

# H3G-TV Battery Monitoring System

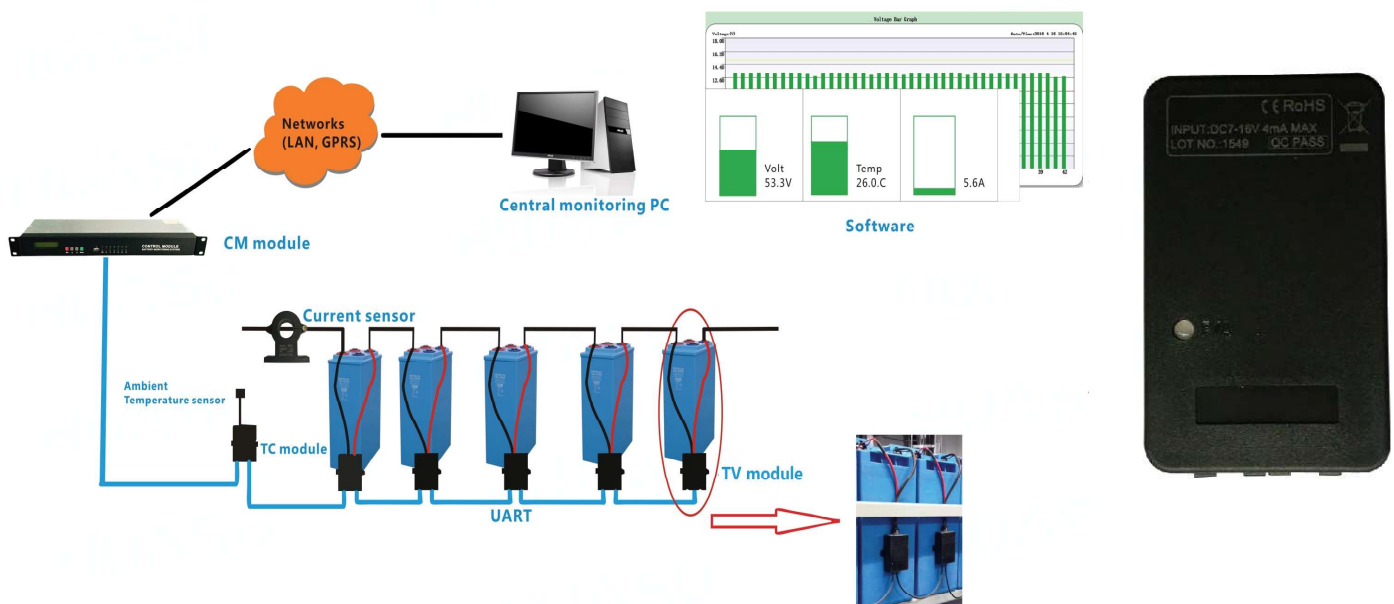
Voltage and Temperature Measurements



## OVERVIEW

The H3G-TV battery monitoring system is designed for single battery monitoring. H3G-TV advanced patented technology provides the most comprehensive stationary battery health analysis in the industry. One H3G-TV system comprises the TV, TC and CM modules.

- 24/7 online monitoring
- Monitors voltage and temperature of a single battery
- PC software available to retrieve data from TV module
- Serial port with optical isolation, meets Modbus specification, easily accessed via UPS controller
- User-friendly installation



## FEATURES

- Full battery temperature and voltage monitoring for comprehensive battery state of health analysis
- String current and ambient temperature monitoring (requires TC module)
- Auto-analysis of battery monitoring data, to identify batteries that need replacement or maintenance (requires CM module)
- Panel lights indicate when alarms are raised, which can also be read via the serial bus
- Store historical data, including up to 24 battery voltage readings; 720 string voltage readings; 12 internal resistance readings; 15 temperature readings; 100 alarms and 50 events
- All operating parameters can be set via serial bus
- PC software is available for management of multiple strings, real-time alarms and historical data

## SPECIFICATIONS

### Environmental

Operating temperature: -5°C~50°C, 5%~90%RH  
Storage temperature: -10°C~70°C, 5%~90%RH

### Usage

2V, 6V or 12V batteries

### Power Requirements

TV module: battery-powered, less than 12mA(2V) or 4mA(12V) quiescent  
TC module: 8~13VDC, 2W  
Convertor: 8~13VDC, 0.3W  
CM module: 85~264VAC, 100V~370VDC, 15W

### Protection

Battery circuit is fused  
TV module with reverse polarity protection and optical isolation

### Measurement Range & Accuracy

Battery voltage: 1.5~2.5V,  $\pm(0.1\%+1\text{mV})$   
String voltage: 20~800V,  $\pm(0.5\%+0.2\text{V})$   
9~15V,  $\pm(0.1\%+10\text{mV})$   
String current: 0~500A,  $\pm 2\%$ (Full scale)  
Battery temperature: 5°C~70°C,  $\pm 1.5^\circ\text{C}$   
Ambient temperature: -10°C~70°C,  $\pm 0.5^\circ\text{C}$

### Installation

Mount on battery or DIN rail

### Communications Interfaces

TV module: serial port, meets Modbus protocol, supports up to 130 devices on each bus  
TC module: serial port meets Modbus  
CM module: RS485, Ethernet port, meets Modbus/RTU, Modbus/TCP and SNMP  
Insulation: 2000VAC

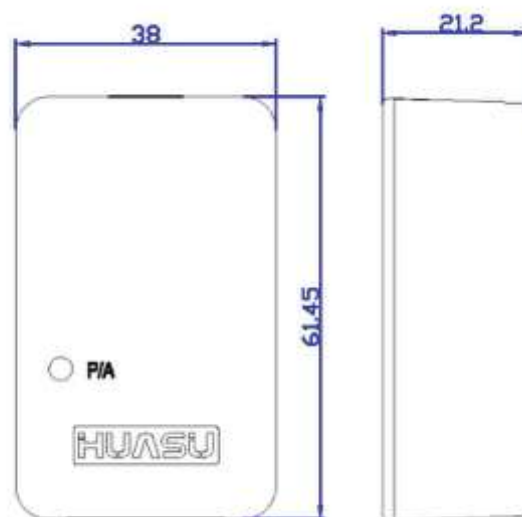
### Weight

TV module: 50g  
TC module: 260g  
CM module: 1800g

### Standards

UL61010-1  
CE  
RoHs

## DIMENSIONS



(Unit: mm)

## OPTIONS

1. Converter  
Use for applications without the CM module and connect directly to a controller
2. Software  
PC software available to retrieve and display data from CM module

## APPLICATIONS

- UPS
- Telecommunications
- Battery supplied applications
- Utilities
- Fire & Safety systems
- Remote monitoring