

# MOTOR GENERATOR TRAINING SYSTEM

## GENERAL DESCRIPTION

The db-tech, DB-609 Electrical Machine Lab training system is an ideal training system for electrical power & energy conversion lab. This system is completed with the modules are: Three phase AC & DC power supply, Synchronous motor/generator, DC motor/generator, Squirrel cage induction motor, Electro-dynamometer and others module.

DB-609



## Specification

### DC Motor/ Generator Module:

- Motor rating 220V, 350W or higher, 1500r/min, 3.5A
- Generator rating 220V, 210W or higher, 1500r/min, 2.10A

### Synchronous Motor/Generator Module:

- Motor rating 220V/380V, 3phase, 1500r/min, 1A
- Generator rating 220V/380V, 3phase, 1500r/min, 0.5A

### Synchronizing Module:

- 3 lamps with TPDT switch, 0-100 Hz, 415 V

### Squirrel Cage Induction Motor:

- 3phase, 220V/380V, 50Hz, 740W or higher, 1400r/min

### Split Phase Motor Module:

- 180W , 220V, 2.8A, 50 Hz, 1400 r/min

### Electro Dynamometer Module:

- Torque 0.2-3.2 N-m, Speed 250-4000 r/min
- Supply: 0-240V DC

### Single Phase Transformer Module:

- Step up and/or step-down mode, input voltage 240VAC

**Three phase transformer module:**

- Primary 240V, Secondary 120-120 Volt, 600 VA, 50 Hz. Three Phase Transformer, Consists of 3 individual single phase 600VA transformer.

**Resistive Load Module:**

- Ohm: 800, 1200, 2000, 486, 570, 760, 390
- Load: 294mA, 196mA, 118mA, 490mA, 414mA, 316mA, 610mA
- Tolerance:  $\pm 10\%$

**Capacitive Load Module:**

- Capacitance: 1uF, 2.5uF, 4.5uF, 3.5uF, 5.5uF, 7uF
- Load: 75 $\mu$ A, 200mA, 350mA, 275mA, 425mA, 550mA
- Tolerance:  $\pm 10\%$

**Inductive Load Module:**

- Inductance: 7.6H, 3.8H, 2.2H, 2.4H, 1.7H, 1.4H, 1.1H
- Load: 82mA, 162mA, 290mA, 247mA, 370mA, 450mA, 537mA
- Tolerance:  $\pm 10\%$

**Power Supply Module:**

- Input Voltage: AC 220V/380V, 50Hz
- Input Current: 15 Ampere
- Output: Fixed AC, 3phase 220V/380V, 50Hz, 10A
- Fixed AC, 1phase: 220V, 50Hz, 10A
- Variable AC, 3phase: 0-240V/415V, 50Hz, 7A
- Fixed DC: 220V, 5A
- Variable DC: 0-240V, 7A
- Required accessories: Connecting Cables and Instruction manual

**Work Station:**

- Wheel mounted, one door cabinet with lock,
- Dimension (H x W x D): (1640 x 930 x 800) mm.