



10kVA Isolation Transformer

Model:	10kVA
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.
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- Why a 10kVA Isolation Transformer Matters

In today's rapidly advancing electrical landscape, ensuring the safety, efficiency, and reliability of your power system is paramount. A **10kVA isolation transformer** is an exceptional tool for safeguarding sensitive equipment, reducing electrical noise, and preventing ground loop interference. Whether you're equipping an industrial plant, medical facility, or data center, this **transformer** offers unmatched performance and peace of mind.

What is an Isolation Transformer?

An **isolation transformer** is a specialized **transformer** designed to transfer electrical power from a source to a device while physically separating the powered equipment from the power source. By isolating the primary and secondary windings, it protects downstream devices from voltage spikes, electrical noise, and surges.

Unlike an autotransformer, which connects the primary and secondary circuits electrically, an **isolation Transformer** provides **galvanic isolation**. This feature is essential for:

- **Personnel safety:** Prevents electric shock risks.
- **Equipment protection:** Shields devices from power anomalies.
- **Noise reduction:** Eliminates interference in sensitive systems.

Why Choose a 10kVA Isolation Transformer?

The **10kVA isolation transformer** has a capacity of 10,000 volt-amperes, making it perfect for medium-scale applications. This **transformer** is a popular choice for:

- **CNC machinery**
- **Control panels**
- **HVAC systems**
- **Laboratory instruments**
- **Data racks**
- **UPS systems**
- **Sensitive medical equipment** (e.g., in hospitals)

Its versatility and power-handling capability make it a go-to solution for environments requiring stable, isolated power.

Technical Specifications of a 10kVA Isolation Transformer

Here's a typical specification breakdown for a **10kVA isolation transformer**:

PARAMETER	VALUE
Rated Capacity	10kVA
Primary Voltage	208V / 380V / 400V / 480V AC
Secondary Voltage	110V / 120V / 220V / 240V AC
Frequency	50Hz / 60Hz
Efficiency	≥95%
Phase	Single-phase / Three-phase
Insulation Class	F / H Class
Cooling Type	Natural air-cooled
Enclosure	IP20 / IP23 (indoor use)
Mounting Style	Floor or wall mount
Compliance Standards	IEC 60076, UL, CE, RoHS

Note: Specifications may vary by manufacturer. Always check the product documentation.

Core Benefits of a 10kVA Isolation Transformer

Investing in a **10kVA isolation transformer** brings multiple advantages:

- **Enhanced Electrical Safety:** Isolates devices from high-voltage spikes and faults, protecting both equipment and users.
- **Superior Noise Reduction:** Filters out high-frequency noise for clean, stable power delivery.
- **Ground Loop Elimination:** Prevents malfunctions caused by ground loops, critical for audio, video, and control systems.
- **Flexible Voltage Conversion:** Steps up or down voltage to match your needs.
- **Equipment Longevity:** Delivers consistent power, extending the lifespan of connected devices.



Uses & Applications of Isolation Transformer



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The **10kVA isolation transformer** supports a wide range of industries and setups:

- **Industrial:** Powers CNC machines, PLCs, motor drives, and robotic systems.
- **Medical:** Supplies isolated power to diagnostic tools like MRI, X-ray, and ECG machines.
- **Commercial:** Isolates circuits in offices and labs for reliable operation.
- **Telecommunications:** Ensures clean power for servers, routers, and networking gear.
- **Home Office & Studios:** Protects audio/visual equipment from noise and interference.

Key Considerations Before Purchasing an Isolation Transformer

Choosing the right **10kVA isolation transformer** requires attention to these factors:

- **Voltage Compatibility:** Match the transformer's primary and secondary voltages to your system.
- **Load Type:** Assess whether your load is resistive, inductive, or mixed to ensure proper performance.
- **Installation Environment:** Select indoor or outdoor enclosures and consider ventilation needs.
- **Phase Configuration:** Confirm if you need single-phase or three-phase operation.
- **Safety Certifications:** Look for compliance with standards like CE, UL, or IEC, especially for critical applications.

Frequently Asked Questions (FAQs) About Isolation Transformers

Q1: How does an isolation transformer differ from a regular transformer?

A regular transformer may not isolate circuits, while an **isolation transformer** always separates primary and secondary windings, enhancing safety and reducing noise.

Q2: Can a 10kVA isolation transformer support inductive loads like motors?

Yes, provided the inrush current stays within limits. For heavy inductive loads, consider a transformer with higher capacity or overload protection.

Q3: Does an isolation transformer improve power quality?

While it doesn't regulate voltage directly, an **isolation transformer** mitigates spikes and noise, indirectly enhancing power quality.

Why a 10kVA Isolation Transformer Matters

A **10kVA isolation transformer** is an indispensable asset for applications requiring clean power, equipment protection, and safety. With its robust noise reduction and galvanic isolation, this transformer safeguards both personnel and infrastructure from electrical hazards. From industrial automation to healthcare and commercial settings, it ensures reliable, uninterrupted power delivery.

Investing in a high-quality **isolation transformer** customized to your needs boosts system reliability and extends equipment life—making it a smart choice for any power-sensitive operation.

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