

AGM TECHNOLOGY  
ABT SunwindSWP Series

## SWP12-60

12V 60Ah(10hr)

Complying standards:  
IEC61427-2005,

### Medium cyclic Performance

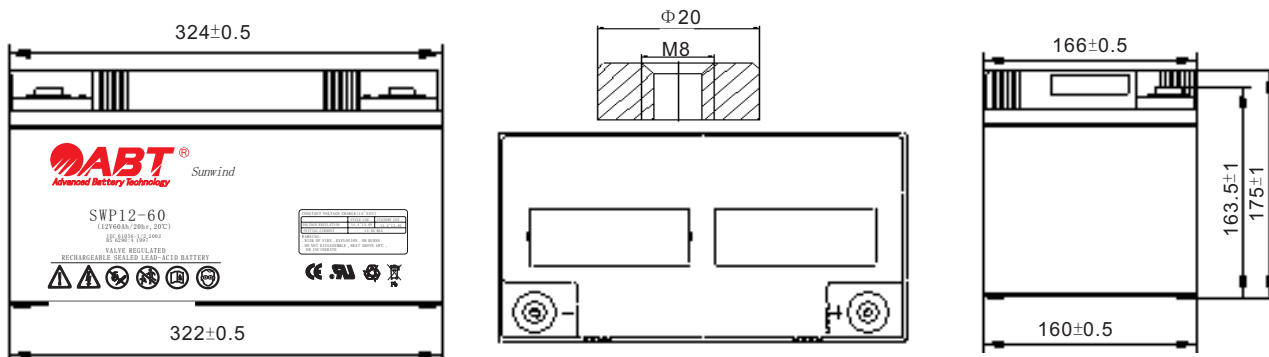
ABT Sunwind SWP Series is a general purpose battery according to Eurobat Classification with 10 years design life for renewable application. As with all ABT batteries, all are rechargeable, highly efficient, leakage proof and maintenance free.



### Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity 20°C (68°F)	61.8Ah @20hr-rate to 1.80V Per cell 60Ah @10hr-rate to 1.80V Per cell 36Ah @1hr-rate to 1.65V Per cell
Weight	Approx. 22.2kg(48.95lbs)
Maximum Discharge Current	180A (3 min)
Short circuit current	2300A
Maximum charge current	12.0A(20% of rated capacity)
Internal Resistance	Approx. 4.96 mOhms
Mass Energy(Wh/kg)	32.43
Volumic energy(Wh/L)	76.94
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	Insert thread and bolt <b>M6 X φ 16</b>
Torque strength in Nm	12~16
Container Material	ABS(UL94-HB) Flammability resistance of UL94-V0 can be available upon request.
Hand Type	Incorporated
Flame arrestor	Yes

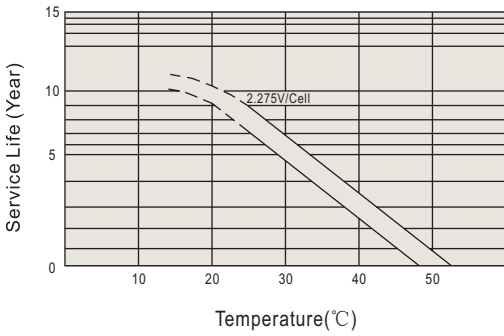
### Dimensions / Terminal



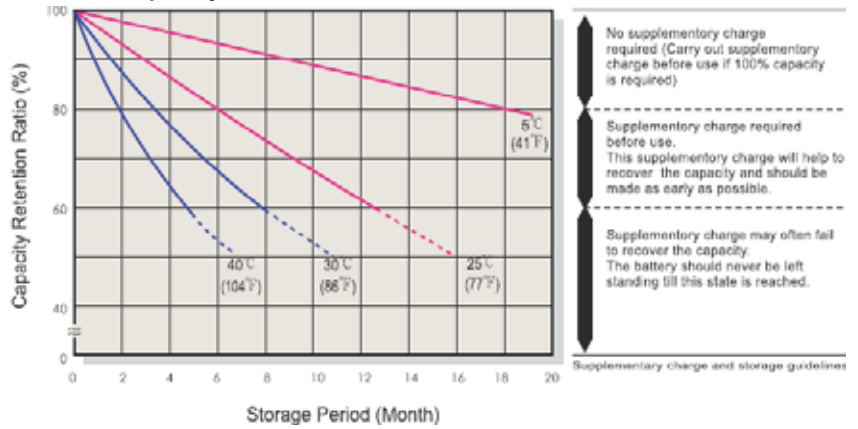
### Capacities C<sub>1</sub>-C<sub>120</sub>(20°C)

C <sub>1</sub>	C <sub>5</sub>	C <sub>10</sub>	C <sub>20</sub>	C <sub>100</sub>	C <sub>120</sub>
1.65Vpc	1.75Vpc	1.80Vpc	1.80Vpc	1.85Vpc	1.85Vpc
36	48	60	61.8	66	67.2

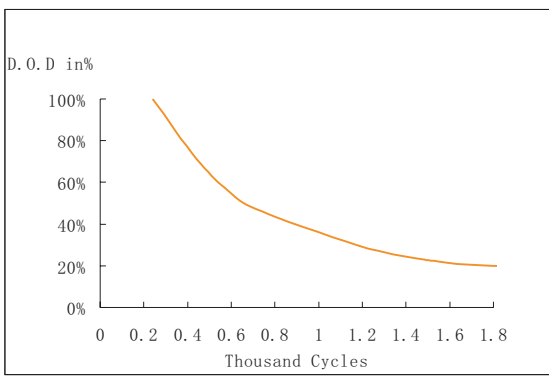
**Trickle (or float) Service Life**



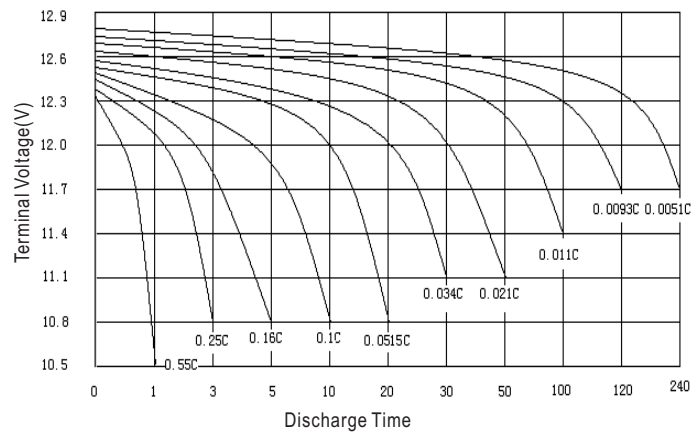
**Capacity Retention Characteristic**



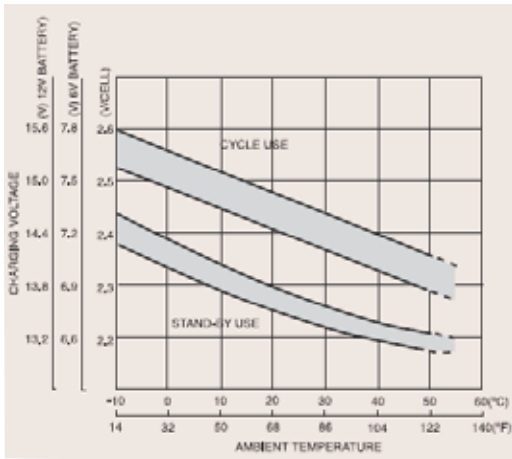
**Cycle vs depth of discharge**



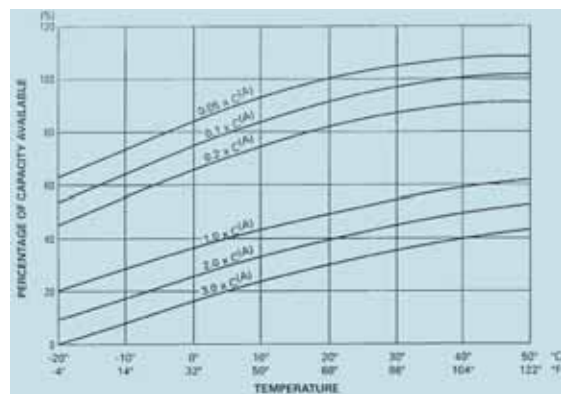
**Terminal Voltage(V) and Discharge Time(20°C68°F)**



**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	1.85	1.80	1.70	1.60
Discharge Current(A)	0.05C>(A)	0.05C<(A)<0.25C	0.25C<(A)<1.0C	(A)>1.0C

**Contact information**

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**ABT VRLA Battery: Available Power Range From 7Ah to 3000Ah**

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