

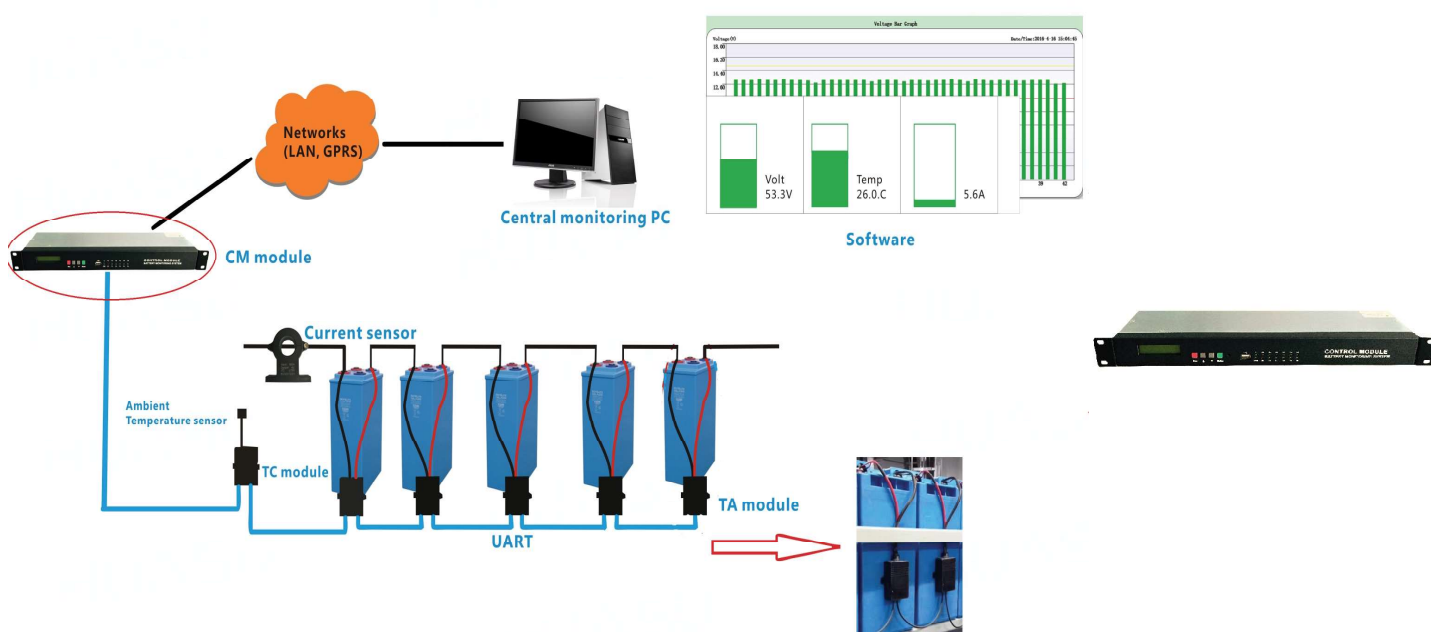
# Control Module



## OVERVIEW

The CM-02N control module is a front-end module data collection device using ARM technology for comprehensive data processing and communication. CM-02N can manage up to 6 battery strings and meets Modbus/RTU and SNMP specifications.

- Collects front end sensor data, analyzes, stores and uploads the data
- Manages max. 6 strings
- Software monitors battery state 24/7
- Keyboard and LCD display allow user to set parameters and query data directly
- Meets Modbus/RTU and SNMP specifications



## FEATURES

- Reads data from battery sensors. Processes, analyzes, stores and uploads data
- Auto-analyzes battery state and identifies cells requiring replacement or maintenance
- Capacity to store historical data
- Flashing alarm indicator on front panel with details shown on LCD display
- With keyboard and LCD display
- RS485, Ethernet Port, meets Modbus/RTU, Modbus/TCP and SNMP specifications
- PC software is available for management of multiple strings, real-time querying and historical data
- Supports local and remote updates
- PC software available for management of multiple strings, real time querying and historical data

## SPECIFICATIONS

### Environmental

Operating temperature: -5°C~50°C, 5%~90%RH  
Storage temperature: -10°C~70°C, 5%~90%RH  
Atmospheric pressure: 80~110kPa

### Performance

Max: manage up to 6 strings  
Max: up to 300 batteries per string  
Max: monitor 960 batteries

### Usage

2V, 6V or 12V batteries, capacity less than 2000AH

### Power Requirements

85~264VAC, 100V~370VDC, 10W

### Protection

Overcurrent protection; 0.4A fuse

### Measurement Range & Accuracy

String voltage: 20~800V,  $\pm(0.5\%+0.2V)$   
Cell voltage: 1.5~2.5V,  $\pm(0.1\%+1mV)$   
9~15V,  $\pm(0.1\%+10mV)$   
Internal resistance: 100~99999 $\mu\Omega$   
Battery temperature: 5°C~50°C,  $\pm 1.5^\circ C$   
String current: 0~500A,  $\pm 2\%$  (Full scale)

### Installation

On battery rack or in 19-inch cabinet

### Communications Interfaces

RS485, Ethernet Port, meets Modbus/RTU, Modbus/TCP and SNMP specifications  
Insulation: 2000VAC

### Dry Contact

1 dry contact, DC220V/1A

### Durability

MTBF 100,000 hours

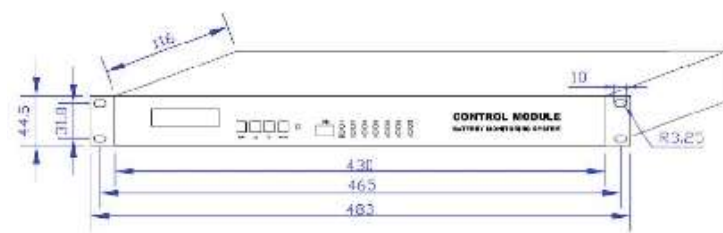
### Weight

CM module: 1.8Kg

### Standards

CE  
ROHS  
UL61010-1

## DIMENSIONS



(Unit: mm)

## OPTIONS

### 1. Software

PC software available for data retrieval from CM and management of multiple strings, real time querying and historical data.

## APPLICATIONS

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