

VRLA AGM Battery

AP12-4.5[12V4.5Ah]



General Features

- Designed floating charging service life: 8 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

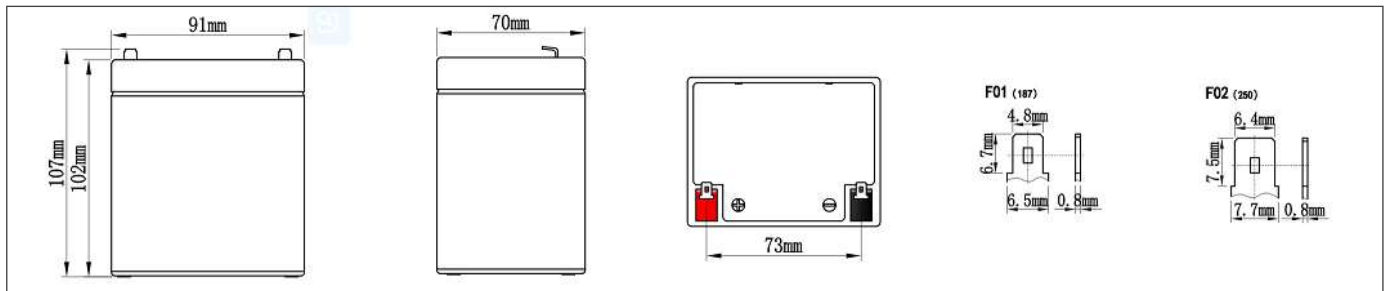
Application

- 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 (20HR)	Dimension				Weight ±3%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	4.5AH	91±2mm	70±2mm	102±2mm	107±2mm	Approx1.81kg (3.99lbs)	≈30.5 mΩ	F01/F02 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (0.225A)	4.65AH
10 hour rate (0.45A)	4.30AH
5 hour rate (0.765A)	3.70AH
27 minute rate (4.5A)	2.25AH
7 minute rate (13.5A)	1.58AH
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 1.125A.
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 0.027A 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 1.125A 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
Constant Current Discharge Data Sheet (Amperes at 25°C)													
10.20	17.52	11.69	9.31	4.78	3.59	2.707	2.201	1.685	1.264	0.794	0.532	0.460	0.242
10.50	16.79	11.47	9.11	4.63	3.51	2.686	2.159	1.622	1.222	0.782	0.527	0.456	0.240
10.80	15.88	11.20	8.86	4.47	3.36	2.665	2.107	1.548	1.180	0.769	0.521	0.451	0.237
Constant Power Discharge Data Sheet (Watt at 25°C)													
10.20	191.1	137.8	111.5	62.98	45.91	34.93	26.79	20.15	14.38	9.48	6.68	5.40	2.907
10.50	183.1	133.1	108.2	61.67	44.85	34.37	26.40	19.87	14.06	9.37	6.63	5.32	2.865
10.80	173.5	128.2	104.7	59.88	43.71	33.80	26.01	19.58	13.81	9.26	6.55	5.24	2.823

Performance Characteristics

