



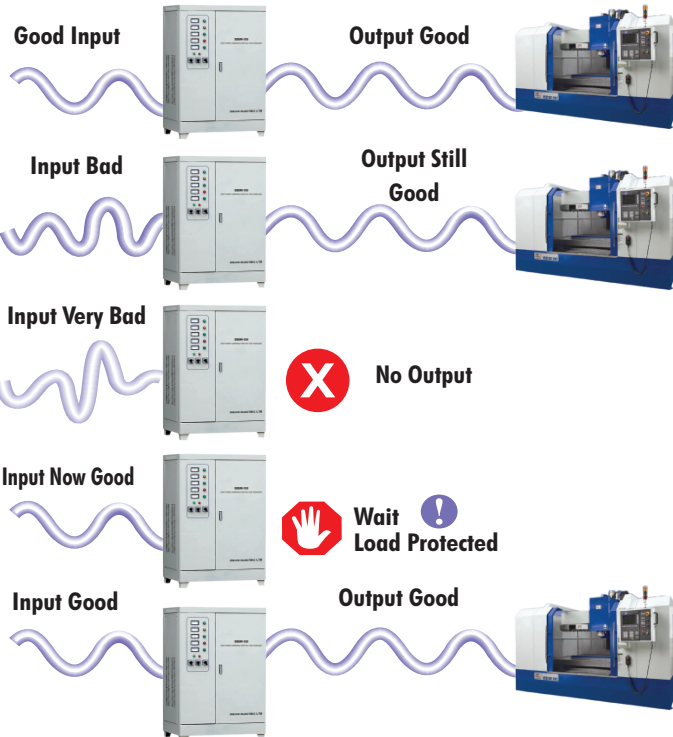
SERVO CONTROLLED VOLTAGE STABILIZER

(1KVA to 2000 KVA)

Reduce the Failure Rate of Electrical Power Dependent Equipments

Salient Features of GEESYS Servo Stabilizer :

- ▶ DSP Based - high speed Correction.
- ▶ Field Programmable 3 stage TRIP and trip delay for low & high voltage and over load.
- ▶ Very Wide input voltage range & Excellent output stability.
- ▶ Low losses and minimal heat dissipation due to an efficiency of over 96% at full load.
- ▶ Event Logging, Details of last trip is captured and stored in EEPROM.
- ▶ User friendly HMI.
- ▶ Field programmable servo parameters and are stored in NV memory
- ▶ Power Consumption is below 0.5 to 1.5% depending upon the input voltage range.
- ▶ Suitable for 100% Duty Cycle.
- ▶ No Waveform Distortion - No Harmonics Added.
- ▶ Modular Construction for Easy Customization.
- ▶ Extremely High Overload / Inrush Rating.
- ▶ Immune to Load PF & Supply Frequency Variations.
- ▶ Individual Coil Protection - Not Crude Step Regulation.
- ▶ Trouble Free Operation with No Active Devices in Power Path.
- ▶ Life at Full Load is more than 15 Years.
- ▶ Very High Reliability.
- ▶ Easy & Simple Maintenance.



Benefits

- ▶ Reduction in Breakdown of Electrical Equipments up to 80%
- ▶ Energy Saving up to 5%
- ▶ Improvement in Power Factor and Reduction MDI
- ▶ Uniform Quality of end product
- ▶ Better Efficiency in plan due to lesser breakdown
- ▶ Depreciation @80% as per Income Tax Act.





SERVO CONTROLLED VOLTAGE STABILIZER

1 - PHASE

GEESYS Servo Voltage stabilizers save the life of costly appliances, CNC Machines, Electrical Equipment, Medical Equipment, Motors Lab Equipment etc by correcting the voltage fluctuations in the incoming AC Voltage and bringing and keeping in at the desired voltage levels. It involves comparing the output voltage with built-in stable reference voltage source. The control circuit operates the motor whenever the output voltage falls or rises beyond the preset voltage. The control circuit controls the servo motor. The motor is mechanically attached to the arm of a continuously variable auto transformer which feeds to the primary of a series control buck boost transformer. The stabilizer output voltage is compared with the reference voltage & resultant error signal controls the Servo Motor which corrects the voltage by bringing it to the preset voltage.

Protections :

- ▶ Electronic over & under voltage trip with time delay for input & output.
- ▶ Input Overload and Short Circuit Protection with MCB.
- ▶ Surge Arrester / RF suppressor (OPTIONAL)
- ▶ Neutral failure protection.
- ▶ Output Electronic Overload Protection.
- ▶ Earth neutral voltage cut off protection.
- ▶ Menu settable configuration using 2x16 LCD and push buttons.

Front Panel Display and Controls

- ▶ Real Time measurement of the following parameters using advanced Microcontroller.
- ▶ Input voltage (Line to Neutral)
- ▶ Output voltage (Line to Neutral)
- ▶ Output current
- ▶ Frequency
- ▶ History of Error Logs.

Specification :

Capacity	1 KVA - 15 KVA
Input Voltage Range	170 - 270 AC, 50Hz
Output Voltage	230V AC, 50Hz 1-Phase
Output Voltage Adjustments	220 - 240V AC
Operating Frequency	47 to 53Hz
Output Regulation	± 1%
Correction Speed	35V/Sec
Load Regulation	± 1%
Wave-form Distortion	Nil
Power Factor effect	Nil
Output Wave-form	True reproduction of Input
Type of Cooling	Natural Air - Cooled
Mode of System	Fully Automatic / Manual
System Construction	As Per IS : 9815
Efficiency	>98.5%
Response Time	10 milli sec
Servo Motor Drive	Rugged ac Step Synchronous motor
Enclosure	IP20



Corrects Voltage Fluctuations before it damages your Hi-Tech Machines



SERVO CONTROLLED VOLTAGE STABILIZER 3 - PHASE

Protections :

- ▶ Electronic over & under voltage trip with time delay for input & output
- ▶ Electronic overload protection and short circuit protection upto 30 KVA through MCB and the Manual bypass is built in. Above 30 KVA MCB/MCCB is an optional.
- ▶ Surge Arrester / RF suppressor (OPTIONAL)
- ▶ Single phase prevention and cut off
- ▶ Phase reversal protection and cut off
- ▶ Neutral failure protection
- ▶ Frequency cut off protection
- ▶ Earth neutral voltage cut off protection
- ▶ Menu settable configuration using 2x16 LCD and push buttons

Front Panel Display and Controls

- ▶ Real Time measurement of the following parameters using advanced Microcontroller.
- ▶ Input voltage (Line to Neutral)
- ▶ Input Voltage (Phase to Phase)
- ▶ Output voltage (Line to Neutral)
- ▶ Output voltage (Phase to Phase)
- ▶ Load current in all Phases
- ▶ Frequency
- ▶ History of Error Logs.



Specification :

Capacity	3KVA - 2000 KVA
Input Voltage Range	295-465V / 340-480V/360-460V 3Ph, AC, 50Hz
Output Voltage	380V / 400V / 415V
Input Frequency	47 to 53 Hz
Control Type	Digital - DSP Microcontroller Based
Correction Rate	60V / Sec-Phase to Phase : 110V/Sec with DC Motor*
Type of Cooling System	Air Cooled upto 300 KVA, Oil Cooled upto 2000 KVA
Reset	Unbalanced 4 wire : R Y B N
Connections	Manual / Auto Reset with time delay
Efficiency	Star
Mode of system	>98%
Waveform Distortion	Fully Automatic / Manual
Output Waveform	Nil
Over Load Capacity	True Reproduction of Input Class "B"
Audio Alarm	120%
Manual Bypass	For Tripping Conditions
Servo Motor Drive	Optional at Extra Cost above 30 KVA
Operating Temperature	Rugged AC Step Synchronous Motor
Climate Conditions	0°C to 45°C
Provision of Cabling	90% Rh max. Non Condensing at 35°C
	Input and Output Terminations with Provision for Fixing Cable Glands





AUTOMATIC VOLTAGE STABILIZER

(Microcontroller Based AVS)



Discovering ever new heights of excellence has been a passion for GEESYS Technologies. By offering an excellent range of Automatic Voltage Stabilizers, we have become a name synonymous with perfection. As both high and Low mains voltage can damage your electrical equipment, The GEESYS AVS is designed to monitor and correct the incoming supply continuously. If the voltages rises or drops, it will correct the output to ensure that the voltage reaching your equipments remains within the operating range of the appliances connected to it. GEESYS AVS come in different capacities for different applications like Air Conditioner, LCD, TV, Music System, Refrigerator, Deep Freezer, Washing Machine, Microwave Oven, Treadmill and Mainline Stabilizers for general purpose.



Technical Specifications :

Input Voltage Range	185V - 270V	170V - 270V	140V - 270V	120V - 270V	90V - 270V
Output Voltage	200V - 240V				
Frequency	50Hz ± 5%				
Load Current	1.3A - 30A				
Low Cut-Off Voltage	165V	145V	130V	100V	85V
High Cut-Off Voltage	> 270V				
Control	Microcontroller Based				
Time Delay	Max. 3 Minutes				
Socket & Plug	Yes				
LED Indication	Yes (Input, Time Delay, Output)				
LED/LCD Display	Yes (Optional)				
Operating Temperature	0 - 50 °C				
Capacity	300VA - 8KVA				

GEESYS AVS Features :

- ▶ Microcontroller Based*
- ▶ Fast Response
- ▶ Inbuilt Low / High Voltage Protection
- ▶ Intelligent Startup Time Delay
- ▶ Built-in Electronic Overload Protection*
- ▶ Automatic Restart
- ▶ LED Indication
- ▶ High Efficiency & Power Saving
- ▶ LCD / LED Display - Optional
- ▶ Compact & Sleek Design
- ▶ Inbuilt Surge & Lightning Protection*

* Tailor Made Products are available

GEESYS Technologies

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