

# SA12-12

## 12V 12AH

### AGM Valve Regulated Lead Acid Battery

SA series is a general purpose battery with 8 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T standards. With advanced AGM valve regulated technology and high purity raw material, the SA series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPs, telecom, power grid, medical equipment, emergency light and security system applications.

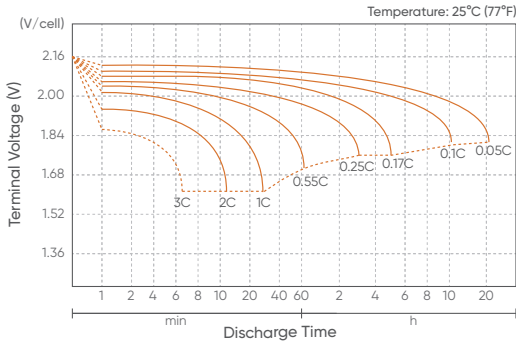


Specification		Dimensions
Cells Per Unit	6	<p>Length <b>151±1.5mm (5.94 inches)</b></p> <p>Width <b>98±1.5mm (3.86 inches)</b></p> <p>Height <b>95±1.5mm (3.74 inches)</b></p> <p>Total Height <b>101±1.5mm (3.98 inches)</b></p> <p>Terminal M5 Value <b>6-7 N*m</b></p> <p>Terminal M6 Value <b>8-10 N*m</b></p> <p>Terminal M8 Value <b>10-12 N*m</b></p>
Voltage Per Unit	12	
Capacity	12Ah@20hr-rate to 1.75V per cell @25°C	
Weight	Approx. 3.5Kg (Tolerance ±3.0%)	
Internal Resistance	Approx. 17mΩ	
Terminal	F1 / F2	
Max. Discharge Current	120A (5 sec)	
Short Circuit Current	590A	
Design Life	8 years (Float charging)	
Maximum Charging Current	3.6 A	
Reference Capacity	C3 9.29AH C5 10.5AH C10 11.2AH C20 12.0AH	
Standby Use Voltage	13.7V~13.9V @25°C Temperature Compensation: -3mV/°C/Cell	
Cycle Use Voltage	14.6V~14.8V @25°C Temperature Compensation: -4mV/°C/Cell	
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C	
Normal Operating Temperature Range	25°C ± 5°C	
Self Discharge	SunArk Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.	
Container Material	A.B.S. UL94-HB, UL94-V0 Optional	

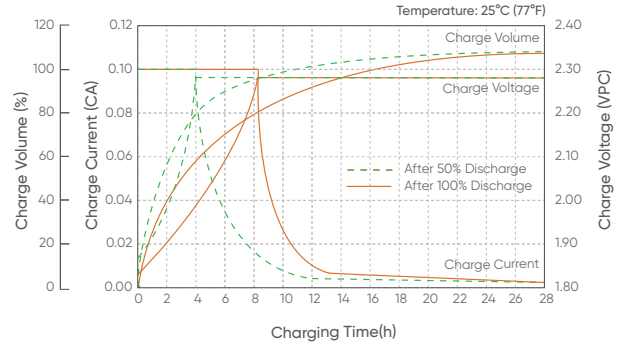
Constant Current Discharge Characteristics: A (25°C)												
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	45.53	32.18	23.26	13.36	7.332	4.502	3.384	2.732	2.264	1.457	1.183	0.625
1.65V	42.34	30.41	22.24	12.83	7.080	4.358	3.280	2.658	2.205	1.441	1.169	0.615
1.70V	38.20	27.99	20.83	12.26	6.850	4.214	3.190	2.586	2.148	1.418	1.151	0.607
1.75V	34.23	25.62	19.38	11.72	6.600	4.067	3.095	2.520	2.094	1.399	1.136	0.600
1.80V	30.05	23.19	17.90	11.20	6.347	3.921	2.999	2.447	2.040	1.375	1.122	0.594
1.85V	23.85	18.96	14.85	9.646	5.693	3.593	2.773	2.275	1.902	1.291	1.056	0.564

Constant Current Discharge Characteristics: A (25°C)												
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	75.47	54.70	40.66	24.27	13.78	8.532	6.463	5.245	4.363	2.845	2.326	1.230
1.65V	71.00	52.68	39.45	23.54	13.38	8.300	6.290	5.122	4.266	2.819	2.301	1.213
1.70V	65.51	49.39	37.50	22.73	13.03	8.070	6.146	5.002	4.169	2.782	2.269	1.199
1.75V	60.00	46.02	35.41	21.95	12.63	7.825	5.988	4.892	4.079	2.749	2.242	1.186
1.80V	53.81	42.39	33.16	21.19	12.21	7.583	5.826	4.769	3.988	2.708	2.216	1.176
1.85V	43.61	35.26	27.90	18.43	11.02	6.985	5.410	4.449	3.731	2.548	2.089	1.118

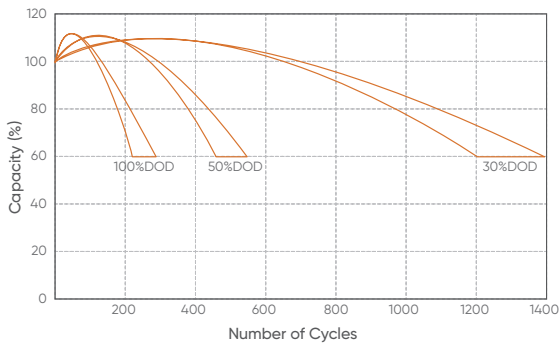
### Discharge Characteristics Curve



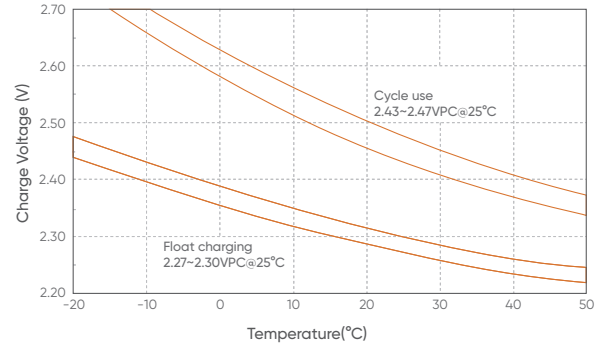
### Charge Characteristic Curve for Standby Use



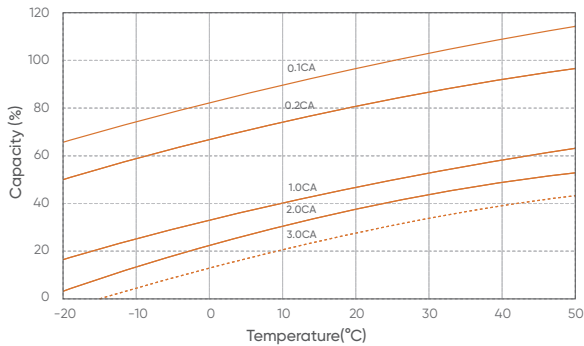
### Cycle Life in Relation to Depth of Discharge



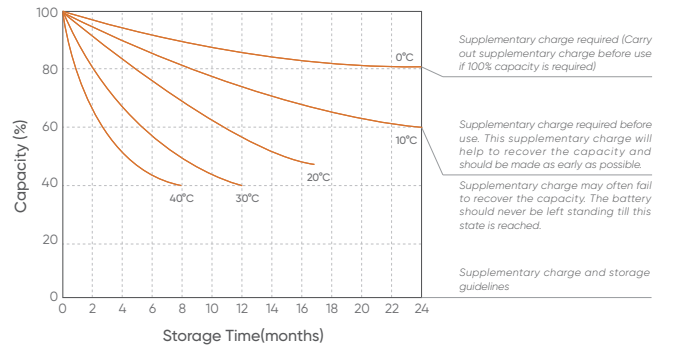
### Relationship Between Charging Voltage and Temperature



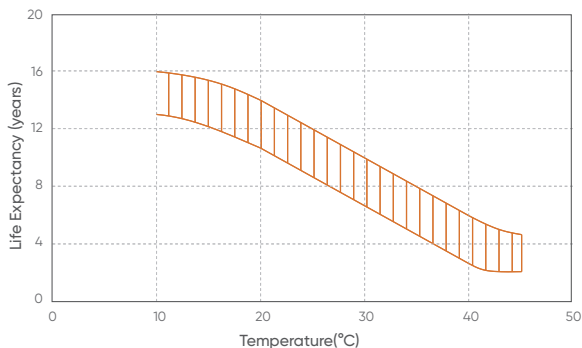
### Temperature Effects on Capacity



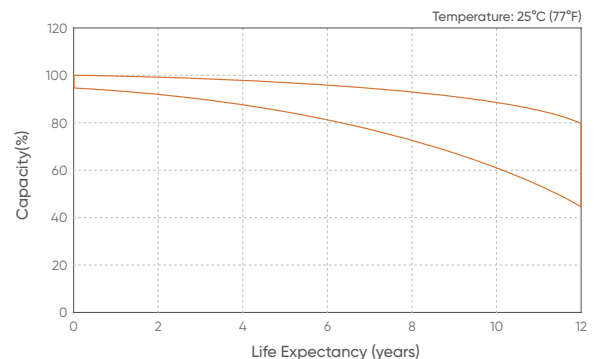
### Storage Characteristics



### Effect of Temperature on Long Term Life



### Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, SunArk reserves the right to explain and update the latest information.