

## VRLA AGM Battery

### BT-HSE-120-12 [12V120Ah]



#### General Features

- Designed floating charging service life: 12 years (25°C).
- AGM technology for efficient gas recombination of up to 99%.
- Sealed and maintenance free operation, safety valve for explosion proof.
- Low self-discharge characteristic, ≤ 3% of capacity per month at 20°C (average).
- Wide operating temperature range with charge from -10°C~60°C, discharge from -20°C~60°C, storage from -20°C~60°C.
- Flat Plates in Lead Aluminum Calcium Tin alloy high energy, prevent corrosion.
- ABS flame retardant case, classified to UL94-V0 is available on request.

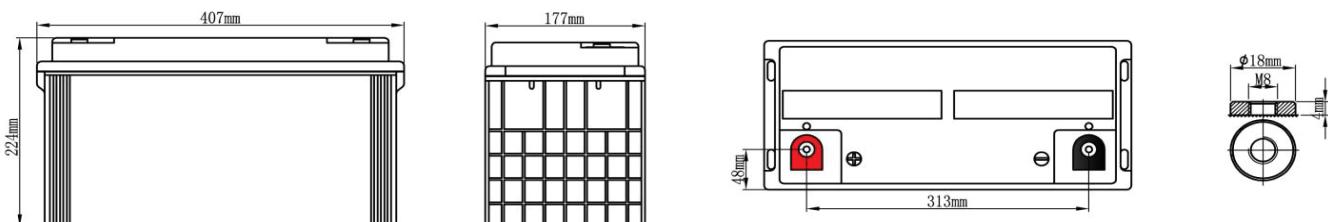
#### Battery Construction

Component	Battery Container	Safety valve	Terminal	Separator	Electrolyte
Raw material	ABS	Rubber	Copper alloy	Fiberglass	Sulfuric acid

#### Physical Specifications

Nominal Voltage/ No. of cell	Nominal Capacity (10HR)	Dimension (±3mm)				Weight (±3%)	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V/6 cells	120Ah	407 mm	177mm	224 mm	224 mm	Apx. 34.5 kg (76.06 lbs)	≤ 4.9 mΩ	T16 (standard)

#### Dimensions



#### Constant-Voltage Charge

Rated Capacity at 77°F(25°C)		Cycle Application	
20 hour rate (6.31A to 10.8V)	126Ah	1. Limit initial current less than 36A	
10 hour rate (12.0A to 10.8V)	120Ah	2. Charge until battery voltage (under charge) reaches 14.1V to 14.7V at 25°C(77°F)	
5 hour rate (20.4A to 10.5V)	102Ah	3. Hold at 14.1V to 14.7V until current drop to under 0.5A for at least 3 hours	
3 hour rate (29.3A to 10.5V)	87.9Ah	4. Temperature compensation coefficient of charging voltage is -30mV/°C	
1 hour rate (73.5A to 10.2V)	73.5Ah		
Capacity affected by Temperature		Standby Service	
40°C(104°F)	103%	1. Hold battery across constant voltage source of 13.5 to 13.8 volts at 25°C(77°F) with current limit 36A 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%	2. Temperature compensation coefficient of charging voltage is -18mV/°C	
0°C(32°F)	86%	Max. discharge current (5s): 970A      Short Circuit Current: 2250A	

**NOTE:** All data shall be changed without notice. Saite reserves the right to explain and update the information contained hereinto. 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	1	1.5	2	3	5	8	10	20
<b>Constant Current Discharge Data Sheet (@25°C) Unit: A</b>											
<b>1.60V</b>	295	233	131	77.0	61.0	51.2	32.3	22.0	15.0	12.5	6.57
<b>1.65V</b>	282	223	125	75.3	59.8	50.0	31.3	21.5	14.7	12.4	6.51
<b>1.70V</b>	269	213	120	73.5	58.5	48.8	30.3	21.0	14.5	12.3	6.44
<b>1.75V</b>	255	202	114	71.8	57.3	47.6	29.3	20.4	14.2	12.1	6.38
<b>1.80V</b>	242	192	108	70.0	56.0	46.4	28.3	19.9	13.9	12.0	6.31
<b>Constant Power Discharge Data Sheet (@25°C) Unit: W</b>											
<b>1.60V</b>	525	436	281	164	120	89.3	66.7	43.2	32.7	25.2	13.6
<b>1.65V</b>	502	416	269	160	117	87.3	65.1	42.1	32.0	24.9	13.4
<b>1.70V</b>	479	397	256	156	114	85.2	63.6	41.1	31.4	24.7	13.3
<b>1.75V</b>	455	378	244	152	111	83.1	62.0	40.0	30.8	24.4	13.2
<b>1.80V</b>	432	358	231	149	108	81.0	60.5	39.0	30.2	24.2	13.0

### Performance Characteristics

