

## VRLA AGM Battery

AP12-45 [12V45Ah]



### General Features

- Designed floating charging service life: 12 years (25°C)
- Sealed and maintenance free operation
- Safety valve installation for explosion proof
- Low self-discharge characteristic
- Wide operating temperature range from 0°C~40°C
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion

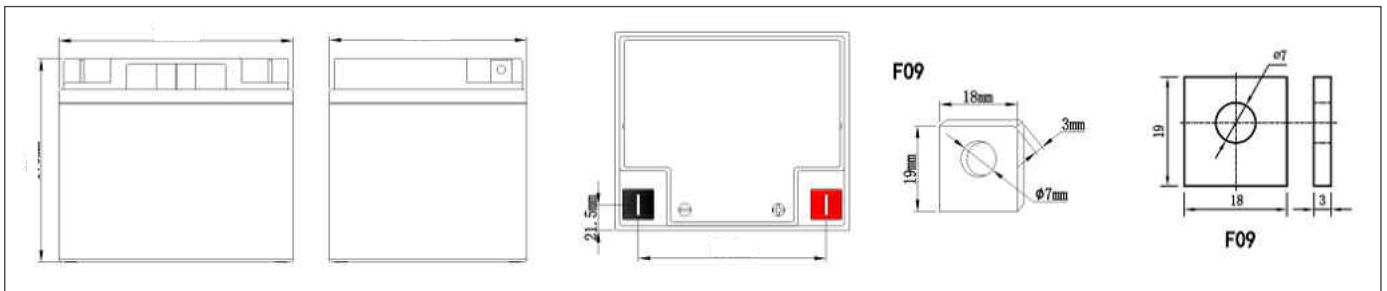
### Application

- DC power supply
- UPS/EPS power supply
- Electrical devices & instruments
- Security and fire alarm systems
- Telecom stations and power stations
- Medical equipments
- Emergency lighting systems

### Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±3%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	45AH	230±2mm	138±2mm	211±2mm	211±2mm	Approx 15.0kg (33.06lbs)	≈6.8 mΩ	F09 (standard)

### Dimensions



### Constant-Voltage Charge

Rated Capacity	
20 hour rate (1.9A)	48.0AH
10 hour rate (3.8A)	45.0AH
5 hour rate (7.65A)	38.3AH
3 hour rate (11.25A)	33.8AH
1 hour rate (24.75A)	25.0AH
Capacity affected by Temperature	
40°C(104°F)	103%
25°C(77°F)	100%
0°C(32°F)	86%

Cycle Application
1. Limit initial current less than 11.25A.
2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).
3. Hold at 14.1V to 14.4V until current drop to under 0.27A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -30mV/°C.
Standby Service
1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 11.25A continuously .When held at this voltage , the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -18mV/°C.

**NOTE :** The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

## Battery Discharge Table

End Voltage (V)	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
<b>Constant Current Discharge Data Sheet (Amperes at 25°C)</b>													
10.20	140	107	80.7	42.8	39.7	27.88	22.01	18.44	11.55	8.02	5.71	4.73	2.52
10.50	125	98	75.4	41.0	37.9	26.76	21.15	17.76	11.18	7.66	5.40	4.64	2.48
10.80	116	89	70.5	39.7	36.1	25.65	20.28	17.07	10.79	7.33	5.13	4.50	2.40
<b>Constant Power Discharge Data Sheet (Watt at 25°C)</b>													
10.20	1409	1193	866	539	405	352	257	193	144	92.9	68.9	58.5	30.65
10.50	1355	1013	777	527	396	347	253	187	139	90.0	68.0	56.7	29.70
10.80	1260	945	742	515	383	331	241	180	135	86.8	67.1	54.0	29.03

## Performance Characteristics

