



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

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## VRLA AGM Battery

BT-12M20AC[12V20Ah]



### 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

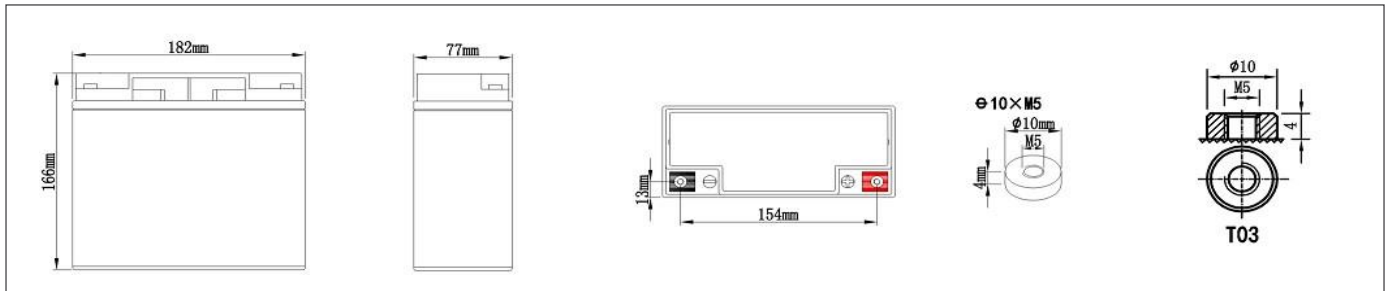
### Application

- 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             | 20AH                    | 182±2mm   | 77±2mm | 166±2mm | 166±2mm | Approx 5.85kg (12.24lbs) | ≈14 mΩ                                      | T03 (standard)     |

## Dimensions



## Constant-Voltage Charge

| Rated Capacity                   |         | Cycle Application   |  |
|----------------------------------|---------|---|--|
| 20 hrs rate (1.0A at 10.8V)      | 20. 0AH | 1. Limit initial current less than 5.0A.  |  |
| 10 hrs rate (1.81A at 10.8V)     | 18.1AH  | 2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).  |  |
| 5 hrs rate (3.37A at 10.5V)      | 16.8 AH | 3. Hold at 14.1V to 14.4V until current drop to under 0.11A for at least 3 hours.   |  |
| 3 hr rate (5.2A at 10.5V)        | 15.6 AH | 4. Temperature compensation coefficient of charging voltage is -30mV/°C.  |  |
| 1 hr rate (12A at 10.2VPC)       | 12 AH   |   |  |
| Capacity affected by Temperature |         | Standby Service   |  |
| 40°C(104°F)                      | 103%    | 1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 5.0A continuously .When held at this voltage, the battery will seek its own current level and maintain itself in a fully charge status. |  |
| 25°C(77°F)                       | 100%    |   |  |
| 0°C(32°F)                        | 86%     | 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   |
| <b>Constant Current Discharge Data Sheet (Amperes at 25°C)</b> |            |      |      |      |      |          |       |      |      |      |      |      |      |
| 1.70   | 74.2       | 48.3 | 37.8 | 19.3 | 14.0 | 12.0     | 9.58  | 7.12 | 5.38 | 3.44 | 2.30 | 1.85 | 1.04 |
| 1.75   | 73.5       | 47.9 | 37.5 | 19.2 | 13.8 | 11.9     | 9.40  | 6.85 | 5.20 | 3.37 | 2.28 | 1.83 | 1.02 |
| 1.80   | 72.7       | 47.4 | 37.1 | 18.9 | 13.6 | 11.9     | 9.22  | 6.58 | 5.02 | 3.30 | 2.25 | 1.81 | 1.00 |
| <b>Constant Power Discharge Data Sheet (Watt at 25°C)</b>      |            |      |      |      |      |          |       |      |      |      |      |      |      |
| 1.70   | 134        | 96.6 | 78.1 | 44.2 | 32.2 | 24.50    | 18.78 | 14.1 | 10.1 | 6.65 | 4.68 | 3.79 | 2.04 |
| 1.75   | 128.6      | 93.5 | 75.8 | 43.3 | 31.4 | 24.12    | 18.50 | 13.9 | 9.86 | 6.57 | 4.65 | 3.73 | 2.01 |
| 1.80   | 121.7      | 90.0 | 73.5 | 42.0 | 30.7 | 23.72    | 18.20 | 13.7 | 9.69 | 6.50 | 4.60 | 3.67 | 1.98 |

## Performance Characteristics

