

# 01

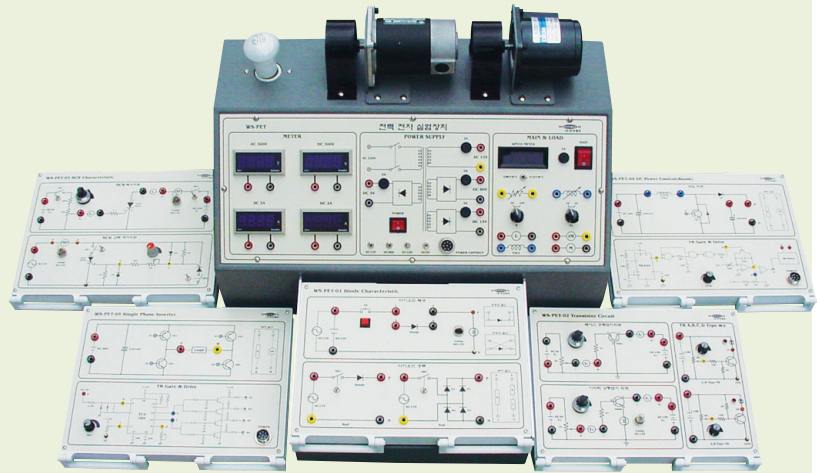
New Renewable Energy &  
Power Electronics

# WS-PET

## Energy Conversion Trainer

### Introduction

- It is basic power electronics trainer designed for study of power conversion process, which is the basis of solar and wind power generation.
- It contains gate circuit, driver circuit as a block type and user can easily connect power and signals. It is convenient to measure the waveform by using a checkpoint.



### Experimental List

- Diode Characteristic and Half-wave Rectifier Experiment
- Single-phase Full-wave Rectifier Experiment
- Transistor Characteristic Experiment
- SCR Characteristic Experiment
- Step-up Chopper Circuit (Boost Chopper Circuit)
- Single-phase Voltage Type Inverter Experiment

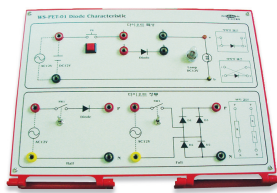
### Specification

#### Main Controller

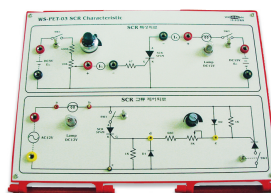
- **Power** : 1 $\phi$  AC
- **Built in Power** : AC 12V, DC 5V/15V/80V
- **Meter** : DC 300V/DC 2A/AC 300V/AC 2A
- **Rotary Speedmeter** : 5 Digit, 60p/rev Encoder
- **Size** : 500(W)x500(D)x250(H)mm
- **Load**
  - Lamp : 10W
  - L Load : 16 / 20 $\Omega$ , 2 Step
  - AC Motor : 25W, 110V, 4 Poles
  - R Load : 50 / 100 $\Omega$ , 2 Step
  - DC Motor : 30W, 90V, 3000 rpm

## Specification

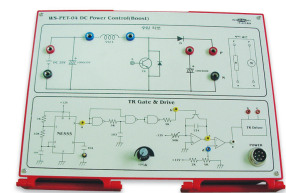
## Experimental Modules



| Diode Characteristic Module |



| SCR Characteristic Module |



| DC Power Control Module |

<p>■ <b>WS-PET-01</b> <b>Diode Characteristic Module</b></p> <ul style="list-style-type: none"> <li>• Characteristic/Rectification Experiment</li> <li>• 330(W)×235(D)×35(H)mm</li> </ul>	<p>■ <b>WS-PET-02</b> <b>Transistor Circuit Module</b></p> <ul style="list-style-type: none"> <li>• Characteristic / Common-earth Experiment</li> <li>• 330(W)×235(D)×35(H)mm</li> </ul>	<p>■ <b>WS-PET-03</b> <b>SCR Characteristic Module</b></p> <ul style="list-style-type: none"> <li>• Characteristic / AC Control Experiment</li> <li>• 330(W)×235(D)×35(H)mm</li> </ul>
<p>■ <b>WS-PET-04</b> <b>DC Power Control Module</b></p> <ul style="list-style-type: none"> <li>• Chopper / Gate &amp; Driver Experiment</li> <li>• 330(W)×235(D)×35(H)mm</li> </ul>	<p>■ <b>WS-PET-05</b> <b>Single-phase Inverter Module</b></p> <ul style="list-style-type: none"> <li>• PWM Voltage Type Inverter Experiment</li> <li>• 330(W)×235(D)×35(H)mm</li> </ul>	

### Accessory

- ▶ Experimental Manual : 1Copy
- ▶ Connecting Cord : Unit
- ▶ Power Cable : 1EA
- ▶ Simulation Program : 1Copy