

# Sealed Lead Acid (SLA) Batteries

## 12V 18AH - M5/F13 Terminal

### Model: S 4550

**Powerhouse**  
BATTERIES



This 12V 18Ah sealed lead acid (SLA) battery is a compact battery for powering 12V equipment. It is commonly used in battery back up systems, alarm and communications systems and UPS units. Fitted with M5 bolt and nut terminals, these batteries are easily user replaced in most equipment they are used in. Cells are fully sealed to prevent any leakage of electrolyte.

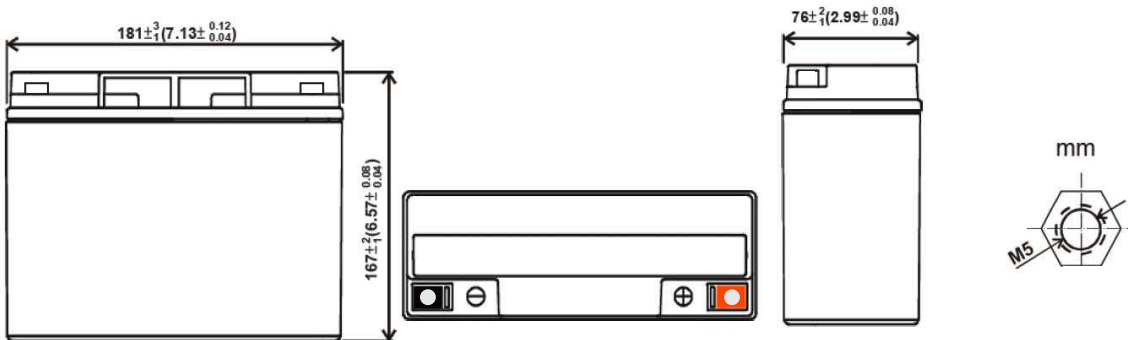
Our range of Powerhouse SLA batteries are from a quality supplier and are graded for use in UPS systems. We have found the quality of SLA batteries varies considerably between suppliers and often cheaper units have a shorter life span.

**ActivFire Listed (afp3824). Conforms to IEC 60896-21:2004 and IEC 60896-22:2004.**

Cell per unit	6	Ambient temperature	
Nominal Voltage (V)	12	Charge	0°C (32°F) to 40°C (104°F)
Nominal Capacity (Ah)	18Ah@ 20hour rate F.V(1.75/cell)	Discharge	-15°C (5°F) to 50°C (122°F)
Weight	Approx 5.35kg (11.79Lbs.)	Storage	-15°C (5°F) to 40°C (104°F)
Internal Resistance (1KHz)	16mΩ	Max charge Current	
Max Discharge Current (5s)	180A	Max charge current	: 5.4A
Battery Life :	Stand by : 3~5 years	Cycle use :	Charge voltage: 14.4 to 15.0V
Terminal Type	M5/F13	Stand by :	Charge voltage: 13.50 to 13.80V
Container Material	ABS(Option : 94-HB & 94V-0 flame retardant case)		



DIMENSIONS	Length	Width	Height	Total Height
Unit: mm	181±3	76±1	167±1	167±1
Unit: inch	7.13±0.12	2.99±0.04	6.57±0.04	6.57±0.04



#### Constant current discharge characteristics Unit:A(25°C 77°F)

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	64.8	31.5	21.0	11.0	6.30	5.00	3.20	2.10	1.70	0.97
1.67V	59.4	30.0	20.2	10.8	6.25	4.95	3.18	2.05	1.67	0.96
1.70V	54.0	28.9	19.8	10.5	6.05	4.89	3.12	2.05	1.66	0.95
1.75V	53.0	28.0	18.3	10.3	5.98	4.70	3.05	2.03	1.65	0.93
1.80V	52.0	28.5	17.7	9.8	5.90	4.61	3.01	1.97	1.60	0.92

#### Constant power discharge characteristics Unit:W(25°C 77°F)

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	730	368	225	124.5	76.00	55.00	38.00	26.00	20.00	11.30
1.67V	680	345	219	120.0	73.00	54.40	37.50	25.80	19.70	11.20
1.70V	630	336	217	117.0	72.50	52.40	36.85	25.60	19.40	11.10
1.75V	600	325	216	115.0	71.60	51.20	36.50	25.20	19.00	11.00
1.80V	588	314	215	110.5	70.00	50.50	35.40	24.80	18.50	10.80

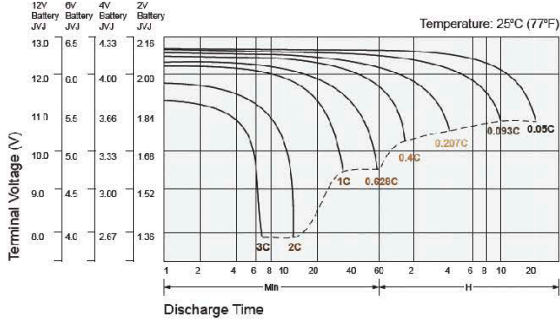
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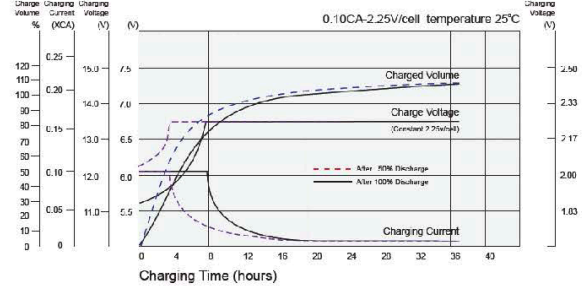
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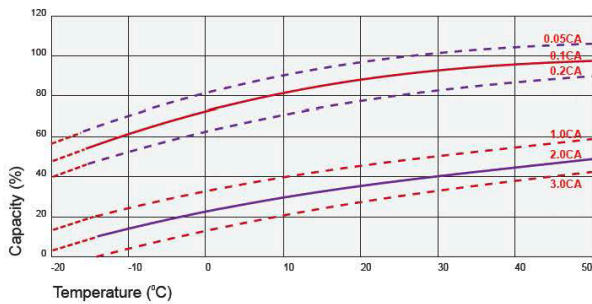
#### Battery Discharge Characteristics (25°C/77°F)



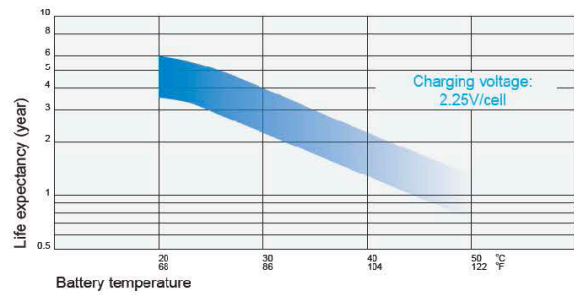
#### Battery Charge Characteristic for standby use



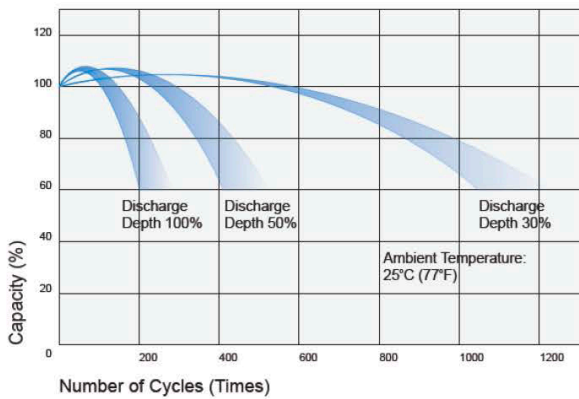
#### Temperature Effects in Relation to Battery Capacity



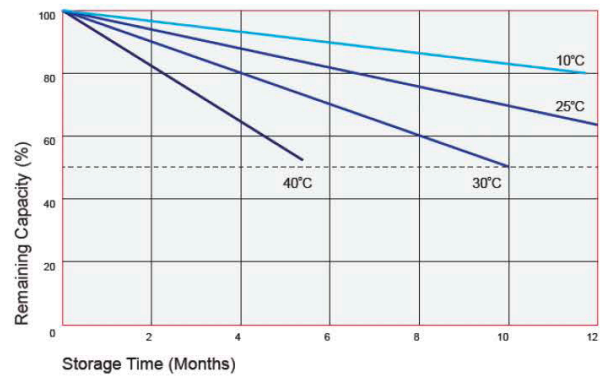
#### Temperature Effects on Long Term Float Life



#### Cycle Service Life



#### Self Discharge Characteristics



#### Charging Procedures

Application	Charge Voltage(V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40-2.50	0.25C
Standby	25°C(77°F)	2.275	2.25-2.30	

#### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75	1.70	1.65	1.60
Discharge Current (A)	0.2C >(A)	0.2C <(A)	0.5C <(A)	(A) >1.0C