





# **VRLA AGM Battery**

BT-HSE-90-12 [12V90Ah]



## 🔗 General Features

• Designed floating charging service life: 12 years (25°C).

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- Sealed and maintenance free operation.
- Safety valve installation for explosion proof.
- Low self-discharge characteristic, approx. 3% of capacity per month at 20°C (average).
- Wide operating temperature range from 0°C~40°C.
- Lead Aluminum calcium Tin alloy high energy, prevent corrosion.
- ABS flame retardant case, classified to UL94-V0 is available on request.

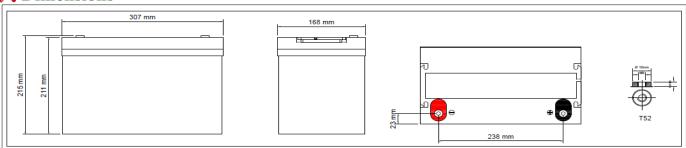
# **Applications**

- 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)		Dimensio	on (±3mm)		Internal	Standard	
		L	W	Н	ТН	Weight ±3%	Resistance (In full charge status)	Terminals
12V	90AH	307 mm	168 mm	211 mm	215 mm	Approx 27kg (59lbs)	≤ 5.2mΩ	T52 (standard)

#### **X** Dimensions



## Constant-Voltage Charge

Rated Capacity								
20 hour rate (4.9A to 10.8V)	98.0Ah							
10 hour rate (9.0A to 10.8V)	90.0Ah							
5 hour rate (16.0A to 10.5V)	80.0Ah							
3 hour rate (23.0A to 10.5V)	69.0Ah							
1 hour rate (58.1A to 10.2V)	58.1Ah							
Capacity affected by Temperature								
40°C(104°F)	103%							
25°C(77°F)	100%							

#### **Cycle Application**

- 1. Limit initial current less than 22.5A
- 2. Charge until battery voltage (under charge) reaches 14.4V to 14.4V at 25°C(77°F)
- 3. Hold at 14.1V to 14.4V until current drop to under 0.54A for at least 3 hours
- 4. Temperature compensation coefficient of charging voltage is -30mV/°C

#### **Standby Service**

86%

- 1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 22.5A 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

0°C(32°F)







#### **Battery Discharge Table**

End	Minute (M)				Hour (H)							
Volts/Cell	10	15	30	45	1	1.5	2	3	5	8	10	20
Constant Current Discharge Data Sheet (@25°C) Unit: A												
1.70V	212	168	93.9	83.4	58.1	46.0	38.6	24.0	16.7	11.5	9.39	5.09
1.75V	202	158	89.7	81.3	57.0	45.1	37.8	23.0	16.0	11.2	9.29	5.05
1.80V	192	151	85.5	78.1	55.9	44.1	36.7	22.5	15.8	11.1	9.00	4.90
Constant Power Discharge Data Sheet (@25°C) Unit: W												
1.70V	394	326	202	146	124	90.0	67.3	50.3	32.5	24.8	19.5	10.5
1.75V	375	311	192	141	121	87.8	65.8	48.8	31.7	24.3	19.3	10.4
1.80V	357	296	183	136	118	85.7	64.2	47.8	31.0	23.8	19.2	10.3

#### **Performance Characteristics**

