



General Features

- ◆ Sealed and maintenance free operation.
- ◆ Non-Spillable construction design.
- ◆ ABS containers and covers(UL94HB, UL94V-0) optional.
- ◆ Safety valve installation for explosion proof.
- ◆ High quality and high reliability.
- ◆ Exceptional deep discharge recovery performance.
- ◆ Low self discharge characteristic.
- ◆ Flexibility design for multiple install positions.



Battery Type	Valve-Regulated,Absorbed Glass Mat(AGM) Technology			
Nominal Voltage	12V			
Capacity(20°C)	20HR(0.112A,1.8V/cell)	10HR(0.207A,1.80V)	5HR(0.375A,1.75V)	1HR(1.36A,1.60V)
	2.24AH	2.07AH	1.87AH	1.36AH
Dimensions	Length	Width	Height	Total Height
	178mm(7.0inches)	35mm(1.38inches)	60mm(2.36inches)	66mm(2.60inches)
Approx Weight	Approx 1.0 kg (2.21lbs)			
Internal Resistance	Full Charged at 20°C: Approx 90m Ω			
Self Discharge	3% of capacity declined per month at 20°C			
Capacity affected by Temperature (10HR)	40°C	25°C	0°C	-15°C
	103%	100%	86%	65%
Charging Voltage (V)	Cycle use		Float use	
	14.4V~15.0V at 20 °C. T emp. Coefficient -30mV/ °C		13.5V~13.8V at 20 °C.Temp. Coefficient (-20mV/ °C)	
Current	Max. Discharge Current		Initial Charging Current	
	34.5A		Less than 0.69A	
Operating T emp.Range	Discharge		Charging	Storage
	-15 ~ 50°C (5 ~ 122°F)		0 ~ 40°C (32 ~ 104°F)	-15 ~ 40°C (5 ~ 104°F)

Constant Current Discharge (Amperes) at 20 °C (68°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	4.16	3.20	2.65	2.29	1.77	1.30	1.10	0.657	0.514	0.418	0.341	0.299	0.241	0.201	0.110
1.80V/cell	5.59	4.08	3.20	2.71	2.09	1.52	1.23	0.717	0.553	0.446	0.366	0.320	0.255	0.207	0.112
1.75V/cell	6.30	4.49	3.49	2.91	2.17	1.57	1.29	0.743	0.563	0.456	0.375	0.329	0.260	0.213	0.113
1.70V/cell	6.93	4.89	3.73	3.06	2.26	1.64	1.33	0.762	0.579	0.468	0.385	0.336	0.264	0.217	0.115
1.65V/cell	7.65	5.28	3.97	3.25	2.38	1.68	1.36	0.773	0.603	0.484	0.395	0.343	0.268	0.222	0.116
1.60V/cell	8.43	5.73	4.24	3.46	2.51	1.75	1.37	0.806	0.622	0.499	0.408	0.351	0.270	0.224	0.117

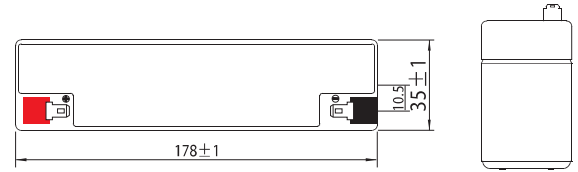
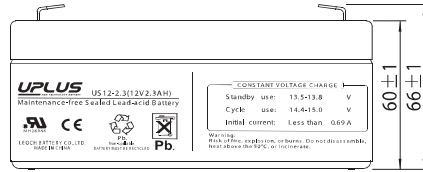
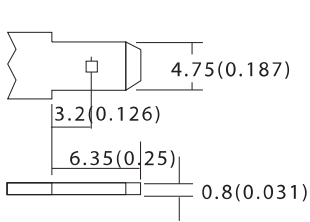
Constant Power Discharge (Watts) at 20 °C (68°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	7.61	5.90	4.94	4.31	3.37	2.51	2.12	1.28	1.00	0.817	0.668	0.587	0.476	0.398	0.219
1.80V/cell	10.10	7.45	5.89	5.02	3.92	2.89	2.36	1.38	1.07	0.867	0.713	0.627	0.503	0.410	0.221
1.75V/cell	11.15	8.06	6.35	5.35	4.03	2.97	2.46	1.43	1.09	0.884	0.730	0.642	0.510	0.420	0.223
1.70V/cell	11.94	8.58	6.69	5.58	4.18	3.08	2.53	1.46	1.12	0.905	0.747	0.655	0.517	0.429	0.226
1.65V/cell	12.98	9.18	7.06	5.89	4.37	3.13	2.57	1.47	1.16	0.933	0.765	0.667	0.524	0.437	0.229
1.60V/cell	13.98	9.74	7.42	6.20	4.58	3.24	2.58	1.53	1.19	0.959	0.788	0.679	0.528	0.441	0.230

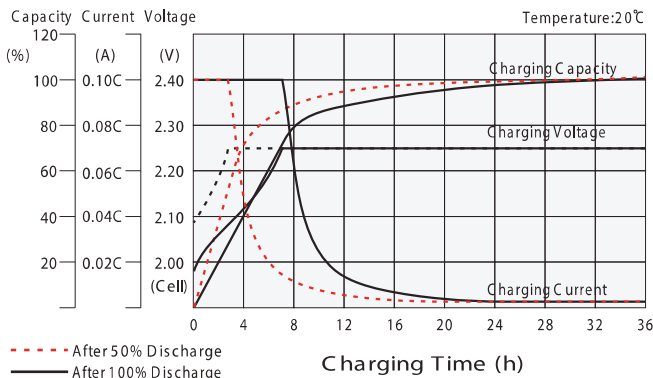
Dimensions

T1 Terminal

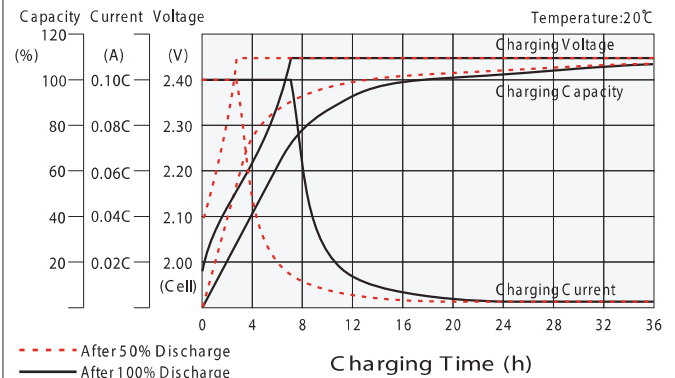
Unit: mm [inches]



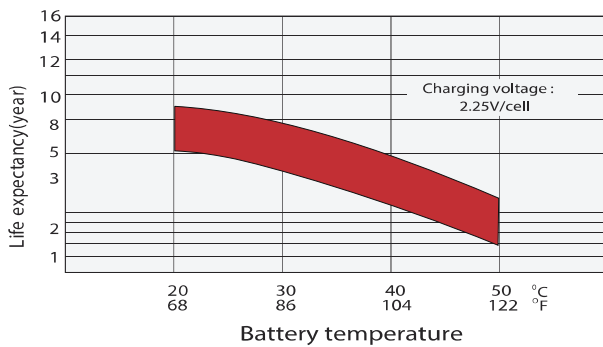
Float charging characteristics



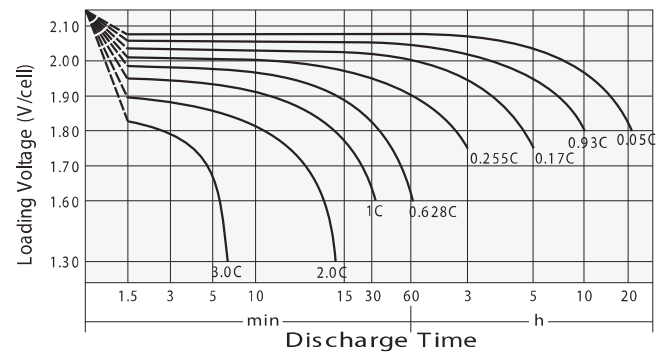
Cycle use charging characteristics



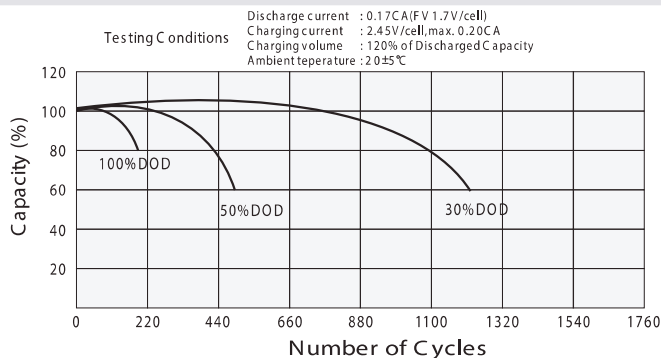
Effect of Temperature on Long Term Float Life



Discharge characteristics



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

