

SAT-AMS

Intelligent Battery Monitor

Voltage and Temperature Measurements

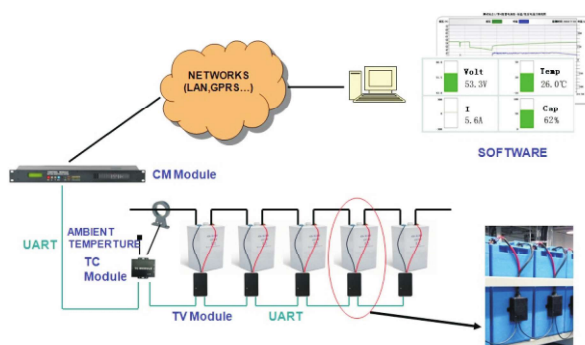


- Continuous 24/7 on-line monitoring
- One TV module monitors one cell, including voltage and temperature
- Software is available to collect data from TV module
- Serial port with Optical isolation, meet MODBUS protocol, easy to be accessed by UPS controller
- Easy to install without specialized training

Overview

SAT-AMS intelligent battery monitor is designed specifically for single cell. SAT-AMS combines the advanced technology with patented for the most thorough stationary battery health analysis in the industry.

One SAT-AMS system includes TV modules, TC modules and one CM module.



Features

- Full battery temperature and voltage monitoring for comprehensive battery state of health analysis
- String current and ambient temperature monitoring (need TC module)
- Automatic analysis of battery monitoring data, find out the batteries that need replacement or maintenance (need CM module)
- With a big storage space to save history data
- Lights on panel flash when alarms rise up which also can be read over through serial bus
- All operating parameters can be set over through serial bus
- A software based on PC is available to manage multiple strings, check real-time alarm and historical data

Specifications

Environmental

Operating temperature: $-5^{\circ}\text{C} \sim 50^{\circ}\text{C}$, 5% ~ 90% RH
Storage temperature: $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$, 5% ~ 90% RH

Used for

2V, 6V or 12V battery

Power Requirements

TV module: powered from the battery,
less than 12mA(2V) or 4mA(12V)

TC module: DC8 ~ 13V, 2W

Converto: DC8 ~ 13V, 0.3W

CM module: 85 ~ 264VAC, 100V ~ 370VDC, 15W

Protection

Test load and power paths are fused

Measurement Range & Accuracy

String voltage: 20 ~ 800V, $\pm(0.5\%+0.2\text{V})$

Cell voltage: 1.5 ~ 2.5V, $\pm(0.1\%+1\text{mV})$

9 ~ 15V, $\pm(0.1\%+10\text{mV})$

Battery temperature: $5^{\circ}\text{C} \sim 70^{\circ}\text{C}$, $\pm 1.5^{\circ}\text{C}$

Ambient temperature: $-10^{\circ}\text{C} \sim +70^{\circ}\text{C}$, $\pm 0.5^{\circ}\text{C}$

String current: 0 ~ 500A,
 $\pm 2\%$ (Full scale)

Communications Interfaces

TV module: serial port, meet MODBUS protocol,
support 130 devices on each bus

TC module: serial port, meet MODBUS protocol

CM module: RS485, Ethernet Port, meet MODBUS/
RTU, MODBUS/TCP and SNMP protocol

Insulation

2000VAC

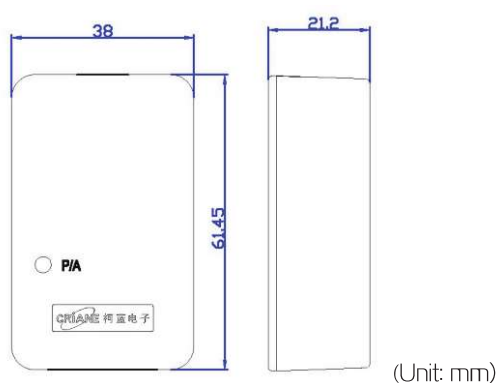
Installation

Paste on battery or rail mounting

Weight

TV module: 50g TC module: 260g

CM module: 18Kg



Applications

UPS

Telecommunications

Battery supplied applications

Utilities

Fire & Safety system

Remote monitoring

Options

1. Converter

Used for the applications without CM module
and connector to a controller directly.

2. Software

It can be installed on PC and read and display
data from CM module