

RAW POWER VRLA AGM Battery

12V 42AH [12RP42VA]



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

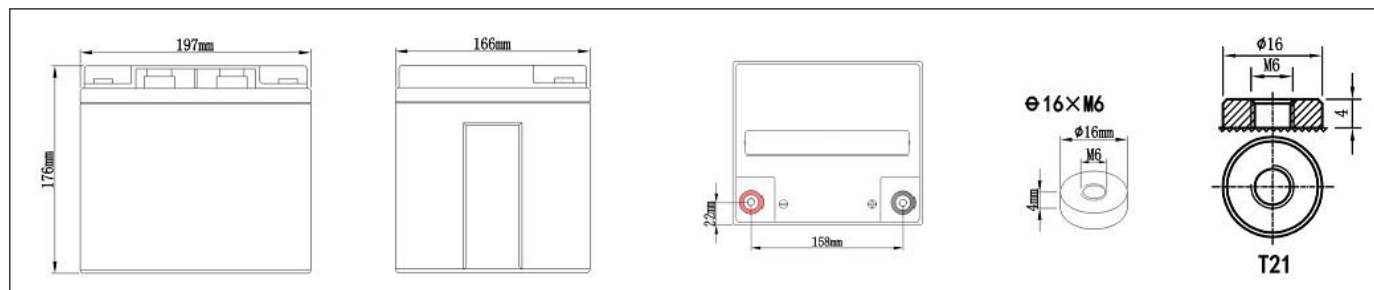
Application

- 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	42AH	197±2mm	166±2mm	176±2mm	176±2mm	Approx 13.50kg (29.76lbs)	≈7.30mΩ	T21 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity	
20 hour rate (2.1A)	45.0AH
10 hour rate (4.2A)	42.0AH
5 hour rate (7.14A)	35.7AH
3 hour rate (10.5A)	32.0AH
1 hour rate (25.2A)	25.5AH
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 12.6A.	
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 0.25A 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 12.6A 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.	

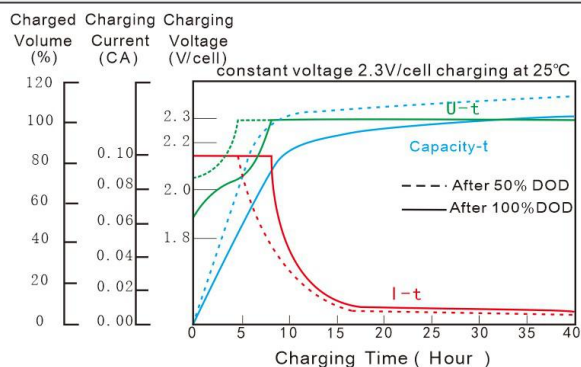
NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

Battery Discharge Table

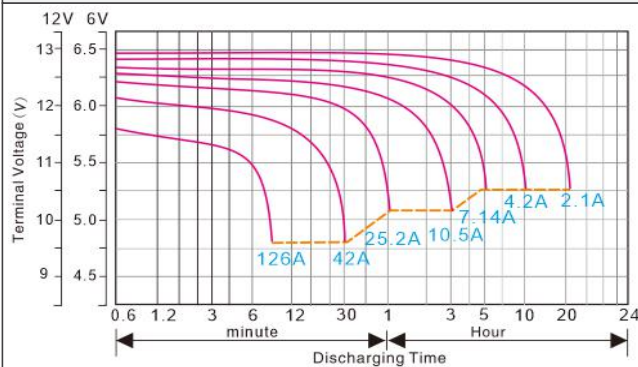
End Voltage (V)	Minute (M)					Hour (H)							
	5	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (Amperes at 25°C)													
10.20	127.6	96.9	73.0	38.8	35.92	25.24	19.93	16.70	10.46	7.27	5.17	4.32	2.35
10.50	112.7	88.8	68.4	37.2	34.32	24.23	19.15	16.08	10.12	6.94	4.89	4.25	2.30
10.80	105.0	80.7	63.8	35.9	32.73	23.23	18.36	15.47	9.77	6.65	4.64	4.15	2.22
Constant Power Discharge Data Sheet (Watt at 25°C)													
10.20	1263	1070	777	484	363	316	231	173	129.2	83.4	61.7	52.5	27.50
10.50	1216	908	697	473	355	312	227	168	125.0	80.7	61.0	50.9	26.65
10.80	1131	848	667	462	343	296	216	162	120.8	77.9	60.2	48.5	26.05

Performance Characteristics

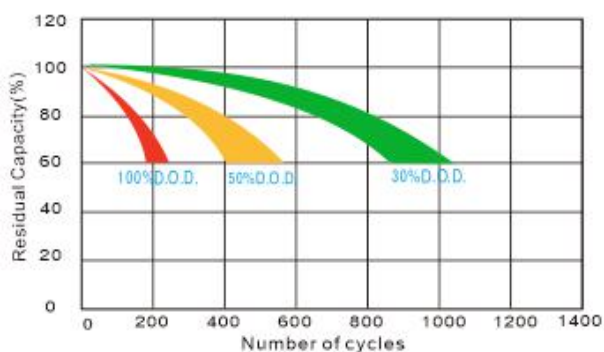
Charge Characteristics (25°C/77°F)



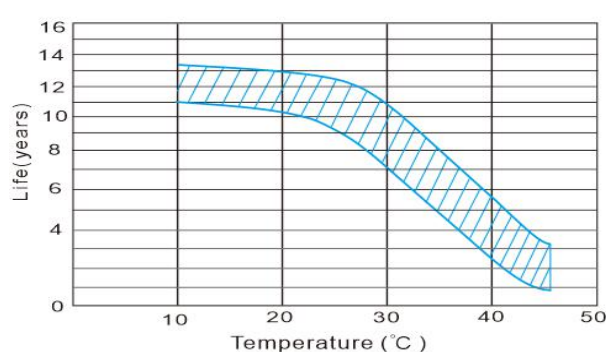
Discharge Characteristic (25°C/77°F)



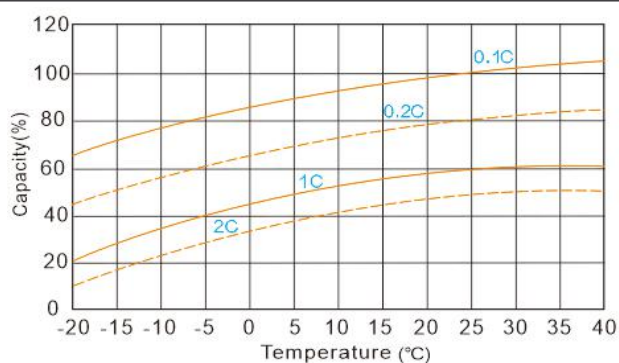
Cycle Life in Relation to Depth of Discharge



Temperature vs Float Life



Capacity Curve At Different Temperature



Self Discharge Characteristics

