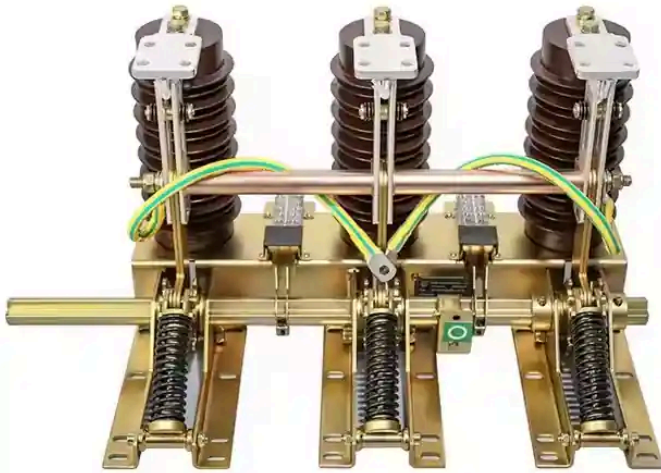
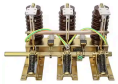


24kV Earthing Switch



Model:	24kv
OEM and ODM Services:	Available
Enclosure:	PINEELE standard
Brand:	PINEELE, a Brand Under ZHENGXI
Form:	All- packaged Type
Scope of Application:	Suitable for industrial power distribution, voltage stabilization, and transformer protection. Widely used in commercial buildings, manufacturing plants, and utility substations.
Reviewed By:	Zheng Ji, Senior Electrical Engineer at PINEELE 18+ years of experience in HV switchgear design & testing.
Published On:	April 10, 2025
Last Updated:	April 10, 2025



[Request a Quote](#)

PINEELE



[Get Free Samples](#)

PINEELE



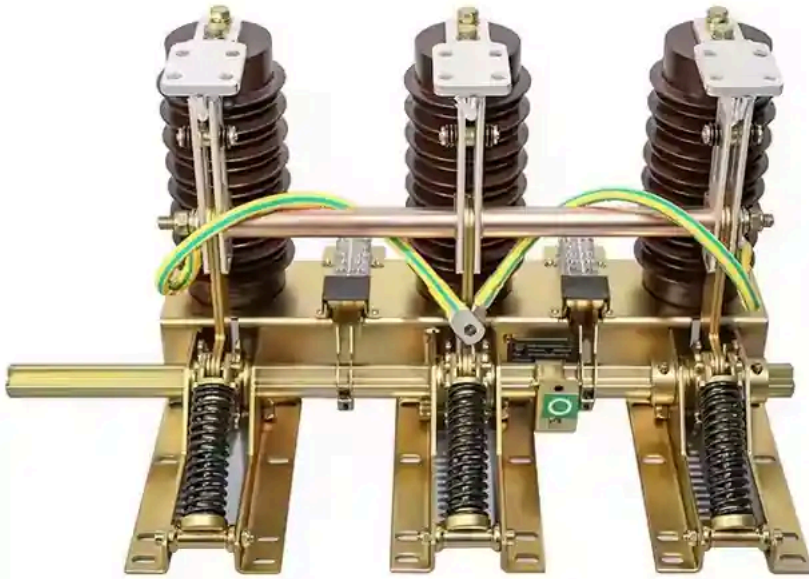
Request Free Catalog

- Compact Substation
- Electrical Transformer
- Cable Branching Box
- High Voltage Switchgear
- Low Voltage Switchgear
- High Voltage Components

[Request Free Catalog](#)

Table of Contents

- What Is a 24kV Earthing Switch?
- Application Areas
- Industry Background and Market Trends
- Technical Specifications at a Glance
- How It Differs from Conventional Products
- Selection Guide: Is This the Right Model for You?
- Industry Authority References
- Frequently Asked Questions (FAQ)



What Is a 24kV Earthing Switch?

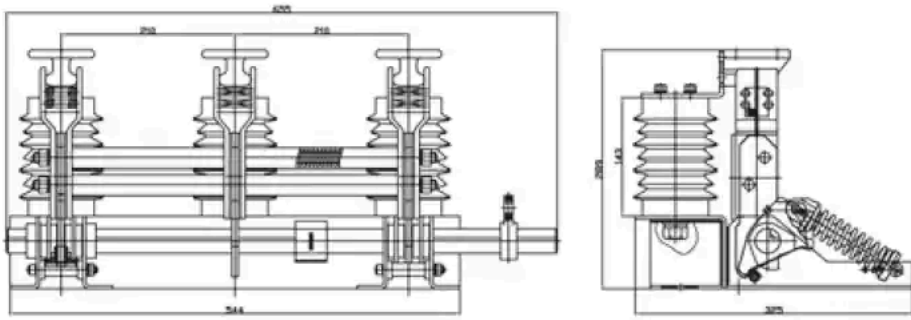
A **24kV earthing switch**, also known as a grounding switch, is a critical component used in **medium voltage power distribution systems** to provide a secure grounding path for de-energized equipment. Its primary role is to **safely discharge residual voltage and static electricity**, ensuring the safety of personnel during maintenance or inspection. The model **GPJN15-24/D31.5** offers robust performance for industrial-grade applications with a rated voltage of 24kV and maximum current capacity of up to 100kA.

Grounding switches are typically installed in **switchgear assemblies**, where they operate in conjunction with circuit breakers and load break switches. This model is specifically designed for **three-phase systems** and complies with **IEC 62271-102**, a globally recognized standard for high-voltage switching equipment.

Application Areas

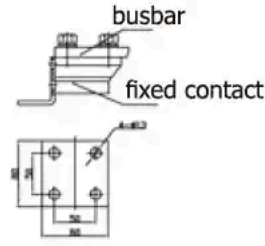
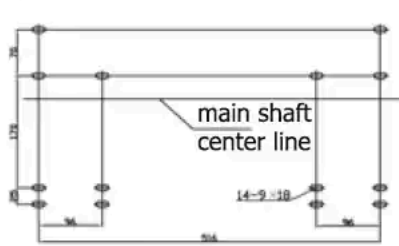
The GPJN15-24/D31.5 earthing switch is widely used in:

- **Substations** for medium voltage (MV) networks
- **Ring Main Units (RMUs)** in urban and rural power distribution
- **Transformer stations** and enclosed switchgear systems
- **Industrial plants** requiring high reliability and operational safety



install hole size

copper bar terminal diagram



Its **AC220V / DC110V control voltage** allows for seamless integration into both **manual and motorized control systems**, making it adaptable to modern automation schemes.

Industry Background and Market Trends

The global medium voltage switchgear market, driven by the need for **grid modernization**, has been experiencing steady growth. According to **IEEMA** and **ResearchAndMarkets**, the demand for **smart and safe grid infrastructure** has led to increased deployment of reliable earthing solutions such as GPJN15-24/D31.5. Additionally, **IEEE research** underlines the importance of grounding systems in mitigating arc flash hazards and ensuring equipment longevity.

Technical Specifications at a Glance

PARAMETER	SPECIFICATION
Rated Voltage	24 kV
Rated Current	3150 A
Maximum Short-Time Current	40 kA (for 1s)
Peak Withstand Current	100 kA
Power Frequency Withstand Voltage	65 kV (1 min)
Lightning Impulse Withstand	125 kV (1 min)
Electrode Count	3
Pole Distance	≥200 mm
Control Voltage	AC 220V / DC 110V
Origin	Zhejiang, China
Product Dimensions	30 x 20 x 30 cm
Weight	5 kg
Standard	IEC 62271-102
Type	Load Earthing Switch
Intelligent Capabilities	No (Non-smart mechanical device)

How It Differs from Conventional Products

Compared to **legacy earthing switches**, the GPJN15-24/D31.5 features:

- **Higher short-circuit withstand capability (100kA peak)**
- **Wider compatibility with modern control voltages**
- Compact yet **robust mechanical structure** for tight switchgear layouts
- Compliance with **IEC standards** ensures international acceptance

While some grounding switches focus only on basic operation, this model combines **safety, efficiency, and adaptability**, making it suitable for both traditional and modern MV systems.

Selection Guide: Is This the Right Model for You?

Before purchasing, consider:

- **System voltage rating:** The GPJN15-24/D31.5 is ideal for 24kV systems.
- **Load capacity:** With a 3150A rating, it supports heavy industrial loads.
- **Short-circuit conditions:** If your system may face high fault currents, the 40kA withstand rating provides enhanced protection.
- **Automation requirements:** AC/DC voltage control enables flexible integration.

Tip: Always ensure your earthing switch matches the short-circuit rating of the entire switchgear assembly to avoid mismatch-induced hazards.

Industry Authority References

For deeper insights on grounding switches and safe grid operation, refer to:

- IEEE Xplore – Grounding Techniques in MV Switchgear
- Wikipedia – Earth Switch
- IEEMA Reports on MV Equipment Market Trends
- ABB and Schneider Electric Catalogs

These sources confirm the rising importance of **standard-compliant, high-capacity grounding devices** in safe grid design.

Frequently Asked Questions (FAQ)

1. What's the difference between an earthing switch and a disconnect switch?

Answer: An **earthing switch** connects equipment to ground for safety during maintenance, while a **disconnect switch** isolates parts of a circuit. Earthing switches typically operate only when circuits are de-energized.

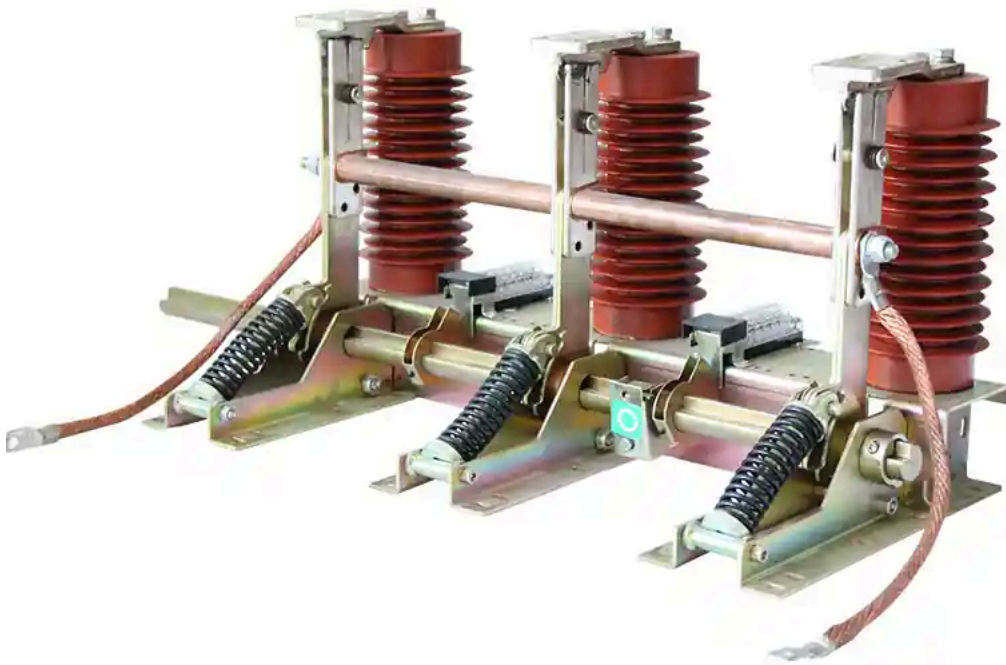
2. Can this 24kV earthing switch be motorized?

Answer: While the base model is manually operated, the **control voltage options (AC220V / DC110V)** allow for remote motor operation when fitted with a suitable actuator.

3. How do I ensure compatibility with my existing switchgear?

Answer: Check the **pole distance (≥200mm)**, **voltage**, and **short-circuit capacity**. Compliance with **IEC 62271-102** ensures it will fit most modern systems, but consulting the switchgear manufacturer is always recommended.

The **GPJN15-24/D31.5 24kV Earthing Switch** is an essential solution for **medium voltage system safety**, offering high performance, compact design, and international standard compliance. Whether you're upgrading an old system or designing a new switchgear guide setup, this model is a reliable and cost-effective choice.



Need help with technical selection or OEM supply?

Reach out to our engineering support team or request a detailed datasheet for your specific application.

Related products



12kV Indoor High Voltage Switchgear Earthing Switch



ZW32-35 Outdoor Vacuum Circuit Breaker



ZW32-12 Outdoor Vacuum Circuit Breaker



ZW8-12 Vacuum Circuit Breaker



[About Us](#)
[Privacy Policy](#)
[Refund Policy](#)
[Warranty Policy](#)

[Free Catalog](#)
[Customer Service & Help](#)
[Site Map](#)
[Contact Us](#)

[Cable Branching Box](#)
[Compact Substation](#)
[Electrical Transformer](#)
[High Voltage Components](#)
[High Voltage Switchgear](#)
[Low Voltage Switchgear](#)
[news](#)

