

VRLA AGM Battery

BT-12M18AC [12V18Ah]



General Features

- Designed floating charging service life: 8 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 with range 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.

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.

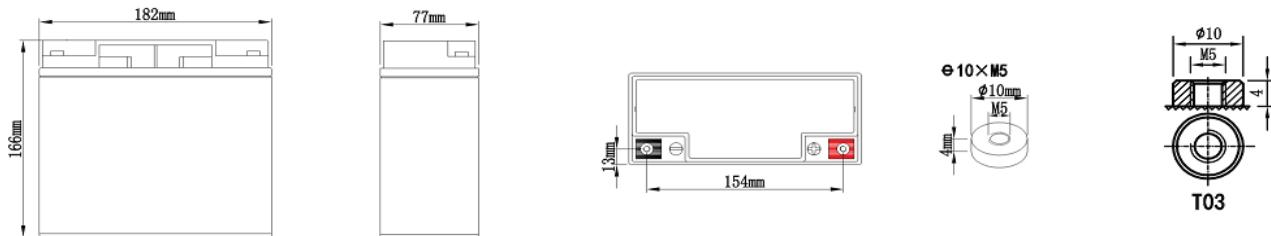
Battery Construction

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 (20HR)	Dimension (±3mm)				Weight (±3%)	Internal Resistance (In full charge status)	Standard Terminals
		L	W	H	TH			
12V/6 cells	18Ah	182 mm	77 mm	166 mm	166 mm	Apx. 5.15 kg (11.35 lbs)	≤ 15.5 mΩ	T03 (standard)

Dimensions



Constant-Voltage Charge

Rated Capacity at 77°F(25°C)		Cycle Application	
20 hour rate (0.90A to 10.8V)	18.0Ah	1. Limit initial current less than 5.4A	
10 hour rate (1.68A to 10.8V)	16.8Ah	2. Charge until battery voltage (under charge) reaches 14.1V to 14.7V at 25°C(77°F)	
5 hour rate (3.05A to 10.5V)	15.2Ah	3. Hold at 14.1V to 14.7V until current drop to under 0.14A for at least 3 hours	
3 hour rate (4.65A to 10.5V)	13.9Ah	4. Temperature compensation coefficient of charging voltage is -30mV/°C	
1 hour rate (11.1A to 10.2V)	11.1Ah		
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 5.4A 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): 270A Short Circuit Current: 900A	

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
Constant Current Discharge Data Sheet (@25°C) Unit: A											
1.60V	47.8	37.5	19.2	11.4	9.03	6.72	5.07	3.24	2.15	1.75	0.94
1.65V	46.5	36.4	18.6	11.2	8.85	6.52	4.93	3.18	2.12	1.73	0.93
1.70V	45.2	35.4	18.1	11.1	8.67	6.32	4.79	3.11	2.09	1.72	0.92
1.75V	43.8	34.3	17.5	10.9	8.48	6.11	4.65	3.05	2.05	1.70	0.91
1.80V	42.5	33.2	16.9	10.7	8.30	5.91	4.51	2.98	2.02	1.68	0.90
Constant Power Discharge Data Sheet (@25°C) Unit: W											
1.60V	97.2	78.8	44.5	23.5	18.0	13.6	9.67	6.37	4.45	3.53	1.90
1.65V	93.4	75.9	43.0	23.0	17.7	13.3	9.46	6.26	4.39	3.49	1.88
1.70V	89.6	72.9	41.4	22.6	17.3	13.1	9.25	6.15	4.33	3.44	1.86
1.75V	85.8	70.0	39.9	22.1	17.0	12.8	9.04	6.04	4.26	3.40	1.84
1.80V	82.0	67.0	38.3	21.7	16.7	12.6	8.83	5.93	4.20	3.35	1.82

Performance Characteristics

