UNIVERSAL BATTERY

UB-12U38.0

(12V38.0AH)



Capacity & electrical

Capacity (25°C)	
10HR(10.8V)	**38Ah**
3HR(10.8V)	**28.5Ah**
1HR(10.5V)	**21Ah**
Terminal type	**T14**
Internal resistance (Fully charged,25°C)	**Approx.10mΩ**
Maximum charging current	**11.4A**
Maximum discharge current	**380A(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)

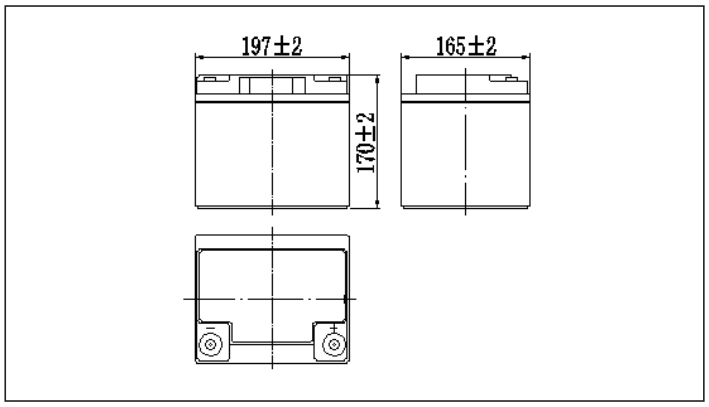
40°C	**102%**
25°C	**100%**
0°C	**85%**
-15°C	**65%**

Specifications & technical details

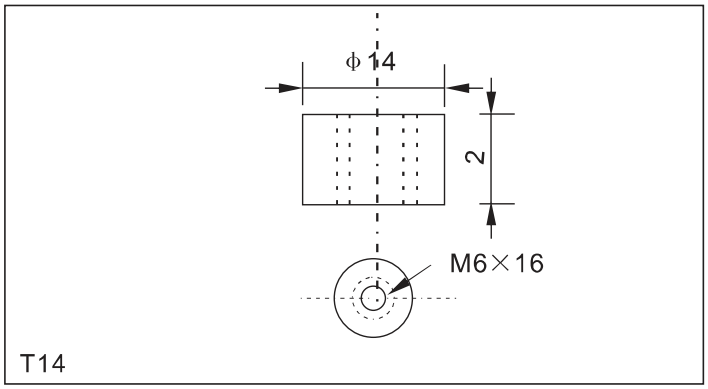
Specifications

Nominal Voltage	**12V**	Length	**197±2mm (7.76inch)**
Rated capacity (10 hour rate)	**38Ah**	Width	**165±2mm (6.50inch)**
Approx. Weight	**11.8kg (26.0lbs)±4%**	Height	**170±2mm (6.69inch)**
		Total Height	**170±2mm (6.69inch)**

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 / lead

● 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	82.8	63.8	38.2	23.5	13.9	10.0	7.98	6.82	4.69	3.87	2.05
9.90V	80.4	62.3	37.4	23.1	13.8	9.94	7.94	6.78	4.66	3.86	2.05
10.2V	77.0	60.0	36.3	22.5	13.7	9.87	7.88	6.73	4.63	3.85	2.04
10.5V	73.7	58.0	35.4	21.8	13.5	9.80	7.83	6.69	4.60	3.83	2.03
10.8V	69.6	54.9	34.1	21.1	13.1	9.51	7.59	6.49	4.46	3.80	2.01

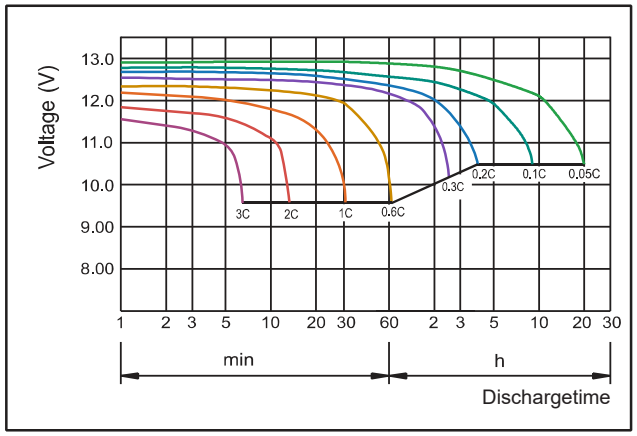
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	895	701	428	268	161	118	93.9	80.6	55.7	46.2	24.6
9.90V	868	684	420	264	160	117	93.3	80.2	55.4	46.1	24.6
10.2V	832	659	407	257	158	116	92.7	79.6	55.0	46.0	24.5
10.5V	796	636	397	249	156	115	92.1	79.1	54.6	45.7	24.3
10.8V	752	603	383	241	152	112	89.3	76.7	53.0	45.4	24.2

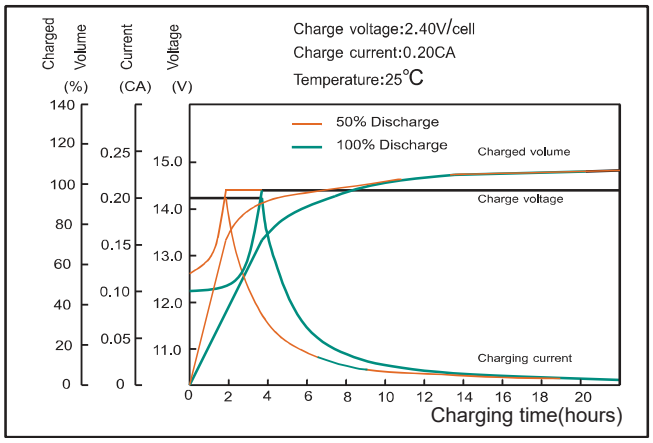
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

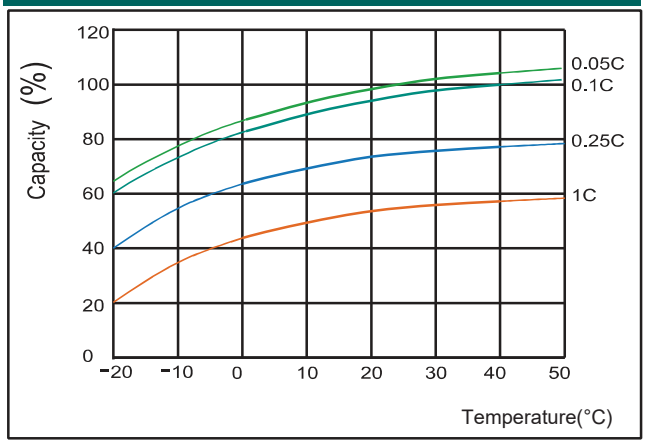
Discharge characteristics (25°C)



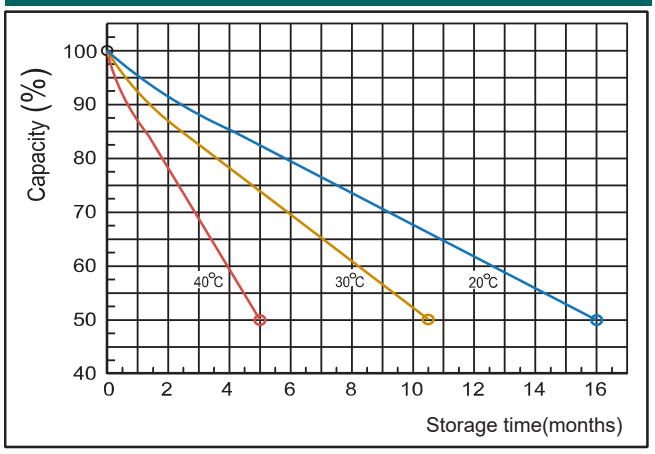
Charge characteristics (25°C)



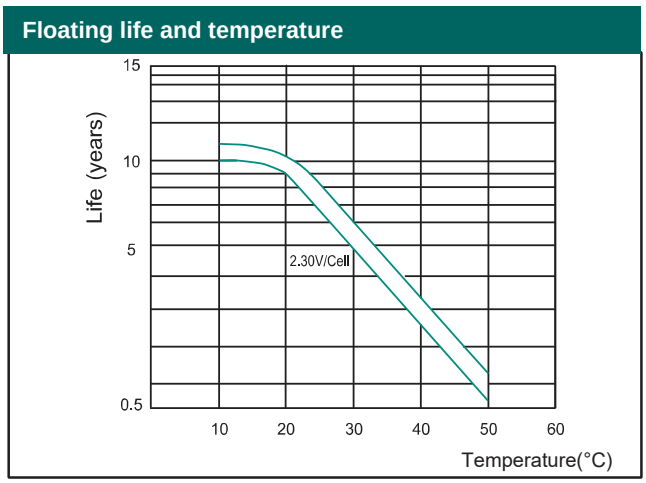
Effect of temperature on capacity



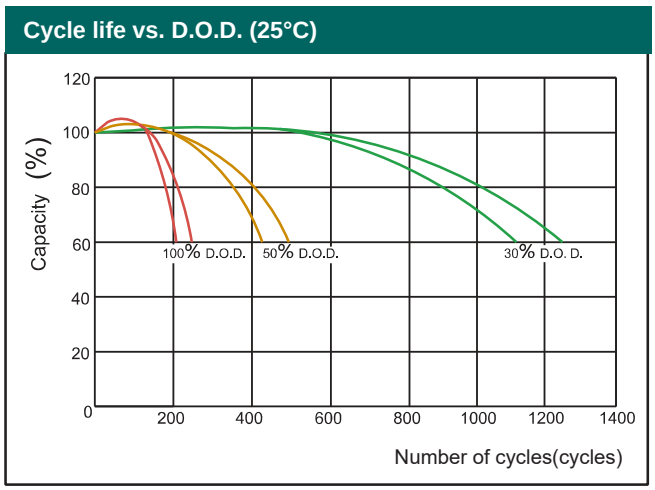
Self-discharge characteristics



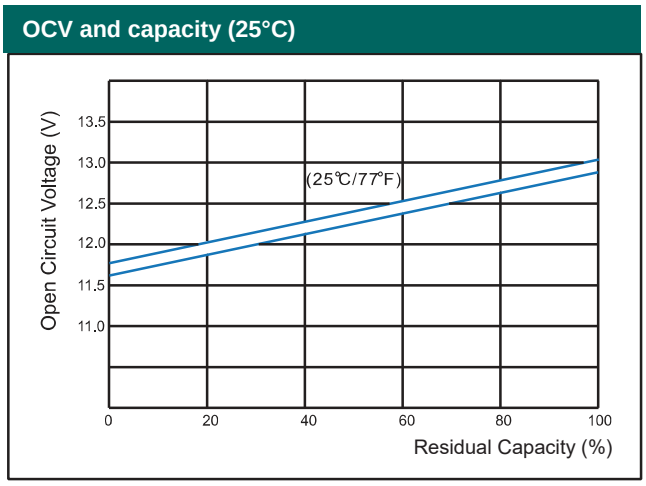
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

