

NP12-3.2Ah 12V3.2Ah

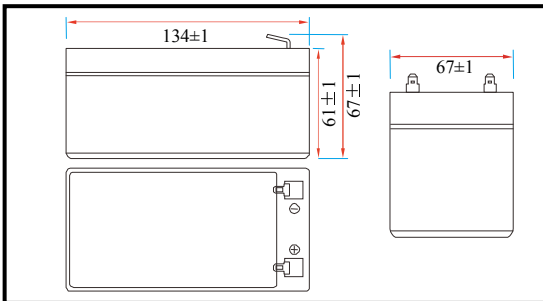
Valve Regulated Lead Acid Battery



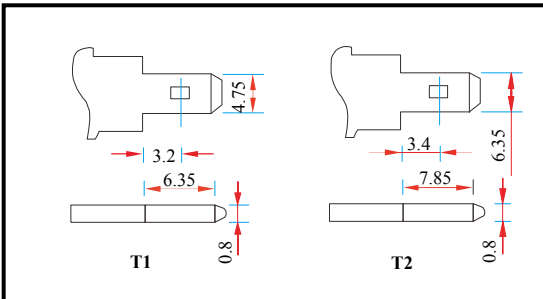
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (20HR)	3.2Ah/10.5V	
Dimensions	Length	134±1mm (5.28inch)
	Width	67±1mm (2.64inch)
	Height	61±1mm (2.40inch)
	Total height	67±1mm (2.64inch)
Approx. weight	1.20kg (2.65lbs)±5%	

Outer dimensions (mm)



Terminal type (mm)



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
9.60V	12.2	7.74	6.05	3.41	2.10	1.15	0.79	0.66	0.56	0.30	0.16
9.90V	11.9	7.51	5.90	3.34	2.06	1.14	0.79	0.65	0.55	0.30	0.16
10.2V	11.4	7.20	5.69	3.24	2.01	1.13	0.78	0.65	0.55	0.30	0.16
10.5V	10.9	6.89	5.49	3.16	1.97	1.11	0.78	0.64	0.55	0.30	0.16
10.8V	10.3	6.50	5.20	3.04	1.91	1.08	0.75	0.62	0.53	0.29	0.16

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
9.60V	136	87.4	68.9	39.1	24.3	13.4	9.42	7.81	6.66	3.64	1.95
9.90V	132	84.7	67.3	38.3	23.9	13.3	9.37	7.77	6.63	3.62	1.94
10.2V	127	81.2	64.8	37.1	23.3	13.2	9.30	7.71	6.58	3.60	1.93
10.5V	121	77.7	62.6	36.2	22.8	13.0	9.24	7.66	6.53	3.58	1.92
10.8V	115	73.4	59.3	34.9	22.1	12.7	8.96	7.43	6.34	3.51	1.88

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

Characteristics

Capacity (25°C)	20HR (10.5V)	3.2Ah
	10HR (10.5V)	3.0Ah
	1HR (9.60V)	2.0Ah
Terminal type		T1/T2
Internal resistance (Fully charged, 25°C)		Approx. 50mΩ
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)		13.60 to 13.80V Temperature compensation: -18mV/°C/Block
Cyclic charging voltage (25°C)		14.50 to 15.00V Temperature compensation: -30mV/°C/Block
Maximum charging current		0.96A
Maximum discharge current		48A (5 sec.)
Design life	5 years for floating (25°C)	
	Eurobat (20°C): 3-5 years, standard commercial.	

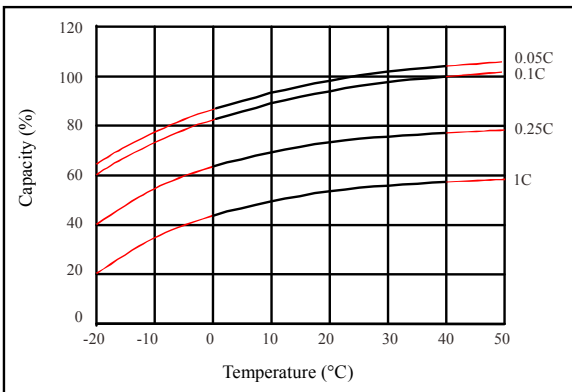
● Discharge characteristics (25°C)



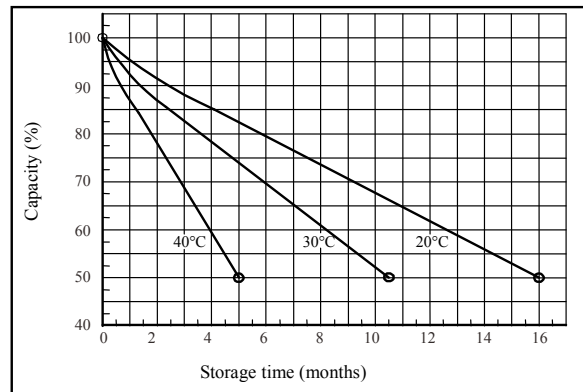
● Charging characteristics (25°C)



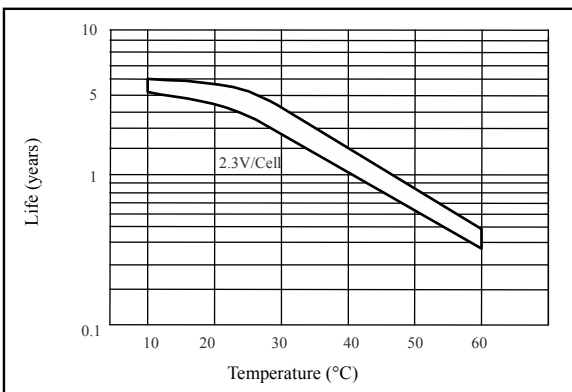
● Temperature effects on capacity



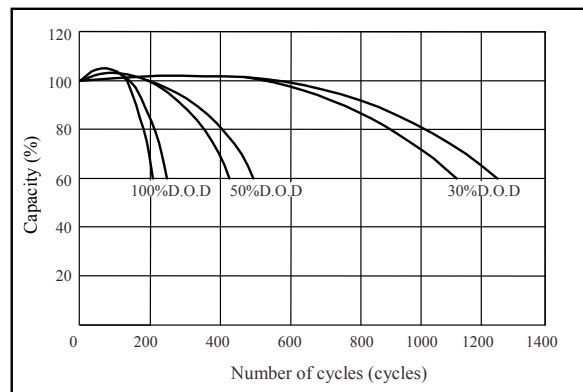
● Self-discharge characteristics



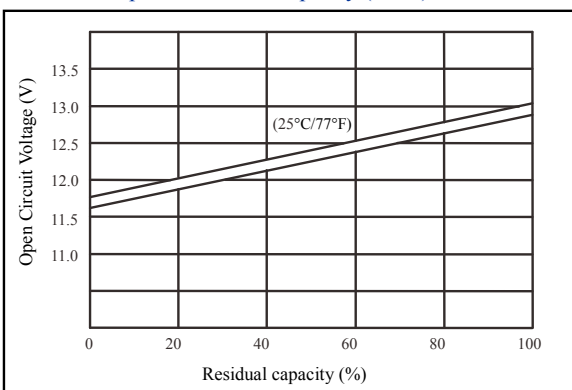
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

