



The SMPS trainer is a very adaptable product that has been designed to explain a very remarkable and frequently used Switching based power supply - The SMPS (Switched Mode Power Supply).

The Trainer is designed to understand each section of SMPS in straight forward way. Various test points has been provided so that one can observe the inputs and outputs of each block contained. Being different from a conventional block diagram internal structures of different blocks are also shown. Switching Transformer and Chopper (the Heart of SMPS) are also presented to readily understand their operation and pin

presented to readily understand their operation and pin configuration.

## **Technical Specifications**

**Input** :  $80 \text{ to } 230 \text{ V AC} \pm 10\%, 50 / 60$ 

Hz

Outputs : +12 V DC regulated : -12 V DC regulated : +5 V DC regulated

**Switching Transformer** 

Input : 320 V DC switching at 132

KHz

Output : 30 V AC (approx)

Fuse : 500 mA (Slow blow, spare

fuse is given with mains

socket)

- A low cost Training System demonstrating all basic concepts of SMPS
- In depth elucidation of Switching Transformer, which is one of the most important component of SMPS
- Variac can be connected with the kit
- Fault identification feature enabled
- Easy illustration of each block
- Designed with considering all safety standards
- Provided with a detailed Operating manual

## **Experiments that can be performed**

- Study of Switching Transformer
- Study of PWM switching device
- Study of Optocoupler
- Study of Regulation
- Study of SMPS with Variac input
- Study of various faults and their removal in SMPS circuit

Note: Specifications are subject to change.

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