A minor fluctuation in voltage can lead to a digital equipment to malfunction or break down. To keep away from this, servo stabilizer have been invented which maintain accurate output and help save high-priced electrical appliances from injury brought on by electricity alterations at houses, workplaces, cement crops, flour mills, engineering models, and a variety of other areas. Servo Voltage Stabilizer is a 3-phase automatic controller which is developed to control over changes in the input voltage and give consistent yield +/- 0.5% accuracy. Distinctive stabilizers are utilized for diverse apparatuses relying on their determinations and utilizations which are accessible for home electronic machines such as Freeze, TV, AC and so on. A portion of the exceptional characteristics of Servo Voltage Stabilizer are in-manufactured seclusion transformer, audio visual alerts, sidestep component, extra metering, and voltage cut-off, outings for variations from the norm, single stage counteractive action, over-burden security, surge concealment, time delay instrument and delicate begin. These automatic controllers are accessible in limits of 5 KVA to 2500 KVA to suit the data voltage varieties & necessities of unique clients. Voltage Stabilizers hold electronic or electromechanical parts to direct one or more AC or DC.

The necessity of Servo Voltage Stabilizer is growing as we have become techno savvy and our day to day life style are surrounding among electronics accessories Such as TV, Freeze, AC, Computer and many more, and often these electronics equipments suffer with mal fluctuation of electrics, Servo Voltage Stabilizers saves our electronics equipments from fluctuation of electrics. These stabilizers are consists of unique voltage regulators in vertical rolling contact, linear plus/minus Type and easily solves many problems caused due to erratic voltages. Steady and smooth flow of power can only be achieved through a reliable power protection device therefore Servo voltage stabilizer fulfills these needs.

Servo voltage stabilizer is basically made to save the life of your costly electronic appliances by supplying and regulating the voltage fluctuations in the incoming AC voltage, it involves in comparing the output voltage that has steady reference voltage source. Each time when the output voltage differ the actual voltage, its solid state control circuit automatically operates the motor. The output voltage is compared with the reference voltage & the ensuing error signal ultimately controls the Servo Motor which checks the voltage by bringing it down the preset voltage. The main function of the device is to take an input voltage which may differ from 5 to 10 percent and give up a constant voltage that is independent of the voltage variance. The transformer of the device is connected to a capacitor called LC circuit.

## **Specifications of Servo Voltage Stabilizers:**

## Single Phase

Type: Indoor

Input AC: 170 V to 270 Volts Output: 230 V.A.C.  $\pm$  0.5% Adj. Frequency: 47 – 51 Hz. Single Line Regulation:  $\pm$  1%

Over Load Capacity: 120% for 1 minute. Cooling Air/Oil Capacity: 2 KVA to 20 KVA

## **Three Phase**

Type: Indoor

Input AC: 300 V to 460 V.A.C. Output :415 V.A.C ± 0.5% Adj.

Frequency: 47-51 Hz.

Phase Three Line Regulation: ± 1% Over Load Capacity:120% for 1 minute. Cooling Air/Oil Capacity:6 KVA to 2000 KVA

in both the models