



DT801 Online monitoring device for zinc oxide surge arresters in substations

Smarter Monitoring.
Reliable Power.

Sichuan Yachen Electric Co., Ltd.
Qingdao Britop International Trading 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.

1

Applications

2

Working principle

3

Features

4

Technical parameters

5

Product photos

6

On site photos



国际销售授权书



LETTER OF OFFICIAL INTERNATIONAL SALES AUTHORIZATION

授权方/Authorizer : 四川亚辰电气有限公司/Sichuan Yachen Electric Co., Ltd.
被授权方/Authorized Party : 青岛博越达国际贸易有限公司/Qingdao Britop International Trading Co., Ltd.

授权说明/Authorization Statement :

特此授权青岛博越达国际贸易有限公司开展本公司产品国际销售业务, 本授权真实合法, 有效用于全球商务合作与资质核验。
Sichuan Yachen Electric Co., Ltd. hereby authorizes Qingdao Britop International Trading Co., Ltd. to conduct international sales business of our products. This authorization is legal and valid for global business cooperation and qualification verification.

I. 授权产品/Authorized Products

四川亚辰电气有限公司旗下全系列全部产品 (含现有及授权期内新增、迭代产品), 商标与宣传资料使用许可。

All product series of Sichuan Yachen Electric Co., Ltd. (including existing, newly launched and upgraded products during the valid period), *Permission of Trademark & Marketing Material Usage Right.*

II. 授权区域 Authorized Territory

全球国际市场 (不含中国境内市场)。
Global international markets (excluding domestic China market).

III. 授权类型/Authorization Type

普通国际销售授权, 无二次转授权资格。
General international sales authorization. No sub-authorization is allowed.

IV. 授权期限/Valid Period

2026 年 1 月 1 日至 2028 年 12 月 31 日/Jan 1, 2026 – Dec 31, 2028

V. 品质与供货承诺 /Quality & Supply Commitment

1. 正品保障: 所有授权产品均为原厂正品, 符合国际出口质量标准。
Genuine Product Guarantee: All authorized products are original factory products complying with international export quality standards.
2. 稳定供货: 授权方保障海外订单稳定供货与正常交付。
Stable Supply: The authorizer ensures stable supply and timely delivery for overseas orders.

授权方/Authorizer(盖章/Seal)

Sichuan Yachen Electric Co., Ltd.

签字 Name : 许怀东 Huaidong Xu 许怀东

职务 Title: 总经理 CEO

日期 Date : 2026.7.30

被授权方/Authorized Party(盖章/Seal)

Qingdao Britop International Trading Co., Ltd.

签字 Name : 孟 孟 Luming Meng

职务 Title: 总经理 General Manager

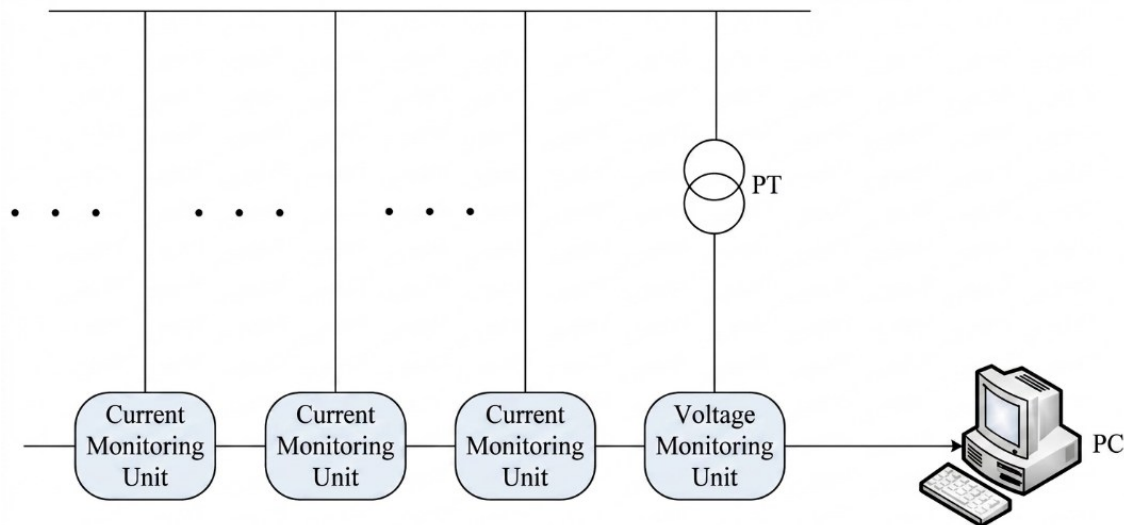
日期 Date : 2026.7.30

For and on behalf of
QINGDAO BRITOP INTERNATIONAL TRADING CO., LTD
青岛博越达国际贸易有限公司
Bright Meng
Authorized Signature(s)

This online monitoring device is suitable for zinc oxide surge arresters in substations with voltage levels of 110kV and above.

The DT801 surge arrester online monitoring device can effectively monitor the total current and resistive current of zinc oxide surge arresters in substations in real time. It boasts advantages such as high accuracy, good stability, and powerful functionality. It can be integrated with electrical equipment condition assessment systems for condition-based maintenance, evaluation, early warning, and risk analysis, effectively improving the safe operation level of zinc oxide surge arresters in substations.

The DT801 system consists of a voltage monitoring unit and a current monitoring unit. This system adopts a distributed architecture, allowing for flexible configuration based on actual field monitoring conditions, thus improving system reliability and flexibility.



Schematic diagram of online monitoring device for surge arresters

1) Flexible Configuration

Utilizing a node-based design, adding or removing monitoring equipment and items does not require altering the system structure. Different types and quantities of local monitoring units can be connected to the central early warning server as needed, enabling monitoring and diagnostics of various devices.

2) Simple Installation

Simply install the corresponding monitoring unit below the electrical equipment being tested, connecting it to the monitoring device's bus via a single cable.

3) Accurate Measurement

Employing high-precision and high-stability zero-flux current sensors, and employing advanced digital signal analysis and digital communication technologies, ensures accurate phase measurements, thus resolving issues related to the accuracy and stability of parameters such as dielectric loss, capacitive current, and resistive current.

4) Reliable Data

Each monitoring unit possesses comprehensive self-testing capabilities, promptly determining its operational status and uploading data to the server and users. All monitoring data is transmitted digitally, completely eliminating signal transmission problems caused by power frequency electromagnetic interference or other high-frequency interference, thereby improving the reliability of the monitoring system.

5) Simple Maintenance

All monitoring units adopt a modular design, possessing high versatility and interchangeability. Maintenance of all components, including sensors, can be performed without affecting equipment operation.

6) Safe and Reliable

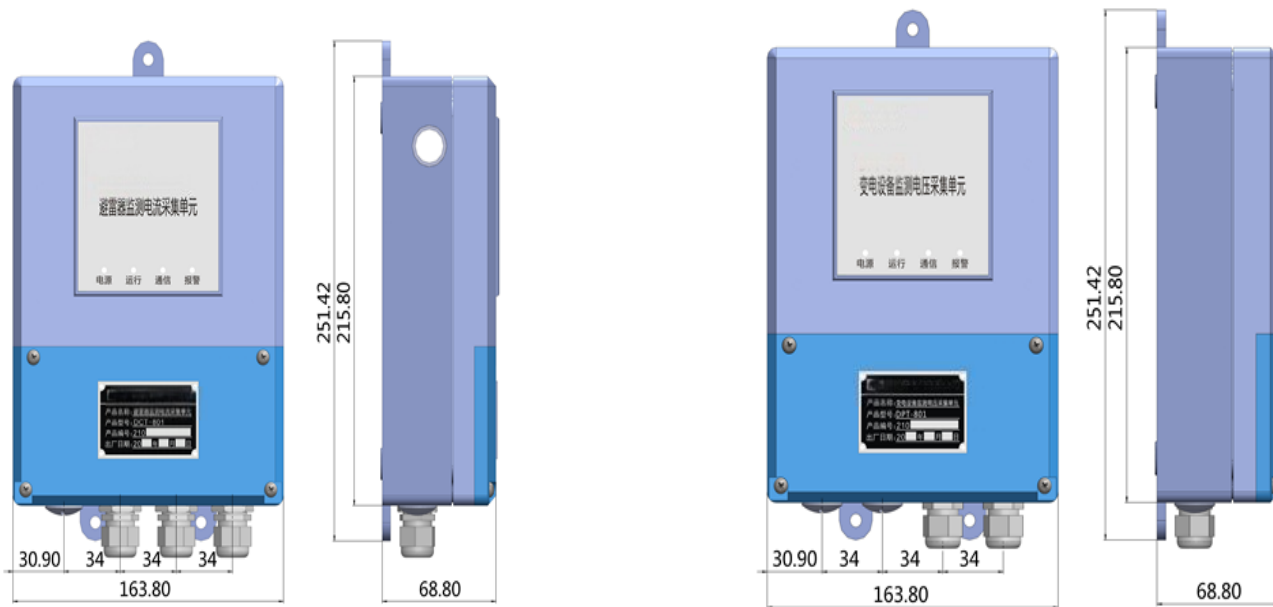
All modules are manufactured to industrial standards, possessing excellent resistance to electromagnetic shock and temperature fluctuations. The device is corrosion-resistant, windproof, and dustproof, suitable for high-altitude field conditions. The device uses a high-grade waterproof enclosure with a fully enclosed design and electromagnetic interference protection.

1, Main monitoring parameters of surge arrester online monitoring device

Monitoring Parameters	Measurement Range	Measurement Accuracy
Total Current	100 μ A $\sim$ 50mA	$\pm$ (Standard Reading $\times$ 5%+5 μ A)
Resistive Current	10 μ A $\sim$ 10mA	$\pm$ (Standard Reading $\times$ 5%+5 μ A)

2, Other monitoring parameters

Monitoring Parameters	Measurement Range	Measurement Accuracy
Bus voltage:	35kV $\sim$ 1000kV	$\pm$ 0.5%
System frequency	45Hz $\sim$ 65Hz	$\pm$ 0.01Hz
Harmonic current	3rd, 5th, 7th, 9th orders	$\pm$ 5%
Harmonic voltage	3rd, 5th, 7th, 9th orders	$\pm$ 5%
Ambient temperature	-40 $^{\circ}$ C $\sim$ +80 $^{\circ}$ C	$\pm$ 0.5 $^{\circ}$ C
Ambient humidity	0 $\sim$ 100%RH	$\pm$ 2%















More to come

THANK YOU

Smarter Monitoring.
Reliable Power.

(For China market):
Sichuan Yachen Electric Co., Ltd.

Homepage: <http://www.ycdqkj.com.cn>
Contact: Mr. Xu
Tel (Wechat): +86 13088269292
Technical: +86 816 6394499
Commercial: +86 816 2311298

For international sale, please contact:
Qingdao Britop International Trading Co.,Ltd.

Website:	https://qdbritop.com
Contact:	Bright Meng
Email:	britop@qdbritop.com
Tel (Wechat):	+8613811458455