

## VRLA AGM Battery

BT-HSE-45-12 [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.

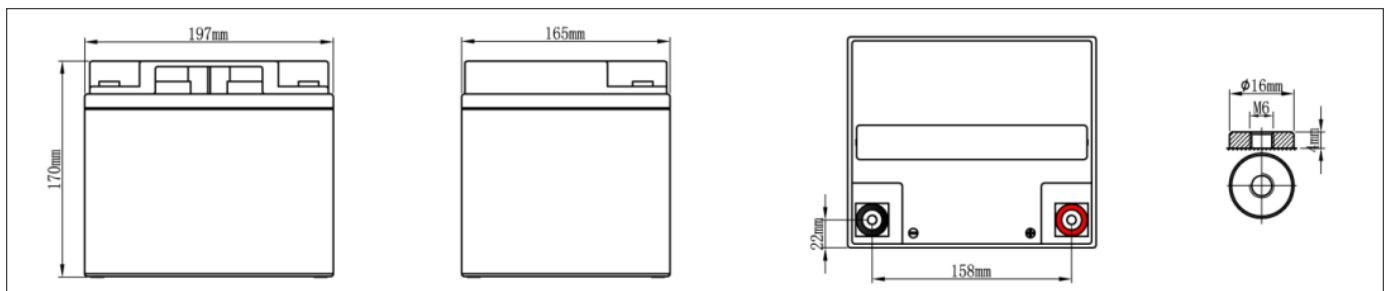
### Applications

- DC power supply.
- UPS/ EPS power supply.
- Electrical devices & instruments.
- Security and fire alarm systems.
- Telecom stations and power stations.
- Medical equipment.
- 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	197±2mm	165±2mm	170±2mm	170±2mm	Approx 13.5kg (29.8lbs)	≤ 8.5 mΩ	F09 (standard)

### Dimensions



### Constant-Voltage Charge

Rated Capacity	
20 hour rate (2.34A to 10.8V)	46.8Ah
10 hour rate (4.50A to 10.8V)	45.0Ah
5 hour rate (7.42A to 10.8V)	37.1Ah
3 hour rate (10.8A to 10.8V)	32.4Ah
1 hour rate (25.9A to 10.8V)	25.9Ah
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 12.0A
2. Charge until battery voltage (under charge) reaches 14.1V to 14.7V 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
<b>Maximum Discharge Current (5s): 400A</b>

**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 Volts/Cell	Minute (M)				Hour (H)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
<b>Constant Current Discharge Data Sheet (@25°C) Unit: A</b>												
1.70V	99.8	81.3	43.1	38.3	26.8	18.6	18.2	11.3	7.78	5.40	4.59	2.38
1.75V	93.6	77.2	40.9	36.9	26.4	18.0	17.6	11.1	7.64	5.26	4.55	2.37
1.80V	87.5	73.1	39.1	35.6	25.9	17.7	17.2	10.8	7.42	5.17	4.50	2.34
<b>Constant Power Discharge Data Sheet (@25°C) Unit: W</b>												
1.70V	188	155	92.7	66.7	57.5	39.8	31.7	23.5	15.2	11.7	9.18	4.93
1.75V	181	150	88.2	64.3	56.2	39.3	30.8	22.8	14.9	11.5	9.10	4.87
1.80V	173	145	83.8	62.3	54.8	39.0	30.0	22.5	14.5	11.3	9.00	4.82

## Performance Characteristics

