



Transmission Line is the key learning concept for Electrical Engineers. Transmission Line Training System is exclusively designed to deliver the learning aspects of the electrical transmission line. Digital display is provided for easy measurement of Voltage, Current, Power, Power Factor, etc. These parameters help students to learn the characteristics of transmission line and calculations of the ABCD, H, Z parameters.

Students can perform various experiments like short, medium and long transmission line and their behavior. Also one of the important experiment which can be performed with this training system is Ferranti Effect.

### Features:

- Voltage, Current, Power, Power Factor Measurement
- Simultaneous display of sending & receiving end
- Inbuilt Variable AC Supply
- Big Graphical LCD
- Exclusive and attractive designed panel
- Stand alone operation
- Designed by considering all safety precautions
- Diagrammatic representation for ease of connections
- Extensive Learning Material CD
- 2 Year Warranty

### Scope of Learning

- To study Short Circuit, Medium, Long Transmission Line
- Determine the ABCD, H, Z and Image parameters of Short Transmission Line
- Determine the ABCD, H, Z and Image parameters of Medium Transmission Line
  - For T network
  - For Pi network
- Determine the ABCD, H, Z and Image parameters for Long Transmission Line
- Measure the receiving end voltage of each line under no load or lightly load condition to understand Ferranti effect
- Understand the performance of transmission line under different loads

### Technical Specifications

|                     |                          |
|---------------------|--------------------------|
| Mains Supply        | : 230 V $\pm$ 10%, 50 Hz |
| Single Phase Variac |                          |
| Input               | : 230 V                  |
| Output              | : 0-270 V                |
| Current             | : 0-5 Amp                |
| Display Measurement |                          |
| Voltage             | : 25 V                   |
| Current             | : 0.2 A                  |
| Active Power        | : 20 W [ 2000 W          |
| Reactive Power      | : 20 VAR [ 2000 VAR      |
| Apparent Power      | : 20 VA [ 2000 VA        |
| Loads               |                          |
| Resistor            | : 700 / 100 W            |
| Inductor            | : 800 mH/ 0.5 A          |
| Capacitor           | : 12.5 $\mu$ F/ 450 V    |
| Dimension (mm)      | : W 824 x D 350 x H 624  |

Note: Specifications are subject to change.

### Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,  
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,  
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com  
Website: www.tesca.in