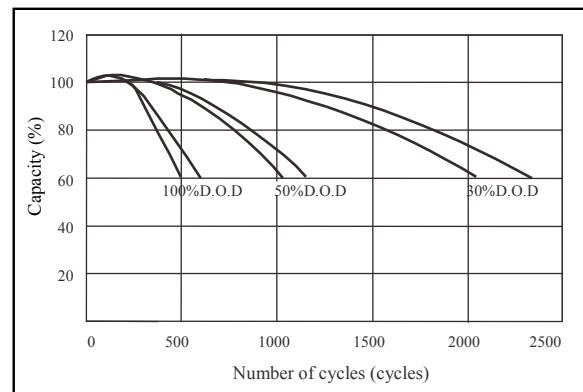
● Self-discharge characteristics



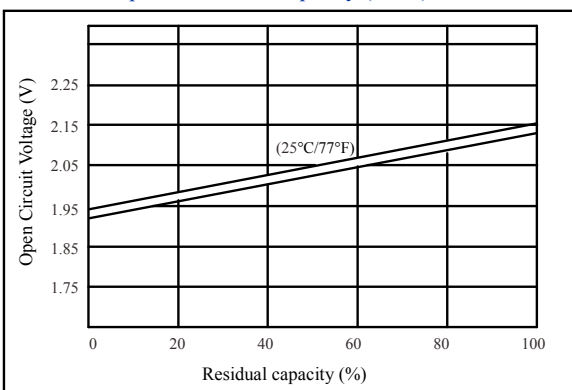
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

