

NEWSTAR

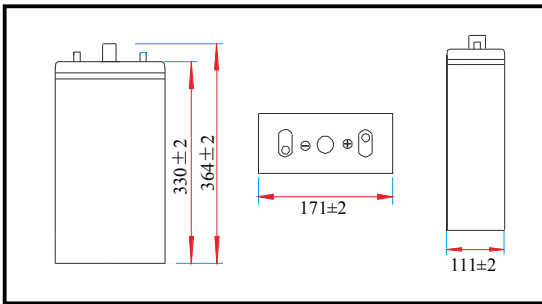
NP2-200Ah 2V200Ah

Valve Regulated Lead Acid Battery

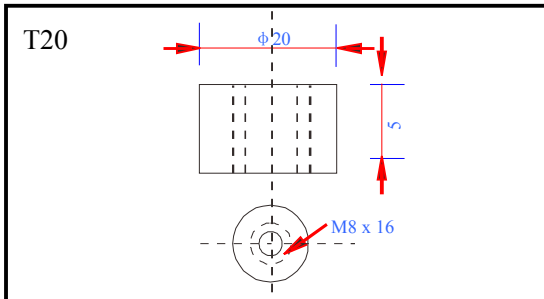
● Specifications

Nominal voltage	2V (1 cell per unit)	
Rated capacity (10HR)	200Ah/10.8V	
Dimensions	Length	171±2mm (6.73inch)
	Width	111±2mm (4.37inch)
	Height	330±2mm (12.99inch)
	Total height	364±2mm (14.33inch)
Approx. weight	12.70kg (28.00lbs)±3%	

● Outer dimensions (mm)



● Terminal type (mm)



● Characteristics

Capacity (25°C)	10HR (1.80V)	200Ah
	3HR (1.80V)	150Ah
	1HR (1.75V)	110Ah
Terminal type		T20
Internal resistance (Fully charged, 25°C)		Approx. 0.8mΩ
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)

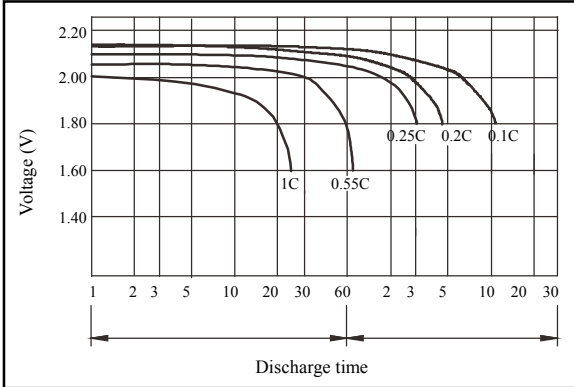
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	278	182	126	73.7	53.0	42.4	36.5	31.4	24.8	20.5	10.8
1.65V/cell	271	178	122	73.3	52.7	42.2	36.3	31.2	24.6	20.4	10.8
1.70V/cell	261	173	118	72.6	52.4	41.9	36.1	31.0	24.5	20.4	10.7
1.75V/cell	252	169	115	71.5	52.0	41.6	35.8	30.8	24.3	20.2	10.7
1.80V/cell	239	163	111	69.7	50.4	40.4	34.7	29.9	23.6	20.1	10.6

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

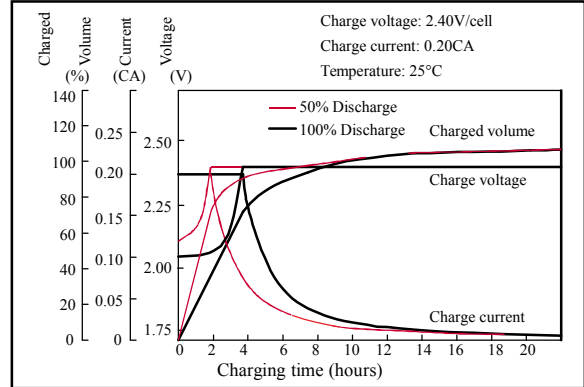
F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
1.60V/cell	509	340	239	142	104	83.2	71.9	61.9	49.3	40.7	21.6
1.65V/cell	497	334	232	141	103	82.7	71.5	61.5	49.0	40.6	21.5
1.70V/cell	478	323	225	140	103	82.1	71.0	61.1	48.7	40.5	21.5
1.75V/cell	462	315	218	138	102	81.5	70.5	60.7	48.4	40.3	21.3
1.80V/cell	438	304	211	135	98.9	79.1	68.4	58.9	46.9	40.0	21.2

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

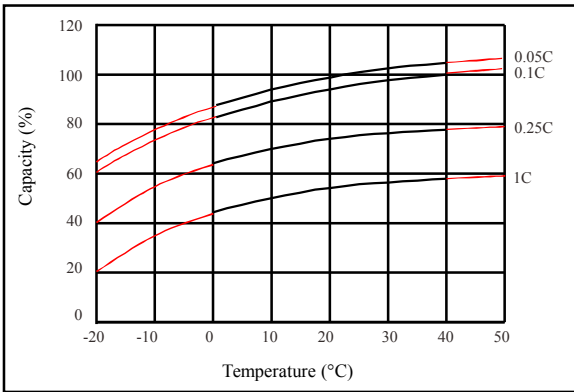
● Discharge characteristics (25°C)



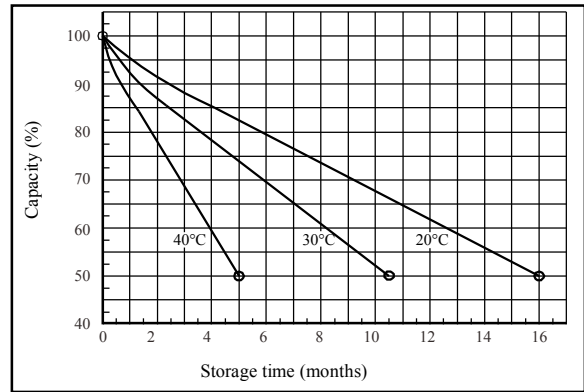
● Charging characteristics (25°C)



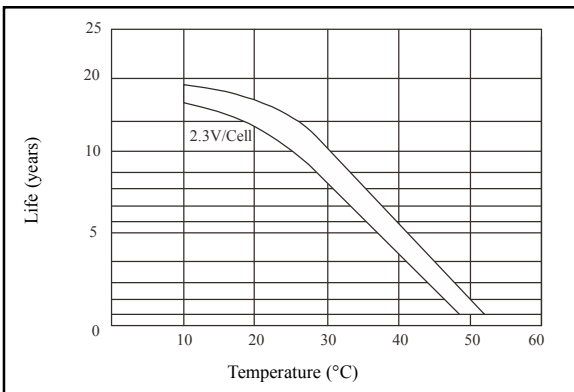
● Temperature effects on capacity



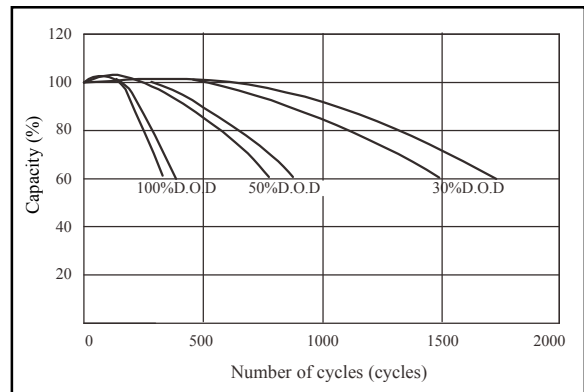
● Self-discharge characteristics



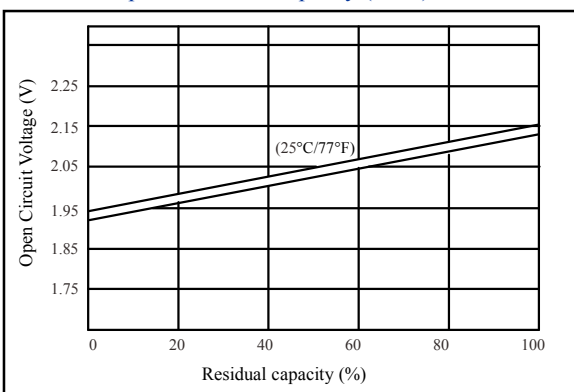
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

