An ISO 9001:2015 Certified Company



# Highly Efficient

Energy Saving
Equipments



**Automatic Voltage Stabilizer, Transformers, Rectifier Equipments & Special Purpose Transformers** 



# Global's

# Introduction

We take the opportunity to introduce ourselves as a professionally managed organization and is being promoted by a group of Technocrats. They are having rich experience in the field of power management.

The company "Global Energy Saver" is involved in the manufacturing of natural oil cooled Rolling Contact Servo Controlled Automatic Voltage Controller (LT & 11/22/33KV HT), Distribution Transformer With Built-In HT Servo Stabilizer, Electro plating and other Chemical Processing Rectifiers, Ultra Isolation Transformer and other special purpose Industrial Transformer. etc. under the brand name **Global's** 

Global Energy Saver is an ISO 9001:2015 certified company. We have more than NINETEEN YEARS of experience towards the manufacturing and supply of a reliable and tested product to meet the National and International quality standards to attain the best of customer's satisfaction.

"Global" has been in the business because of its persistent Quality and Innovative product engineered by prompt after sales services to provide a quick up time to its customers. The main pillar of our success is technical competency and in house manufacturing facility to deliver a "Quality & Reliable" product and offer our customer the value for their money. We are operating on a "Pan India Level". We are having our service network available at 20 major cities in India.

The company philosophy is "Install & Forget" by supplying Innovative & quality product.

## Quality Policy:

Global Energy Saver is committed to satisfy the customers by supplying the quality products as per customers satisfaction at reasonable price and will continuously improve the effectiveness of quality improvement system.

## Some of our Valued Clients...

























































































# Rolling Contact Servo Controlled L.T. Automatic Voltage Controller (Stabilizer)



Voltage fluctuation is a common phenomenon in every part of the country. Inspite of the best efforts, no state electricity board can ensure constant voltage to the customer because of long and inadequate distribution lines and irregular load pattern on Distribution Transformers. Automatic Voltage Controller (Stabilizer) is an equipment to obtain constant voltage from fluctuating supply system. The industrial units running round the clock usually face the problem of **low and high voltage.** 90% of industrial load is of motors. Electric motors draw considerably high current at low and high voltage.

## Description of Global's Servo Controlled Automatic Voltage Controller

**GLOBAL ENERGY SAVER** Servo stabilizer primarily consists of the following:

## 1. Linear, plus/minus type Vertical Rolling Contact Voltage Regulator

In our regulator we are using heavy section of electrolytic rectangular cupper strips instead of copper wire to minimize the losses & increase the efficiency of equipment. We are also using self lubricating Carbon Roller Assemblies instead of ordinary Carbon brushes which offers more reliability and trouble free performance of the equipment.

#### 2. Double Wound Buck/Boost type Series Transformer

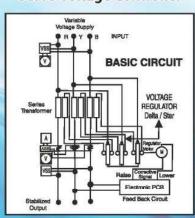
In our Buck/ Boost transformer we are using CRGO lamination to minimize iron losses and coils of Buck/ Boost Transformer are wound with heavy section of multi strips electrolytic copper to minimize copper losses for getting better efficiency of the equipment.

### 3. Electronic Control Circuit & Meter Panel.

Our Automatic Voltage Controller consists of very simple electronic circuit for monitoring and controlling voltage, repair & maintenance of which is very easy.



## Basic Circuit of L.T. Automatic Servo Voltage Controller





Inner View of L.T. Stabilizer



Carbon Roller Assembly



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## H.T. AVR (Servo Stabilizer)

H.T. Automatic Voltage Regulator (Stabilizer) to be installed on the incoming side of the Transformer and provides stabilize input voltage to the Distribution Transformers.

Advantages of Installing H.T. Automatic Voltage Controller:

- 1. H.T. Automatic Voltage Stabilizer supplies rated Stabilized Voltage to the transformer, there by the utilization of the transformer will be up to full rated capacity and is protected from High/Low Voltage Fluctuation.
- 2. Life of the Transformers are increased by installing Stabilizer on HT side.
- 3. Where Nos. of Distribution Transformer are installed in a plant, you can install only one H.T. Automatic Voltage Controller (Regulator).

 losses of transformer will reduce after installation of HT Automatic Voltage Controller.

- 5. Shorter Payback period.
- 6. In Higher Capacity, it is technically advisable to install H.T. Automatic Voltage Controller because current in L.T. Stabilizer is Very High.

#### Construction of H.T.AVR:

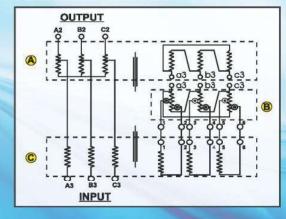
**Global's** H.T. AVR primarily consist of the following:

- A. Step Down Transformer
- B. Linear, plus/ minus type vertical Voltage Regulator.
- C. Buck/Boost Transformer.
- D. Electronic Control Circuit.

The item (A) & (C) will be housed inside a sheet tank fitted with cooling radiators and mounted on uni-directional rollers and item (B) will be housed in separate tank.



#### **Basic Circuit of H.T. AVC**



- A Step Down Transformer
- Noltage Regulator
- © Buck Boost Transformer

# DistributionTransformer with Built-In H.T. Automatic Voltage Stabilizer



**Global's** make Distribution Transformer with Built-In HT Automatic Voltage Controller is a unique product. The equipment is basically a combination of standard Distribution Transformer and HT Automatic Voltage Regulator. The fluctuating voltage from 'Grid' is initially stabilized by the HT AVR and then fed to the Transformer resulting in the constant LT output within +/-1% accuracy.

### Advantages of installing AVC

- Reduction in Breakdown of Electrical Equipments.
- Energy /Power Saving (Reduction in Electricity Bills).
- Uniform Quality of end product.
- Better efficiency in plant due to less Breakdowns.
- Improvement in Power Factor (Only in case of High Voltage).
- Reduction in Maximum Demand.
- 80% Depreciation as per Income TAXACT.

## Payback Period

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Owing to its high efficiency and associated benefits, the payback period for the cost of **GLOBAL ENERGY SAVER** Servo Voltage Stabilizers is from 6-12 months depending upon the input voltage variation and number of working hours of plant. The HIGHER the input voltage the SHORTER will be payback period.



Inner view of Linear plus/minus type Voltage Regulator



#### The Table below gives approximate quantitative advantages of Automatic Voltage Controller at various Fluctuation levels:

Input Voltage Variation	% Reduction is Breakdown possible		Approx. Power Saving Possible	
	Motor Load	Lighting Load	Motor Load	Lighting Load
380-400 Volts	Nil	Nil	Nil	Nil & No Servo Stabilizer Required
380-420 Volts	5%	10%	3%	5%
380-440 Volts	10%	20%	5%	10%
380-460 Volts	40%	40%	7%	20%
380-480 Volts	60%	60%	10%	30%



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## Distribution Transformer (Oil Cooled)



Global's Cover a wide range of Oil Cooled Transformers With Off Circuit Tap Changer / On Load Tap Changer (Up to 5000KVA in 11KV, 22KV & 33KV) conforming to the International standards of quality and safety for all types of industries & commercial Buildings. These Transformers are designed and developed by using latest technology therefore our customers save energy. Optimum efficiency is ensured by delicate proportioning of core and winding losses using CRGO M4 & MOH lamination. We are using different sizes of Electrolytic grade Copper conductor at different winding in group of multi strip to reduce losses and achieve better efficiency and life.



**Dry Type Transformer** 

Ultra Isolation Transformer / Step Up & Step Down Transformer (Oil Cooled & Air Cooled):

Ultra Isolation Transformer is a device which Isolate supply system from unavoidable surge & Spikes. These surge & spikes are very harmful for CNC programming and sophisticated system.



Ultra Isolation Transformer (Oil Cooled & Air Cooled)

## Suggestion For Industrial Units Having Oltc.

The units which have already installed OLTC with their Transformer, also require stabilizer due to the reason that the tapping of OLTC is not changed frequently. It is changed only when the problem of very high or very low voltage is felt. On the other hand, the Stabilizer continuously monitors the output voltage level. However the Input voltage range of Stabilizer can be kept low where OLTC is installed.







**Global's** make rectifiers Equipments is designed for 3 phase 50Hz AC Input supply and are suitable for operation at any voltage between 380 to 440 Volts, covering a wide range of voltage fluctuation.

It is also recommended that the input to the Rectifiers should be connected through a proper protective device, to provide positive protection to the personnel and the system, it can also help in maintenance if fault occurs.



Close View of Buck/Boost Regulator

Highly Efficient Servo Stabilizer for Bunglow's & Houses.





Servo Stabilizer (Balance Type)



Servo Stabilizer (Unbalance Type)