

**Small-size batteries**

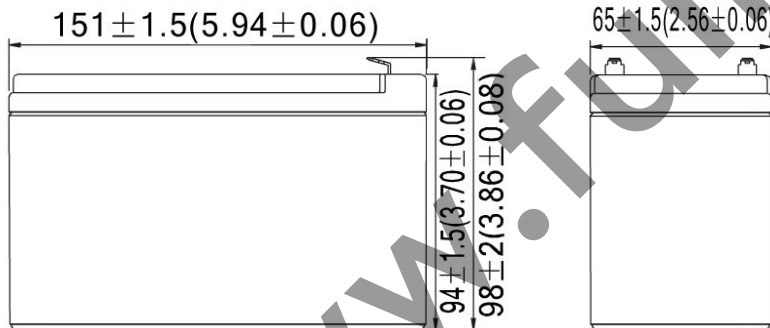
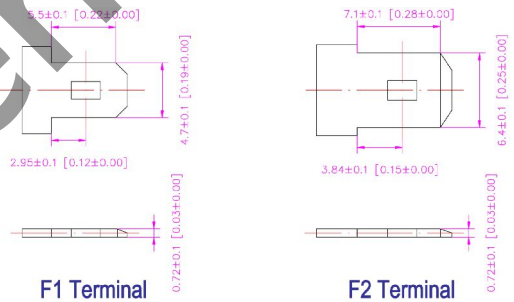
- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years

**Application:**

- Alarm System
- Cable Television
- Communication Equipment
- Emergency Power System
- Security System
- Medical Equipment
- UPS
- Power tools
- Control Equipment
- Toys

**Construction:**

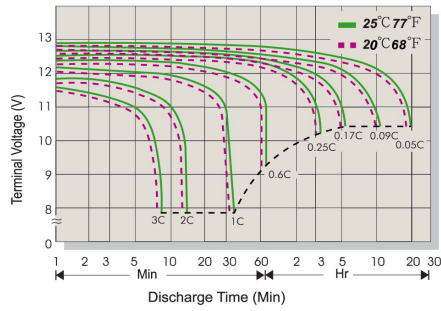
- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper
- Separator .....Fiber glass
- Electrolyte .....Sulfuric acid



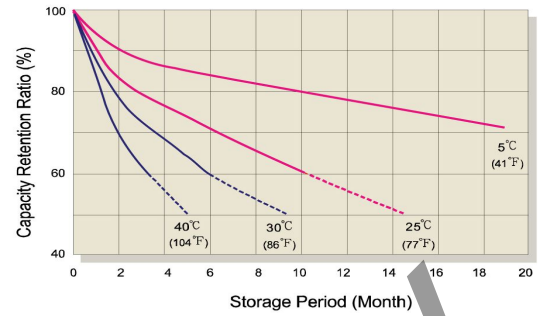
**Specification:**

Battery Model	ABP7-12L 12V4.6AH			
Designed Floating Life	3~5 Years			
Capacity (25°C)	20HR(0.230A,10.5V)	10HR(0.417A,10.5V)	5HR(0.759A,10.5V)	1HR(2.346A,10.5V)
	4.60 AH	4.17 AH	3.80 AH	2.35 AH
Dimensions	Length	Width	Height	Total Height
	151 mm	65 mm	94 mm	98mm
Approx. Weight	1.72Kg ±3%			
Internal Resistance	Full charged at 25°C : ≤32.8mΩ			
Self Discharge	2% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25oC)	Cycle use		Float use	
	14.4-15.0V(-30mV/°C), max. Current: 1.50A		13.5-13.8V (-20mV/°C)	

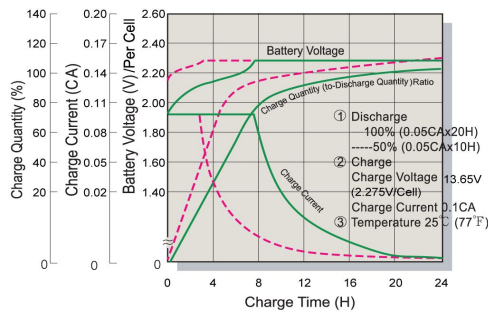
### Terminal Voltage (V) and Discharge Time



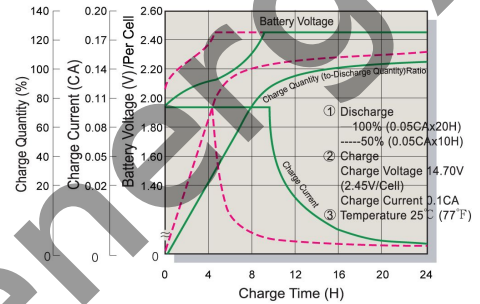
### Capacity Retention Characteristic



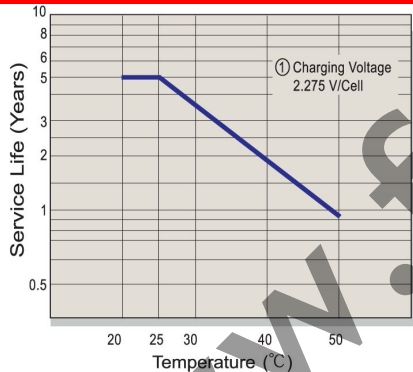
### Battery Voltage and Charge Time for Standby Use



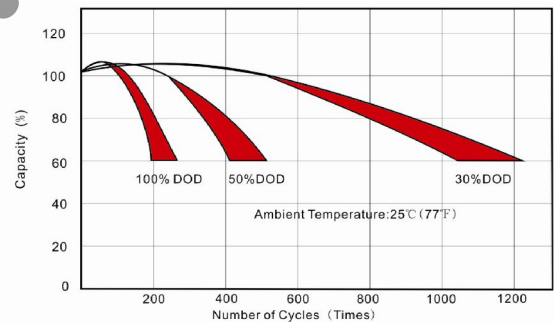
### Battery Voltage and Charge Time for Cycle Use



### Tickle(or Float) Service Life



### Cycle Service Life



### Constant Current Discharge(CC,Unit:A) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	13.83	9.48	6.63	4.21	2.303	1.437	1.117	0.879	0.745	0.498	0.410	0.226
1.75V/Cell	14.09	9.66	6.76	4.29	2.346	1.464	1.138	0.895	0.759	0.507	0.417	0.230
1.70V/Cell	14.51	9.95	6.96	4.42	2.416	1.508	1.172	0.922	0.782	0.522	0.430	0.234
1.67V/Cell	14.94	10.23	7.16	4.55	2.487	1.552	1.207	0.949	0.804	0.537	0.442	0.239
1.60V/Cell	15.36	10.52	7.36	4.67	2.557	1.596	1.241	0.976	0.827	0.553	0.455	0.246

### Constant Power Discharge (CP,Unit:W) at 25°C(77°F)

F.V/Time	5Min	10Min	15Min	30Min	1Hr	2Hr	3Hr	4Hr	5Hr	6Hr	10Hr	20Hr
1.80V/Cell	26.97	18.48	12.93	8.21	4.49	2.80	2.18	1.71	1.45	0.97	0.80	0.44
1.75V/Cell	27.48	18.83	13.17	8.36	4.57	2.86	2.22	1.75	1.48	0.99	0.81	0.45
1.70V/Cell	28.30	19.39	13.57	8.61	4.71	2.94	2.29	1.80	1.52	1.02	0.84	0.46
1.67V/Cell	29.13	19.96	13.96	8.86	4.85	3.03	2.35	1.85	1.57	1.05	0.86	0.47
1.60V/Cell	29.95	20.52	14.36	9.12	4.99	3.11	2.42	1.90	1.61	1.08	0.89	0.48