UNIVERSAL BATTERY

UB-12U28.0 (12V28.0AH)



Capacity & electrical

Capacity (25°C)	
20HR(10.5V)	28Ah
10HR(10.5V)	26Ah
1HR(9.60V)	17Ah
Terminal type	T14/T5
Internal resistance (Fully charged,25°C)	Approx.10m Ω
Maximum charging current	8.4A
Maximum discharge current	360A(5 sec.)
Designed floating life(20°C)	5 years

Operating temperatures

Nominal operating temperature	25℃ ±3℃(77℉ ±5℉)
Discharge	-15℃~50℃(5℉~122℉)
Charge	-10℃~50℃(14℉~122℉)
Storage	-20℃~50℃(-4℉~122℉)

Charging parameters

Float charging voltage(25°C)

13.60 to 13.80V Temperature compensation: -18mV/℃

Cyclic charging voltage(25°C)

14.50 to 15.00V
Temperature compensation: -30mV/℃

Self-discharge (25°C)

3 months	Remaining Capacity:91%
6 months	Remaining Capacity:82%
12 months	Remaining Capacity:65%

Capacity affected by temperature (20HR)

40℃	102%
25℃	100%
0℃	85%
-15℃	65%

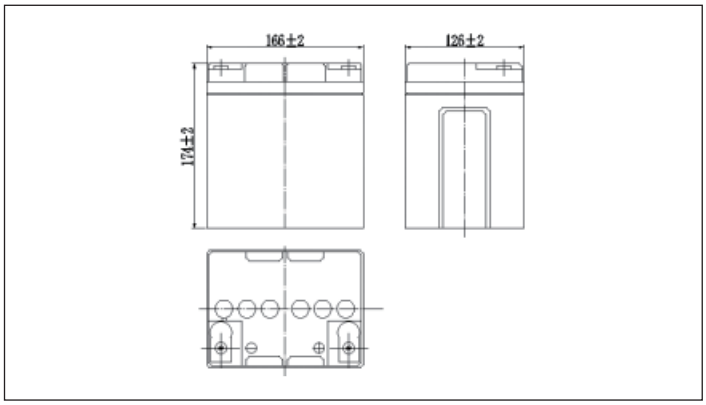
Specifications & technical details

Specifications

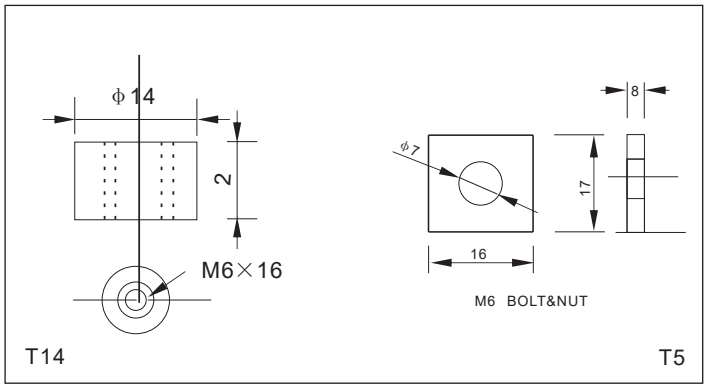
Nominal Voltage	12V
Rated capacity (20 hour rate)	28Ah
Approx. Weight	8.8kg(19.4lbs)±4%

Length	166±2mm(6.54inch)
Width	126±2mm(4.96inch)
Height	174±1mm(6.85inch)
Total Height	T14:174±2mm(6.85inch) T5:181±2mm(7.13inch)

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	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	105	66.4	51.9	29.2	18.0	10.0	6.94	5.74	4.88	2.65	1.42
9.90V	102	64.4	51.6	28.6	17.7	9.97	6.90	5.71	4.86	2.64	1.42
10.2V	97.5	61.8	48.7	27.6	17.3	9.88	6.85	5.67	4.82	2.63	1.41
10.5V	93.3	59.1	47.1	27.1	16.9	9.74	6.80	5.63	4.79	2.61	1.40
10.8V	88.0	55.8	44.6	26.1	16.4	9.49	6.60	5.46	4.64	2.56	1.37

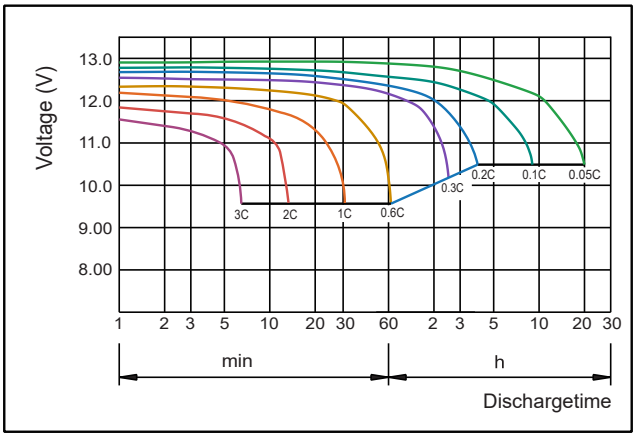
Constant Power Discharge Characteristics Unit:W(25°C,77°F)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	1170	749	591	335	208	117	82.4	68.4	58.3	31.8	17.1
9.90V	1135	727	577	328	205	117	82.0	68.0	58.0	31.7	17.0
10.2V	1088	697	556	318	200	116	81.4	67.5	57.6	31.5	16.9
10.5V	1041	667	537	310	196	114	80.8	67.0	57.2	31.3	16.8
10.8V	983	629	508	299	190	111	78.4	65.0	55.5	31.7	16.5

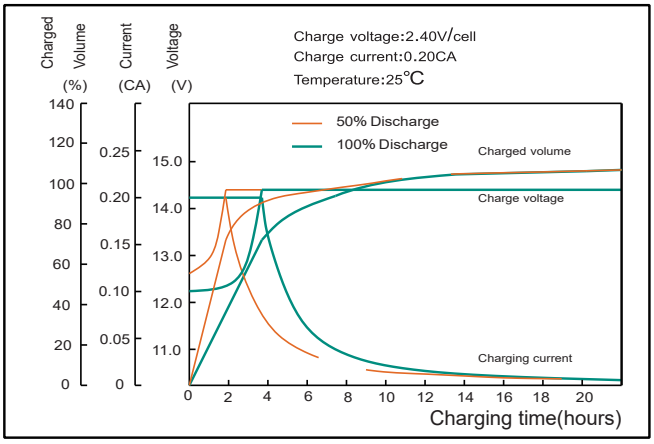
Note: The above characteristics data can be obtained within three charge or discharge cycles.

Performance characteristics

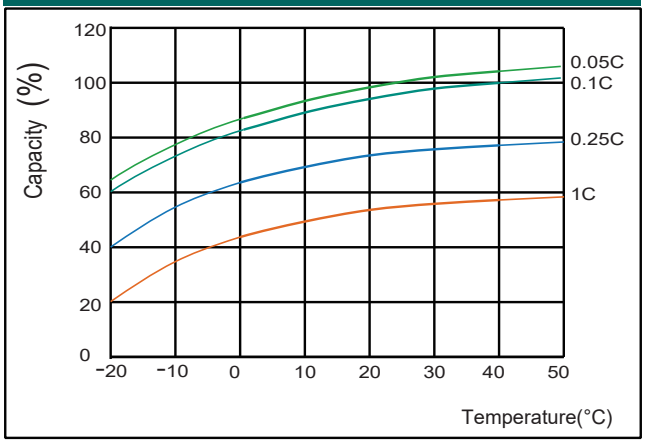
Discharge characteristics (25°C)



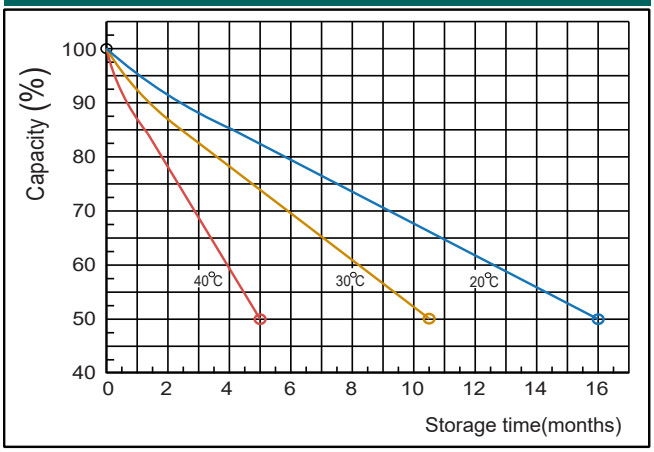
Charge characteristics (25°C)



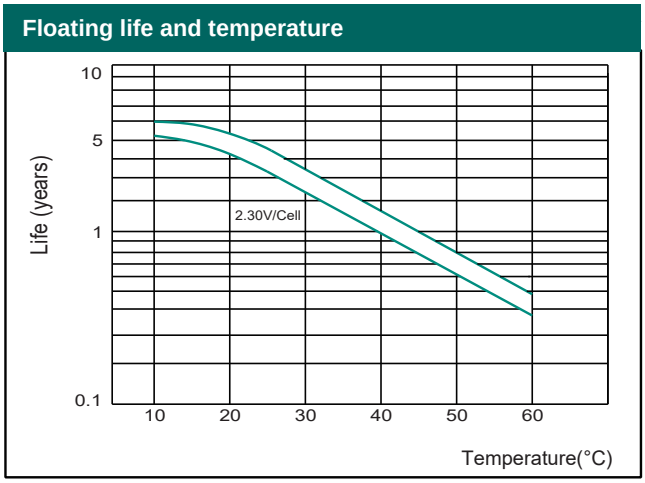
Effect of temperature on capacity



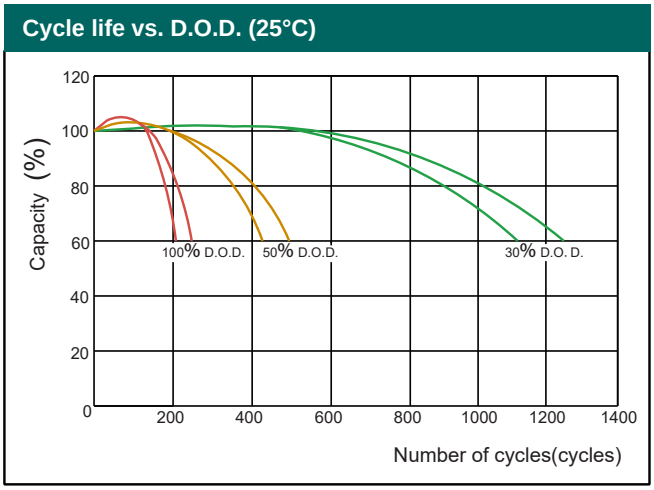
Self-discharge characteristics



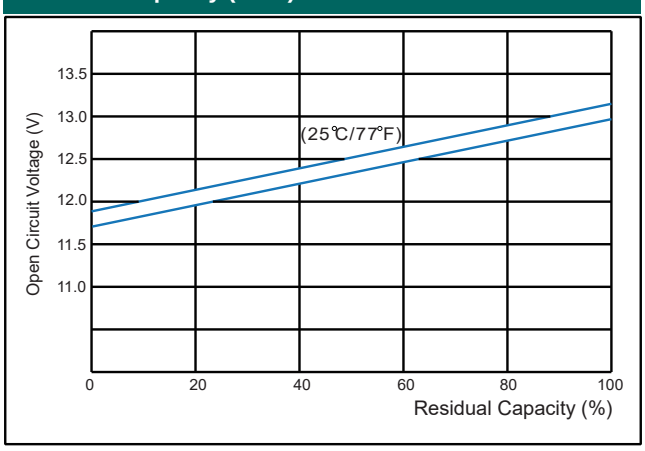
Floating life and temperature



Cycle life vs. D.O.D. (25°C)



OCV and capacity (25°C)



Charging voltage and temperature

