UNIVERSAL BATTERY

UB-12U180.0 (12V180.0AH)



Capacity & electrical

Capacity (25°C)	
10HR(10.8V)	**180Ah**
3HR(10.8V)	**135Ah**
1HR(10.5V)	**100Ah**
Terminal type	**T16**
Internal resistance (Fully charged,25°C)	**Approx.3.2mΩ**
Maximum charging current	**54A**
Maximum discharge current	**1300A(5 sec.)**
Designed floating life(20°C)	**10years**

Operating temperatures

Nominal operating temperature	**25°C±3°C (77°F±5°F)**
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)**

Charging parameters

Float charging voltage(25°C)

13.50 to 13.80V

Temperature compensation: -18mV/°C

Cyclic charging voltage(25°C)

14.50 to 15.00V

Temperature compensation: -30mV/°C

Self-discharge (25°C)

3month	**Remaining Capacity:91%**
6month	**Remaining Capacity:82%**
12month	**Remaining Capacity:65%**

Capacity affected by temperature (10HR)

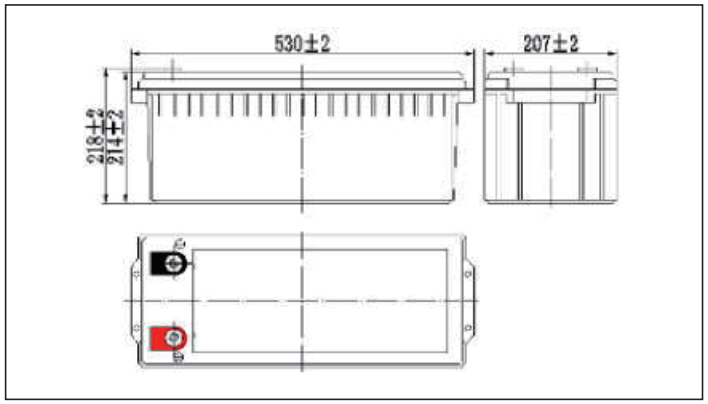
40°C	**102%**
25°C	**100%**
0°C	**85%**
-15°C	**65%**

Specifications & technical details

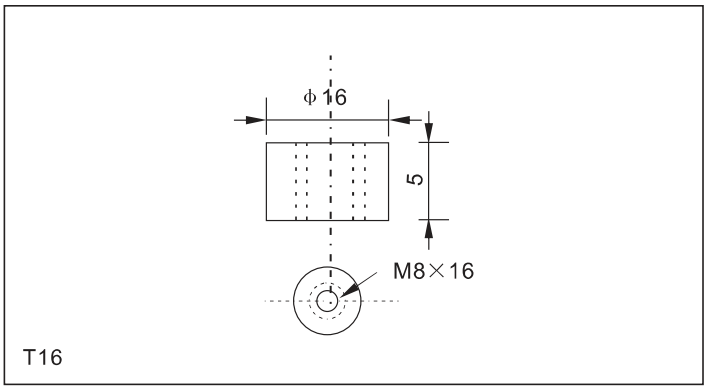
Specifications

Nominal Voltage	**12V**	Length	**530±2mm (20.87inch)**
Rated capacity (10 hour rate)	**180Ah**	Width	**207±2mm (8.15inch)**
Approx. Weight	**53.5kg (117.9lbs)±3%**	Height	**214±2mm (8.43inch)**
		Total Height	**218±2mm (8.58inch)**

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:A(25°C,77°F)

F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	302	181	111	65.8	47.4	37.8	32.3	28.1	22.2	18.3	9.71
9.90V	295	177	110	65.4	47.1	37.6	32.1	27.9	22.1	18.3	9.69
10.2V	284	172	107	64.8	46.8	37.3	31.9	27.7	21.9	18.2	9.66
10.5V	275	168	103	63.8	46.4	37.1	31.7	27.5	21.8	18.1	9.61
10.8V	260	162	100	62.2	45.0	36.0	30.7	26.7	21.1	18.0	9.54

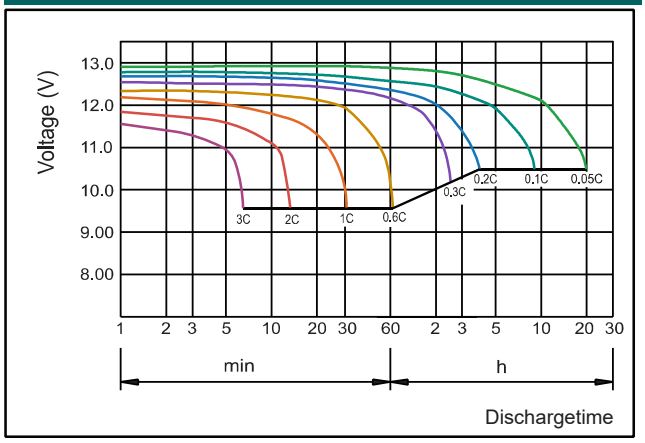
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	15min	30min	60min	2h	3h	4h	5h	6h	8h	10h	20h
9.60V	3320	2030	1268	762	557	445	382	332	264	219	117
9.90V	3241	1989	1249	757	554	442	380	330	262	218	116
10.2V	3121	1928	1217	750	550	439	377	328	261	218	116
10.5V	3015	1882	1179	739	546	436	374	326	259	216	115
10.8V	2856	1813	1141	720	530	423	363	316	251	215	114

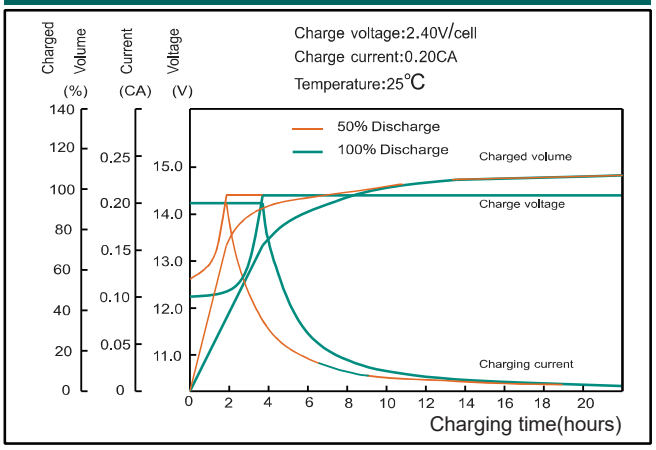
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

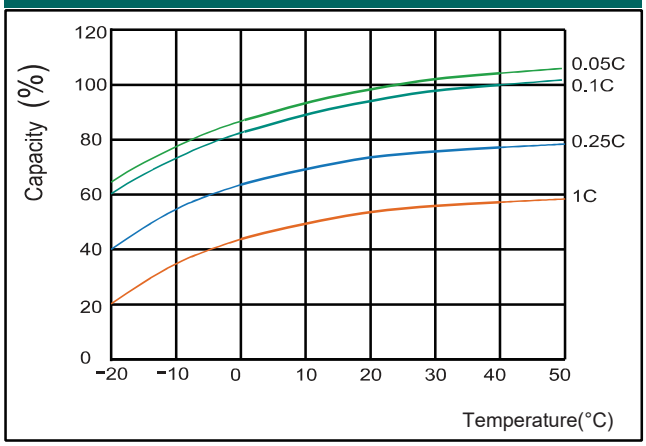
Discharge characteristics (25°C)



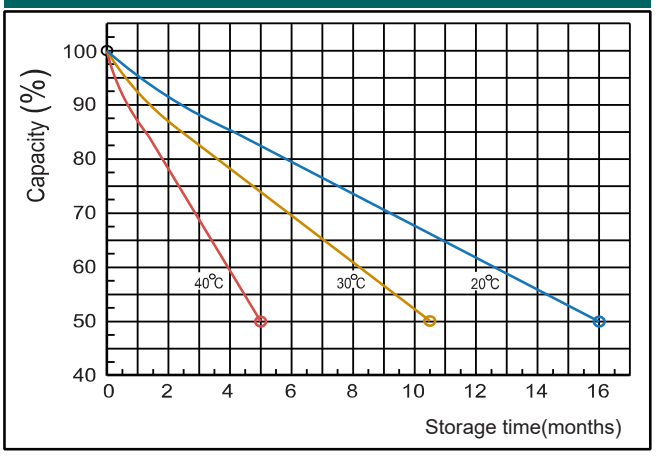
Charge characteristics (25°C)



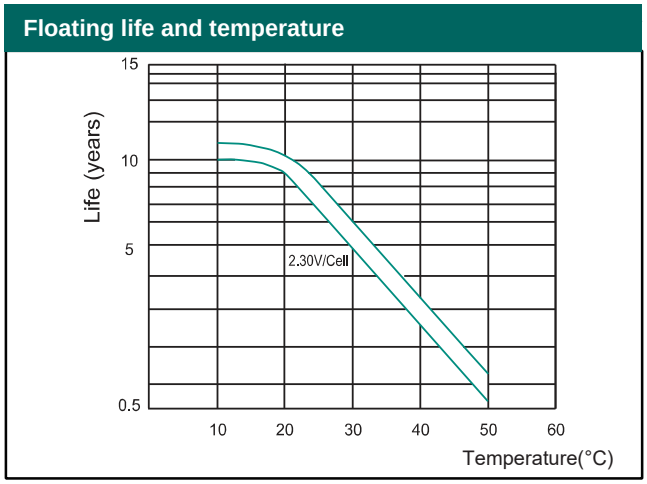
Effect of temperature on capacity



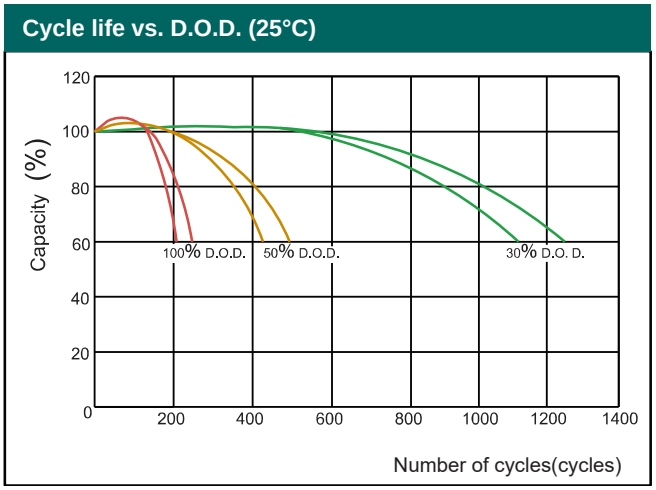
Self-discharge characteristics



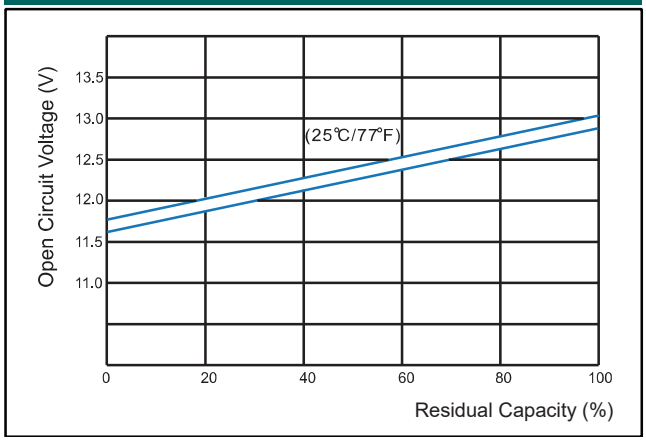
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

