

# WSM-5

## Electric Machine Structure Trainer



### Introduction

- This trainer is designed for studying structure of a motor & generator.
- This trainer has each assemble part such as a rotor, magnetic pole and brush.
- It is possible to make and operate a motor and generator directly.
- It consists of several type electric machine.
  - Permanent magnet and field coil DC
  - Generator, rotary field type and rotary type
  - Generator, rotary converter and generator, permanent
  - Magnet & DC motor, synchronous motor & 3 phase induction motor
  - Shading coil type 1 phase induction motor

### Experiment

#### ■ Generator

- The Principle of Generator.
- DC Generator by Permanent Magnet
- AC Generator by Permanent Magnet
- Rotation Magnetic Field type Single Phase AC Generator
- The Three phase Generator
- Rotary Armature type Generator
- DC Generator by Magnetic Field Winding
- Rotary Converter

#### ■ Motor

- DC Motor by Permanent Magnet
- Shunt motor
- AC Commutator motor
- Squirrel Cage Induction motor
- Pole-number Alteration motor
- Resistor Motor (Spilt-Phase Motor)
- Series Motor by Magnetic Field Winding
- Compound motor
- Rotor Field

\* Product's design and appearance can be changed without any notice.

# WSM-5

## Electric Machine Structure Trainer

### Specification

- Main Voltage : 1 Phase 220~240V / 50/60Hz
- Working Table
- Working Frame
  - 3 Step
  - 220 ~ 240V Output Socket
- Module Storage Cabinet : 1EA

### Experiment Module

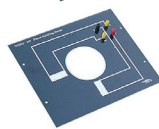
- WSM5-01  
Low Voltage Supply Module
- WSM5-03  
AC Electric Machine Yoke Module
- WSM5-05  
Field Resistor Module
- WSM7-07  
Three Phase Load Module
- WSM5-09  
Driving Motor Module
- WSM5-11  
DC Ampere Meter Module
- WSM5-13  
DC Volt Meter Module
- WSM5-02  
DC Electric Machine Yoke Module
- WSM5-04  
Starting Resistor Module
- WSM5-06  
DC Load Module
- WSM5-08  
Pole-Changing Switch Module
- WSM5-10  
AC Ampere Meter Module
- WSM5-12  
AC Volt Meter Module
- WSM5-14  
Analog DC Volt Meter Module

### Graphic Panel

- WSM5-M1  
DC Electric Machine



- WSM5-M3  
Phase Splitting Motor



- WSM5-M5  
Three Phase Motor



- WSM5-M7  
Rotary Converter Motor



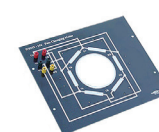
- WSM5-M2  
Compound Motor



- WSM5-M4  
Repulsion Motor



- WSM5-M6  
Pole Changing Motor



01

02

03

04

# WSM-5

## Electric Machine Structure Trainer



[ Assemble Part ]

### ■ Electric Machine Assemble Part

- WSM5-101 Rotor with Copper Wire
- WSM5-102 3 Pole Rotor
- WSM5-103 2 Pole Rotor
- WSM5-105 Wound Rotor
- WSM5-106 Squirrel Cage Rotor
- WSM5-107 Compass (Rotor Indicator)
- WSM5-108 Flat Type Copper Wire
- WSM5-109 (Circle) Permanent Magnet
- WSM5-110 Wide Magnetic Pole with Support
- WSM5-111 Narrow Magnetic Pole with Support
- WSM5-112 Polarization Magnetic Pole
- WSM5-113 Field Winding (300Turn)
- WSM5-114 Field Winding (700Turn)
- WSM5-115 Brush Holder
- WSM5-116 Plug Type Condenser A
- WSM5-117 Brush
- WSM5-118 Plug Type Condenser B
- WSM5-119 Axis of Rotor
- WSM5-120 Bulb (6V)
- WSM5-121 Bolt
- WSM5-122 Bolt
- WSM5-123 T Type Wrench
- WSM5-124 Bolt
- WSM5-125 Insulation Rotor
- WSM5-126 Spanner
- WSM5-127 Brush Holder Bolt

### Accessory

- Experiment Manual : 1 Copy
- Power Cable : 1 Unit
- Test Lead (Banana Plug) : 1 Set
- Dust Cover : 1 Set

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