



The UPS trainer is a very versatile training system, has been designed to explain a very interesting and frequently used switching based power supply - The UPS (Uninterrupted Power Supply).

The product is designed keeping in mind that a student can understand each block of UPS in a very easy way. Various test points have been provided so that one can check inputs and outputs of each block contained. Being different from a conventional block diagram internal structure of blocks is also shown. AVR (Automatic Voltage Regulator) is presented in such a way that a student can readily understand its functioning and pin configuration.

Since UPS is different from an inverter because its switching changeover time is less than 3 ms which is very less so a computer system doesn't get reboot.

#### Technical Specifications

**Input** : 190 to 260 V 10%, 50 Hz  
**Output** : 230 V

#### Transformer specifications

**Input** : 12-0-12 V  
**Outputs** : 0, 190, 220, 240, 260 V  
18-0 for battery charging

- ♦ In depth explanation of PWM switching technology, which is one of the most important feature of UPS
- ♦ A Low cost product demonstrating all basic concepts of UPS
- ♦ Various test points are provided so that one can easily measures the voltages of different sections
- ♦ Designed considering all safety standards
- ♦ Provided with a detailed Operating manual

#### Experiments than can be performed

- ♦ Study of PWM Technology
- ♦ To understand the overall functioning of UPS Trainer
- ♦ Study of AVR transformer section of UPS
- ♦ To study the UPS circuit in load condition
- ♦ To identify different faults and to study the systematic procedure of their troubleshooting in UPS circuit

Note: Specifications are subject to change.

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