

NP12-90Ah 12V90Ah

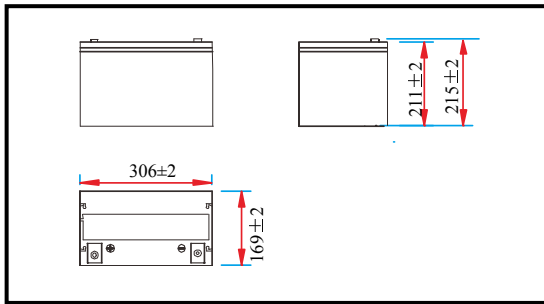
Valve Regulated Lead Acid Battery

● Specifications

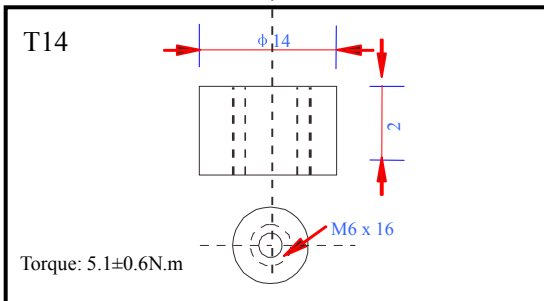
Nominal voltage		12V (6 cells per unit)
Rated capacity (10HR)		90Ah/10.8V
Dimensions	Length	306±2mm (12.05inch)
	Width	169±2mm (6.65inch)
	Height	211±2mm (8.31inch)
	Total height	215±2mm (8.46inch)
Approx. weight		27.00kg (59.50lbs)±3%



● Outer dimensions (mm)



● Terminal type (mm)



● Characteristics

Capacity (25°C)	10HR (10.8V)	90Ah
	3HR (10.8V)	67.5Ah
	1HR (10.5V)	50Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 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 15.00V Temperature compensation: -30mV/°C/Block
Maximum charging current		27A
Maximum discharge current		800A (5 sec.)
Design life	10 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	Sulfuric acid	Rubber	Copper

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

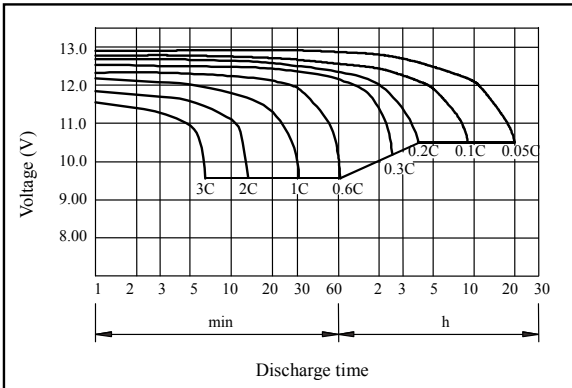
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	196	151	90.5	55.6	32.9	23.7	18.9	16.2	11.1	9.16	4.86
1.67V/cell	190	148	88.6	54.8	32.7	23.5	18.8	16.1	11.0	9.14	4.85
1.70V/cell	182	142	85.9	53.4	32.4	23.4	18.7	16.0	11.0	9.12	4.83
1.75V/cell	175	137	83.8	51.7	31.9	23.2	18.5	15.8	10.9	9.06	4.80
1.80V/cell	165	130	80.8	50.1	31.1	22.5	18.0	15.4	10.6	9.00	4.77

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

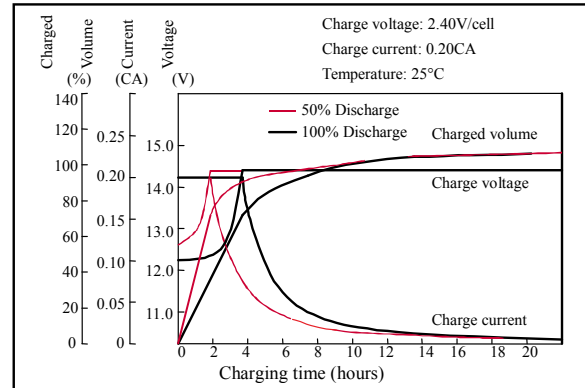
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
1.60V/cell	2119	1660	1015	634	381	279	222	191	132	109	58.3
1.67V/cell	2055	1620	995	625	379	277	221	190	131	109	58.2
1.70V/cell	1971	1561	964	609	375	275	220	189	130	109	58.0
1.75V/cell	1886	1507	941	590	370	273	218	187	129	108	57.6
1.80V/cell	1780	1428	906	571	360	265	211	182	125	107	57.2

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

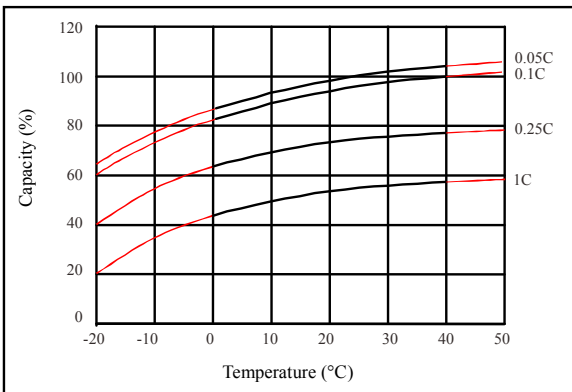
● Discharge characteristics (25°C)



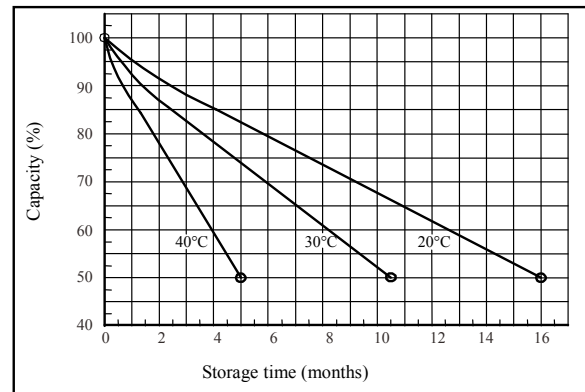
● Charging characteristics (25°C)



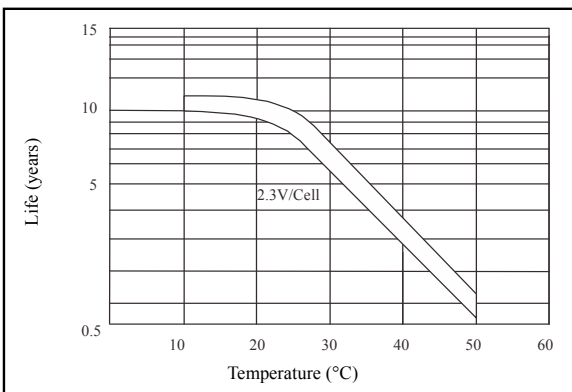
● Temperature effects on capacity



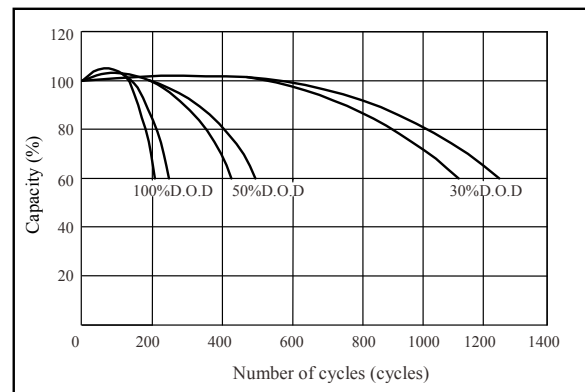
● Self-discharge characteristics



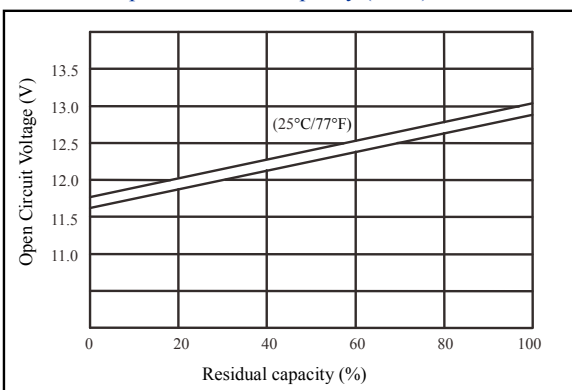
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

