



**SAITE**  
SAITE POWER SOURCE (VIETNAM) CO., LTD.



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## VRLA AGM Battery

BT-HSE-40-12 [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

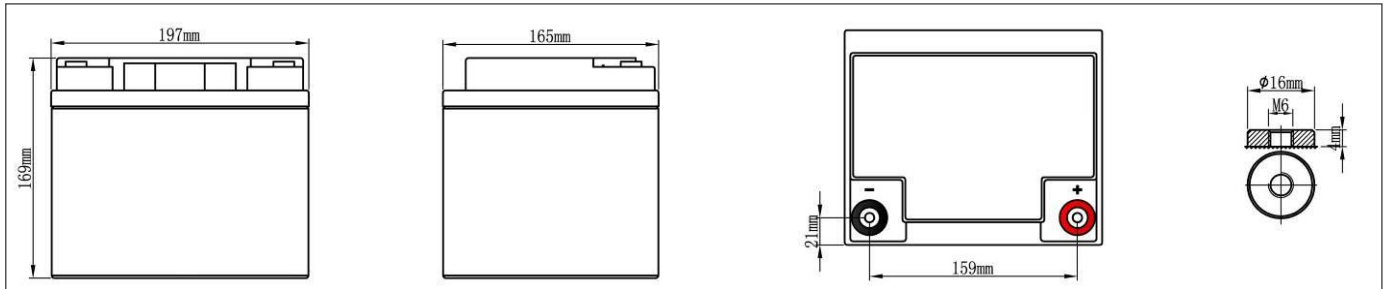
### Application

- DC power supply
- Medical equipments
- UPS/EPS power supply
- Telecom stations and power stations

### Physical Specifications

Nominal Voltage	Nominal Capacity (10HR)	Dimension				Weight ±2%	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V	40AH	197±2mm	165±2mm	169±2mm	169±2mm	Approx 12.5kg (27.48lbs)	≈10.3 mΩ	T68 (standard)

### Dimensions



### Constant-Voltage Charge

Rated Capacity	
20 hour rate (2.0A)	42.0AH
10 hour rate (4.0A)	40.0AH
5 hour rate (6.8A)	34.0AH
3 hour rate (10.0A)	30.0AH
1 hour rate (24.0A)	24.5AH
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 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.

**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)							
	10	15	30	45	1	1.5	2	3	5	8	10	20
<b>Constant Current Discharge Data Sheet (@25°C) Unit: A</b>												
9.6V	94.5	75.2	42.0	36.3	24.5	20.0	17.0	10.4	7.24	4.96	4.17	2.17
9.9V	90.4	72.1	40.1	35.0	24.2	19.6	16.6	10.2	7.08	4.89	4.11	2.15
10.2V	86.3	68.0	38.2	33.9	23.4	19.2	16.1	10.0	6.92	4.80	4.08	2.11
10.5V	82.3	65.0	36.3	32.7	23.0	18.9	15.6	9.83	6.80	4.68	4.04	2.10
10.8V	78.2	62.0	34.6	31.6	22.5	18.4	15.3	9.59	6.59	4.59	4.00	2.08
<b>Constant Power Discharge Data Sheet (@25°C) Unit: W</b>												
9.6V	1057	878	542	381	316	236	177	131	85.4	64.6	50.0	26.9
9.9V	1008	835	517	368	309	230	173	128	83.3	63.5	49.5	26.7
10.2V	960	795	493	354	301	225	169	125	81.3	62.5	49.0	26.4
10.5V	914	757	469	342	294	220	165	122	79.2	61.5	48.5	25.9
10.8V	870	721	446	331	286	215	160	120	77.1	60.4	48.0	25.7

## Performance Characteristics

