

VRLA AGM Battery

AP12-40 [12V40Ah]



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

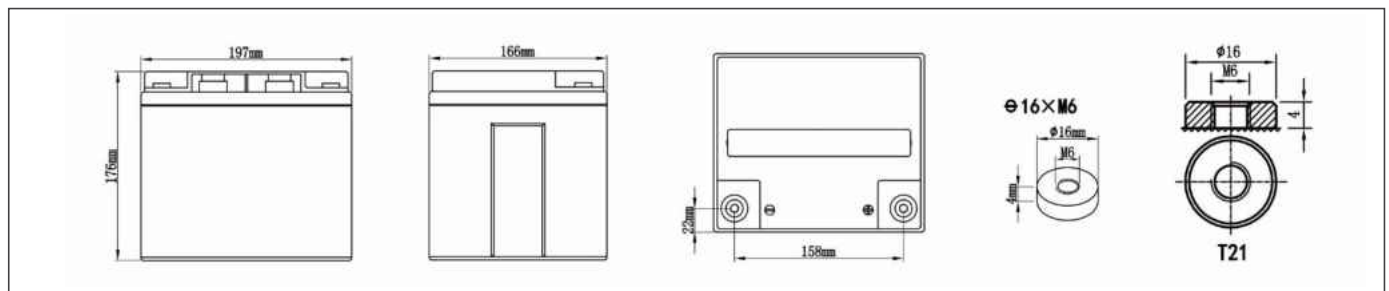
Application

- 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	40AH	197±2mm	166±2mm	170±2mm	170±2mm	Approx 13.5kg (29.76lbs)	≈8.5 mΩ	T21 (standard)

Dimensions



Battery Discharge Table

End Voltage (V)	Minute (M)						Hour (H)									
	5	10	15	20	30	45	1	1.5	2	3	4	5	6	8	10	20
Constant Current Discharge Data Sheet (Amperes at 25°C)																
10.20	123.4	93.81	70.67	62.4	37.55	34.77	24.43	19.29	16.16	10.12	8.93	7.04	6.38	5.00	4.15	2.21
10.50	109.0	85.99	66.14	60.0	36.00	33.23	23.45	18.54	15.56	9.79	8.73	6.72	6.07	4.73	4.10	2.17
10.80	101.6	78.18	61.82	58.5	34.77	31.68	22.48	17.78	14.97	9.45	8.49	6.43	5.79	4.50	3.98	2.11
Constant Power Discharge Data Sheet (Watt at 25°C)																
10.20	1223	1036	752	673	468	352	305.5	223.2	167.7	125.5	104	80.65	74.42	59.76	50.82	26.62
10.50	1177	879	675	657	458	344	301.4	219.1	162.5	121.4	101	78.18	72.73	59.04	49.27	25.80
10.80	1094	821	645	647	447	332	287.0	209.8	156.4	117.3	97.0	75.40	70.82	58.22	46.91	25.21

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

Constant-Voltage Charge

Rated Capacity	
20 hour rate (2.0A)	42.8AH
10 hour rate (4.0A)	40.0AH
5 hour rate (6.68A)	33.0AH
3 hour rate (10.0A)	29.0AH
1 hour rate (24.0A)	21.0AH

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 10.0A.
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 0.24A 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 10.0A 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.

Performance Characteristics

