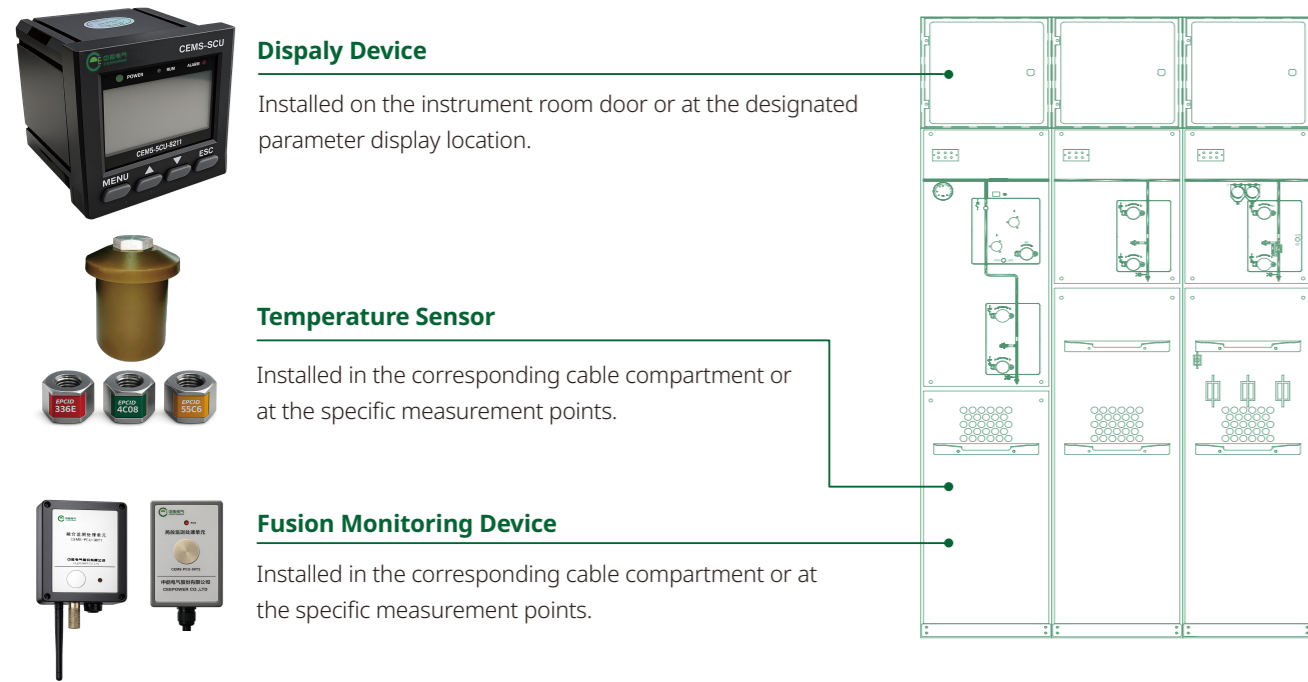
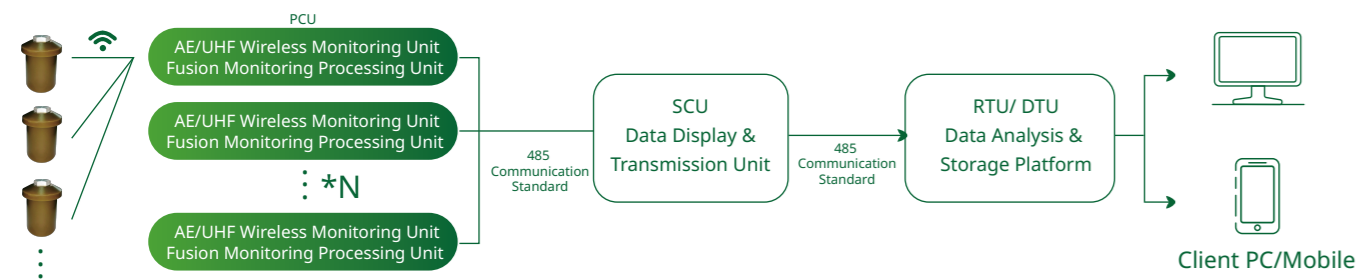


CEMS-90 Fusion Monitoring System



System Components



Features

- Real-time monitoring of switchgear temperature and humidity
- Heating and dehumidification functions
- Cable connector temperature and partial discharge monitoring
- Integrated data collection and analysis
- Sealed multi-cavity design with anti-interference capability
- Multiple communication interfaces, including RS485
- MODBUS-RTU protocol support
- App-based monitoring with multiple alarm functions
- Data analysis support for O&M

Specifications

Power supply	DC12V
Installation	Magnetic mounting / Rack-mounted
Operating temperature	-25 to +70°C
Relative humidity	5-95% RH
Acoustic emission (AE)	Center frequency: 40 kHz Measurement range: 0-99 dB
Ultra-high frequency (UHF)	Frequency range: 300 MHz-1.5 GHz Measurement range: 0-199 dB
Sensor	Measurement range: -25 to +125°C Measurement accuracy: ±1°C
Service life	10 years
IP rating	IP55

R&D Background

During long-term operation, high-voltage switchgear may face insulation deterioration caused by aging, environmental conditions, and other factors. In some cases, this can lead to faults such as overheating, fire, or equipment damage, affecting personnel safety, asset security, and power system reliability.



Cable connector failure



Switchgear fire accident



High maintenance cost

Competitive Comparison

Item	CEE Series	Other Products on the Market
Operating principle	Electric-field energy harvesting, no load current required	Measurement depends on load current
Installation	Direct connection to the cable connector	Installed on the cable surface
Monitoring point	Direct contact with the metal component	Surface temperature monitoring
Signal acquisition	Monitoring data is collected from the connector side	Monitoring data is collected from the cable surface
Application	Supports condition monitoring and maintenance evaluation	Used for temperature monitoring in corresponding applications



Company Address:
20 Jinzhou North Road, Cangshan District,
Fuzhou, Fujian Province, China

Official Website: www.ceepowerglobal.com

Email: global@ceepower.com

Whatsapp: +1 (626) 298-9924



Official Website

Ceepower

Intelligent Monitoring System

About Ceepower

Energy Internet System Solutions Provider

Ceepower Co., Ltd., founded in 1999, is a technology-driven enterprise specializing in medium-high voltage cable connection systems and power distribution solutions. Listed on the Shenzhen Stock Exchange (Stock Code: 300062) in 2010, it has emerged as one of the leading electrical equipment manufacturers in China.



430+ Million
USD in Assets



1,000+
Employees



200+
Patents & Software
Copyrights



30+
Countries and
Regions Sold



180,000m²
Factory Area

Ceepower Intelligent Monitoring System

The intelligent monitoring product range is designed for switchgear and RMU applications, covering key operating parameters at critical points. It includes **CEMS-10**, **CESM-60**, and **CEMS-90** for the monitoring of surge arrester, temperature, partial discharge, humidity, and other parameters.

The system supports condition assessment and helps identify abnormal operating conditions for maintenance planning.



CEMS-10 Surge Arrester Monitoring System



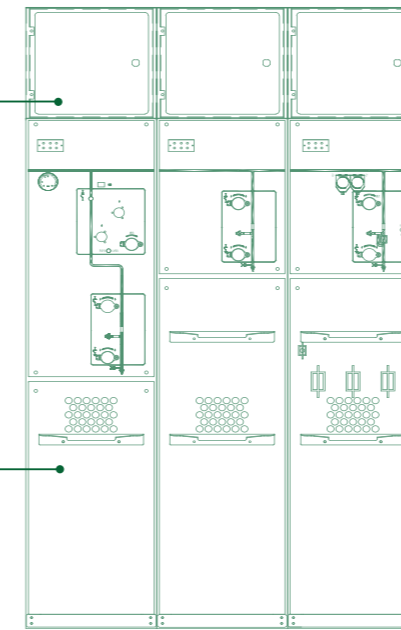
Display Device

Installed on the instrument room door or at the designated parameter display location.

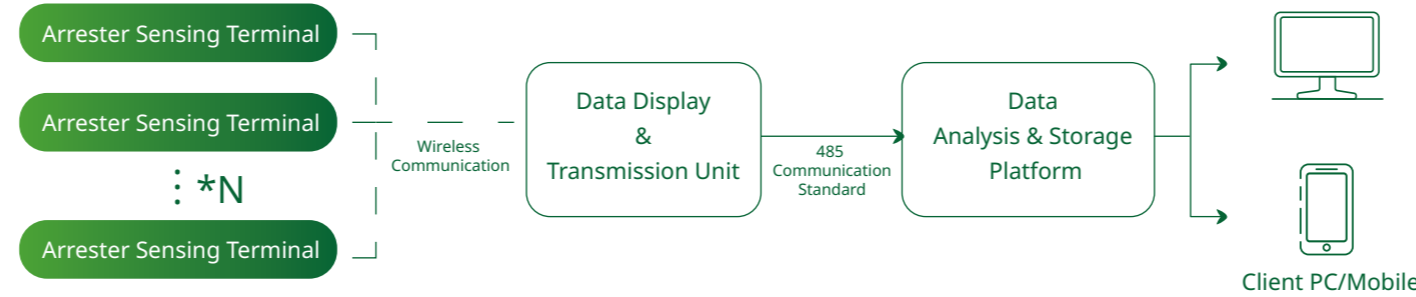


Arrester Sensing Terminal

Installed on the grounding side of the monitored arrester or the specific measured part.



System Components



Features

- Real-time arrester status monitoring
- Battery-free sensing terminal with wireless communication
- Multi-sensor monitoring with stable signal transmission
- Multiple communication interfaces, including RS485
- MODBUS-RTU protocol support
- App-based monitoring with multiple alarm functions
- Data analysis support for O&M

Specifications

Voltage class	6-110 kV
Measurement accuracy	≤ 1%
Measurement range	0-5000 μA
Monitoring interval	≥ 30 min
Discharge count	0-999
Impulse withstand current	900 A / 2 ms; 100 kA / 4 / 10 μs
Max. number of sensing devices	≤ 24
Ambient temperature	-25 to +70°C
Relative humidity	5-95% RH
IP rating	IP65
Service life	15 years

CESM-60 Wireless Temperature Monitoring System



Display Device

Installed on the instrument room door or at the designated parameter display location.



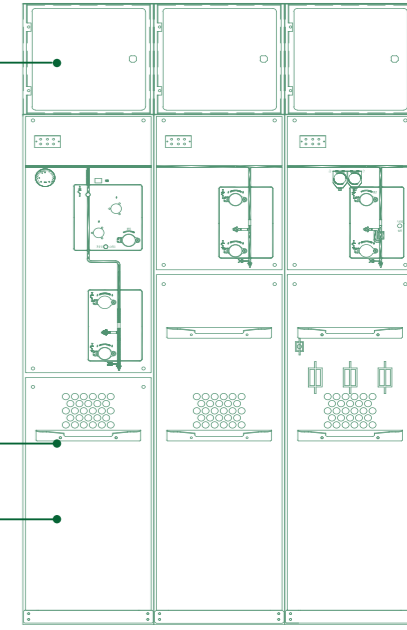
Temperature Sensor

Installed in the corresponding monitored cable compartments or specific measurement locations.

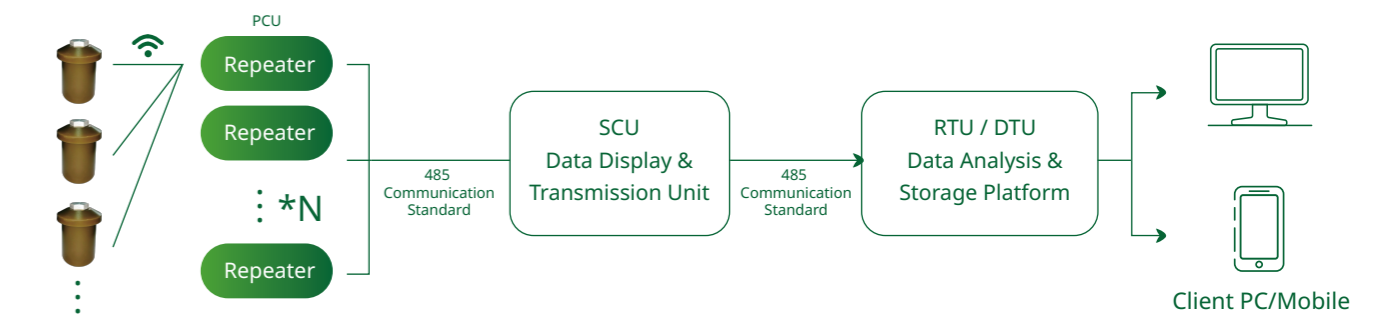


Wireless Temperature Monitoring Relay

Installed in the corresponding monitored cable compartments or specific measurement locations.



System Components



Features

- Real-time cable connector status monitoring
- Built-in temperature sensor with battery-free design
- Wireless communication for easy installation
- Stable signal transmission with anti-interference capability
- Multiple communication interfaces, including RS485
- MODBUS-RTU protocol support
- App-based monitoring with multiple alarm functions
- Data analysis support for O&M

Specifications

Sensor	
Temperature measurement range	-20°C to 125°C
Temperature measurement accuracy	±1°C
Measurement interval	1-3 min
RF standard	2.4G (Zigbee)
Standby current	<1 μA
Repeater	
Power supply	DC12V
Installation	Magnetic mounting
Service life	10 years
Communication interface	RS485 communication port, MODBUS
Max. connection	48
Power consumption	<2 W
Operating temperature	-25 to 55°C
Relative humidity	5-95% RH