UNIVERSAL BATTERY

UB-12U90.0 (12V90.0AH)



Capacity & electrical

Capacity (25°C)	
10HR(10.8V)	**90Ah**
3HR(10.8V)	**67.5Ah**
1HR(10.5V)	**50Ah**
Terminal type	**T14**
Internal resistance (Fully charged,25°C)	**Approx.5mΩ**
Maximum charging current	**27A**
Maximum discharge current	**800A(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)

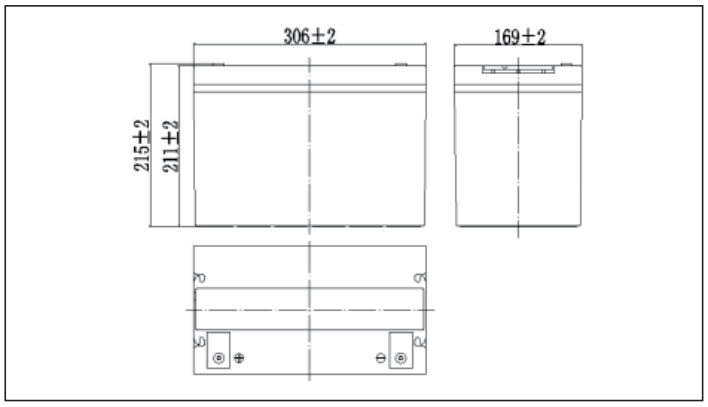
40°C	**102%**
25°C	**100%**
0°C	**85%**
-15°C	**65%**

Specifications & technical details

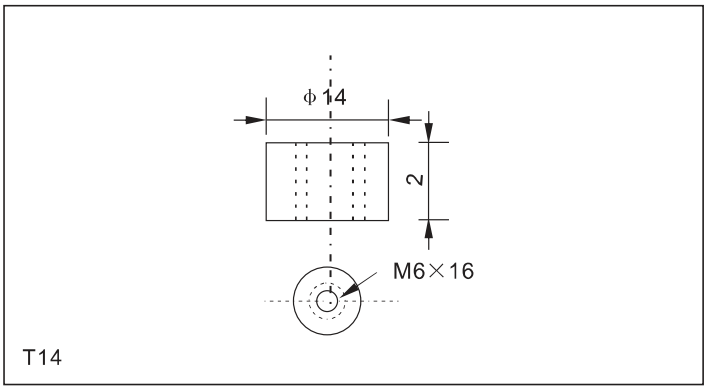
Specifications

Nominal Voltage	**12V**	Length	**306±2mm (12.05inch)**
Rated capacity (10 hour rate)	**90Ah**	Width	**169±2mm (6.65inch)**
Approx. Weight	**27kg (59.5lbs)±3%**	Height	**211±2mm (8.31inch)**
		Total Height	**215±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	196	151	90.5	55.6	32.9	23.7	18.9	16.2	11.1	9.16	4.86
9.90V	190	148	88.6	54.8	32.7	23.5	18.8	16.1	11.0	9.14	4.85
10.2V	182	142	85.9	53.4	32.4	23.4	18.7	16.0	11.0	9.12	4.83
10.5V	175	137	83.8	51.7	31.9	23.2	18.5	15.8	10.9	9.06	4.80
10.8V	165	130	80.8	50.1	31.1	22.5	18.0	15.4	10.6	9.00	4.77

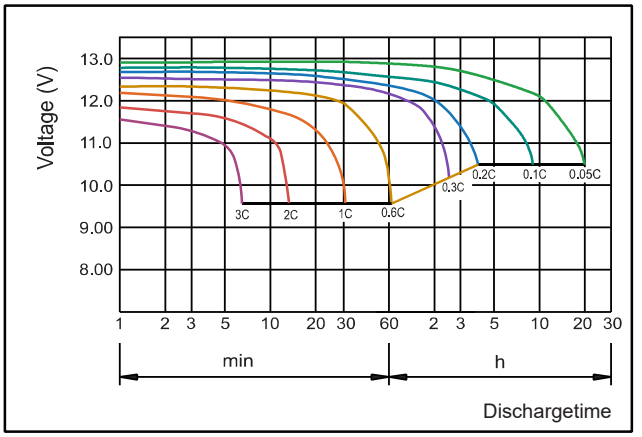
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	2119	1660	1015	634	381	279	222	191	132	109	58.3
9.90V	2055	1620	995	625	379	277	221	190	131	109	58.2
10.2V	1971	1561	964	609	375	275	220	189	130	109	58.0
10.5V	1886	1507	941	590	370	273	218	187	129	108	57.6
10.8V	1780	1428	906	571	360	265	211	182	125	107	57.2

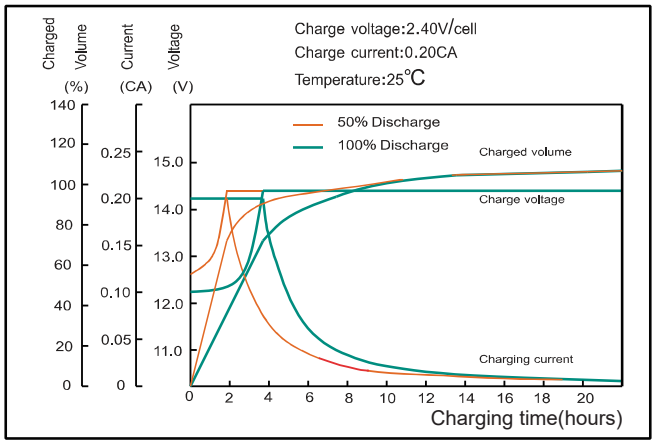
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

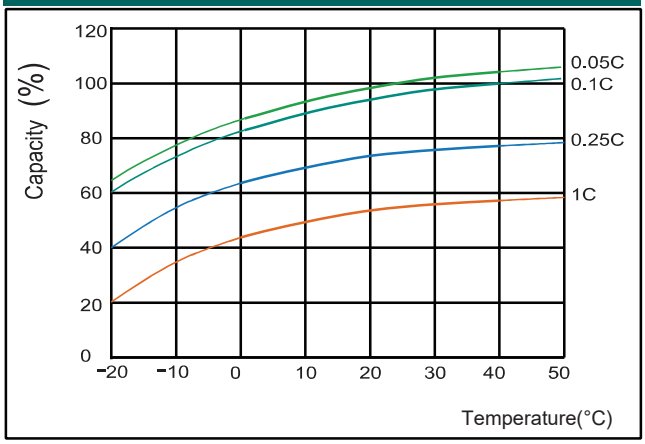
Discharge characteristics (25°C)



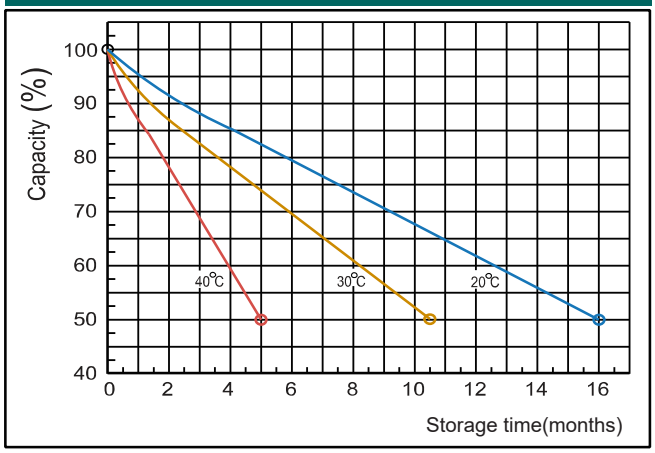
Charge characteristics (25°C)



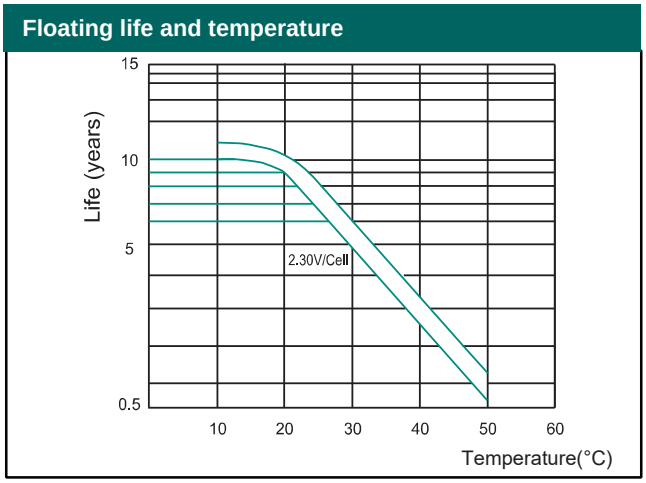
Effect of temperature on capacity



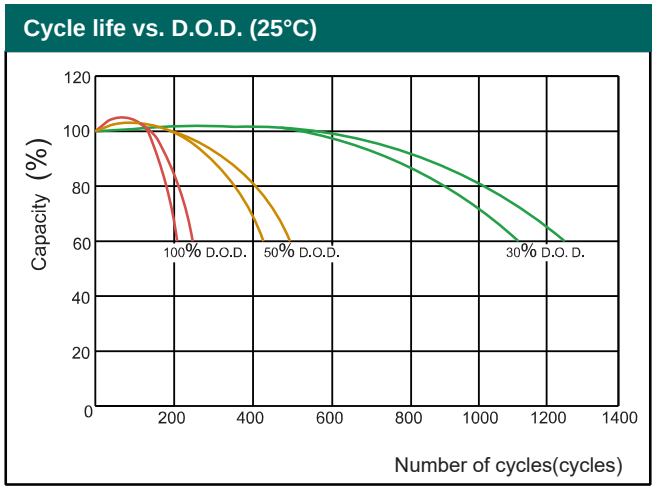
Self-discharge characteristics



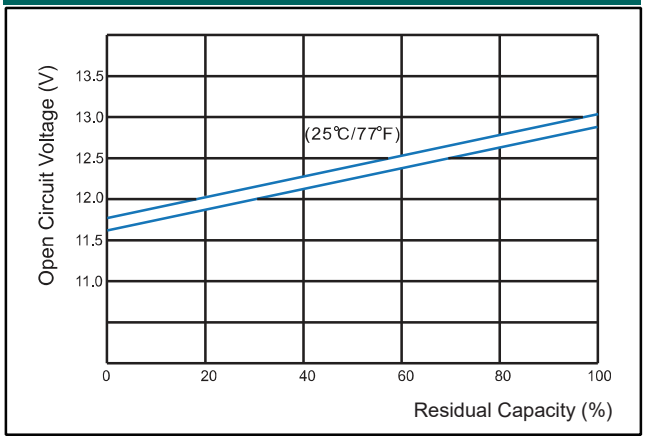
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

