

Combo Units

Combo units consist of an **Isolation Transformer** fitted with **Servo Voltage Regulators** to give a constant output voltage and with proper '**zero**' potential neutral. An Isolation Transformer is Delta/Star connected and input neutral is not used. The Star connected secondary provides a dedicated neutral thus ensuring balanced single phase as well as 3 phase voltages.

Apart from the voltage stability the provision of Isolation Transformer provides total protection against surges and the spike up to a level of 80-100 db. This makes the unit versatile for application in Radars, Medical equipment and many other similar applications which require totally noise (electrical) free installations.

Construction

As the name suggested, it consist of an Isolation Transformer Delta/Star connected. The primary of the Isolation Transformer is devided in to two parts:

- 1) **Fixed Winding**
- 2) **Variable winding**

The fixed winding is designed for the minimum input voltage and variable winding is designed for minimum to maximum input variation. The Servo mechanism is attached to the primary side and is Delta connected. The sensing is done from the output voltage and correction is provided by the Servo mechanism accordingly. The rest of the functioning is similar to a Servo Voltage Regulator. It does not use any buck and boost principle and relies upon the change of turns to maintain turn ratio suitable for maintaining constant output voltage.

Advantages

It combines the advantages of an Isolation Transformer as well as a Servo Voltage Regulator. The unit is far more economical as compared to the combined cost of a Servo Regulator and an Isolation Transformer. The unit is compact in size and weight also.