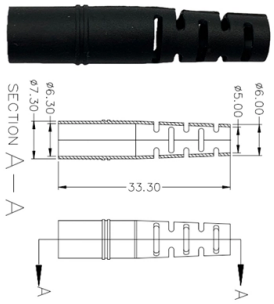
DTU Distribution Network Automation Terminal Interval Module



Overview

Distributed DTU | IEC 61850 Distribution Automation TerminalThis Distributed DTU is designed for protection, measurement, control and communication of inte.

Key Takeaways

DTU (Distribution Terminal Unit) modules are intelligent devices for monitoring, control, and automation in distribution networks, supporting real-time data acquisition, fault detection, and remote operation.

Overview

A DT

U (Distribution Terminal Unit) is a key component in modern distribution network automation systems, acting as a bridge between field devices and the control center. It is designed to monitor, control, and protect distribution feeders, ring main units, and substations, typically for voltage levels of 10kV and below ( ).

Key Features

Modular Design: DTUs adopt a modular software and hardware architecture, allowing flexible configuration of inputs, outputs, and communication interfaces ( ).

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High-

Performance Processing: Equipped with industrial-grade microprocessors (e.g., ARM9 for communication and ARM7 for protection/control), DTUs ensure fast, reliable, and low-power operation ( ). Data Acquisition: Supports multiple analog and digital inputs, including three-phase AC voltage, current, frequency, power, and power factor measurements. Interval modules can record detailed fault waveforms and energy data ( ).

Fault Detection and Protection: Capable of detecting feeder short circuits, ground faults, and abnormal conditions.

DT

Us can isolate faulted sections and restore power to non-faulted areas, enhancing grid reliability ( ). Communication and Protocols: Supports Ethernet, RS232, RS485, and multiple standard protocols such as IEC 61850, DNP3, Modbus, and 101/104, enabling seamless integration with SCADA and other smart grid systems ( ). Remote Control and Monitoring: Interval modules allow remote operation of switches, load breakers, and differential devices, while recording events, alarms, and sequence-of-events (SOE) data ( ).

Reliability and Safety: Dual A/D channels and interlocking mechanisms ensure operational reliability. Fully enclosed cases separate strong and weak currents, reducing interference and enhancing safety ( ). ApplicationsDTU interval modules are deployed in: Ring main units and small substationsBox-type substations and distribution roomsSwitch stations and outdoor small switching stationsSmart grid and SCADA-enabled distribution networks ( ) They are essential for real-time monitoring, fault isolation, energy measurement, and automated feeder control, supporting grid modernization and resilience.

Market and Trends

Modern DT

Us are evolving into intelligent edge devices with IoT integration, cloud connectivity, and advanced cybersecurity features. They are central to smart grid expansion, renewable energy integration, and regulatory compliance for grid reliability ( ). In summary, DTU distribution automation terminals with interval modules provide a flexible, reliable, and intelligent solution for monitoring, controlling, and protecting modern power distribution networks, ensuring fast fault response, accurate data acquisition, and seamless integration with supervisory systems.

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Article Content

Distributed DTU | IEC 61850 Distribution Automation Terminal

This Distributed DTU is designed for protection, measurement, control and communication of interval units in 10kV and below ring main units.

Distributed Type DTU, MCC Electrical Main Control Cabinets | Gopower

Find top DTU distribution automation terminals with 4G LTE, IEC 61850, and SCADA compatibility. Compare verified suppliers, MOQ < 5, and real-time data acquisition.

Distributed terminal unit DTU YM-D900J/G-Yunmu Technology Co., Ltd.

• Distributed DTU interval unit is utilized to relay telemetry data,protection events, recorded information, operational status, powerdata, and other relevant details to the public unit;

Distributed Type DTU

The distributed DTU power distribution terminal is suitable for the protection, measurement and control, and communication of the interval unit of the ring

Substation Terminal Unit for DTU Distribution Network Automation

It can complete the remote monitoring, fault detection, fault isolation, etc. of distribution systems and equipment, and is suitable for the implementation and transformation of distribution network

Distributed Station Terminal (DTU)

The Distributed Station Terminal (DTU) is a core device for distribution network automation, adopting a decentralized architecture. It consists of bay units (installed inside switchgear) and a common unit

DTU Distribution Automation Terminal | Smart Grid Control Unit

DTU distribution automation terminal for smart grid control, remote monitoring and feeder automation. Reliable solution for modern power distribution networks.

Distribution Network Automation Intelligent Terminal Cabinet DTU

Overview The IDT800plus intelligent distribution management terminal (DTU) is a new product designed to meet the automation system requirements of indoor and outdoor ring main units, switchgear, and

Centralized Distribution Automation Distribution Terminal Unit-ZT-D30

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The terminal is equipped with two types of communication modules: remote wireless communication module and local communication module. It also features external interfaces including 2 Ethernet

Exploring the future intelligent era – distribution network automation ...

At the same time, DTU can also realize docking with distribution automation systems and supplier systems to build a digital distribution network to further improve operating efficiency. To sum

Intelligence Assists Distribution Network Management—dtu Distribution ...

The application value of dtu distribution network automation terminal is self-evident. It can improve the operating efficiency and reliability of the power distribution system, reduce the

Differences Between DTU, FTU, TTU, and RTU

Understand the differences between DTU, FTU, TTU, and RTU in power distribution automation. Explore how these smart grid devices support monitoring, control, and communication in

The core of intelligent power distribution: Application and development ...

In this process, DTU (Distribution Terminal Unit) has become an important device for realizing the intelligence and automation of distribution network. The main function of the DTU

DTU Distribution Automation Terminal 2026

Find top DTU distribution automation terminals with 4G LTE, IEC 61850, and SCADA compatibility. Compare verified suppliers, MOQ < 5, and real-time data acquisition. Click to explore

Intelligence Assists Distribution Network Management—dtu Distribution ...

Linkage application: DTU distribution network automation terminal can be used for linkage with other power distribution equipment, such as smart meters, smart switches, etc. to work together to achieve

Intelligent acceptance systems for distribution automation terminals ...

Distribution automation terminals are mainly used for monitoring and controlling ring main units, reclosers, pole-mounted sectional switches, distri-bution transformers, and other components in

Centralized Distribution Automation Distribution Terminal Unit-ZT-D30

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The ZT-D30 Distribution Automation Substation Terminal DTU is primarily applied in distribution automation systems. It is installed in locations such as 10KV ring main units, sub-section posts,

Distribution Terminal Unit (DTU-Beijing HCRT Electrical

Beijing HCRT Electrical Equipments Co., Ltd. Overview The distribution automation terminal adopts advanced digital signal processing technology, high-speed industrial network communication

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