



EDIT
ELECTRONIC

Innovative Power Solutions &
Voltage Stabilizers

ESV Catalog

ENG

ESV

Servo Voltage Stabilizer



Key Features

- Automatic AC voltage stabilizer
- Electromechanical structure
- It works with Brush-Charcoal system driven by motor
- 2kVA - 1000kVA power range
- Production at Single Phase and Three Phase
- Low Voltage Correction up to 30%
- High Voltage Correction up to 15%
- Response time: 40 msec
- Voltage correction time: 1-3 seconds
- Slow and safe
- 100% Unbalanced Voltage and Load Capacity
- Independent voltage management on each phase
- Efficiency >96%
- Periodic maintenance is required
- Input voltage range is determined at the order
- Output Voltmeter and Signal Lamp
- TS EN ISO 9001: 2015 Quality Certified

Optional Features

- Operator Panel with 4x20 LCD display
- Low Voltage / High Voltage Protection
- Maintenance By-Pass Switch
- Galvanic Isolation Transformer,
- IP44, IP54 cabinet option for outdoor applications
- Surge Arrester



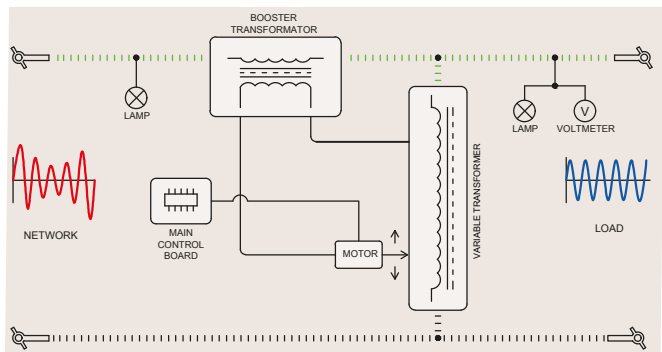
What is ESV Servo Voltage Stabilizer?

ESV servo stabilizer is an Alternative Current (AC) voltage regulation and protection device which provides safe and stable voltage for businesses and home users who have constant low or high voltage problems.

It adjusts the low or high network voltage to the desired voltage value and keeps it constant.

It works slowly because it has an electromechanical structure. It is produced with traditional technology and offers the most economical solution for voltage correction.

How Does It Work?



ESV Servo stabilizer works on the principle of applying a variable voltage to the secondary of the Booster transformer connected in series between the network and the load. In order to adjust the variable voltage, a brush made of graphite is moved by the motor on the copper windings of the Variac unit. Microprocessor based control card decides how much the brush will be moved.

The measuring time of voltage drops and spikes approx < 40 milliseconds

Voltage Correction time < 1-5 seconds

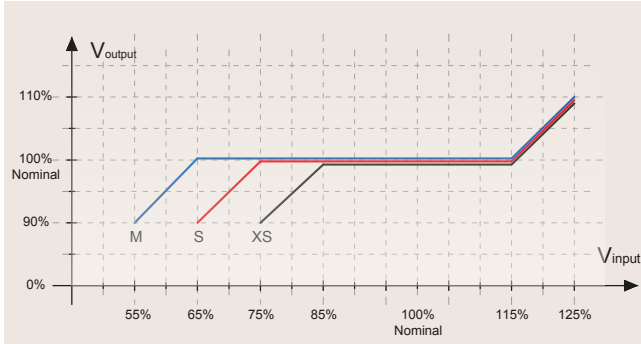
Simple and economical solution in traditional structure

The Variac-Motor system used in the ESV Servo Stabilizer has a simple structure. The electronic card controlling the motor is also small and economical. It is suitable for use in small commercial applications and homes where the network voltage does not change much.

It is the most economical voltage stabilizer solution. It requires periodic maintenance at least 1-2 times in a year. It is not suitable for use in dusty, humid, vibrating environments. It is specially produced for special projects.

Input Voltage Range

The input voltage range of the ESV Servo Stabilizer is determined at the order stage and cannot be changed later. There are 3 different models as standard. The below diagram shows the voltage regulation performance of each model.



Output voltage tolerance of ESV Servo Voltage Stabilizer are +/- 2%

Standard type 3 phase ESV Servo voltage stabilizers can operate in 3 phase + Neutral (4 wire) installations. Neutral connection is required for safe operation.

Maintenance By-pass Switch

A Maintenance By-Pass switch can be added to the ESV servo stabilizer, which ensures that the loads are transferred to the grid in case of maintenance or failure. Maintenance By-Pass switch is an I-O-II position changeover switch and is manually

controlled. During the Maintenance By-Pass operation, the power to the loads is cut for a short time.

Applications

The ESV Servo stabilizer is the best solution for all commercial businesses, institutions and home users affected by voltage fluctuations, such as small factories, small commercial businesses, home applications, office blocks, shopping malls, stores, restaurants and chain stores.

Advantages

- ✓ It is the most economical Voltage stabilizer solution,
- ✓ It is produced with a traditional and simple technology.
- ✓ It is reliable and long-lasting,
- ✓ It can be customized according to customer demands.
- ✓ Cabin design, dimensions and electrical connection features can be re-designed according to the project needs.



Control Panel of ESV Servo Voltage Stabilizers is simple and easy.

There are Output Voltmeter, Output Signal Lamps and Input Signal Lamps as standard.

Input voltmeter and Output ammeter are optional.

LCD Display Operator panel is optional

Technical specifications

You may visit our Website for more detailed information and solutions.



ESV Servo Voltage Stabilizer		
General Features		
Power (kVA)	In the power range of 2KVA-1000 KVA	
Technology	Electromechanical Variac Motor System	
Input		
Rated Input Voltage	3Phase Model: 400VAC 3Phase+Neutral+Ground	1Phase Model: 230VAC 1Phase+Neutral+Ground
Voltage Tolerance	-%25 , +%15	
Frequency	50 Hz. +/-%5 (60 Hz. Optional)	
Output		
Rated Output Voltage	3Phase Model: 400VAC 3Phase+Neutral+Ground	1Phase Model: 230VAC 1Phase+Neutral+Ground
Voltage Tolerance	+/-%2	
Response Time	40 millisecond	
Correction Time	1-5 second	
Efficiency	>96% typical	
Indicators		
Voltmeter	Input Voltages, Signal Lamps	
LCD Display	Input Voltage, Output Voltage, Load Percentage, Frequency, Status Information, Fault Information (Optional)	
Protection Functions		
Voltage Protection	Electronic protection for Low Voltage and High Voltage (Optional)	
Current Protection	Input Circuit Breaker (Output Circuit Breaker optional)	
Environmental Conditions		
Operating Temperature	-10 °C ~ +40 °C	
Altitude Operating Height	1.500m	
Humidity	90% none condensed	
Cabinet Specifications		
Type-Protection Class	Monoblock welded cabinet, IP21 Indoor type	
Paint-Color	Epoxy-Polyester Powder Paint - RAL-7032	