泰利電器實業股份有限公司
TAILI ELECTRIC CORPORATION

CATALOG

INDUCTION VOLTAGE REGULATOR, IVR

TL-IVR

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About TAILI

TAILI®
泰利電器
實業股份有限公司
TAILI ELECTRIC CORPORATION

TAILI® is a professional voltage regulation testing equipment manufacturer based in Taiwan, established in Northern Taiwan in 1993. Initially, the company focused on supporting the development of domestic industries and infrastructure, specializing in the research, production, and customization of various types of Variable (Auto)Transformers (VARIAC) also known as Voltage Regulators (VOLTAC).

TAILI is more than a brand name — it represents our core philosophy and corporate culture:

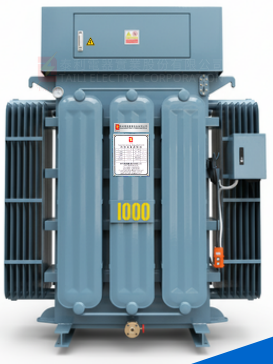
30+ YEARS EXPERIENCE

MADE IN TAIWAN

CE EN/IEC 61558-1 EN/IEC 61558-2-13

Technology	Driving continuous innovation for efficient and stable transformer technology.
Accuracy	Ensuring precise voltage control and rigorous quality testing.
Innovation	Developing creative and customized solutions to meet diverse industry needs.
Loyalty	Valuing long-term partnerships with customers through trust and reliable service.
Integrity	Upholding professionalism and integrity to build a strong reputation worldwide.

Looking ahead, TAILI® will continue to enhance product technology and service quality, expand internationally, and strive to be a global leader in variable transformers. Thank you for your trust and support — we look forward to a bright future together!


Our product range includes:

Automatic Voltage Regulators (AVR)
(Automatic Voltage Stablizer)

TL-AVR

Variable Transformers
(Slide Voltage Regulators)

TL-SLIDAC

Induction Voltage Regulators (IVR)
(Induction Voltage Stablizer)
(Automatic Induction Voltage Stablizer)

TL-IVR

Power Transformers
(high and low Voltage Transformers,
Isolation Transformers,
Autotransformers,
Customized Transformers)

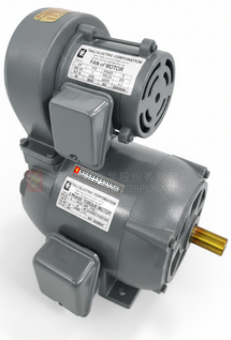
TL-TR

Puncture / Insulation Tester

TL-LH

Torque motor
(Horizontal Torque Motor)
(Vertical Torque Motor)
(Worm Gear Reducer)

TL-TM

With the rapid development of technology, the booming construction of AI data centers, and the massive demand for electric energy, our products play an indispensable role. Our applications range from equipment load testing to voltage adjustment and stabilization in power equipment systems. At TAILI®, quality is our top priority. We strictly select raw materials and follow standardized production processes to ensure stable and excellent transformer performance. MADE in TAIWAN, our products are certified with EU CE standards (EN/IEC 61558-1, EN/IEC 61558-2-13) to meet international safety and quality standards.

We have supported major domestic and international companies, including those in the United States, Canada, the United Kingdom, Sweden, Japan, Mexico, and Indonesia. We also supply equipment and products to public power utilities and government institutions, including foreign embassies around the world.

OEM/ ODM/ OBM/ R&D

In addition to our long-term dedication to the manufacturing of power equipment, TAILI ELECTRIC CORPORATION continuously invests in the research and development of advanced power electronics technologies. We actively adopt cutting-edge innovations from abroad, integrating them with localized insights to enhance and optimize our in-house designs. Originally known as “泰利電器,” we have built a solid reputation for technical progress and product reliability. Now, under the global brand “TAILI ELECTRIC CORPORATION,” we are expanding internationally to contribute to the advancement of industries and infrastructure worldwide.

We provide comprehensive capabilities in OEM (Original Equipment Manufacturing), ODM (Original Design Manufacturing), OBM (Own Brand Manufacturing), and R&D, making us a trusted partner in the power electronics industry. We specialize in delivering customized voltage regulators, transformers, automatic voltage stabilizers, and a wide range of tailor-made power supply solutions. Whether it’s external design, internal structure, controller configuration, or functional upgrades, our expert team ensures every product meets the highest technical and safety standards.

With a strong engineering foundation and cross-industry knowledge, we support customers through every development stage—from technical evaluation and prototype development to mass production and quality assurance. All products are manufactured in compliance with international certifications such as CE, EN/IEC 61558, ensuring global market compatibility.

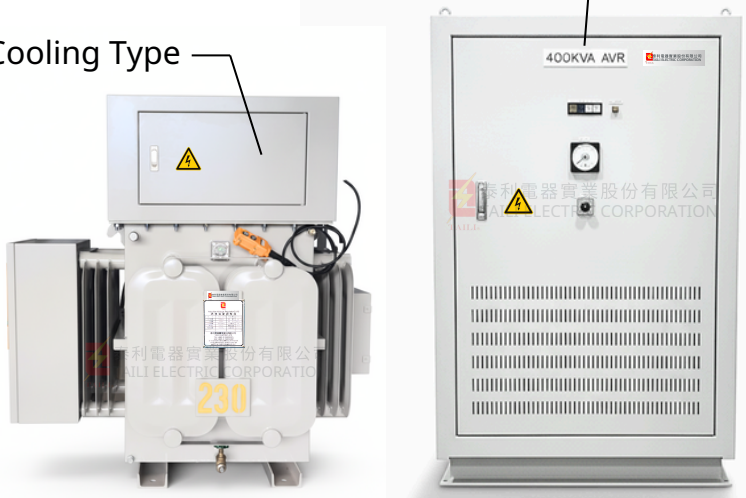
Looking ahead, we will continue to strengthen our R&D capabilities and expand our range of high-value, innovative power products, solidifying our role as a reliable Taiwan-based power solution provider for global clients.

TL-IVR

Introduction

Air-forced Cooling Type
(This sample is equipped with an automatic voltage regulation function. Type: TL-AVR-400KVA)

Oil-immersed Cooling Type



The Induction Voltage Regulator (IVR) is typically equipped with an automatic voltage regulation function, and is therefore also known as an Induction Electronic Voltage Regulator, Induction Automatic Voltage Regulator, or Automatic Induction Voltage Regulator (AVR / AIVR). The TL-IVR series manufactured by TAILI ELECTRIC CORPORATION adopts high-quality insulating oil that complies with international standards such as JIS C2320 and IEC 60296, ensuring stable performance and operational reliability.

The oil-immersed cooling type is available in capacities ranging from single-phase 3 KVA to three-phase 30,000 KVA, with input voltages from 110 to 12,000 V. The air-forced cooling types are offered from 10 to 500 KVA, with input voltages from 110 to 6,600 V. The range of stabilizing input voltage can be customized from ±15% to ±50%, according to customer requirements. With decades of experience, TAILI ELECTRIC CORPORATION has been committed to providing high-quality voltage regulating and testing equipment to industries worldwide. Our clients include foreign embassies, public power utilities, large-scale manufacturing facilities, and chemical industry plants, earning us long-term trust and recognition across global markets.

Applications

- Production and Manufacturing Lines
- Telecommunication and Broadcasting Industry
- Machine Tools
- Motor Testing
- Mechatronic Integration Systems
- Medical Equipment and Instruments
- Refrigeration and Air Conditioning Equipment
- UPS Uninterruptible Power Supply Systems
- Plastic Injection Molding Equipment
- Elevator Systems
- Building Construction and Structural Engineering
- Electric Heating Equipment
- Equipment and Instrument Load Performance Testing
- CNC Computer Numerical Control Equipment

TL-IVR

Oil-immersed Cooling Type

Features

Convenient Hanging for Easy Mobility

The convenient hanging device allows effortless transport and repositioning of equipment. Designed for intuitive operation, it features a sturdy and durable structure, enhancing mobility efficiency while ensuring safe use.

Mobililty

Industrial-Grade Remote Control Device

The industrial-grade remote control device delivers efficient and precise remote operation, enabling equipment control without distance limitations. Its durable design and stable communication ensure safe and reliable performance in industrial environments, enhancing operational efficiency and simplifying maintenance.

CtrlX

High-Performance Heat Dissipation Fins

The heat circulation fins are specially designed to enhance thermal dissipation, rapidly removing heat to maintain stable equipment operation. Combining precise structure with durable materials, they provide reliable cooling performance, extending system lifespan and improving overall efficiency.

Thermax

TL-IVR

Precision Instrumentation and Ergonomic Control Design

The instrument and operation control area integrates monitoring and control components, providing real-time voltage and current information with a precise user interface. Designed based on ergonomic principles, it ensures operational convenience, safety, and reliability while enhancing system monitoring and maintenance efficiency.

Ergonomic

Safe Power Switches and Wiring Spaces

Safe power switches and wiring spaces ensure proper electrical isolation and organized wiring layout. They adopt rigorous insulation designs and protective devices to guarantee operational safety and maintenance convenience.

Shielded

Accurate Monitoring for Complete Insight

The oil level gauge and thermometer provide real-time display of critical information, giving clear visibility of equipment status. Featuring high-accuracy design and durable materials, they deliver stable and reliable monitoring performance, ensuring safe and efficient electrical operation.

Accurate

TL-IVR

- **Digital Display & Multi-Phase Monitoring:** Clearly shows input voltage, output voltage, and output current for each phase, providing comprehensive system visibility.
- **Durable, Wear-Free Design:** Brush-less structure with no sliding contacts, eliminating sparks and wear; lifespan exceeds 20 years.
- **Industrial-Grade Voltage Adjustment:** Simple UP/DOWN button operation allows precise voltage control.
- **Comprehensive Alarm System:** Visual and audible alerts protect against overcurrent, phase loss, over/under voltage, and overtemperature conditions.
- **High Reliability in Harsh Environments:** Wide input voltage range, low losses, high efficiency (≥98%), and near-unity power factor for stable industrial operation.
- **Precise Linear Voltage Regulation:** Electromagnetic induction design ensures stable and accurate output voltage without contact movement or transformer taps.
- **Exceptional Load-Carrying Capability:** Supports overloads and high inrush currents, with instantaneous loads up to 500% for 6 seconds.
- **Self-Diagnostic & Status Indicators:** Internal circuit monitoring with color-coded indicators simplifies fault detection and troubleshooting.
- **Multi-Mode Operation:** Supports automatic, electric, and manual modes for continuous 24/7/365 voltage regulation.
- **Customizable & External Signal Outputs:** Provides terminals for abnormal signals and offers tailored solutions based on customer requirements.

Exterior

The actual design and appearance must be planned and developed based on customer specifications, the usage environment, safety considerations, and other special requirements to achieve optimal equipment efficiency and meet operational needs.

TL-IVR

Specification

Special specifications can be customized.

The following outlines the product specifications of an Induction Voltage Regulator (IVR) integrated with voltage stabilization functions.

Phase(Φ)	Single phase(1Φ) Three phase(3Φ)
Frequency(Hz)	40~60Hz
I/P(V)	110~12000V
The range of stabilizing I/P voltage	±15~50%
The adjusted range of O/P voltage	±2%
O/P accuracy	±0.8~3%
Waveform Distortion	0
Capacity(KVA)	1Φ: 3~1000KVA(1MVA) 3Φ: 5~30000KVA(30MVA)
Response time	0.5~2s (depend on the range of voltage)
Efficiency	>97%
Adjustment methods	Manual Type: Voltage adjustment is performed by rotating a handwheel. Motorized Type: Voltage adjustment is controlled via an industrial remote controller. Automatic Type: Voltage is automatically adjusted by monitoring deviation values.
Phase failure protection	LED Display (Buzzer warning)
Overload protection	
Oil empty indicator	
Over temperature protection	
Noise level	<40dB
Temperature	-20~+40°C
Humidity	0- 90% non-condensing
International Standard Certification for Insulating Oil	JIS C2320 IEC 60296

TL-IVR

Air-forced Cooling Type

Features

Convenient Hanging for Easy Mobility

The convenient hanging device allows effortless transport and repositioning of equipment. Designed for intuitive operation, it features a sturdy and durable structure, enhancing mobility efficiency while ensuring safe use.

Mobililty

Clear Status Display Switching

The status display switching function enables users to effortlessly toggle between monitoring views, quickly accessing operational information for different equipment or systems. Its intuitive operation enhances monitoring efficiency and maintenance convenience, ensuring precise and reliable equipment management.

Clear

Four-Sided Ventilation for Optimal Cooling

The equipment features a four-sided ventilation design, promoting efficient airflow and rapid heat dissipation to maintain stable operation. This high-performance cooling structure extends component lifespan and enhances overall system reliability and continuous performance.

EffiCool

TL-IVR

Flexible Multi-Surface, Multi-Level Design

The multi-door and multi-level design offers exceptional maintenance convenience and efficiency. It maximizes space utilization while keeping the interior organized. Durable construction and smart layering enhance both usability and operational productivity.

Multiple

Safe Wiring Space with Reliable Protection

The wiring space features high-standard insulation design, ensuring secure electrical isolation and organized cabling. Protective partitions enhance operational safety and maintenance convenience, providing stable and reliable performance for equipment operation.

Reliable

Comprehensive Protection for Control Circuits

The control circuits feature full protection design, effectively isolating electrical interference and preventing short circuits or accidental damage. Whether under high-load operation or extended use, this design ensures stable overall equipment performance and extends the system's service life.

Isolated

TL-IVR

- **Manual & Multi-Mode Operation:** Supports automatic, electric, and manual modes, with easy manual voltage adjustment, ensuring continuous 24/7/365 operation.
- **Self-Diagnostic with Status Indicators:** Internal circuitry performs self-testing, displaying real-time equipment status with color-coded indicators for easy fault detection and troubleshooting.
- **High Load-Carrying Capacity:** Designed to withstand high inrush currents and overloads, supporting up to 500% instantaneous current for 6 seconds.
- **Comprehensive Alarm System:** Visual and audible alerts protect against overcurrent, phase loss, reversed phase, over/under voltage, and overtemperature conditions.
- **Precise Linear Voltage Regulation:** Electromagnetic induction design provides stable and accurate output voltage without moving contacts or transformer taps, eliminating voltage sag, boost, and coupling noise.
- **Digital Display & Multi-Phase Monitoring:** Clearly shows input voltage, output voltage, and output current for each phase, allowing detailed monitoring at a glance.
- **Durable, Wear-Free Design:** Brush-less structure with no sliding contacts or moving parts, preventing wear and sparks for long-term reliability.
- **High Reliability in Harsh Environments:** Wide input voltage range, low steel and copper losses, high efficiency (≥98%), and near-unity power factor for stable industrial operation.
- **Long Lifespan Guarantee:** Constructed with high-quality materials and industrial-grade components, with strict quality control, ensuring at least 20 years of reliable operation.
- **External Signal Outputs & Customization:** Provides DC5V abnormal signal outputs for external control and offers tailored solutions based on customer requirements.

Exterior

The actual design and appearance must be planned and developed based on customer specifications, the usage environment, safety considerations, and other special requirements to achieve optimal equipment efficiency and meet operational needs.

TL-IVR

Specification

Special specifications can be customized.

The following outlines the product specifications of an Induction Voltage Regulator (IVR) integrated with voltage stabilization functions.

Phase(Φ)	Single phase(1Φ) Three phase(3Φ)
Frequency(Hz)	47~63Hz
I/P(V)	110~6600V
The range of stabilizing I/P voltage	±15~50%
The adjusted range of O/P voltage	±2%
O/P accuracy	±0.8~3%
Waveform Distortion	0
Capacity(KVA)	10~500KVA
Response time	0.5~2s (depend on the range of voltage)
Efficiency	>97%
Adjustment methods	Manual Type: Voltage adjustment is performed by rotating a handwheel. Motorized Type: Voltage adjustment is controlled via an industrial remote controller. Automatic Type: Voltage is automatically adjusted by monitoring deviation values.
Phase failure protection	LED Display (Buzzer warning)
Overload protection	
Oil empty indicator	
Over temperature protection	
Noise level	<40dB
Temperature	-20~+40°C
Humidity	0- 90% non-condensing

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