

NPG12-33Ah (12V33Ah)

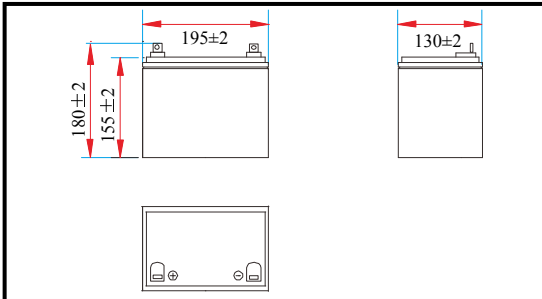
Valve Regulated Lead Acid Battery



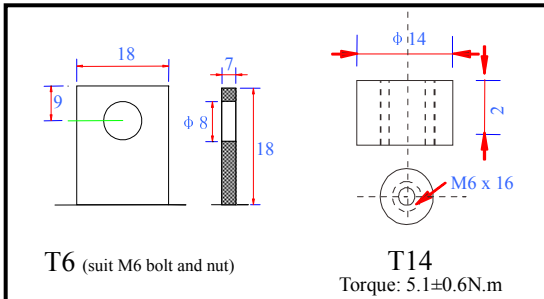
Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (10HR)	33Ah/10.8V	
Dimensions	Length	195±2mm (7.68inch)
	Width	130±2mm (5.12inch)
	Height	155±2mm (6.10inch)
	Total height	T14: 167±2mm (6.57inch) T6: 180±2mm (7.09inch)
Approx. weight	11.00kg (24.20lbs)±4%	

Outer dimensions (mm)



Terminal type (mm)



Characteristics

Capacity (25°C)	10HR (10.8V)	33Ah
	3HR (10.8V)	24Ah
	1HR (10.5V)	18Ah
Terminal type	T6/T14	
Internal resistance (Fully charged, 25°C)	Approx. 9.5mΩ	
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)	13.50 to 13.80V Temperature compensation: -18mV/°C/Block	
Cyclic charging voltage (25°C)	14.50 to 14.70V Temperature compensation: -30mV/°C/Block	
Maximum charging current	6.6A	
Maximum discharge current	330A (5 sec.)	
Design life	12 years for floating (25°C)	
	Eurobat (20°C): 10-12 years, 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/Lead

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

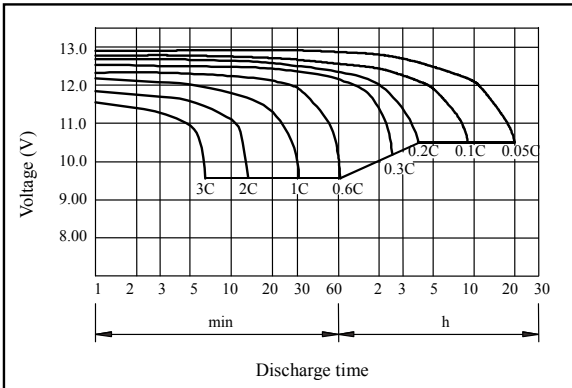
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	64.4	52.8	32.0	19.8	12.1	8.58	6.73	5.72	4.04	3.36	1.78
9.90V	62.4	51.5	31.4	19.5	12.0	8.53	6.69	5.69	4.02	3.35	1.78
10.2V	59.8	49.6	30.4	19.0	11.9	8.47	6.65	5.65	3.99	3.34	1.77
10.5V	57.3	47.9	29.7	18.4	11.7	8.42	6.60	5.61	3.96	3.32	1.76
10.8V	54.1	45.4	28.6	17.8	11.4	8.25	6.40	5.44	3.84	3.30	1.75

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

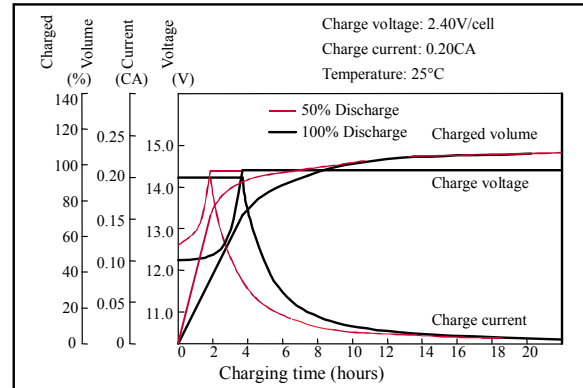
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	695	580	359	226	140	101	79.2	67.6	48.0	40.1	21.4
9.90V	674	566	352	222	139	100	78.7	67.2	47.7	40.0	21.3
10.2V	646	545	341	217	138	100	78.2	66.8	47.4	39.9	21.3
10.5V	619	526	333	210	136	99	77.6	66.3	47.0	39.7	21.1
10.8V	584	499	321	203	132	97	75.3	64.3	45.6	39.4	21.0

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

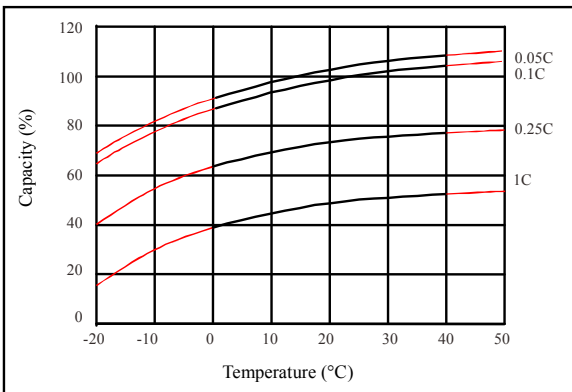
● Discharge characteristics (25°C)



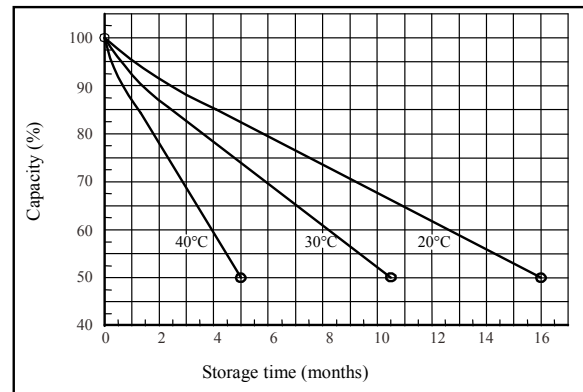
● Charging characteristics (25°C)



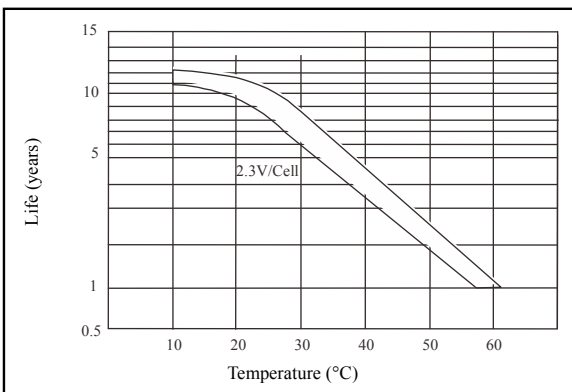
● Temperature effects on capacity



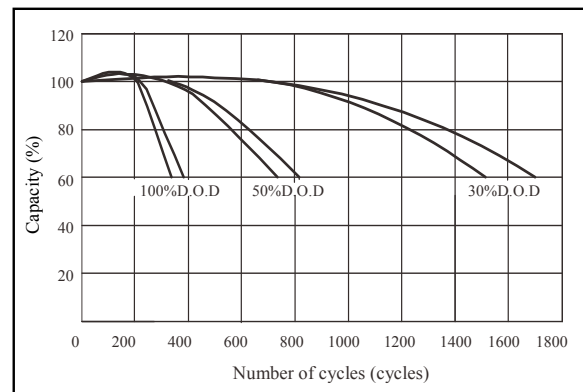
● Self-discharge characteristics



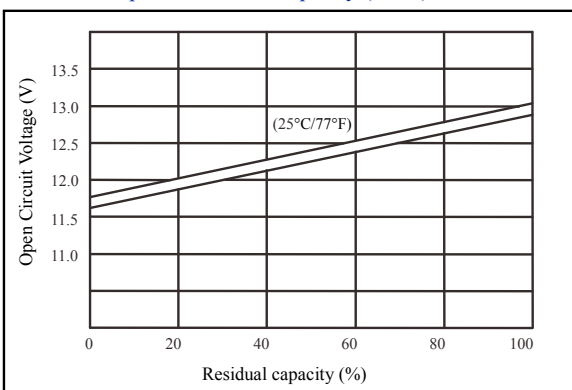
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

