

Kemot PROavr-15k URZ3437-15

Kemot Automatic Three-Phase Voltage Stabilizer PROavr-15k 15000 VA URZ3437-15 User Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Kemot PROavr-15k 15000 VA Automatic Three-Phase Voltage Stabilizer. This device is designed to maintain a stable output voltage, protecting connected equipment from fluctuations in the input power supply. Please read this manual thoroughly before installation and use, and retain it for future reference.



Figure 1: The Kemot PROavr-15k stabilizer protecting connected appliances from unstable voltage.

2. SAFETY INSTRUCTIONS

Always observe the following safety precautions to prevent injury or damage to the device and connected equipment:

- **Electrical Safety:** Installation and maintenance should only be performed by qualified personnel. Ensure the main power supply is disconnected before any wiring or service.
- **Grounding:** The stabilizer must be properly grounded to prevent electric shock.
- **Ventilation:** Ensure adequate ventilation around the unit. Do not block ventilation openings.
- **Environment:** Do not operate the stabilizer in environments with excessive dust, moisture, or corrosive gases. Avoid direct sunlight and high temperatures.
- **Overload:** Do not exceed the rated power capacity of the stabilizer (15000 VA). Overloading can cause damage and fire hazards.
- **Liquid Contact:** Keep liquids away from the stabilizer. In case of accidental spillage, immediately disconnect power and contact a service professional.
- **Internal Components:** Do not open the stabilizer casing. There are no user-serviceable parts inside. High voltages are present.



Figure 2: Circuit breakers for power and bypass on the rear panel, indicating safety cut-off points.

3. PRODUCT OVERVIEW

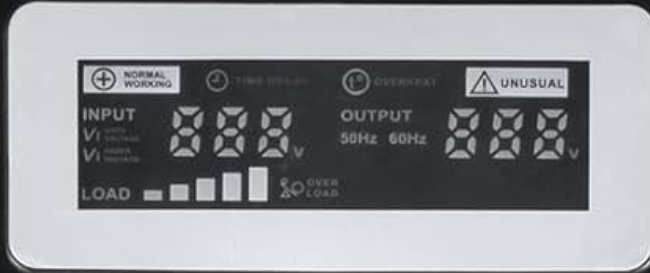
The Kemot PROavr-15k is an automatic three-phase voltage stabilizer designed for industrial and commercial applications requiring stable power. It features a servo motor control for precise voltage regulation and multiple protection mechanisms.

Key Features:

- **Three-Phase Stabilization:** Monitors and controls voltage on each phase independently.
- **High Precision:** Maintains output voltage at 400 V with an accuracy of $\pm 3\%$.
- **Servomotor Control:** Ensures rapid and accurate voltage correction.
- **Comprehensive Protection:** Includes overload, short circuit, over/under voltage, and overheating protection.
- **LCD Display:** Provides real-time monitoring of input/output voltage, load, and frequency for each phase.
- **Delay Function:** Adjustable start delay (6 or 180 seconds) to protect equipment with high inrush currents.
- **Mobility:** Equipped with four strong wheels for easy transport and positioning.

KEMOT[®]

A
AB




DELAY
UNDELAY

THREE PHASE STABILIZER

B
BC




SINGLE PHASE
THREE PHASE

C
CA



PROavr-15k
URZ3437-15 - 15 kA
INPUT: 225 V - 450 V~
OUTPUT: 400 V~
PRECISION: ±3%



 **A**  **B**  **C**  **SINGLE PHASE**  **PHASE FAILURE**



Figure 3: Front panel with LCD displays and indicators.



Figure 4: Durable wheels for easy transport.

4. SETUP

Proper installation is critical for the safe and effective operation of the stabilizer.

4.1 Unpacking and Placement

- Carefully remove the stabilizer from its packaging. Inspect for any shipping damage.
- Place the unit on a flat, stable surface. Utilize the integrated wheels for easy positioning.
- Ensure there is sufficient clearance (at least 20 cm) around all sides for proper ventilation.

4.2 Electrical Connections

All electrical connections must be performed by a qualified electrician in accordance with local electrical codes.



Figure 5: Rear panel with AC Input and AC Output terminals.

- Input Connection:** Connect the three-phase AC input power supply (L1, L2, L3, Neutral, Ground) to the 'AC INPUT' terminal block on the rear panel. Ensure correct phase sequence and secure connections.
- Output Connection:** Connect your three-phase load (L1, L2, L3, Neutral, Ground) to the 'AC OUTPUT' terminal block. Verify that the total load does not exceed 15000 VA.
- Grounding:** Ensure a robust ground connection is made to the designated grounding terminal.
- Circuit Breakers:** Before connecting power, ensure all 'POWER ON' and 'BYPASS ON' circuit breakers are in the 'OFF' position.



Figure 6: Rear panel highlighting 400V output capability.

5. OPERATING INSTRUCTIONS

5.1 Powering On

1. After all connections are secure, switch on the main power supply to the stabilizer.
2. On the rear panel, switch the 'POWER ON' circuit breakers (A, B, C) to the 'ON' position.
3. The LCD displays on the front panel will illuminate, showing input voltage, output voltage, and load for each phase.
4. The stabilizer will perform a self-test. Observe the 'WORKING' indicator lights (A, B, C) on the front panel. They should turn green, indicating normal operation.

5.2 Delay Function

The stabilizer features a start delay function to protect connected equipment from sudden power surges during startup.

- Locate the 'DELAY / UNDELAY' switch on the front panel.
- In 'DELAY' mode, the stabilizer will wait for either 6 seconds or 180 seconds (depending on internal setting) before providing stable output power. This is recommended for equipment sensitive to inrush currents.
- In 'UNDELAY' mode, the stabilizer provides output power almost immediately. Use this mode only if your connected equipment does not require a startup delay.



Figure 7: LCD displays and Delay/Undelay switch.

5.3 Bypass Mode

The bypass function allows the input power to directly feed the load, bypassing the stabilization circuit. This is useful for maintenance or in situations where stabilization is not required.

1. To activate bypass mode, first switch off the 'POWER ON' circuit breakers (A, B, C).
2. Then, switch the 'BYPASS ON' circuit breakers (A, B, C) to the 'ON' position.
3. Ensure the load can handle the raw input voltage before engaging bypass mode.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your stabilizer.

- **Cleaning:** Periodically clean the exterior of the unit with a soft, dry cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure ventilation openings are free from dust and obstructions. Use compressed air to clear dust if necessary.
- **Connections:** Periodically check all electrical connections for tightness. Loose connections can cause overheating and poor performance.

- **Inspection:** Visually inspect the unit for any signs of damage, wear, or unusual conditions.
- **Professional Service:** For any internal issues or complex repairs, contact qualified service personnel.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For problems not listed here, contact technical support.

Problem	Possible Cause	Solution
No output voltage / Unit does not power on	No input power; Circuit breakers OFF; Internal fault	Check main power supply; Ensure 'POWER ON' breakers are ON; Contact service if fault persists.
Output voltage unstable	Input voltage outside stabilization range; Overload; Internal fault	Check input voltage range; Reduce load; Contact service.
'PHASE FAILURE' indicator lit	Incorrect phase connection; Missing phase; Phase imbalance	Verify all three phases are correctly connected and present; Contact electrician.
Overheating / Unit shuts down	Blocked ventilation; Overload; High ambient temperature	Ensure clear ventilation; Reduce load; Operate within specified temperature range.

8. SPECIFICATIONS

Technical specifications for the Kemot PROavr-15k 15000 VA Automatic Three-Phase Voltage Stabilizer.

Parameter	Value
Rated Power	15000 VA
Input Voltage Range	225 - 450 V
Output Voltage	400 V
Stabilization Precision	±3%
Phases	Three-phase (1 / 3 phases)
Efficiency	98%
Stabilization Control	Servo motor
Transformer Type	C.R.G.O. toroidal
Display	LCD
Operating Frequency	50 / 60 Hz
Start Delay Switch	6 / 180 s
Housing Material	Steel
Operating Temperature	0 – 40°C

Parameter	Value
Relative Humidity	10 – 102%
Storage Temperature	-15°C – 45°C
Protections	Overload, short circuit, high/low voltage, overheating
Cooling Activation	At 30% of rated power
Cooling Deactivation	At 20% of rated power
Dimensions (L x W x H)	545 x 230 x 397 mm (21.46 x 9.06 x 15.63 inches)
Weight	42 kg (92.6 lbs)

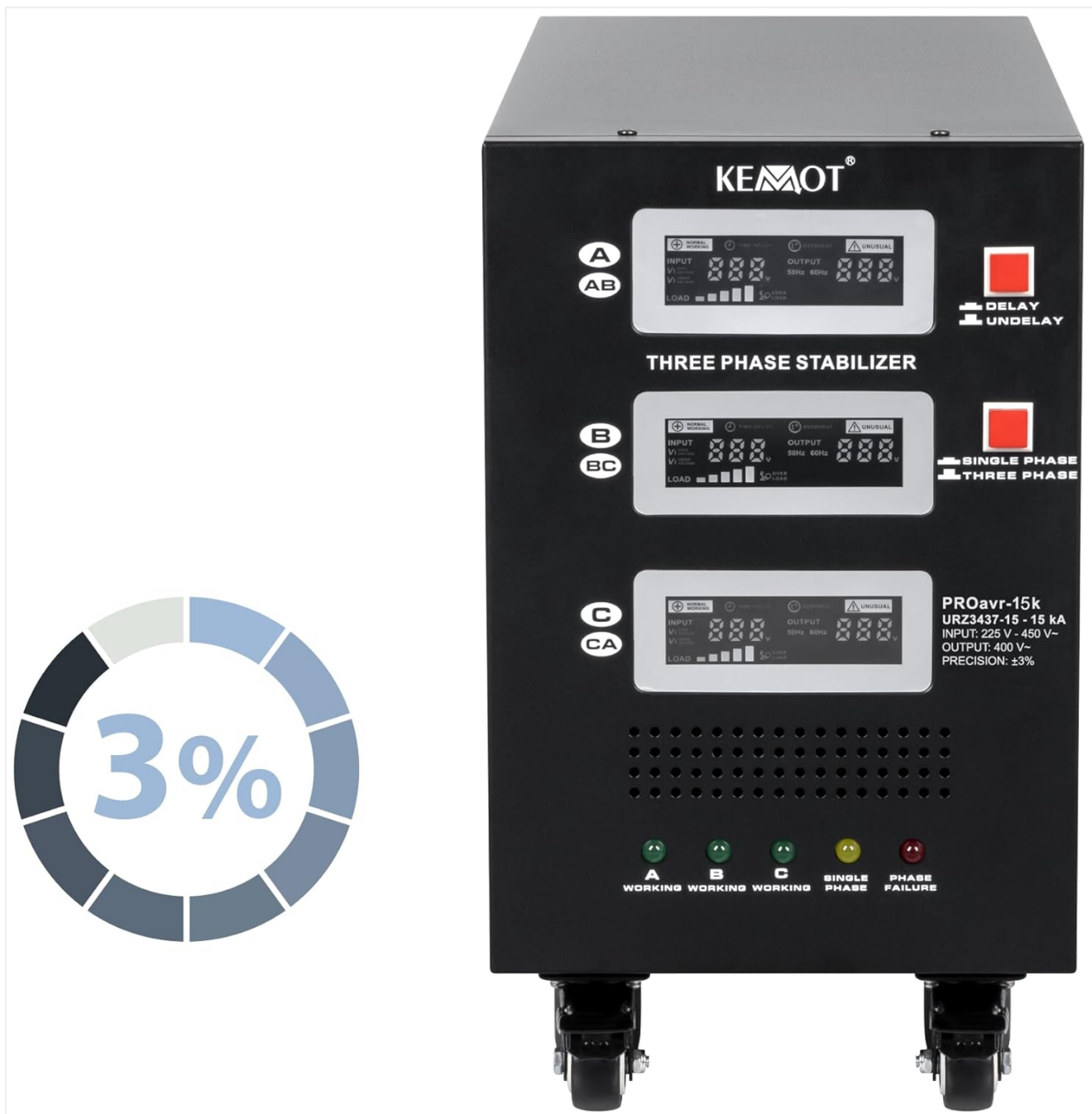


Figure 8: Stabilization precision of $\pm 3\%$.

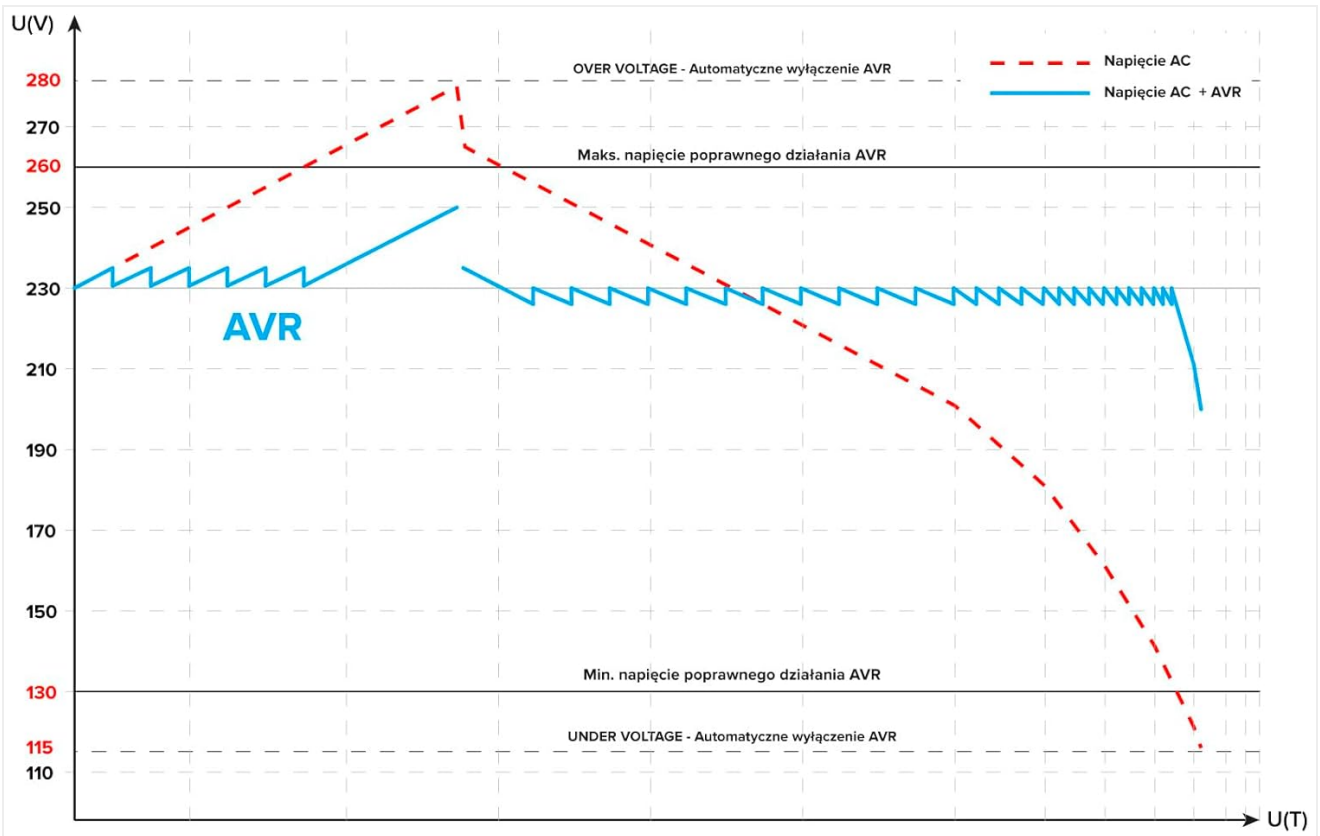


Figure 9: Voltage regulation curve demonstrating AVR functionality.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

This Kemot PROavr-15k voltage stabilizer is covered by a **2-year manufacturer's warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from improper installation, misuse, accidents, unauthorized repairs, or acts of nature.

Please retain your proof of purchase for warranty claims.

9.2 Technical Support

For technical assistance, troubleshooting beyond this manual, or warranty service, please contact your retailer or the manufacturer, LECHPOL ELECTRONICS LESZEK Spółka komandytowa. Refer to the contact information provided with your purchase documentation.