

NP4-9Ah 4V9Ah

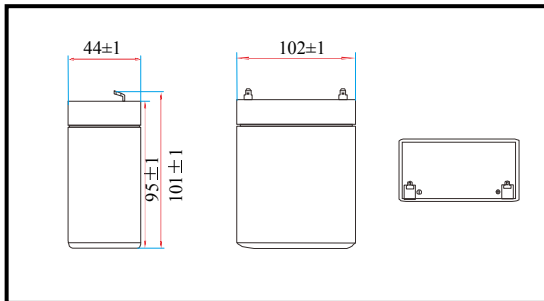
Valve Regulated Lead Acid Battery



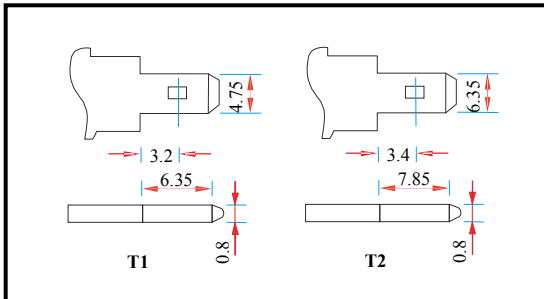
Specifications

Nominal voltage	4V (2 cells per unit)	
Rated capacity (20HR)	9Ah/3.5V	
Dimensions	Length	102±1mm (4.02inch)
	Width	44±1mm (1.73inch)
	Height	95±1mm (3.74inch)
	Total height	101±1mm (3.98inch)
Approx. weight	0.95kg (2.09lbs)±5%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	20HR (3.5V)	9Ah
	10HR (3.5V)	8.4Ah
	1HR (3.2V)	5.4Ah
Terminal type		T1/T2
Internal resistance (Fully charged, 25°C)		Approx. 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)		4.50 to 4.60V Temperature compensation: -6mV/°C/Block
Cyclic charging voltage (25°C)		4.80 to 5.00V Temperature compensation: -10mV/°C/Block
Maximum charging current		2.7A
Maximum discharge current		135A (5 sec.)
Design life	5 years for floating (25°C)	
	Eurobat (20°C): 3-5 years, standard commercial.	

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)

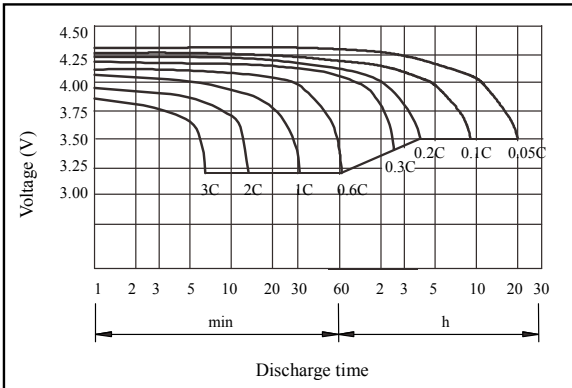
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
4.80V	34.4	21.8	17.0	9.59	5.90	3.22	2.23	1.85	1.57	0.85	0.46
4.95V	33.3	21.1	16.6	9.39	5.81	3.21	2.22	1.83	1.56	0.85	0.45
5.10V	32.0	20.3	16.0	9.11	5.66	3.18	2.20	1.82	1.55	0.84	0.45
5.25V	30.6	19.4	15.4	8.89	5.55	3.13	2.19	1.81	1.54	0.84	0.45
5.40V	28.9	18.3	14.6	8.56	5.38	3.05	2.12	1.75	1.49	0.82	0.44

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

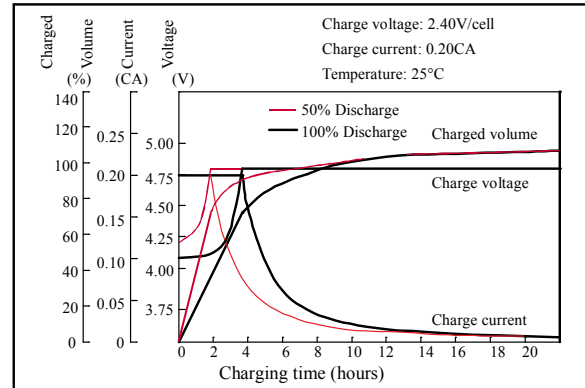
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
4.80V	128	81.9	64.6	36.6	22.8	12.6	8.83	7.33	6.25	3.41	1.83
4.95V	124	79.4	63.1	35.9	22.4	12.5	8.78	7.28	6.21	3.40	1.82
5.10V	119	76.2	60.8	34.8	21.8	12.4	8.72	7.23	6.17	3.38	1.81
5.25V	114	72.9	58.7	33.9	21.4	12.2	8.66	7.18	6.13	3.36	1.80
5.40V	107	68.8	55.6	32.7	20.8	11.9	8.40	6.97	5.94	3.29	1.76

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

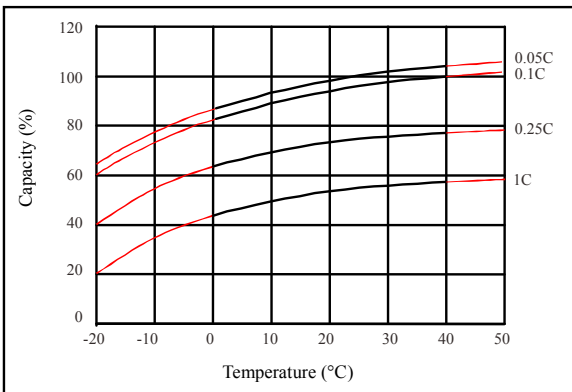
● Discharge characteristics (25°C)



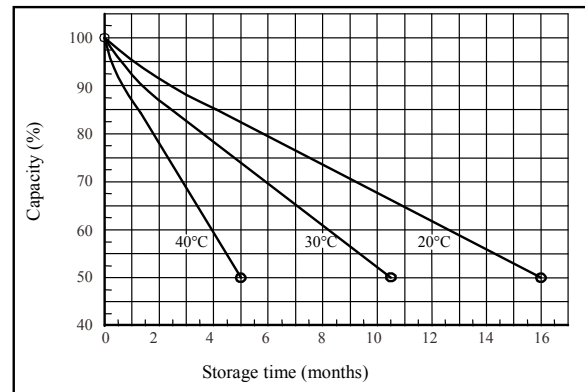
● Charging characteristics (25°C)



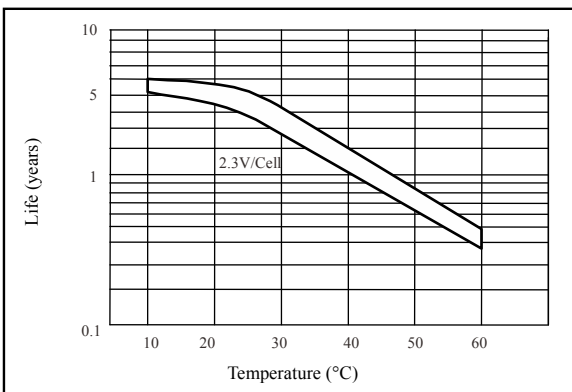
● Temperature effects on capacity



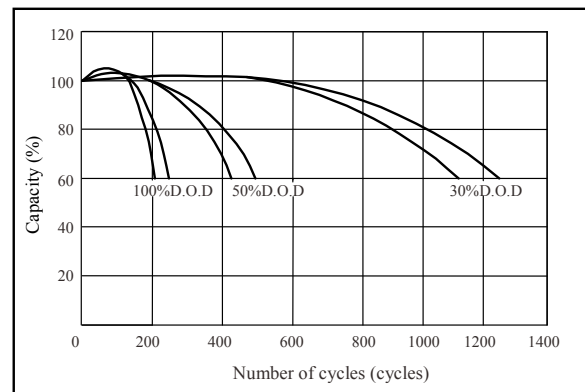
● Self-discharge characteristics



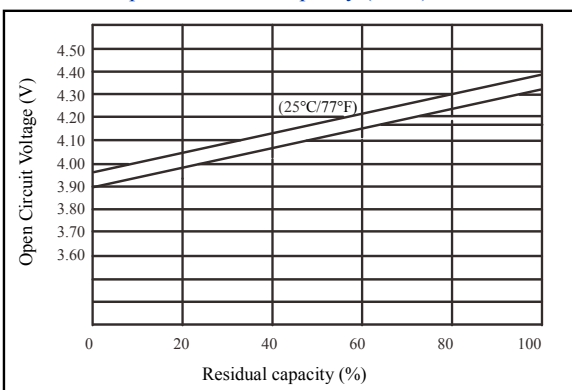
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

