



ISO 9001: 2008 Certified Co.

Servo Voltage Stabilizer

1 KVA To 2000 KVA

KEY FEATURES

- Integrated Circuits without Relays
- High Efficiency.
- Unaffected by line Frequency variation (Between 48 Hz – 52 Hz)
- Stepless Voltage correction at High speed without overshoot.
- Auto- Manual operation facilities from front panel.
- Zero wave form distortion and unaffected by load power factor.
- Continuous Duty cycle.
- Very high Reliability.
- Easy & Simple maintenance.

ADVANTAGES OF SERVO

- Reduction in MDI.
- Energy Saving
- Uniform & Constant Voltage.
- Improvement in power factor.
- Uniform quality of end product.
- Ensures longer life of electrical fitting cables, wires etc.
- Reduction in Breakdown of electrical & electronic Equipments and Machinery.

INTRODUCTION : Voltage at consumer end is never constant i.e. Voltage Fluctuation in supply line have become a common Phenomenon causing havoc to sophisticated Electrical & Electronic equipments like Computers, CNC Machines, Medical equipments, Motors, Industrial Automation, Communication equipments etc. Saturn Servo Voltage Stabilizer are designed to deliver a constant voltage which remains within a very narrow band of $\pm 1\%$ of the nominal voltage, thereby preventing failure of the connected load due to the aberrations in the supply line voltage. The proven technology that combines solid electrical engineering ensures a continuous, smooth and very stable output voltage.

WORKING OF SERVO : Saturn Servo Voltage Stabilizers employ a motor-driven variable transformer feeding the primary winding of a line transformer, for providing load safe voltage at the output. The output voltage is monitored by an electronic sensor and whenever the stabilized output voltage deviates from the set value due to a supply voltage or load current change, the sensor energizes the motor to rotate the variable transformer brush gear until the desirable voltage is restored. This method of stabilization inherently produces no harmonics and therefore no additional harmonics is injected into the incoming supply.

The durability and low cost of ownership make Saturn Servo Voltage Stabilizer a very economical and reliable solution. Saturn Servo Voltage Stabilizers are widely used for many critical applications.



TECHNICAL SPECIFICATIONS

Product	SERVO CONTROLLED VOLTAGE STABILIZER
Standard	Confirms to latest IS - 9815 & ISO 9001: 2008 Standards
Rating	1 KVA To 100 KVA (Single Phase) 3 KVA To 2000 KVA (Three Phase)
Type	Indoor, Floor Mounting
Input Voltage Range	170 - 270 V / 140 - 270 V AC (Single Phase) 360 - 460 V / 340 - 460 V / 320 - 460 V / 300 - 460 V / 270 - 460 V AC (Three Phase) or Any Voltage Range As per Customer requirement for both Single & Three Phase.
Output Voltage	220 / 230 / 240 V AC \pm 1% (Single Phase) 380 / 400 / 415 V AC \pm 1 % (Three Phase)
Output Wave form	True Reproduction of input, no distortion introduced by stabilizer.
Input Frequency	47 - 53 Hz
Response Time	10 m sec
Correction speed	Upto 35 V/sec
Correction Method	Stepless correction using variac
Cooling	Natural Air / Oil
Efficiency	Above 98 % at full Load & Above 95 % at half Load
Control Circuit	Fully Automatic IC Based solid state, Glass Epoxy control card for easy on Line serviceability
Duty Cycle	Continuous
Oil	Transformer Grade oil (Oil Cooled Model)
Operation	Auto / Manual
Compatibility to DG Set	Specially Designed control card for faithful operation on Mains as Well as DG Set.
Suitability	Suitable for 3 Phase Unbalanced / Balanced Supply, Unbalanced / Balanced Loads. (Three Phase Model)
Operating Temperature	- 15° C to 50° C
Humidity	Upto 95 % RH
Control Panel	Power on Indicator, Low/High Input Indicator, Auto / Manual Selector switch, Push switches to adjust output voltage in manual mode, Selector switch to monitor Input / Output voltage, potentiometer knob to adjust Output voltage within 5 % of the set Output voltage, Voltmeter to Indicate Output / Input Voltage
Transformer & Variac	Are wound with electrolyte Grade Copper of 99.9 % purity. Low loss Lamination is used to increase overall efficiency. This reduces Energy Losses and hence Saves Electricity
General	Painted / Powder Coated Metal Cabinet with earthing bolts & Lifting Hooks. (Oil Cooled Model)

As Standards, Specifications And Designs Change From Time To Time, Please Ask For Confirmation Of The Information Given In This Catalogue

Optional Features (which can be incorporated for extra cost)

- Isolation Transformer.
- Temperature Gauge.
- High and Low Voltage cut off system
- Overload and Short Circuit Protection.
- Phase sequence change protection
- Earth Fault Protection.
- Surge and R F Suppression system.
- Ammeter with CT to monitor the connected load.
- Change over Switch to by pass the stabilizer and use main voltage directly.
- Power factor Correction system to reduce power consumption for saving power.
- Single Phase Prevention Systems (in Three Phase) shuts down the stabilizer in case any of phases fails.

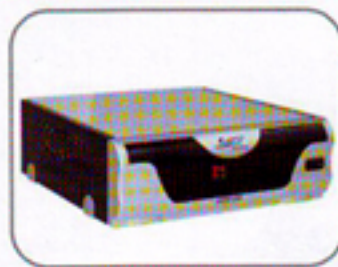


Air-Cooled Model

Saturn Other Product Range



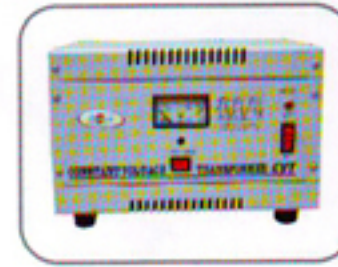
UPS (off/On-Line)



Inverter & Home UPS



Isolation Transformer



CVT & Stabilizer



R.O. Water Purifier