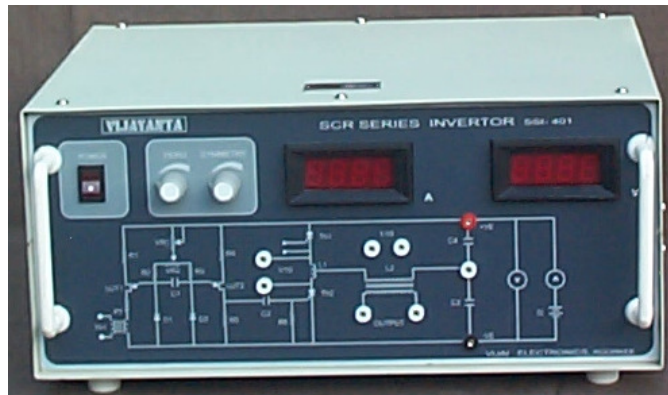


STUDY OF S.C.R. SERIES INVERTER, MODEL : SSI – 401.



SCR Series Inverter, Model – SSI – 401 has been designed to explain the operation of Series Inverter. An inverter is DC – AC Converter, i.e. it converts D.C. supply into AC supply. The SCR series inverter to study low capacity SCR Series Inverter input – output characteristics with a variable frequency. Inverters are used in a variety of applications i.e. in domestic installations as a source of standby electric supply, in commercial installations as a source of standby electric supply and un-interruptable power supply (UPS), in industrial installations for variable speed AC drives, induction heating etc. All cares have been taken to make this unit convenient and simple in working. SCR series inverter unit is fully self content only a Power Scope and multimeter is required to perform experiments.

- Weight : 6.5Kg Approximately
- Dimension : 250mm × 350mm × 150mm

The Set – Up consists of :

- ** D.C. Supply (25, Volt D.C.)
- ** Inverter transformer.
- ** Two SCR's.
- ** One Inductor.
- ** One Commutation Capacitor.
- ** One Digital D.C. Ammeter and Voltmeter
- ** Firing circuit and provision for connection of resistive load.
- ** Resistive load – Lamp load (25 Watts)
- ** Operating Manual.

All components are mounted on a glass epoxy P.C.B. Basic block diagrams is printed on the front panel and all test points are brought out to the banana sockets mounted on front panel for observations.

Experiments :

1. To study of series commutated SCR inverter and observe its waveform and effect of frequency upon output voltage.

Other Apparatus Required :

1. Power Scope / General purpose dual trace C.R.O.
2. Digital Multimeter.

Note: There may be any change in specification due to continuous R & D without notice.

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