UNIVERSAL BATTERY

UB-12U50.0

(12V50.0AH)



Capacity & electrical

Capacity (25°C)	
10HR(10.8V)	**50Ah**
3HR(10.8V)	**37.5Ah**
1HR(10.5V)	**27.5Ah**
Terminal type	**T14**
Internal resistance (Fully charged,25°C)	**Approx.7.5mΩ**
Maximum charging current	**15A**
Terminal material	**Copper**
Maximum discharge current	**500A(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)

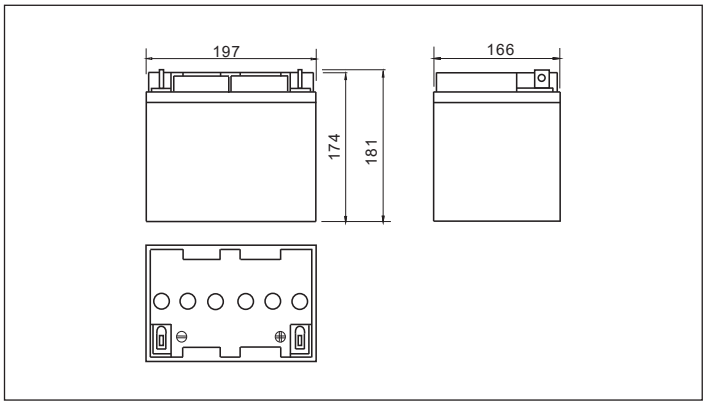
40°C	**102%**
25°C	**100%**
0°C	**85%**
-15°C	**65%**

Specifications & technical details

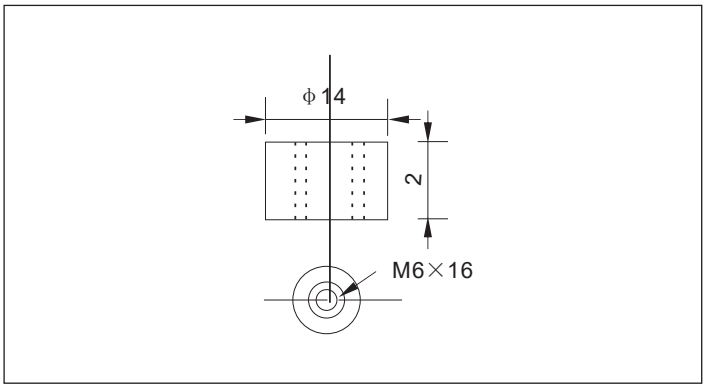
Specifications

Nominal Voltage	**12V**	Length	**230±2mm (9.06inch)**
Rated capacity (10 hour rate)	**50Ah**	Width	**138±2mm (5.43inch)**
Approx. Weight	**15.9kg (35.05lbs)±3%**	Height	**211±2mm (8.31inch)**
		Total Height	**211±2mm (8.46inch)**

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	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	109	84.0	50.3	30.9	18.3	13.2	10.5	8.98	6.17	5.09	2.70
9.90V	106	82.0	49.2	30.4	18.2	13.1	10.4	8.92	6.13	5.08	2.69
10.2V	101	79.0	47.7	29.7	18.0	13.0	10.4	8.86	6.09	5.07	2.68
10.5V	97.0	76.3	46.6	28.7	17.7	12.9	10.3	8.80	6.05	5.04	2.67
10.8V	91.6	72.2	44.9	27.8	17.3	12.5	9.99	8.54	5.87	5.00	2.65

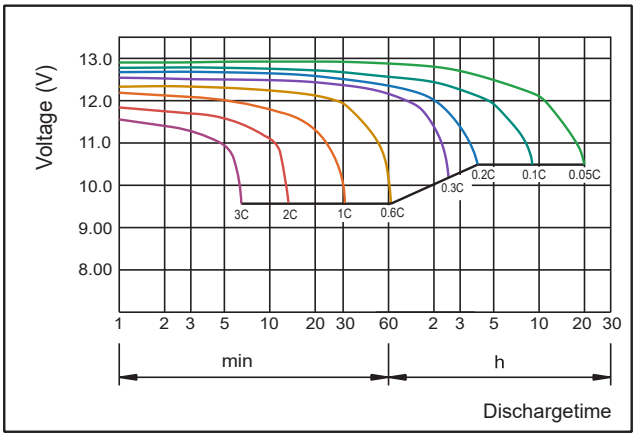
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1177	922	564	352	212	155	124	106	73.3	60.8	32.4
9.90V	1142	900	553	347	210	154	123	105	72.9	60.7	32.3
10.2V	1095	867	536	338	208	153	122	105	72.4	60.5	32.2
10.5V	1048	837	523	328	205	152	121	104	71.9	60.1	32.0
10.8V	989	793	503	317	200	147	117	101	69.7	59.7	31.8

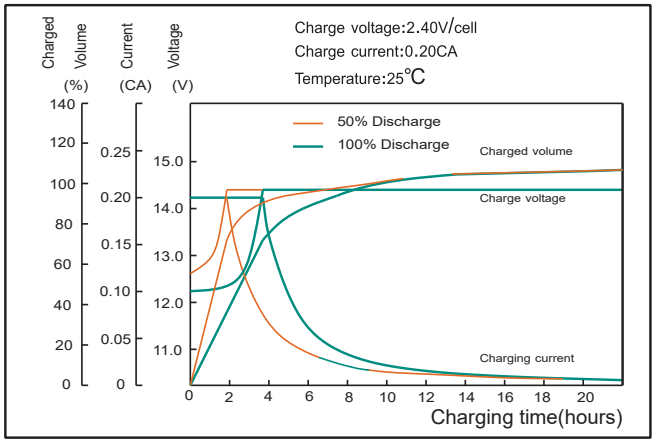
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

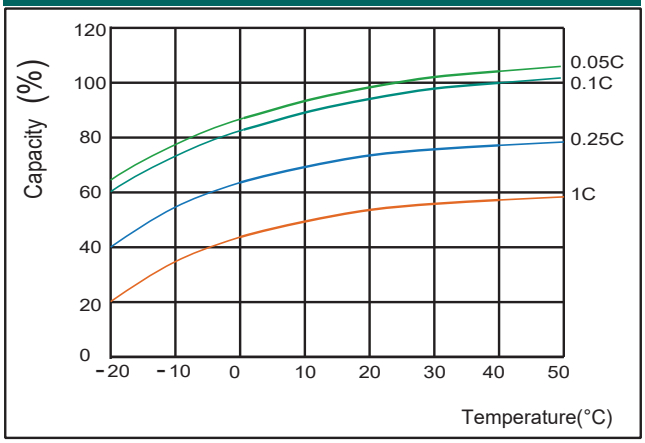
Discharge characteristics (25°C)



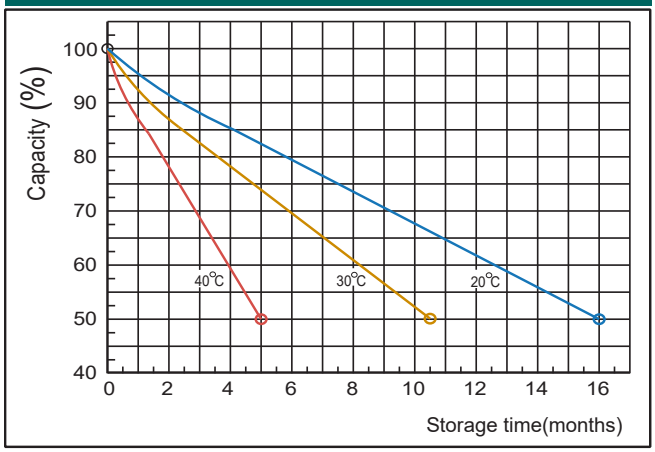
Charge characteristics (25°C)



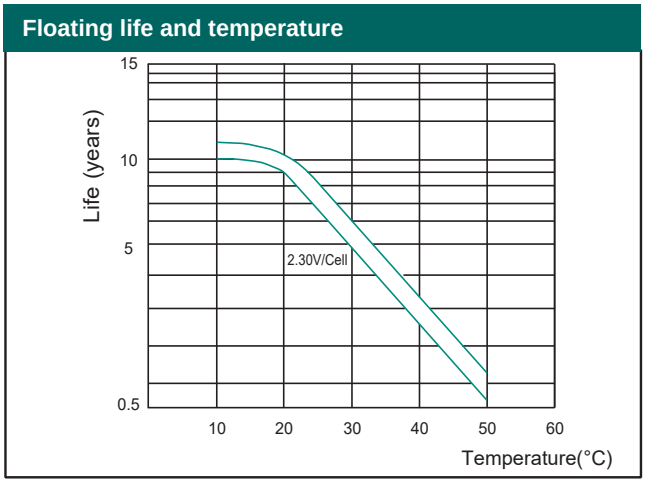
Effect of temperature on capacity



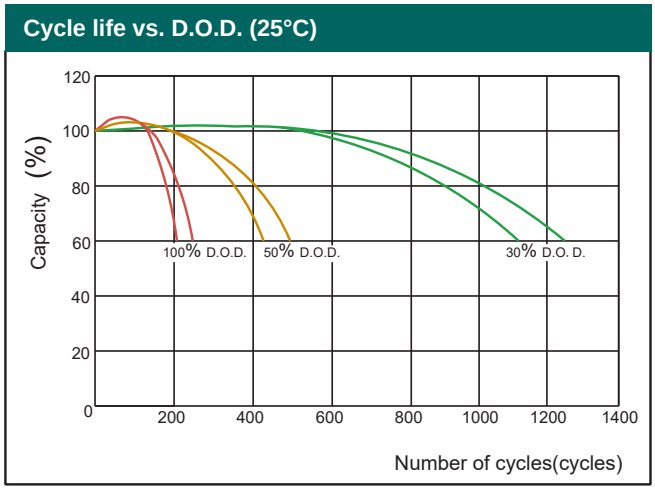
Self-discharge characteristics



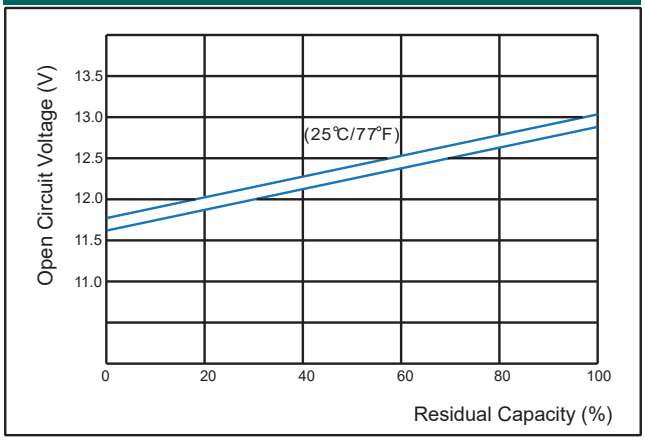
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

