

AGM TECHNOLOGY  
ABT SunwindSWP Series

**Complying standards:**  
IEC60896-21/22 2004,  
IEC61427:1999,  
BS EN 61427:2002

## SWP12-12

12V 12Ah(20hr)

### Medium cyclic Performance

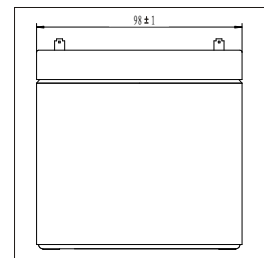
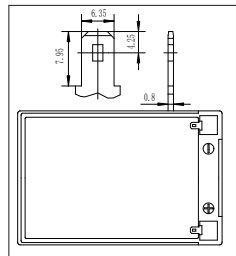
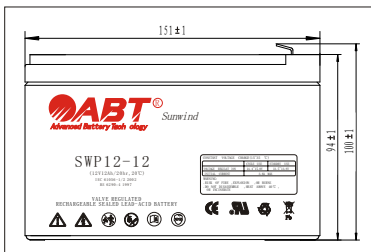
ABT Sunwind SWP Series is a general purpose battery according to Eurobat Classification with 10 years design life for renewable application. As with all ABT batteries, all are rechargeable, highly efficient, leakage proof and maintenance free.



### Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity 20°C (68°F)	12Ah @20hr-rate to 1.75V Per cell 11.10Ah @10hr-rate to 1.75V Per cell 7.58Ah @1hr-rate to 1.75V Per cell
Weight	Approx 3.8kg(8.38lbs)
Maximum Discharge Current	156A (5 sec)
Short circuit current	360A
Maximum charge current	3.6A(30% of rated capacity)
Internal Resistance	Approx 17 mOhms
Mass Energy(Wh/kg)	40.3
Volumic energy(Wh/L)	97.3
Operating Temperature Range	Discharge -20~60°C; Charge -10~60°C; Storage -20~60°C
Nominal Operating Temperature Range	20°C±3 °C (68°F±5 °F)
Float Charging Voltage	13.5 t o 13.8 VDC/unit Average at 20°C(68°F)
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 20°C(68°F)
Self Discharge	ABT batteries can be stored for more than 6 months at 20°C(68°F). Please charge batteries before using. For higher temperatures the time interval will be shorter.
Terminal	F2
Container Material	ABS(UL94-HB) Flammability resistance of UL94-V0 can be available upon request.
Flame arrestor	Yes

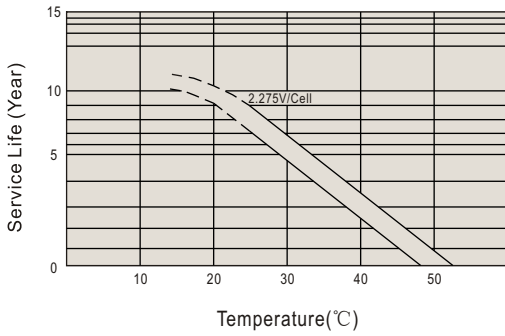
### Dimensions / Terminal



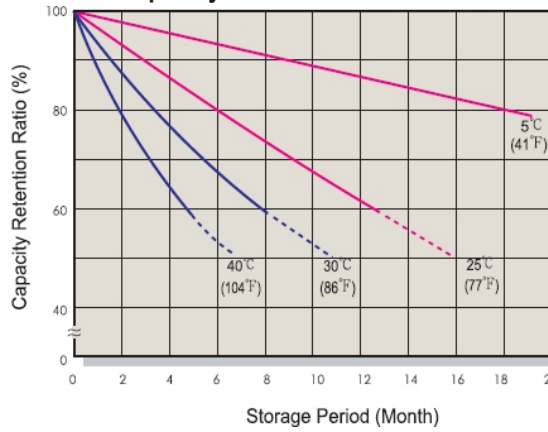
### Capacities C<sub>1</sub>-C<sub>100</sub>(20°C)

C <sub>1</sub>	C <sub>5</sub>	C <sub>10</sub>	C <sub>20</sub>	C <sub>100</sub>
1.70V/C	1.70V/C	1.70V/C	1.75V/C	1.80V/C
6.14	9.55	11.55	12	13

**Trickle (or float) Service Life**



**Capacity Retention Characteristic**



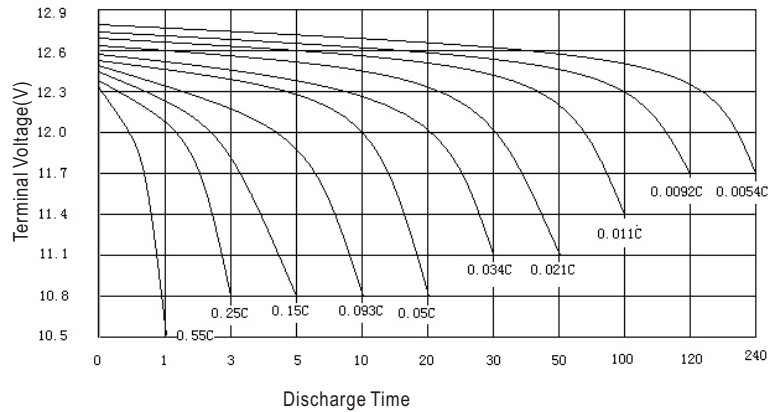
No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

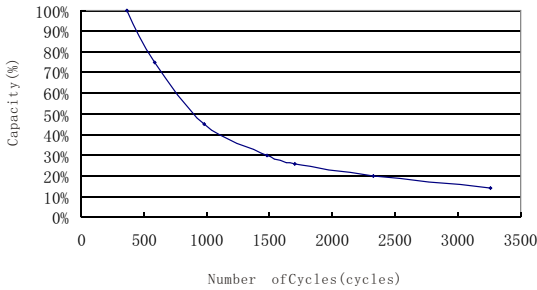
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached.

Supplementary charge and storage guidelines

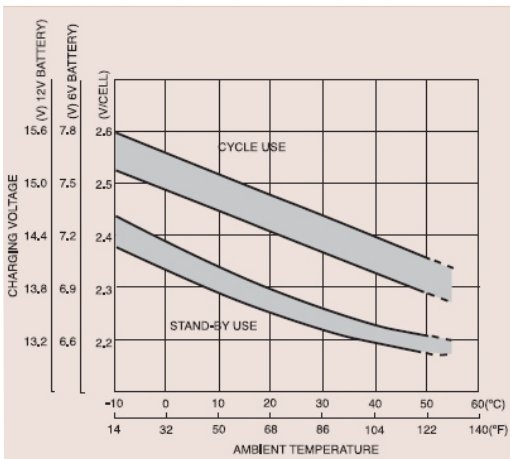
**Terminal Voltage(V) and Discharge Time(20°C68°F)**



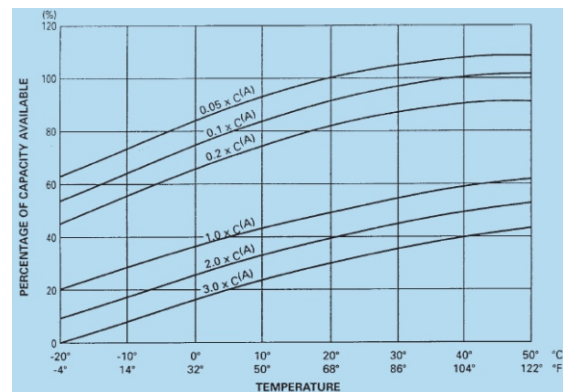
**Cycle service life Inrelation to depth of discharge**



**Charge Voltage depend on the temperature**



**Capacity depend on the temperature**



**Charging Procedures**

Application	Charge Voltage(V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Ranges	
Cycle Use	20°C(68°F)	2.40	2.40~2.50	0.2C
Standby	20°C(68°F)	2.26	2.25~2.30	0.2C

**Discharge Current VS. Discharge Voltage**

Final Discharge Voltage V/Cell	1.75	1.70	1.55	1.30
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

**Contact information**

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ABT VRLA Battery: Available Power Range From 1Ah to 3000Ah

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