UNIVERSAL BATTERY

UB-12U5.0 (12V5.0AH)



Capacity & electrical

Capacity (25°C)	
20HR(10.5V)	**5Ah**
10HR(10.5V)	**4.7Ah**
1HR(9.60V)	**3Ah**
Terminal type	**T1/T2**
Internal resistance (Fully charged,25°C)	**Approx.27mΩ**
Maximum charging current	**1.5A**
Maximum discharge current	**75A(5 sec.)**
Designed floating life(20°C)	**5 years**

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)

13.60 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 (20HR)

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

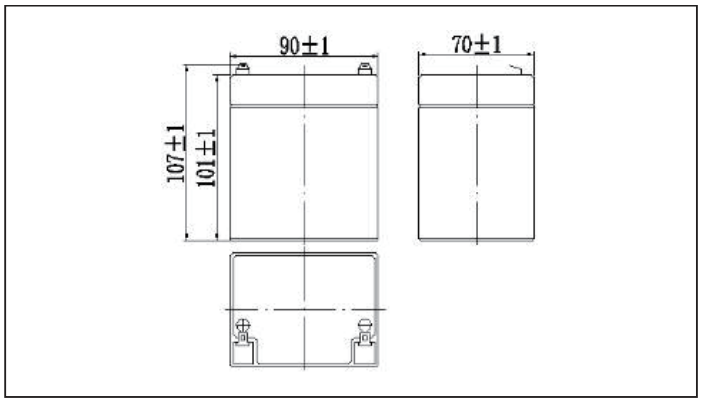
Specifications & technical details

Specifications

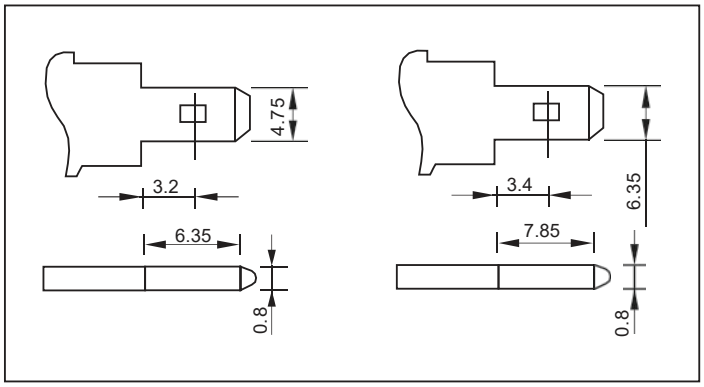
Nominal Voltage	**12V**
Rated capacity (20 hour rate)	**5Ah**
Approx. Weight	**1.58kg (3.49lbs)±3%**

Length	**90±1mm (3.54inch)**
Width	**70±1mm (2.76inch)**
Height	**101±1mm (3.98inch)**
Total Height	**107±1mm (4.21inch)**

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 | A (25°C,77°F)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	19.1	12.1	9.45	5.33	3.28	1.79	1.24	1.03	0.87	0.47	0.25
9.90V	18.5	11.7	9.22	5.22	3.23	1.78	1.23	1.02	0.87	0.47	0.25
10.2V	17.8	11.3	8.88	5.06	3.14	1.77	1.22	1.01	0.86	0.47	0.25
10.5V	17.0	10.8	8.58	4.94	3.08	1.74	1.22	1.01	0.86	0.47	0.25
10.8V	16.0	10.2	8.13	4.76	2.99	1.69	1.18	0.97	0.83	0.46	0.25

Constant power discharge | W (25°C,77°F)

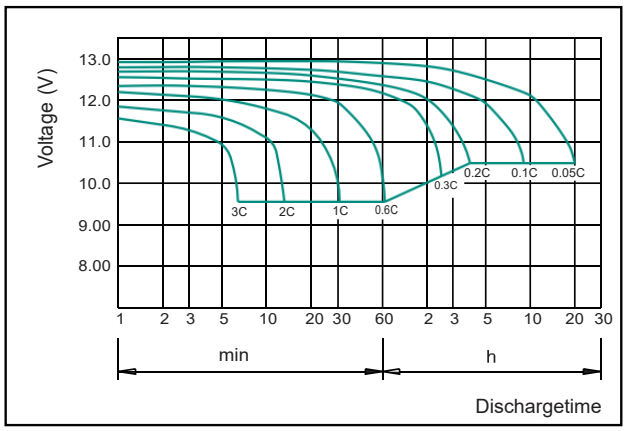
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	213	136	108	61.0	37.9	21.0	14.7	12.2	10.4	5.68	3.05
9.90V	207	132	105	59.8	37.4	20.8	14.6	12.1	10.4	5.66	3.03
10.2V	198	127	101	58.0	36.4	20.7	14.5	12.1	10.3	5.63	3.02
10.5V	190	121	97.8	56.6	35.7	20.3	14.4	12.0	10.2	5.60	3.00
10.8V	179	115	92.6	54.5	34.6	19.8	14.0	11.6	9.90	5.49	2.94

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

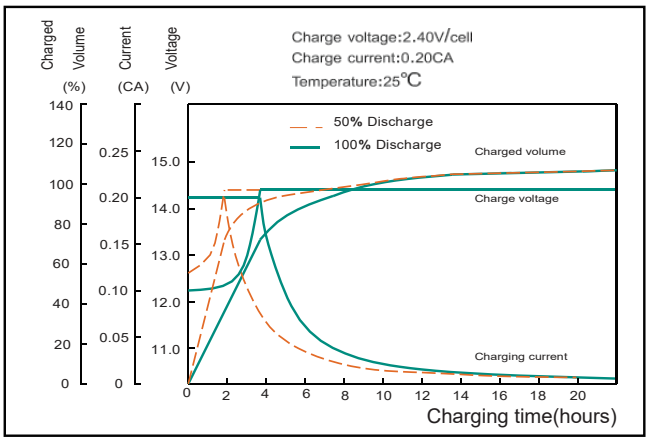
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Performance characteristics

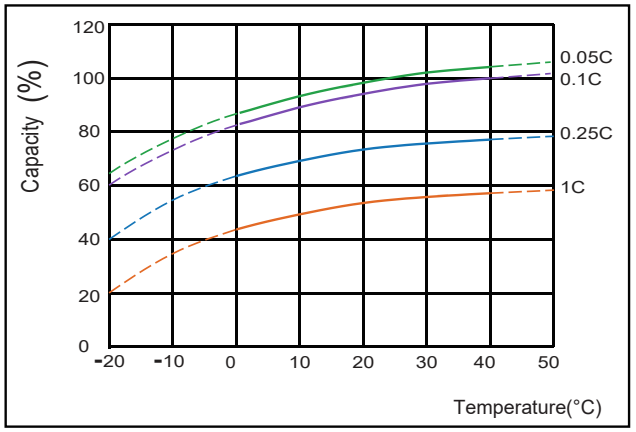
Discharge characteristics (25°C)



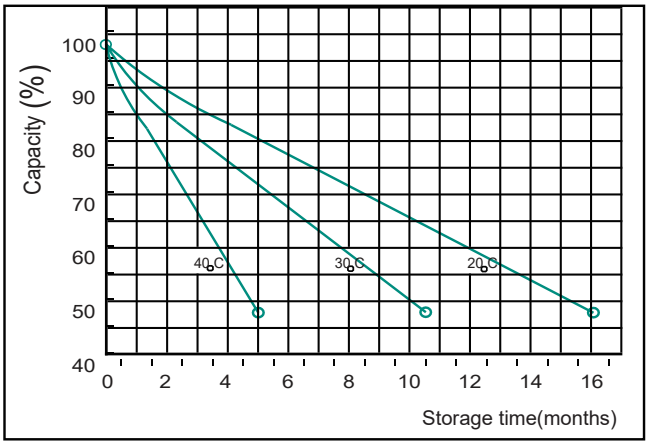
Charge characteristics (25°C)



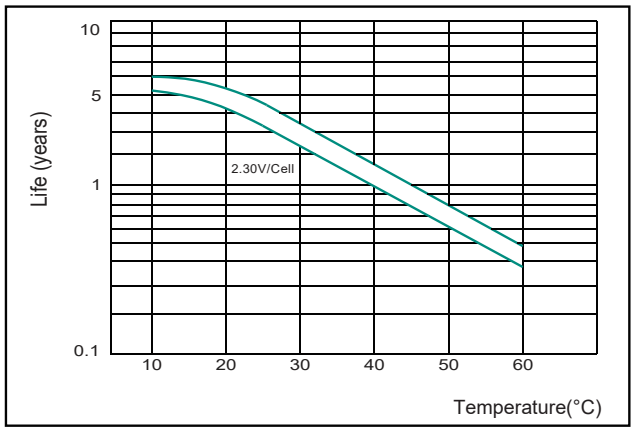
Effect of temperature on capacity



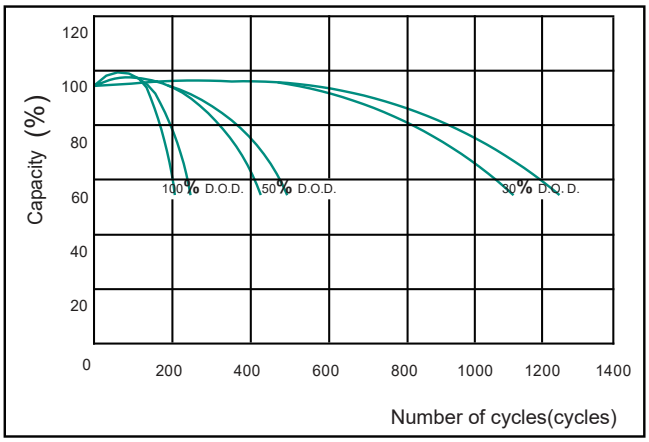
Self-discharge characteristics



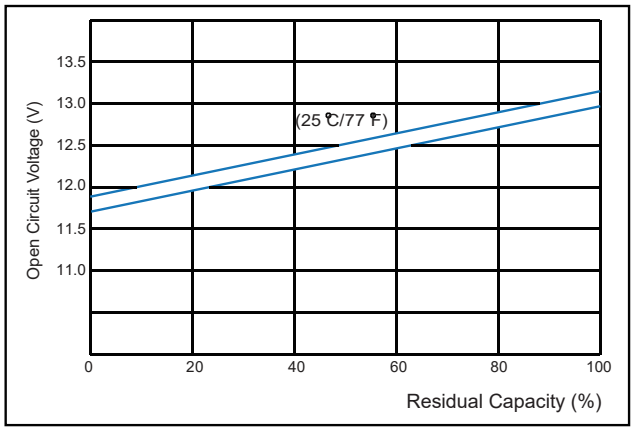
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

