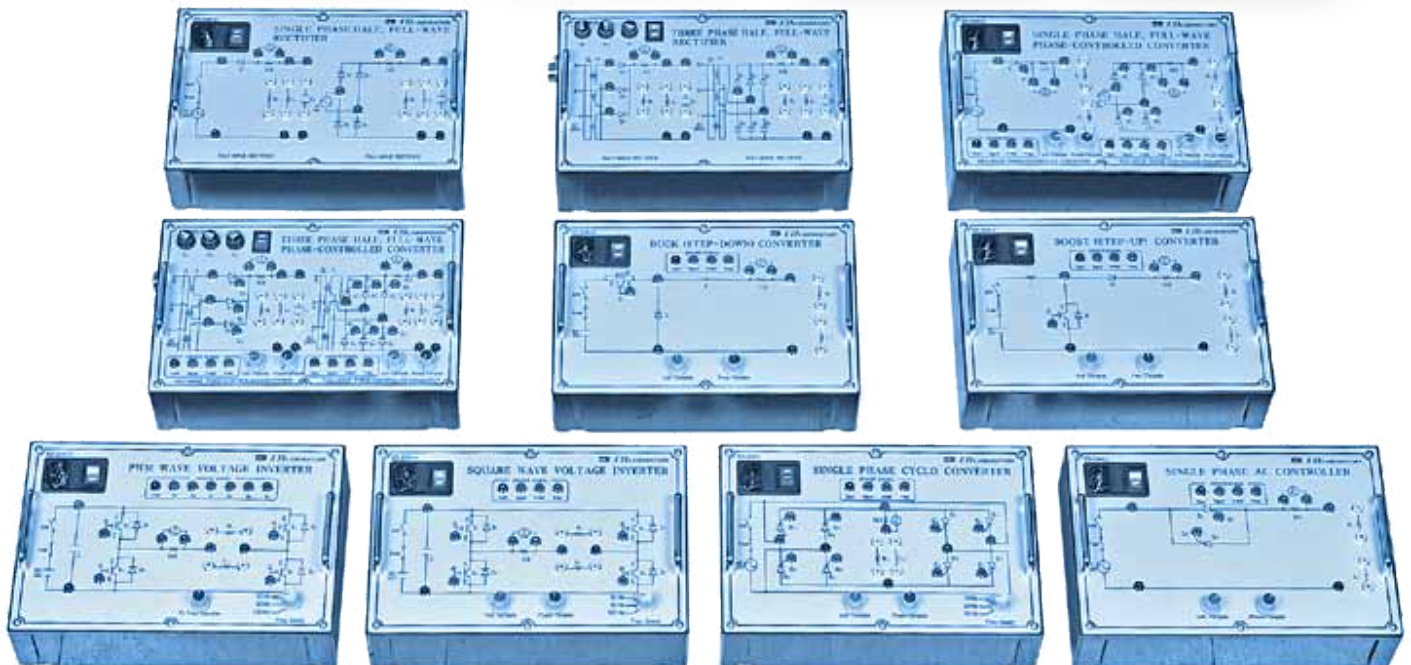




Power Electronics Trainer



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PET2000

DESCRIPTION

- Covers essential circuits needed to practice power electronics circuits
- Modular System

SPECIFICATIONS

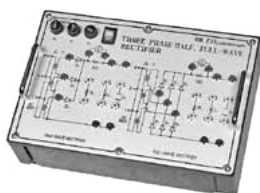
- SCR: GATE DRIVER IC
- IGBT: GATE DRIVER IC
- DIODE: 600V 10A
- IGBT: 1000V 25A
- SCR: 1000V 10A
- Input Voltage
 - » AC 220V (single-phase)
 - » AC 380V (3-phase)



PET2000A
Single-Phase Half Wave/Full Wave Rectification Circuit

To understand the principle and characteristics of Rectification Circuit that converts AC to DC by using the diode characteristics

- Input Voltage: AC 220V
- Output Load: Resistance load (10W 100Ω)
- Diode: 600V 10A
- Check Terminal: Input AC waveform, output voltage waveform, output current and diode counter-voltage



PET2000B
3-Phase Half Wave/Full Wave Rectification Circuit

To understand the principle and characteristics of 3-phase Rectification Circuit through the experiment to obtain DC output from 3-phase AC voltage using the diode characteristics

- Input Voltage: AC 3-phase 380V
- Output Load: 10W 100Ω
- Diode: 600V 10A
- Check Terminal: Measures input AC waveform, output voltage wave, output current, voltage and current of each phase



PET2000C
Single-Phase Half wave/Full Wave Phase Control Circuit

To understand the principle of phase control and characteristics of SCR through the experiment on SCR characteristics and phase control of Rectification Circuit and Gate Circuit

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- SCR Module: 1000V 10A
- Drive IC: SCR Gate Trigger Circuit
- Check Terminal: Measures input AC waveform, output voltage waveform, output current and countervoltage of SCR



PET2000D
3-Phase Half wave/Full Wave Phase Control Circuit

To experiment on phase control for SCR characteristics, Gate Circuit and Rectification Circuit, and Control Output's average voltage of output

- Input Voltage: AC 3-phase 380V
- Output Load: 10W 100Ω
- SCR Module: 1000V 10A
- Drive IC: SCR Gate Trigger Circuit
- Check Terminal: Measures input AC waveform, output voltage waveform, output current, voltage and current waveform of each phase



PET2000E
Sensible Circuit by IGBT

Experiments on how to control DC load with low output voltage using DC voltage as the power source and characteristic of IGBT which is commonly used as control element, and Drive Circuit

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- IGBT: 1000V 25A
- Drive IC: IGBT Gate Trigger Circuit
- Check Terminal: Measures input voltage, current waveform, output voltage waveform and output current

PET2000

DESCRIPTION

- Covers essential circuits needed to practice power electronics circuits
- Modular System

SPECIFICATIONS

- SCR: GATE DRIVER IC
- IGBT: GATE DRIVER IC
- DIODE: 600V 10A
- IGBT: 1000V 25A
- SCR: 1000V 10A
- Input Voltage
 - » AC 220V (single-phase)
 - » AC 380V (3-phase)



Experiment to acquire higher output voltage by returning the energy accumulated at the position of L to the power source

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- GBT: 1000V 25A
- Drive IC: IGBT Gate Trigger Circuit
- Check Terminal: Measures input voltage, current waveform, output voltage waveform and output current

Experiment to acquire AC output which is more closer to sine wave by providing the control output for converting DC voltage to AC voltage in the form of PWM

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- GBT: 1000V 25A
- Drive IC: IGBT Gate Trigger Circuit
- Check Terminal : Measures input voltage, current waveform, output voltage waveform and output current

Experiment on AC load by authorizing the control signal for converting the current voltage to AC voltage as square wave

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- GBT: 1000V 10A
- Drive IC: SCR Gate Trigger Circuit
- Check Terminal : Measures input voltage, current waveform, output voltage waveform and output current

Experiment on the frequency converter converting the AC power of input frequency to the other AC power directly

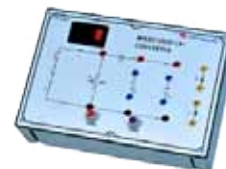
- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- GBT: 1000V 25A
- Drive IC: SCR Gate Trigger Circuit
- Check Terminal : Measures input voltage, current waveform, output voltage waveform and output current

Experiment on AC output control by changing the voltage value through the control of phase when the induction motor and AC output are required

- Input Voltage: AC single-phase 220V
- Output Load: 10W 100Ω
- Drive IC: SCR Gate Trigger Circuit
- SCR: 1000V, 10A
- Check Terminal: Measures input voltage, current waveform, output voltage waveform and output current

PET2000F

Circuit by IGBT



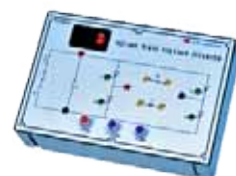
PET2000G

PWM Inverter
Circuit by IGBT



PET2000H

Square Wave
Voltage type
Inverter Circuit
by SCR



PET2000I

Single-Single
Cyclotron
Converter
Circuit by SCR



PET2000J

Single-phase AC
Power Control
Circuit by SCR

