



**Electrical Machine Lab
Trainer**

Model: LT-809

Hotline

01737252881



Electrical Machine Lab Trainer

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Description

Model: LT-809

Electrical Machine Lab Trainer

Specifications :

1-Phase Motor Asynchronous Type with Starting Capacitor /
Single Phase Induction Motor With Starting and operating capacitors

-Rated Voltage : 220 Vac, 50 Hz

-Rated Current: 2.37 A

-Rated Speed: 1430 rpm (50Hz)

-Rated Power: 0.3 Kw

-Power Factor: 0.89

-Starting Capacitor: 100uF

-Operating Capacitor: 16uF

-Terminals: 4mm safety sockets.

Synchronous Motor / Generator:

Specification:

-This Machine used for motor and generator operation.

-Rating for motor operation:

-Rated Voltage: Delta 220 Vac ($\pm 5\%$)

-Rated Current: 1.17 Amp

-Excitation Voltage: 66 Vdc

-Excitation Current: 0.35 Amp

-Rated Speed: 1500 rpm (50Hz)

-Rated Power: 0.3 KW

-Power Factor: 1.0

Rating for Generator operation:

-Rated Voltage: Delta 220 Vac ($\pm 5\%$)

-Rated Current: 0.8 Amp

-Excitation Voltage: 66 Vdc

-Rated Speed: 1500 rpm (50Hz)

-Rated Power: 0.3 KW

-Power Factor: 1.0

3-Phase Wound Rotor Motor Asynchronous Type

Specification:

-Three Phase Rotor Winding Motor:

-Rated Voltage : Delta 220 Vac ($\pm 5\%$)

-Rated Current: 2.0 Amp

-Rated Power: 0.35 Kw, 0.3Kw

Model: LT-809

- Rated Speed: 1410 rpm (50 Hz)
- Power factor:0.7 Lagging ($\pm 5\%$)
- Coupling facility from other similar type motor of generator

Multifunction Motor

Specification:

This Machine Serve as Shunt, Series, Compound wound machine.

- As a shunt wound motor-
- Rated Voltage: 220 Vdc ($\pm 5\%$)
- Rated Current: 1.65 Amp
- Rated Speed: 1770 rpm ($\pm 5\%$)
- Rated Power: 0.25 KW
- As a separately excited generator
- Rated Voltage: 170 Vdc ($\pm 5\%$)
- Rated Current: 1.2 Amp
- Excitation Voltage: 200V dc($\pm 5\%$)
- Excitation Current: 0.1Amp
- Rated Speed: 2000 rpm ($\pm 5\%$)
- Rated Power :0.20 KW

3-Phase Cage Motor Asynchronous Type

Specification:

- Three Phase Squirrel- Cage Motor:
- Rated Voltage : Delta 220 Vac ($\pm 5\%$)
- Rated Current: 1.4 Amp
- Rated Power: 0.29 Kw, 0.3Kw
- Rated Speed: 1420 rpm (50 Hz)
- Power factor:0.82 Lagging ($\pm 5\%$)
- Coupling facility from other similar type motor of generator

DC Permanent-magnet Machine:

This Machine use as motor and generator operation.

- Rating for motor operation
- Rated Voltage : 180 Vdc
- Rated Current 2.7 A
- Rated Speed: 2500rpm
- Rated Power: 0.4KW

Digital Power Factor Meter:

Modular Design

- Measurement Range : -0.50 to 1.00 to +0.50 (240V/5A)
- Display: 3 1/2 digits 14.2 mm LED
- Accuracy: $\pm 1\%$ ± 1 digit
- Resolution:0.01V
- Input Impedence: ≤ 0.1 Ohm

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- Power Source: 220 Vac, 50 Hz
- Terminals: 4mm safety sockets.

Digital ACA Meter:

Modular Design

- Measurement Range : AC 0 to 10A
- Display: 3 1/2 digits 14.2 mm LED
- Accuracy: $\pm 0.3\% \pm 1$ digit
- Resolution: 0.01A (Maximum)
- Input Impedence: ≤ 0.1 Ohm
- Power Source : 220 Vac, 50 Hz
- Terminals: 4mm safety sockets

Digital DCA Meter:

Modular Design

- Measurement Range : DC 0 to 10A
- Display: 3 1/2 digits 14.2 mm LED
- Accuracy: $\pm 0.3\% \pm 1$ digit
- Resolution: 0.01A (Maximum)
- Input Impedence: ≤ 0.1 Ohm
- Power Source: 220 Vac, 50 Hz
- Terminals: 4mm safety sockets.

Three Phase Power Supply Module:

Modular Design

- Over current/Leakage protection switch
- Start and emergency off buttons
- Working Voltage: 3-Phase, 220 Vac, 50Hz
- Rated Output: 3-Phase 220Vac/10A
- Fuse Protection
- Terminals: 4mm safety sockets

3-P Current Limit Protection Switch Module:

Modular Design

- Switch Load: 400 Vac/10A
- Current Setting Range : 2.5 to 4.0 A (Adjustable current limiting)
- Terminals: 4mm safety sockets

Magnetic Powder Brake Unit:

-Power Supply: 110/220Vac

- Type: forced air-cooling magnetic powder brake
- Braking Torque: 0.999 kg-m (9.999 N-m)
- Speed Sensing: Photoelectric type, 60 pulses/rev.
- Torque Sensing: Strain-gage torque transducer, torsion bar
- Temperature Sensing: thermal switch

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-Base Unit: integral, aluminum alloy

-Connecting to controller via the dedicated cable.

-Cooling Fan : 12 Vdc, 0.29 A

Analog DC Output:

-Torque Output (1 V/1 kg-m)

-Speed Output (1 V/1000 rpm)

-Power Output (1V/1 KW)

Brake Controller:

-Power Supply:110/220 Vac

-Connecting to magnetic powder unit via dedicated cable.

-4-digit 7-segment LED Display :2 sets

-Display speed (S), torque (T) and power (P) of the motor under test

-Display control voltage (V) and current (I) applied to Magnetic

Powder Brake Unit:

-LCD Character Display (20 x 2) & Buttons for command control for entry and display

-LCD Graphic Display (128 x 64)

-Graphically display Characteristics of brake and motor

-Display, record and save various values presenting on LED display.

-Display range:

Torque : 0 to 9.99 N-m

Speed: 0 to 9999 rpm

Power: 0 to 9.999 Kw

Voltage: 0 to 24 V

Current: 0 to 0.999 A

-Open loop control mode

-Closed loop control mode

-Fault detection and indication

-Communicating with PC through RS-232 (Standard) port

-Dedicated hardware and software allow processing and displaying data on PC.

DC Power Supply Unit:

Module Design

-Working Voltage: 3 phase, 220 Vac (50Hz)

-Fixed Output Voltage : 200 Vdc/6A Max

-Adjustable Output Voltage: 0 to 240 Vdc/10A max

-With current limiting and start functions

-Fuse Protection

-Terminals: 4mm safety socket

AC/DC Power Supply:

-Bench top Design

Model: LT-809

-Working Voltage:3 Phase 220Vac (50Hz)

-Output Voltage: 3 Phase 0 to 260 Vac/5Amp

-DC 0 to 230V/5Amp

-Fuse Protection

-Terminals: 4mm safety sockets

Winding Machine Starter:

-Modular Design

-Control Three- Phase motor Starting

-Starting Impedance: 5 Steps, 3 resistors, 0 to 1.65 ohm each

-Rated current: 3 Amp

-Terminals: 4mm safety sockets

3 Point and 04 Point Starter

Specification:

-Four Pole Switch modules:

-Modular Design

-Switch Load: 400V/15 Amp

-Terminal: 4mm safety socket

Synchronous Machine Exciter Module:

Working Voltage: 220 Vac, 50 Hz

Output Voltage: AC

0 to 220 V/0.8 A

0 to 120 V/1.6 A

0 to 400 V/2.5 A

Output Voltage: DC

0 to 220 V/0.8 A

0 to 120 V/1.6 A

0 to 400 V/2.5 A

Terminal: 4 mm safety socket

System Transformer:

-Rated Power : 1.5 KVA

-Primary: Depend on the local line Voltage

-Secondary: 3 Phase 220Vac

-Frequency:50/60Hz

Coupling:

-Materials: Rubber

-Coupling sleeve for mechanical connection

-Between two electrical machines.

Digital RPM Meter:

-Modular Design

Model: LT-809

-Measurement Range: 0~ 99999 rpm

-Display:5 digits

-Accuracy:±0.1%, ±1 digit

-Power Source:220Vac, 50/60 Hz

-Terminals: 4mm safety sockets.

DIGITAL WATT METER:

Specification:

-Modular Design

-Power: single/Three Phase,0~2 kw (240V/5A)

-Display:4 1/2 digits 14.2 mm LED.

-Accuracy:±0.2%, ±1 digit

-Resolution:1 V

-Input Impedance:≥1MΩ

-Power Source:220Vac

-Terminals: 4mm safety sockets.

DC Starting Rheostat Rotor Starting

Specification:

Modular Design

-Resistance:47ohm circular rheostat, adjustable

-Current: 1.4 A

-Rated Power: 100 W

-Fuse Protection

-Terminal : 4 mm safety sockets

Shunt Field Rheostat Generator:

Modular Design

-Resistance:1K ohm circular rheostat, adjustable

-Rated Power: 300 W

-Fuse Protection

-Terminal : 4 mm safety sockets

Shunt Field Rheostat Motor:

Specification:

-Modular Design

-Resistance:2.2K ohm circular rheostat, adjustable

-Current: 150 mA

-Rated Power: 50 W

-Fuse Protection

-Terminal : 4 mm safety sockets

Series Field Rheostat Motor:

Specification:

Model: LT-809

-Modular Design

-Resistance: 2.2K ohm circular rheostat, adjustable

-Current: 150 mA

-Rated Power: 50 W

-Fuse Protection

-Terminal : 4 mm safety sockets

Accessories:

Connecting Wire: 1 set

User Manual: 1 Nos

Standard Accessories

Others:

Brand: LT

Country of Origin: China

Manufacturing: Assemble in Bangladesh

Training

Electrical Machine Lab Trainer

Mobile

01737252881

- ▶ Address: 246, West Monipur,
Mirpur (60 feet road), Dhaka-1216
- ▶ E-mail: way2labtech@gmail.com
- ▶ www.labtech-engineering.com

CONTACT US