

## NP12-120Ah 12V120Ah

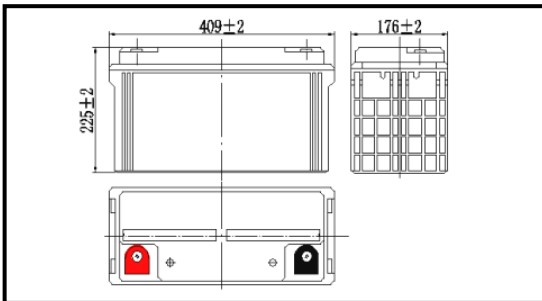
### Valve Regulated Lead Acid Battery



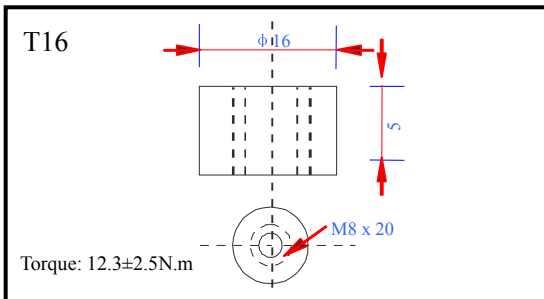
#### Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (10HR)	120Ah/10.8V	
Dimensions	Length	409±2mm (16.10inch)
	Width	176±2mm (6.93inch)
	Height	225±2mm (8.86inch)
	Total height	225±2mm (8.86inch)
Approx. weight	34.80kg (76.70lbs)±3%	

#### Outer dimensions (mm)



#### Terminal type (mm)



#### Characteristics

Capacity (25°C)	10HR (10.8V)	120Ah
	3HR (10.8V)	90Ah
	1HR (10.5V)	66Ah
Terminal type		T16
Internal resistance (Fully charged, 25°C)		Approx. 4mΩ
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		36A
Maximum discharge current		950A (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
9.60V	262	202	121	74.2	43.8	31.6	25.2	21.5	14.8	12.2	6.47
9.90V	254	197	118	73.0	43.6	31.4	25.1	21.4	14.7	12.2	6.46
10.2V	243	190	115	71.2	43.2	31.2	24.9	21.3	14.6	12.2	6.44
10.5V	233	183	112	69.0	42.6	31.0	24.7	21.1	14.5	12.1	6.40
10.8V	220	173	108	66.7	41.5	30.0	24.0	20.5	14.1	12.0	6.36

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

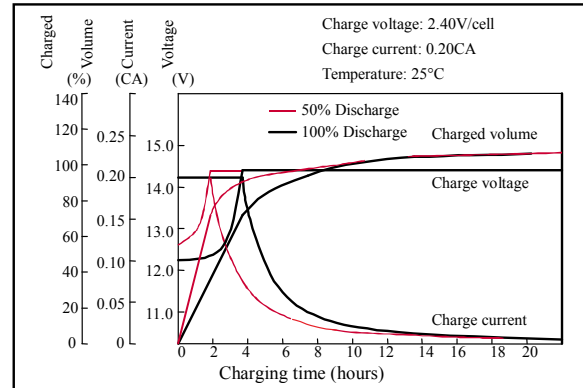
F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2825	2214	1353	845	508	371	297	255	176	146	77.7
9.90V	2741	2160	1326	833	505	369	295	253	175	146	77.5
10.2V	2628	2081	1285	812	500	367	293	251	174	145	77.3
10.5V	2514	2010	1254	786	493	364	291	250	172	144	76.9
10.8V	2373	1904	1208	761	408	353	282	242	167	143	76.3

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

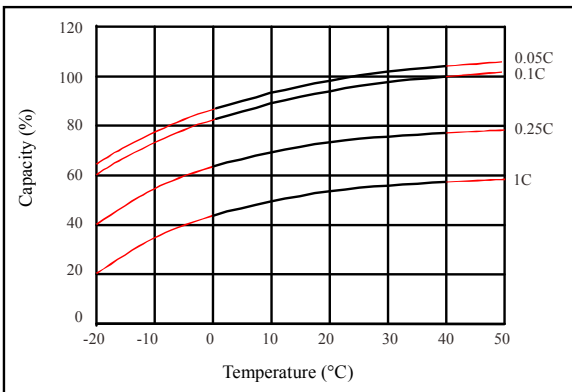
### ● Discharge characteristics (25°C)



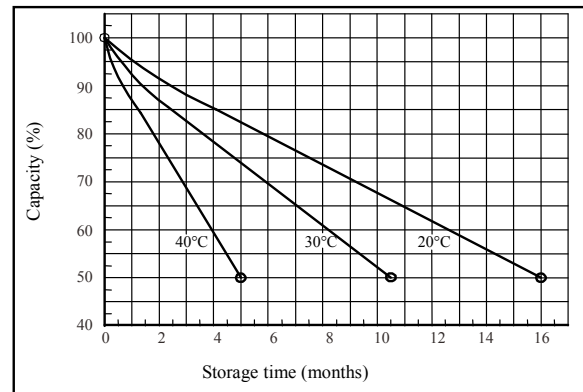
### ● Charging characteristics (25°C)



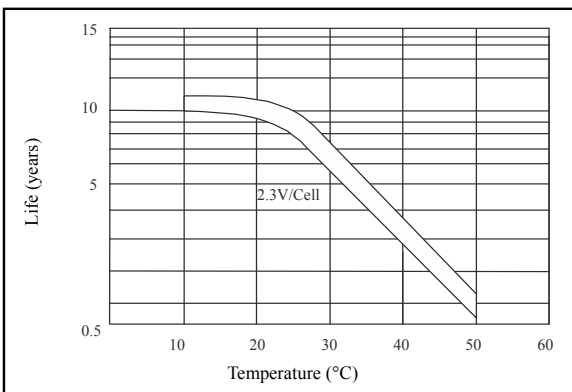
### ● Temperature effects on capacity



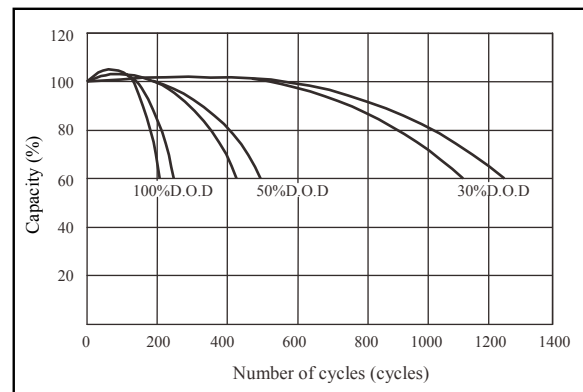
### ● Self-discharge characteristics



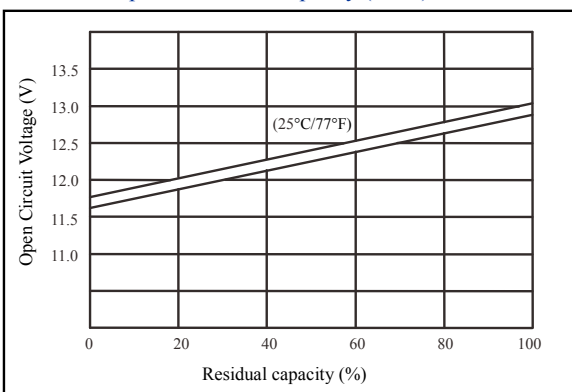
### ● Floating life on temperature



### ● Cycle life on D.O.D (25°C)



### ● Relationship for OCV and capacity (25°C)



### ● Relationship for charging voltage and temperature

