

高压线缆智能接地箱

Intelligent Grounding Unit for High Voltage Cables (IGUHV)

Smarter Monitoring.
Reliable Power.

四川亚辰电气有限公司
Sichuan Yachen Electric Co., Ltd.

Sichuan Yachen Electric Co., Ltd. is a technology-driven manufacturing enterprise headquartered in Mianyang, Sichuan Province—known as China's "City of Science and Technology." Since its establishment in 2004, the company has specialized in the R&D and production of electromagnetic pulse (EMP) protection products, power transmission network monitoring equipment, lightning protection systems, instrumentation, high/low voltage electrical switches, and medical isolated power (IT) systems.

Our solutions are widely deployed across diverse sectors, including construction, electric power, telecommunications, railways, healthcare, and defense. Leveraging a robust R&D team, significant capital investment, and state-of-the-art infrastructure, Yachen Electric maintains long-term strategic partnerships with leading universities and research institutions. This commitment to collaboration ensures continuous technological optimization and innovation. To date, the company holds numerous invention and utility model patents, and all products have been rigorously tested and certified by authoritative Chinese industry bodies.

Our unwavering focus on advanced R&D, stringent quality control, and exceptional product reliability has earned Yachen Electric extensive recognition and acclaim from clients worldwide.

Mission: To enhance global power reliability through cutting-edge intelligent monitoring technology and innovative protection solutions. (使命：通过尖端的智能监测技术和创新的防护方案，提升全球电力的可靠性。)

Core Values:

Precision: In every sensor and every data point. (精准：对待每一个传感器和数据点。)

Integrity: Building trust through reliable infrastructure. (正直：通过可靠的基础设施建立信任。)

Innovation: Solving tomorrow's grid challenges today. (创新：今日即解决明天的电网挑战。)

Corporate Qualifications & Certifications: Yachen Electric is committed to operational excellence and holds several international management certifications, including:

- ISO 9001:2015 (Quality Management System)
- ISO 45001:2018 (Occupational Health and Safety Management System)
- ISO 14001:2015 (Environmental Management System)
- AAA-rated Credit Enterprise (since 2011) and AAA-rated Quality & Integrity Excellence Unit (since 2012)

Furthermore, the company serves as the Vice Chairman Unit of the Electromagnetic Pulse and Lightning Protection Technology Professional Committee of the Sichuan Institute of Electronics, and a Director Unit of the Southwest Construction Electrical Information Network. We are also a selected supplier for military-grade products.

To ensure superior customer experience, Yachen Electric maintains a strong presence across major regions in China, providing rapid and high-quality technical support and after-sales service. Our global reach is further extended through an extensive network of authorized distributors.

We sincerely welcome domestic and international partners to explore collaborative opportunities and achieve mutual growth.

Company Qualifications and Honors: Patent Certificate

公司资质及荣誉：专利证书



- 1, Electromagnetic Pulse Protection Method and Device Invention Patent
- 2, UPS Power Monitoring and Management System and Method Invention Patent
- 3, Switch Cabinet for Easy Wiring Utility Model Patent Certificate

Company Qualifications and Honors: Software Copyright 公司资质及荣誉：软件著作权



UPS/EPG Emergency Power Supply Cabinet Intelligent Production Management Platform
Electronic Product R&D Database Visualized Operation and Maintenance Management System
Medical IT Isolation Power Supply Intelligent Switching Control System



Company Qualifications and Honors: Software Copyright 公司资质及荣誉：软件著作权



Residual Current Type Electrical Fire Monitoring and Detection Performance Testing and Analysis System V1.0
Dual Power Automatic Transfer Switch Remote Control and Management Software V1.0



Company production/R&D workshop 公司生产研发实景



C 企业文化 Corporate culture



Intelligent Grounding Unit (IGUHV) for High Voltage Cables

—Circulating current, partial discharge, main cable current, vibration, temperature, induced voltage, CT power supply

1

System Structure

2

Product Functions

3

IGUHV Appearance

4

IGUHV On-site Installation Photos



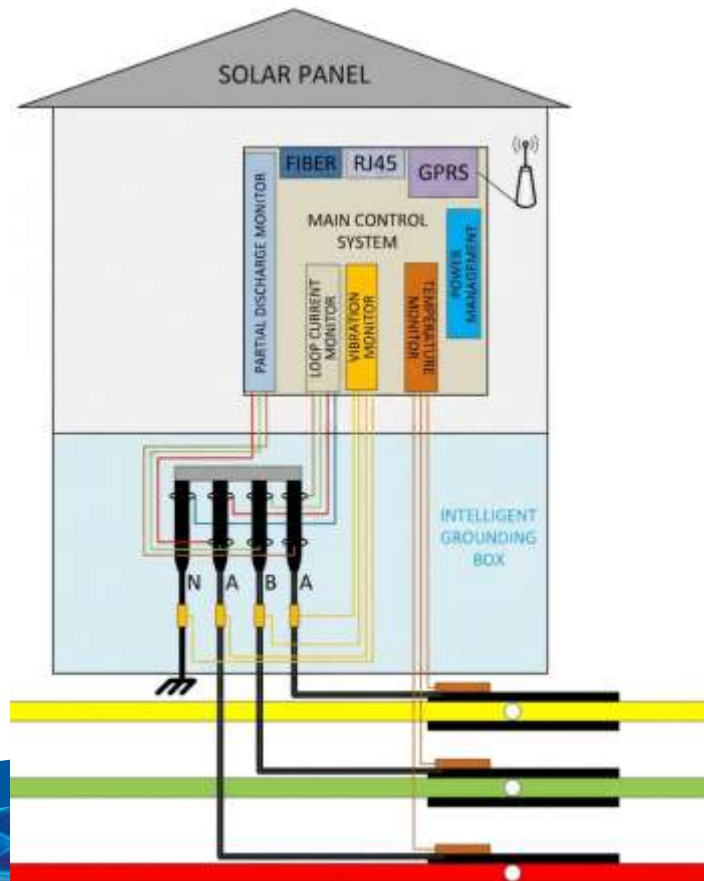
1 IGUHV Structure

The Intelligent Grounding Unit (IGUHV) for High Voltage Cables mainly consists of two parts:

1. Grounding busbar, responsible for the wiring of the cable sheath;
2. Control system, responsible for monitoring and controlling all data.

The control system adopts a modular structure, allowing for the addition or removal of system functions according to usage requirements, meeting the personalized customization needs of users.

——Circulating current, partial discharge, main cable current, vibration, temperature, induced voltage, CT power supply



2 IGUHV Functions

The Intelligent Grounding Unit (IGUHV) for High Voltage Cables has the following functions:

- Cable circulating current monitoring;
- Cable surface temperature monitoring;
- Vibration monitoring (anti-theft monitoring);
- Partial discharge function;
- Sheath induced voltage monitoring.

3 IGUHV Appearance



IGUHV (front)



IGUHV (Internal)

3 IGUHV Appearance

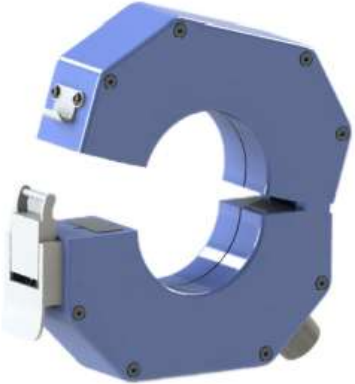


Front View
of the IGUHV Main Unit and Sensors

3 IGUHV Appearance



3 IGUHV Appearance



3 IGUHV Appearance



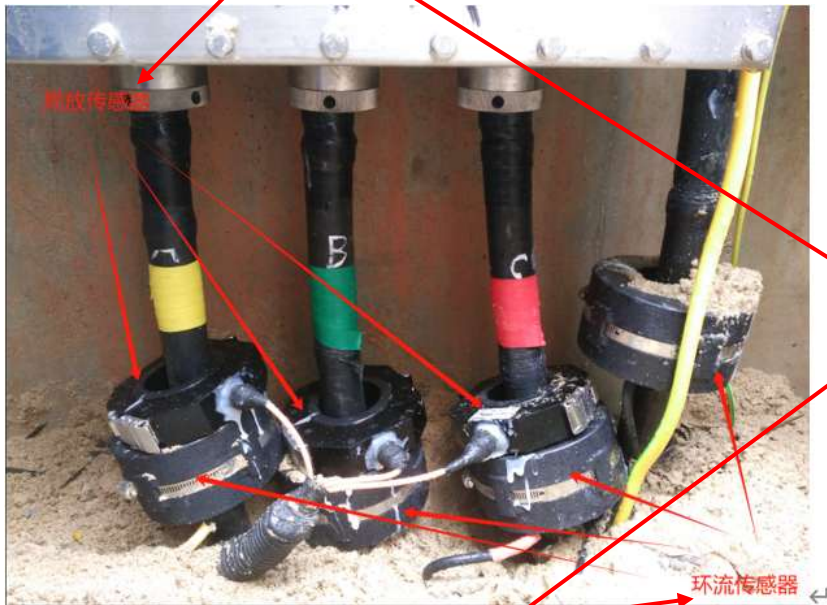
- Comprehensive Online Monitoring for High-Voltage Cables
- Cable Partial Discharge Monitoring System
- Cable Sheath Circulating Current Monitoring System
- Cable Fault Location System
- Fault Location
- PD (Partial Discharge) - A/B/C/Power Freq.
- Sheath Circulating Current - A/B/C/N
- Power 1 / Power 2 / Main Power
- Traveling Wave / Fiber / GNSS

3 IGUHV Appearance



3 IGUHV Appearance

- Partial Discharge sensor



- Circulating current sensor



4 IGUHV On-site Installation Photos



Intelligent Grounding Unit (IGUHV) for High Voltage Cables

4 IGUHV On-site Installation Photos

温度传感器 -> Temperature Sensor
温度采集器 -> Temperature Collector





取电CT
Power Extraction CT
(Current Transformer)

主电缆电流测量CT
Main Cable Current Measurement CT
(Current Transformer)

4 IGUHV On-site Installation Photos



(IGUHV) Intelligent Grounding Unit
for High Voltage Cables

温度传感器
Temperature Sensor

4 IGUHV On-site Installation Photos

Reliable Grounding



4 IGUHV On-site Installation Photos

Grounding



4 IGUHV On-site Installation Photos

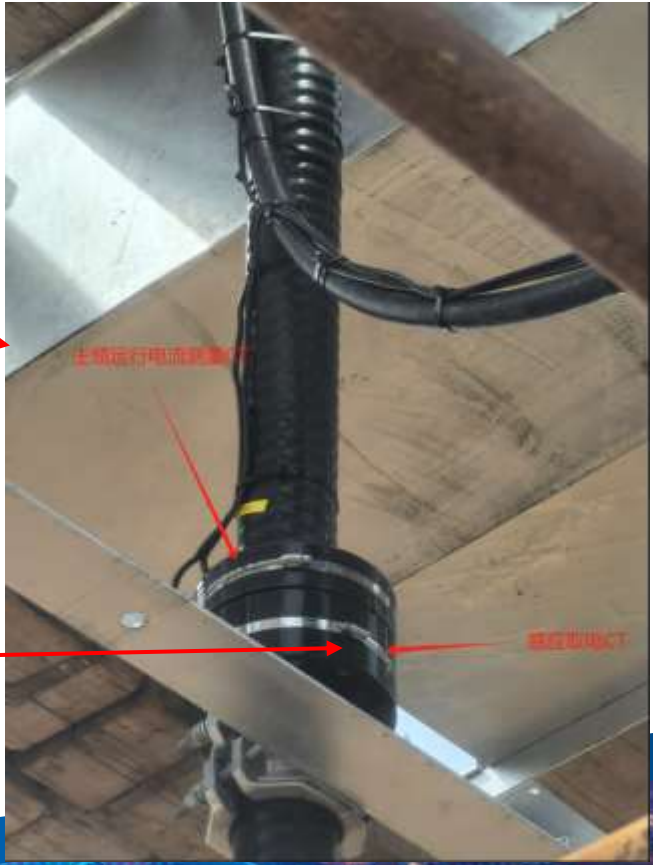
Wireless Data Transmission
Antenna



4 IGUHV On-site Installation Photos

- Main cable operating current measurement CT

- Inductive power tapping CT



IGUHV On-site Installation Photos



4 IGUHV On-site Installation Photos



4

IGUHV On-site Installation Photos



Thank you

Smarter Monitoring, Reliable Power.



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