NPP Power Co., Ltd.

NPP
CLEAN ENERGY, SAFE POWER

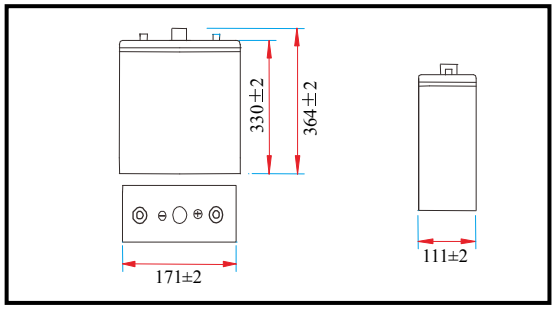
NPD2-200Ah 2V200Ah

Valve Regulated Lead Acid Battery

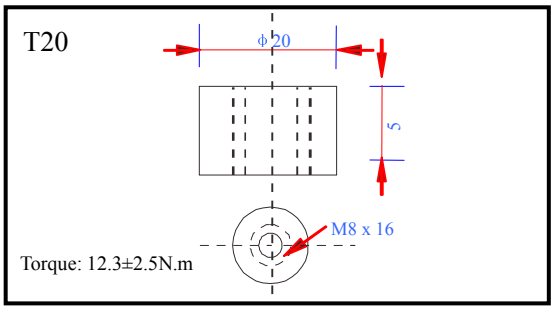
Specifications

Nominal voltage		2V (1 cell per unit)
Rated capacity (10HR)		200Ah/1.8V
Dimensions	Length	171±2mm (6.73inch)
	Width	111±2mm (4.37inch)
	Height	330±2mm (12.99inch)
	Total height	364±2mm (14.33inch)
Approx. weight		14.00kg (30.90lbs)±3%

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	10HR (1.80V)	200Ah
	3HR (1.80V)	159Ah
	1HR (1.75V)	116Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.9mΩ
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		40A
Maximum discharge current		1500A (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	292	191	132	77.4	55.7	44.6	38.3	33.0	26.0	21.5	11.3
1.65V/cell	285	187	128	76.9	55.4	44.3	38.1	32.8	25.9	21.4	11.3
1.70V/cell	274	182	124	76.2	55.0	44.0	37.9	32.6	25.7	21.4	11.3
1.75V/cell	265	177	120	75.1	54.6	43.7	37.6	32.3	25.5	21.3	11.2
1.80V/cell	251	171	116	73.2	53.0	42.4	36.5	31.4	24.7	21.1	11.1

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	534	357	251	149	109	87.3	75.5	65.0	51.8	42.8	22.7
1.65V/cell	521	350	244	148	109	86.8	75.1	64.6	51.5	42.7	22.6
1.70V/cell	502	339	236	147	108	86.2	74.6	64.2	51.1	42.5	22.5
1.75V/cell	485	331	229	145	107	85.6	74.1	63.7	50.8	42.3	22.4
1.80V/cell	459	319	221	141	104	83.0	71.8	61.8	49.3	42.0	22.3

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

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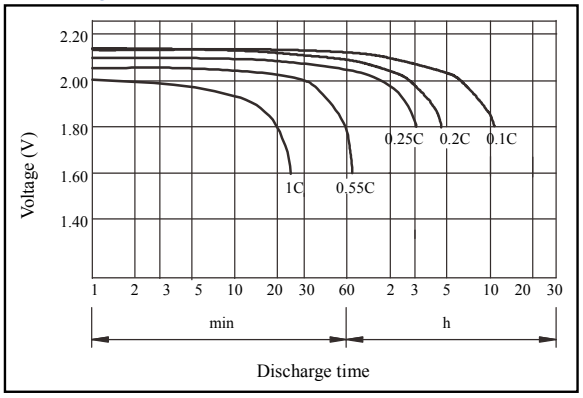
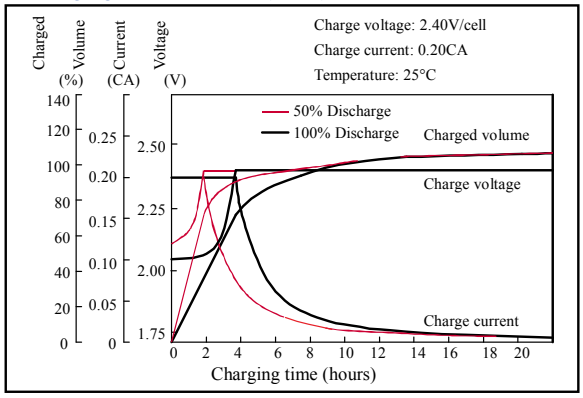
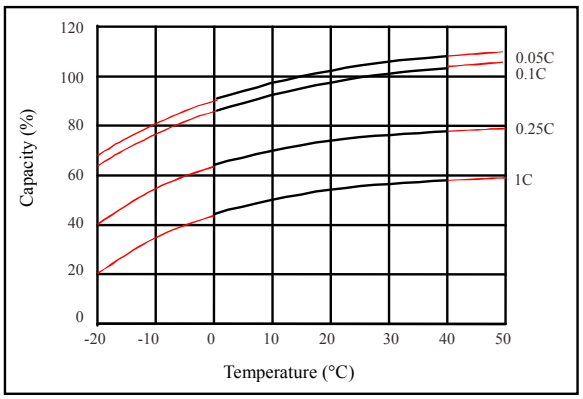
Discharge characteristics (25°C)



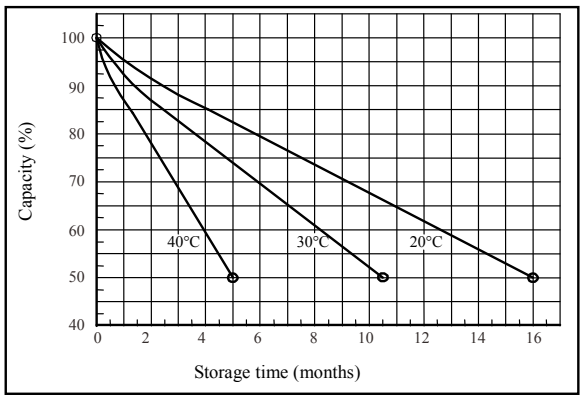
Charging characteristics (25°C)



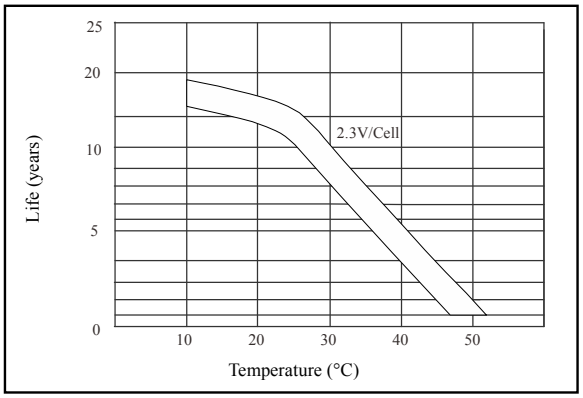
Temperature effects on capacity



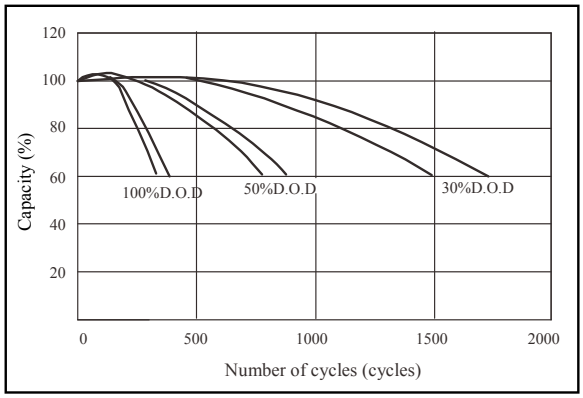
Self-discharge characteristics



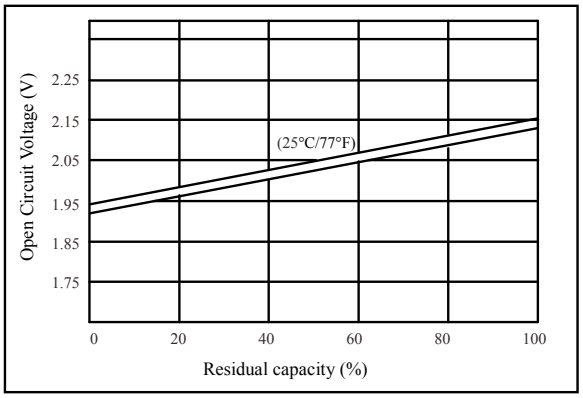
Floating life on temperature



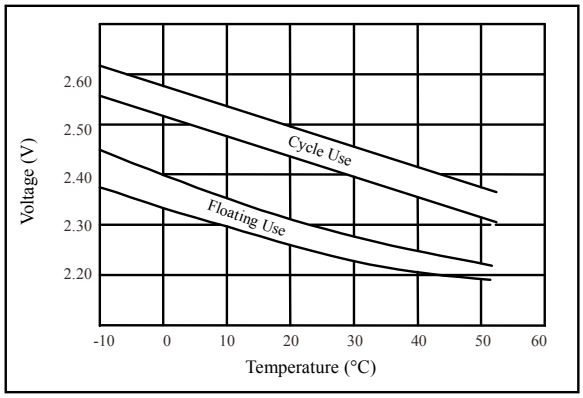
Cycle life on D.O.D (25°C)



Relationship for OCV and capacity (25°C)



Relationship for charging voltage and temperature



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