UNIVERSAL BATTERY

UB-12U40.0

(12V40.0AH)



Capacity & electrical

Capacity (25°C)	
10HR(10.8V)	**40Ah**
3HR(10.8V)	**30Ah**
1HR(10.5V)	**22Ah**
Terminal type	**T14**
Internal resistance (Fully charged,25°C)	**Approx.9mΩ**
Maximum charging current	**12A**
Maximum discharge current	**400A(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)

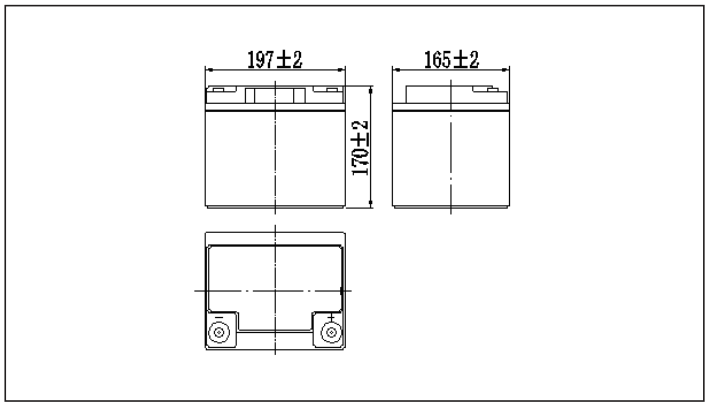
40°C	**102%**
25°C	**100%**
0°C	**85%**
-15°C	**65%**

Specifications & technical details

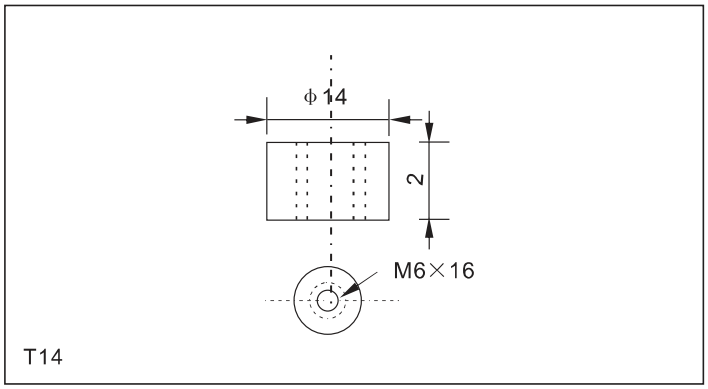
Specifications

Nominal Voltage	**12V**	Length	**197±2mm (7.76inch)**
Rated capacity (10 hour rate)	**40Ah**	Width	**165±2mm (6.50inch)**
Approx. Weight	**12.5kg (27.6lbs)±3%**	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

● 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	87.2	67.2	40.2	24.7	14.6	10.5	8.40	7.18	4.94	4.07	2.16
9.90V	84.6	65.6	39.4	24.3	14.5	10.5	8.36	7.14	4.91	4.06	2.15
10.2V	81.1	63.2	38.2	23.7	14.4	10.4	8.30	7.09	4.87	4.05	2.15
10.5V	77.6	61.0	37.3	23.0	14.2	10.3	8.24	7.04	4.84	4.03	2.13
10.8V	73.2	57.8	35.9	22.2	13.8	10.0	7.99	6.83	4.69	4.00	2.12

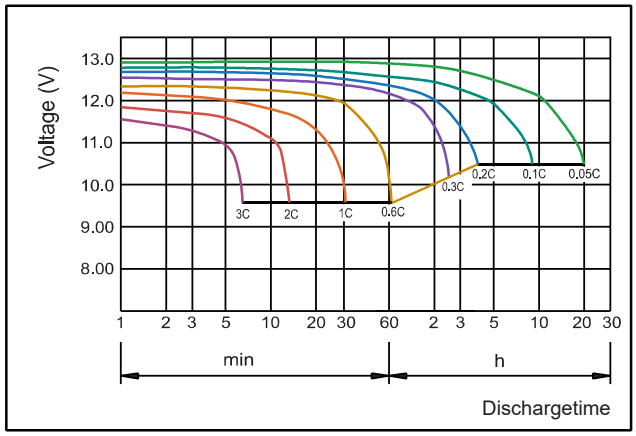
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	942	738	451	282	169	124	98.8	84.9	58.6	48.6	25.9
9.90V	914	720	442	278	168	123	98.3	84.4	58.3	48.5	25.8
10.2V	876	694	428	271	167	122	97.6	83.8	57.9	48.4	25.8
10.5V	838	670	418	262	164	121	96.9	83.2	57.5	48.1	25.6
10.8V	791	635	403	254	160	118	94.0	80.7	55.8	47.8	25.4

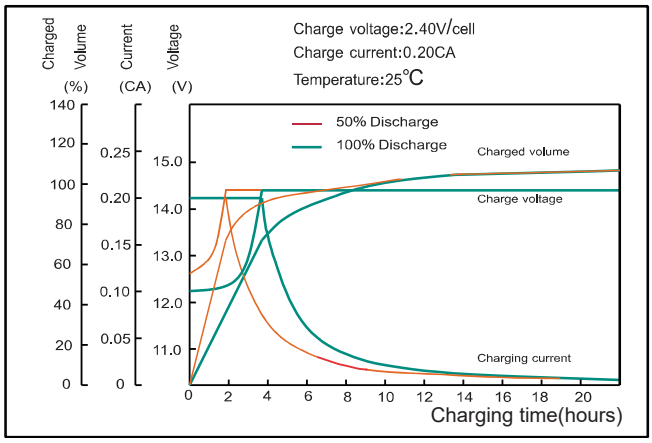
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

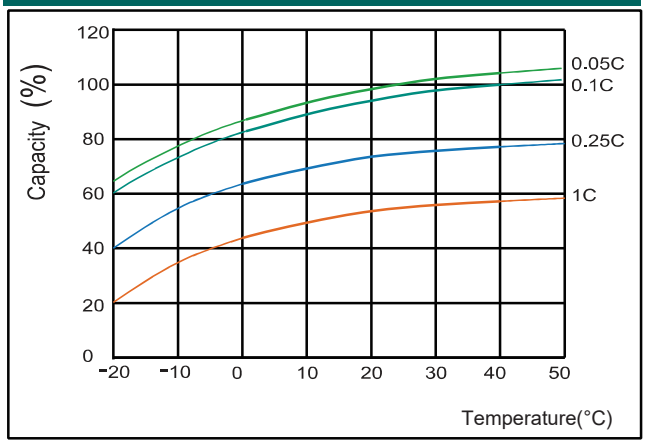
Discharge characteristics (25°C)



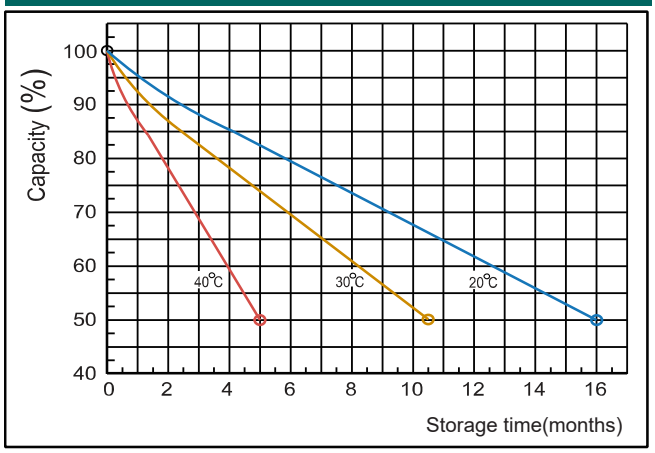
Charge characteristics (25°C)



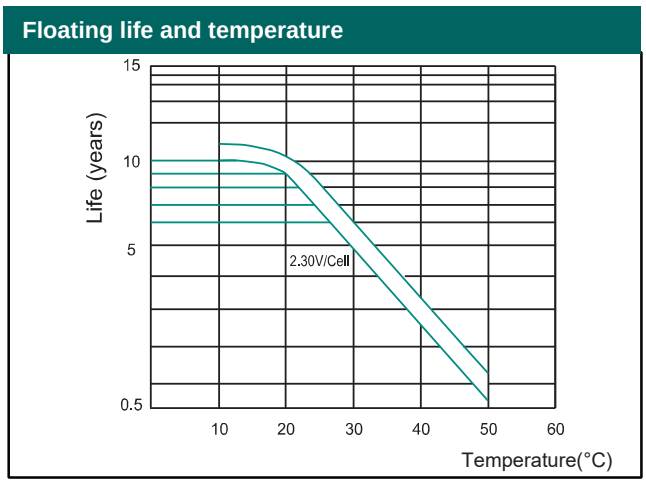
Effect of temperature on capacity



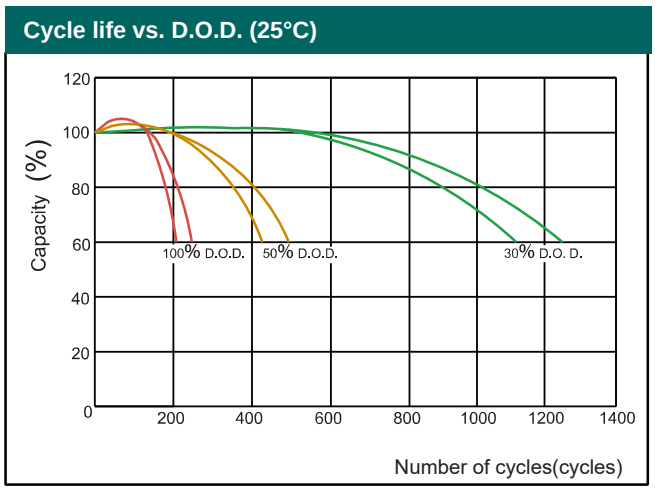
Self-discharge characteristics



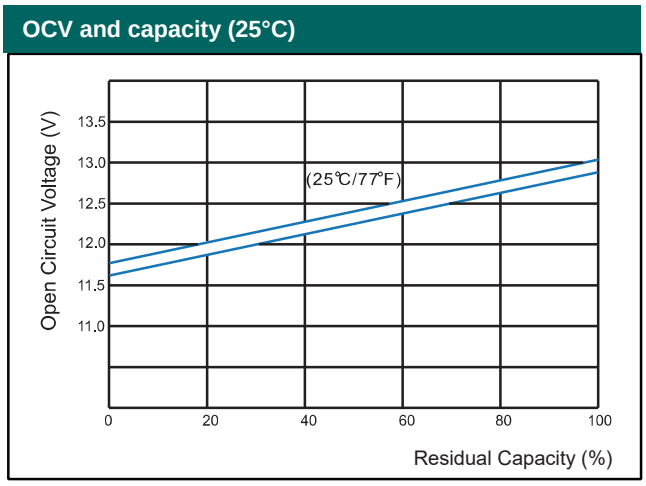
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

