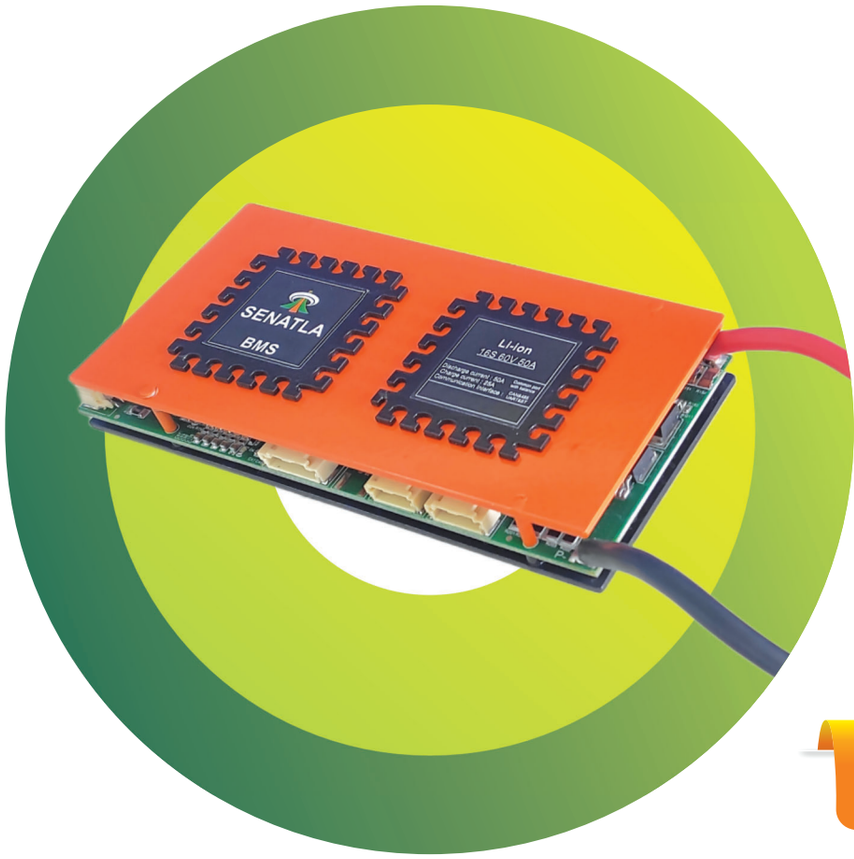
AIS156 Compliance

SENATLA

SMART Li-Ion BATTERY BMS



FULLY INDIGENOUS

Salient Features

- **Monitoring**:
  Constantly measures and reports crucial parameters like voltage, current, temperature, and state of charge (SOC) for individual cells within a battery pack.
- **Voltage Monitoring**:
  Ensures that no cell exceeds or falls below safe voltage thresholds.
- **Current Monitoring**:
  Measures the flow of current in and out of the battery pack.
- **Temperature Monitoring**:
  Prevents overheating by monitoring and controlling temperature.
- **State of Charge (SOC) Estimation**:
  Determines the remaining capacity of the battery.
- **Balancing**:
  Equalizes charge among cells to avoid overcharging of some cells and undercharging of others.
- **Protection**:
  Implements safeguards against overcharging, over-discharging, overcurrent, and overheating, which can compromise the safety and lifespan of the battery.
- **Fault Detection and Diagnostics**:
  Identifies and handles malfunctions or anomalies in the system.
- **Communication**:
  Exchanges data with external systems, chargers through CAN communication.

SPECIFICATIONS

Test Content		Parameters	Unit	Note
Discharge	Continuous discharge current	50	A	
Charging	Charging voltage	67.2	V	
	Continuous charging current	10	A	
Balanced	Balance detects Voltage	4	V	
	Turn on the pressure difference	20	mV	Set default
	Balanced opening condition	At the same time to meet:1. Charging Case. 2.Attain set balance open pressure difference, 3.Balanced switching voltage set		
Cell overcharge protection	Single overcharge protection voltage	4.20±0.05	V	
	Single overcharge protection voltage	1	S	
	Single overcharge protection and release voltage	4.20±0.05	V	
	Release delay of single overcharge protection	1	S	
Cell over-discharge protection	Single over-release protection voltage	2.2±0.05	V	
	Time-lapse of single over release protection	1	S	
	Single over release protection and release voltage	2.3±0.05	V	
	Discharge delay of monomer over discharge protection	1	S	
Pack over charge protection	Overall overcharge protection voltage	67.21±0.05	V	
	Overall overcharge protection delay	1	S	
	Overall overcharge protection release voltage	67.2±0.05	V	
	Overall release delay of overcharge protection	1	S	
Pack discharge protection	Overall overcast protection voltage	35.2±0.05	V	
	Overall over-release protection delay	1	S	
	Overall over-release protection and release voltage	36.8±0.05	V	
	Overall, over release protection release delay	1	S	
Charge/Discharge over current protection	Discharge current level 1 alarm current	50±0.5	A	
	Discharge current level 1 alarm delay	1	S	
	Discharge current level 2 protection current	49±0.5	A	
	Discharge current level 2 protection delay	1	S	
	Discharge conditions	Removing the load is lifted		
	Overcharge current protection current	15±0.5	A	
	Over charge current protection delay	1	S	
	Discharge conditions	Remove charger release		
Remove charger	Short circuit protection conditions	External load short circuit		
	Short circuit protection delay	10000	uS	
	Short circuit protection is lifted	Removing the load is lifted		
Temperature protection	Charging high temperature alarm	63	°C	
	Charging high temperature protection	65	°C	
	Charging high temperature protection delay	1	S	
	Charging high temperature release	60	°C	
	Charge the low temperature alarm	-38	°C	
	Charging is the low- temperature protection	-40	°C	
	Charging low- temperature protection delay	1	S	
	Charge it at a low temperature to release	-35	°C	
	Discharge high temperature alarm	68	°C	
	Discharge high temperature protection	70	°C	
	Discharge high-temperature protection delay	1	S	
	Discharge high temperature release	65	°C	
	Discharge low temperature alarm	-38	°C	
	Discharge the low- temperature protection	-40	°C	
	Discharge low- temperature protection delay	1	S	
	Discharge at low temperature release	-35	°C	
	Temperature protection release conditions	Reaching recovery temperature and dis load		
	Number of temperatures	4	No	
Internal impedance	The main circuit leads through internal resistance		mΩ	
Current Consumption	Self-current current consumption during operation	35	mA	module self- consumption is included
	Hibernate mode self- consumption current (Enter: No communication, no current, no ignition signal)	800	uA	
	Sleep time	3600	S	
Communication Method	☑ CAN			
Control switch	Ignition			
Protection Plat Size	Length * Width * High (mm)			
	157 * 75 * 25			