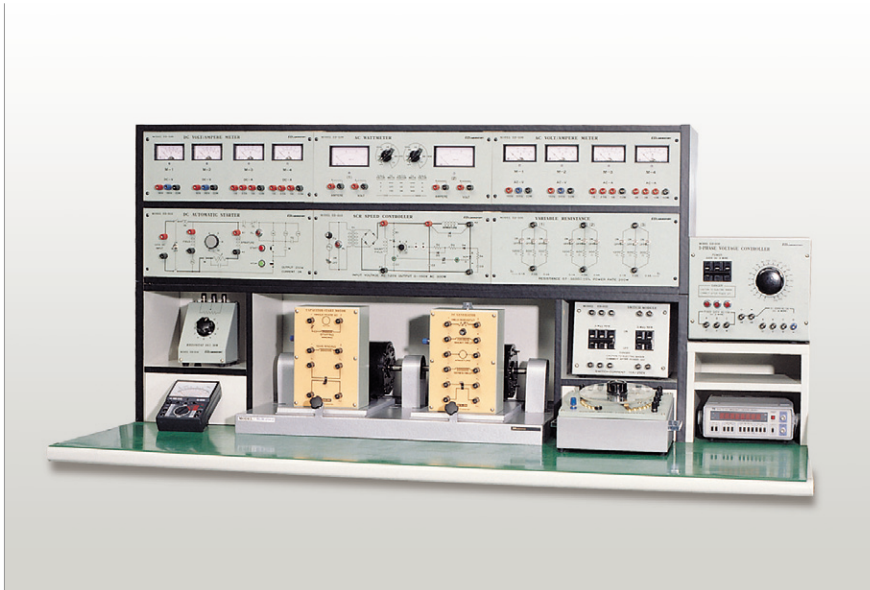


MOTOR/GENERATOR TRAINING SET

ED-5100

- Complete Motor/Generator Training System
- Various load characteristics(Resistance, L/C Reactance and Torque)
- Selectable System(ED-5100-1, ED-5100-2, ED-5100-3 or Full Set)



> SPECIFICATIONS

GENERAL CHARACTERISTICS

- **Motor Input Voltage**
 - » AC Motor
 - › 110V, 60Hz(2-Phase)
 - › 220V, 60Hz(3-Phase)
 - » DC Motor : 110V DC
- **Generator Output Voltage**
 - » AC Generation : 110V/220V, 60Hz
 - » DC Generation : 110V
- **Dimension**
 - » Motor/Generator : 240(W) x 276(H) x 345(D)mm

- » Panel Equipment : 480(W) x 180(H) x 210(D)mm
- » M/G Mounting Base : 810(W) x 70(H) x 395(D)mm
- » Bench-Top Console(BTC-180-6)
 - › 1500(W) x 790(H) x 380(D)mm
 - (with ED-5100-2 or ED-5100-3)

ACCESSORIES

- Patch Cord(ø4 Plug) : 1set
- Experimental Manual(DC, AC) : 2ea

MOTOR/GENERATOR TRAINING SET

ED-5100

Moter/Generator/Load-Torque



DM-250
DC Machine

- Motor : 1/3HP
- Generator : 110V, 2A
- RPM : 1800
- Weight : 18.5kg



SM-250-3
Synchro Machine

- Motor : 1/3HP
- Alternator : 120VA
- RPM : 1800
- Weight : 18kg



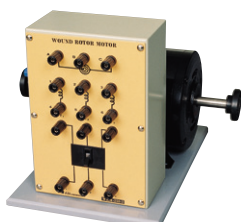
MFM-250
Multi-Function Motor

- Split-phase, Capacitor Start/Run
- Power : 1/3HP
- RPM : 1725
- Weight : 19kg



IM-250-3
Induction Motor

- Squirrel-cage rotor
- Power : 1/3HP
- RPM : 1725
- Weight : 16kg



WRM-250-3
Wound Rotor Motor

- Slip-ring, Synchro
- Power : 1/3HP
- RPM : 1725
- Weight : 22kg



RSIM-250
Repulsion Induction
Motor

- Wound Stator & Rotor
- Power : 1/3HP
- RPM : 1750
- Weight : 21.5kg

MOTOR/GENERATOR TRAINING SET

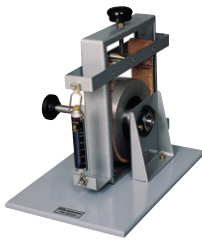
ED-5100

PART1
ELECTRICALS/
ELECTRONICS/
EMBEDDED



DYN-250 Electro Dynamometer

- Torque : 0~30(kg-cm)
- Rate : 1/3HP(Motor), 250W(Generator)
- Dimension : 380(W) x 200(H) x 390(D)mm
- Weight : 26.5kg



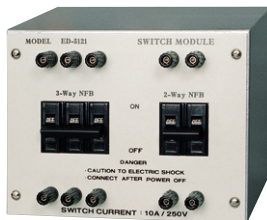
PB-250ED Prony Brake

- Max. Speed : 3000 RPM
- FS Torque : 0~30(kg-cm)
- Dimension : 300(W) x 330(H) x 360(D)mm
- Weight : 8kg



ED-5115 Wound Rotor Speed Controller

- Control Phase : 3-phase, 5steps
- Power Rate : 1/3HP
- Dimension : 320(W) x 180(H) x 235(D)mm
- Weight : 4.7kg



ED-5121 Switch Module

- Contacting
 - » 10A 2-way(1ea)
 - » 10A 3-way(1ea)
- Dimension : 250(W) x 190(H) x 200(D)mm
- Weight : 4.1kg



ED-5120 Three-phase Voltage Controller

- Input : AC 220V, 3-phase 60Hz
- Output
 - » 208V(15A), 3-phase(Fixed)
 - » 0~208V(3A), 4-wire
 - » Protection : NFB
- Dimension : 310(W) x 260(H) x 415(D)mm
- Weight : 19.5kg



ED-5101 Resistance Load

- Resistance Range : 57Ω~3600Ω ±5%
- Load Current : 2.1A(0.1A Steps)
- Power Rate : 250W(Max.)
- Load phase : 3-way(3-phase)
- Weight : 8.4kg

MOTOR/GENERATOR TRAINING SET

ED-5100

Moter/Generator/Load-Torque



ED-5104
Reactance Load

- Load Rate : 100W(Max.) x 3-way
- Resistance Range : $330\Omega \sim 2k\Omega$ (in 6step)
- Reactance(3-way)
- Weight : 16kg



ED-5105
DC Volt./AMP.
Meter

- Range(Voltage) : 0~50/150V(Dual Ind.)
- Range(Ampere) : 0~1/2.5/5A(Dual Ind.)
- Type of Meter : 80 x 40mm, 2.5 Class
- Protection : Over input protection
- Weight : 6.2kg



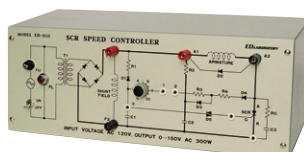
ED-5106
AC Volt./AMP.
Meter

- Range(Voltage) : 0~150/300V(Dual Ind.)
- Range(Ampere) : 0~1/2.5/5A, 0~2/5/10A
- Type of Meter : 80 x 40mm, 2.5 Class
- Protection : Over input protection
- Weight : 6.3kg



ED-5109
AC Watt Meter

- Range(Watt) : 0~300/600/1200W(Dual)
- Voltage Input : 150/300V
- Current Input : 2/4/8A
- Protection : Over current protection
- Weight : 8.8kg



ED-5113
SCR Speed Control

- Control Power : 10~300W
- Input Voltage : AC 110/220V
- Output Voltage : 0~150V Half Wave
- Maximum Current : 2A
- Protection : Over load protection
- Weight : 17.5kg



ED-5119
AC/DC Power Supply

- Power Input : AC 110V, 60Hz
- AC Output
 - » 0~140V, 4A(Variable)
 - » 110V, 15A(Fixed)
- DC Output : 0~125V(5A), 0~150V(1A)
- Protection : Over load protection
- Dimension : 495(W) x 190(H) x 360(D)mm
- Weight : 20kg

MOTOR/GENERATOR TRAINING SET

ED-5100

PART1
ELECTRICALS/
ELECTRONICS/
EMBEDDED



ED-5117
Adjustable Strobe Light

- Measuring rpm : 1170~2450 rpm
- Input Voltage : AC 110V, 50/60Hz
- Dimension : $\varnothing 120 \times 210$ L mm
- Weight : 4kg



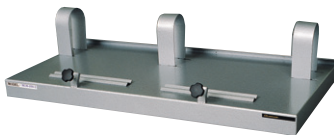
ED-5118
Digital Tachometer

- Measuring Range : 60~30,000RPM(2 ranges)
- Resolution : 1RPM
- Input Voltage : DC 6V(Battery UM-3x2ea)
- Dimension : 176(W) x 66(H) x 31(D)mm
- Weight : 2kg



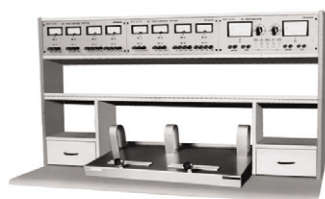
ED-5122
Power Factor Meter

- Measuring Range
» $\cos \phi$: -0.5~1~+0.5(or 0~100%)
- Accuracy : $\pm 0.25\%$ of Full Scale
- Auxiliary Power : AC 110/220V
- Dimension : 250(W) x 190(H) x 200(D)mm
- Weight : 5.2kg



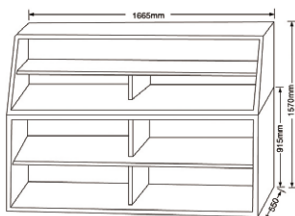
MGM-250-2
M/G Mounting Base

- Type : 2-unit fixing base
- Material : Metal Plate
- Dimension : 820(W) x 115(H) x 430(D)mm
- Weight : 11.3kg



BTC-180-6
Bench-Top Console

- 2-part separation type
- Panel Rack : 1ea
- Instrument Rack : 1ea
- Material : PB-HPM Board
- Weight : 95kg



MC-128ED
Mobile Rack Console

- 2-part separation type
- Panel Rack : 1ea
- Motor/Generator Rack : 1ea
- Material : PB-HPM Board
- Weight : 60kg

MOTOR/GENERATOR TRAINING SET

ED-5100

> SYSTEM COMPONENT LIST

ITEM	MODEL	CATEGORY			OPTION	FULL SET
		5100-1	5100-2	5100-3		
MOTOR & GENERATOR						
DC Machine	DM-250	•	•	•	X	•
Synchronous Machine	SM-250-3	•	•	•	X	•
Multi-Function Motor	MFM-250	•	•	•	X	•
Induction Motor	IM-250-3	X	•	•	X	•
Wound Rotor Motor	WRM-250-3	X	•	•	X	•
DC Motor	DCM-250	X	X	X	•	•
DC Generator	DCG-250	X	X	X	•	•
Capacitor Start Motor	CSM-250	X	X	X	•	•
Repulsion Induction Motor	RSIM-250	X	X	X	•	•
STARTER & SPEED CONTROLLER						
3 & 4 points DC Starter	ED-5111	•	•	•	X	•
DC Automatic Starter	ED-5112	X	X	X	•	•
SCR Speed Controller	ED-5113	X	X	•	X	•
Wound Rotor Motor Controller	ED-5115	X	•	•	X	•
LOAD & TORQUE MEASURING						
Variable Resistance Load	ED-5101	•	•	•	X	•
Variable Inductance Load	ED-5102	X	X	X	•	•
Variable Capacitance Load	ED-5103	X	X	X	•	•
Reactance Load	ED-5104	X	•	•	X	•
Electro-Dynamometer	DYN-250	X	X	•	X	•
Prony Brake	PB-250ED	X	•	•	X	•
METER PANEL						
DC Voltage/Ampere Meter	ED-5105	X	•	•	X	•
AC Voltage/Ampere Meter	ED-5106	X	•	•	X	•
AC Wattmeter	ED-5109	•	•	•	X	•
POWER SUPPLY						
AC/DC Power Supply	ED-5119	•	•	•	X	•
3-Phase Voltage Controller	ED-5120	X	•	•	X	•
OTHER SUPPORT PARTS						
Synchronizing Module	ED-5110	X	X	•	X	•
Series Field Rheostat	ED-5116	X	X	•	X	•
Adjustable Strobe Light	ED-5117	X	X	•	X	•
Tachometer	ED-5118	•	•	•	X	•
Switch Module	ED-5121	X	X	•	X	•
Poewr Factor Meter	ED-5122	X	X	X	•	•
Transformer Demonstrator	ED-5123	X	X	X	•	•
M/G Mounting	MGM-250-2	•	•	•	X	•
Bench-Top Console	BTC-180-6	X	•	•	X	•
Mobile Rack Console	MC-128ED	X	X	X	•	•