

# SA12-55

# 12V 55AH

## AGM Valve Regulated Lead Acid Battery

SA series is a general purpose battery with 12 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.

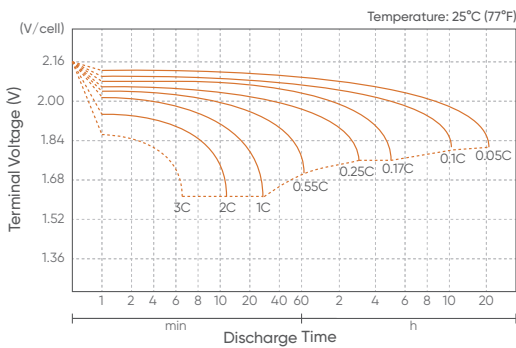


Specification		Dimensions
Cells Per Unit	6	<p>Length <b>229±2mm (9.02 inches)</b></p> <p>Width <b>138±2mm (5.43 inches)</b></p> <p>Height <b>211±2mm (8.31 inches)</b></p> <p>Total Height <b>216±2mm (8.50 inches)</b></p> <p>Terminal M5 Value <b>6-7 N*m</b></p> <p>Terminal M6 Value <b>8-10 N*m</b></p> <p>Terminal M8 Value <b>10-12 N*m</b></p>
Voltage Per Unit	12	
Capacity	55Ah@10hr-rate to 1.80V per cell @25°C	
Weight	Approx. 15.5Kg (Tolerance ±3.0%)	
Internal Resistance	Approx. 7.5mΩ	
Terminal	F15(M6) / F11(M6) / L3	
Max. Discharge Current	550A (5 sec)	
Short Circuit Current	1160A	
Design Life	12 years (Float charging)	
Maximum Charging Current	16.5 A	
Reference Capacity	C3 42.6AH C5 48.0AH C10 55.0AH C20 58.2AH	
Standby Use Voltage	13.6V~13.8V @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	

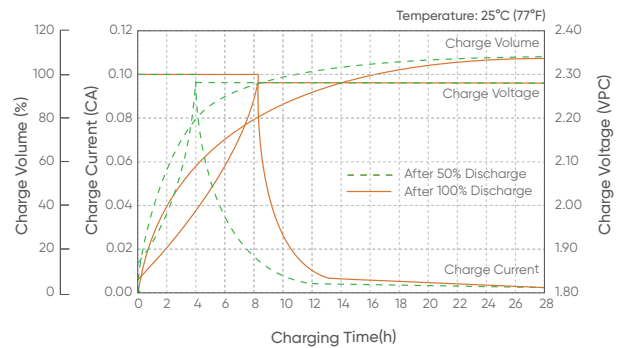
Constant Current Discharge Characteristics: A (25°C)											
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	131.6	101.0	59.6	33.6	20.0	15.5	12.2	10.4	6.97	5.80	3.04
1.65V	124.3	96.5	57.2	32.5	19.4	15.0	11.9	10.1	6.90	5.73	2.99
1.70V	114.4	90.4	54.7	31.4	18.7	14.6	11.5	9.84	6.79	5.65	2.95
1.75V	104.8	84.1	52.3	30.2	18.1	14.2	11.2	9.60	6.69	5.57	2.91
1.80V	94.8	77.7	50.0	29.1	17.4	13.8	10.9	9.35	6.58	5.50	2.89
1.85V	77.5	64.5	43.1	26.1	16.0	12.7	10.2	8.72	6.18	5.18	2.74

Constant Power Discharge Characteristics : WPC (25°C)											
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	223.6	176.5	108.3	63.1	37.9	29.6	23.4	20.0	13.6	11.4	5.98
1.65V	215.4	171.2	105.1	61.3	36.9	28.8	22.9	19.6	13.5	11.3	5.89
1.70V	201.9	162.8	101.4	59.7	35.9	28.2	22.3	19.1	13.3	11.1	5.83
1.75V	188.2	153.7	97.9	57.9	34.8	27.5	21.8	18.7	13.2	11.0	5.76
1.80V	173.3	143.9	94.6	56.0	33.7	26.7	21.3	18.3	13.0	10.9	5.71
1.85V	144.1	121.1	82.3	50.5	31.1	24.8	19.9	17.1	12.2	10.2	5.43

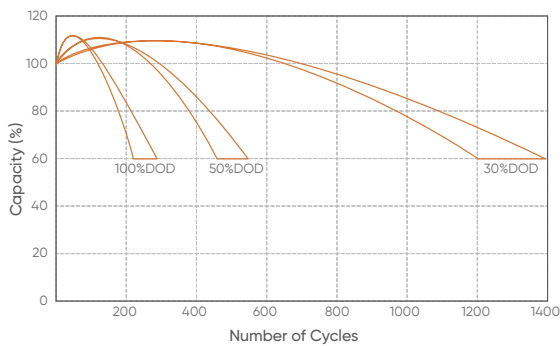
### Discharge Characteristics Curve



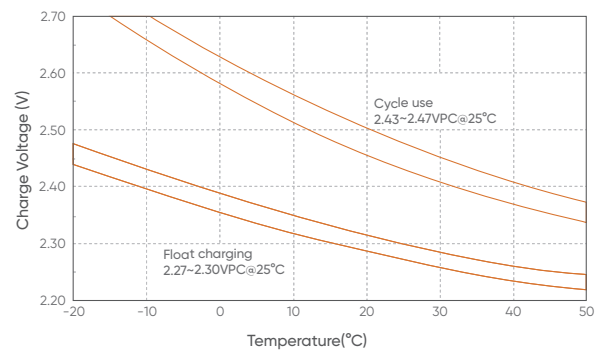
### Charge Characteristic Curve for Standby Use



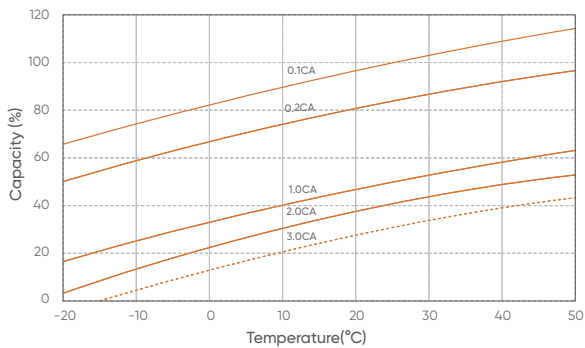
### Cycle Life in Relation to Depth of Discharge



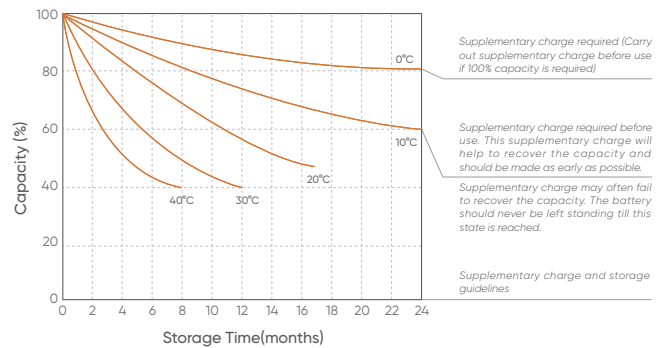
### Relationship Between Charging Voltage and Temperature



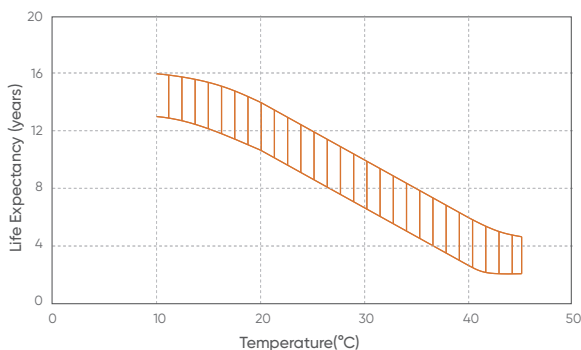
### Temperature Effects on Capacity



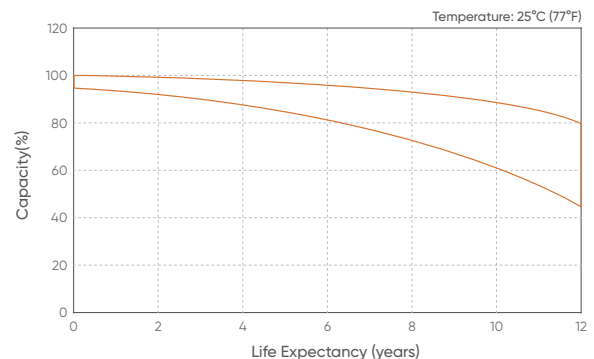
### Storage Characteristics



### 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.