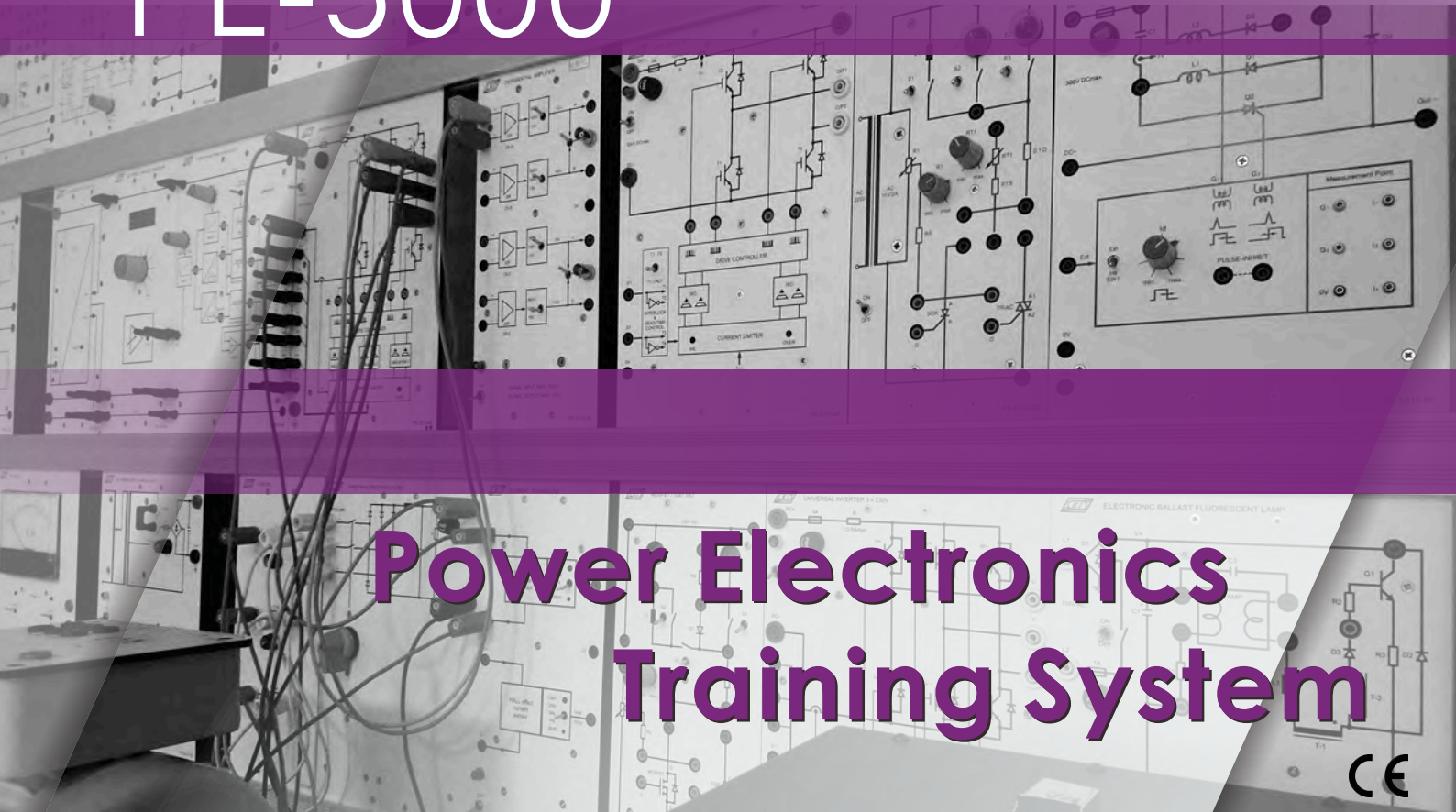
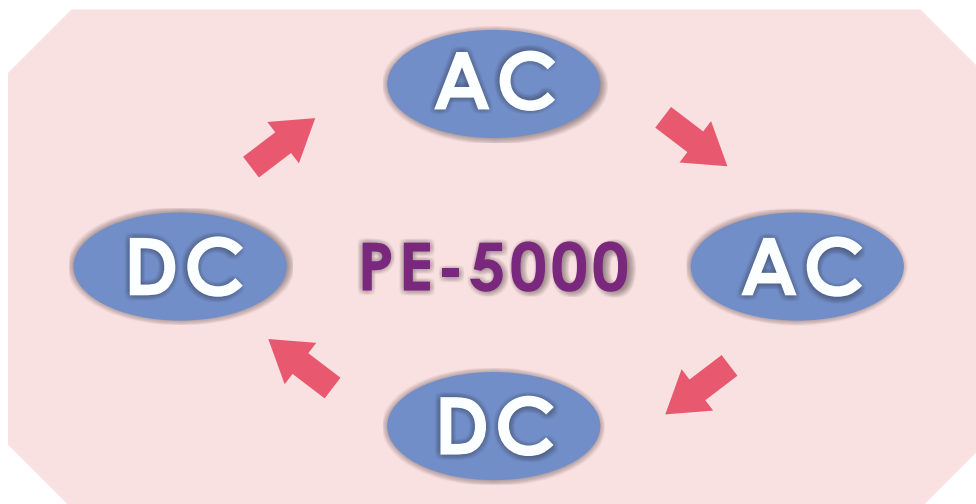


PE-5000

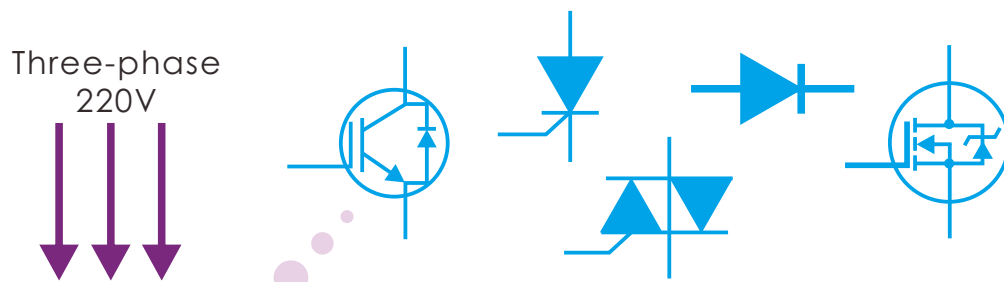


Power Electronics Training System

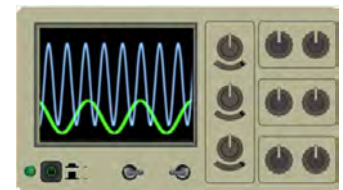
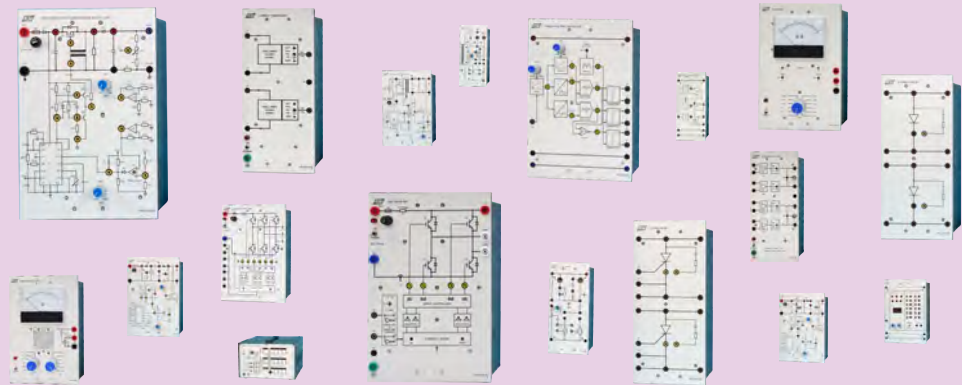


The PE-5000 is the combination of power, electronics and control. It has wide applications, from solid-state electronics to the control and conversion of electric power. Popular circuits of power electronics contain rectifiers, choppers and inverters. The experimental modules include converter, power supply, load, control and testing modules.

- Power conversion is the foundation of Power Electronics engineering.



Power Electronic Circuits



PE-5310-3C
Resistor Load Unit



PE-5310-3E
Inductive Load Unit



Motors (EM-3330-1A
or EM-3330-3C)

● List of Experiments

Chapter 1 : Basic Measurement and Characteristic of SCR and TRIAC

Chapter 2 : Single-Phase Rectifiers and AC Voltage Controller (AC→DC · AC→AC)

Chapter 3 : Three-Phase Rectifiers and AC Voltage Controller (AC→DC · AC→AC)

Chapter 4 : DC Choppers (DC→DC)

Chapter 5 : Inverters (AC→DC→AC)

Chapter 6 : Applications of Power Electronics

● Overview of Equipment Required

		Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Total
1.	PE-5310-1A DC Power Supply ($\pm 15V/2A$)		1	1	1	1	1	1
2.	PE-5310-1B DC Power Supply (0-40V/3A, 0-20V/6A)						1	1
3.	PE-5310-2A Reference Variable Generator		1	1	1	1		1
4.	PE-5310-2B Differential Amplifier	1	1	1	1	1	1	1
5.	PE-5310-2C Current Transducer		1	1	1	1		1
6.	PE-5310-2D Three Phase angle Controller		1	1				1
7.	PE-5310-3A RMS Meter	1	1	1	1	1	1	1
8.	PE-5310-3B Power Meter (0.3W-30KW)		1				1	1
9.	PE-5310-3C Resistor Load Unit		1	1	1	1		1
10.	PE-5310-3D Resistor Load						1	1
11.	PE-5310-3E Inductive Load Unit		1	1	1	1		1
12.	PE-5310-4A Flyback Switching Power Supply						1	1
13.	PE-5310-4B Boost Switching Power Supply						1	1
14.	PE-5310-4C Buck Switching Power Supply						1	1
15.	PE-5310-4D Buck-Boost Switching Power Supply						1	1
16.	PE-5310-4E Electronic Ballast Fluorescent Lamp						1	1
17.	PE-5310-4F IGBT Drive Set				1	1		1
18.	PE-5310-4G DC PWM Generator				1			1
19.	PE-5310-4H Single Phase PWM Controller					1		1
20.	PE-5310-4I Three Phase PWM Controller					1		1
21.	PE-5310-4J Three Phase Rectifier & Filter				1	1		1
22.	PE-5310-4K Universal Inverter 3x230V					1		1
23.	PE-5310-5A Power Diode Set		2	3				3
24.	PE-5310-5B Fuse Set		1	1	1	1		1
25.	PE-5310-5C Thyristor (800V/10A)		2	3				3
26.	PE-5310-5D SCR/TRIAC Set	1						1
27.	PE-5310-5E MOSFET / IGBT Set				1		1	1
28.	PE-5310-5F SCR DC Chopper Set				1			1
29.	EM-3340-3A Isolating Transformer	1	1	1	1	1	1	1
30.	EM-3340-3B System Transformer	1	1	1	1	1	1	1
31.	EM-3310-1E Three-phase Power Supply Module	1	1	1	1	1	1	1
32.	EM-3320-1C Magnetic Powder Brake Unit				1	1		1
33.	EM-3320-1N Brake Controller				1	1		1
34.	EM-3330-1A DC Permanent-magnet machine				1			1
35.	EM-3330-3C Three-phase Squirrel Cage Motor					1		1
36.	EM-3380-2B Experimental Frame	1	1	1	1	1	1	1
37.	EM-3390-2A Coupling				1	1		1
38.	EM-3390-2B Coupling Guard				1	1		1
39.	EM-3390-2C Shaft End Guard				1	1		1
40.	EM-3390-3A Connecting Leads Set	1	1	1	1	1	1	1
41.	EM-3390-4A Safety Bridging Plugs Set	1	1	1	1	1	1	1
42.	EM-3380-1A Laboratory Table (Option)	1	1	1	1	1	1	1
43.	EM-3390-1A Connecting Lead Holder	1	1	1	1	1	1	1

Note : A digital storage oscilloscope is required while doing above experiments which is optional.