



Basic Electric Traction and Lighting Circuit Trainer

Equipment Overview

- This trainer is designed for the training of electric traction control and lighting circuit, it adopts double sided cabinet structure to save the operation space and ensure operation for two training groups at the same time.
- The wiring base board is mounted with various electrical control related low-voltage apparatus, including fuse protectors, contactors, intermediate relays, time relays, thermorelay, travel switches, buttons, signal lights, change-over switch, voltmeter, ammeter, etc. All contact points of electric appliances are connected with terminal blocks for efficient wiring and long term service life.
- Safety protection system: Before each experimental module is powered, the three phase power source from electrified wire netting passes through leakage protector, current /voltage protector and breaker. Leakage protection device and overcurrent protection device are adopted to cut off the main power automatically when leakage, short circuit or overload happens.



Three phase squirrel cage asynchronous motor (1)



voltage: 220V
connection: Y/ Δ
power: 60-90W
current: 0.69A
speed: 1400r/min
centrifugal switch: yes

Three phase squirrel cage asynchronous motor (2)



voltage: 220V
connection: Y/ Δ
power: 180W
current: 0.4A
speed: 1400r/min

Single phase capacitance type motor



slow terminal
medium terminal
fast terminal

Note :
Due to keeping innovation,
the specification and
Machine pictures or color
are subject to alteration
without notice!

Connecting leads



two-end banana plug wire
U type cold-pressed
terminal and banana plug
wire

Technical Parameters

1. Input voltage: three phase 380V(or 220V) $\pm 10\%$, 50Hz, 20A
2. Working environment: Ambient temperature range: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, Relative humidity $< 85\%$ (25°C), Altitude $< 4000\text{m}$
3. Dimensions: 800mm $\times$ 520mm $\times$ 1790mm (approx.)
4. Packing weight: 150kgs



SIDE



BACK

Training Content

Electric Traction Circuit

- Three phase asynchronous motor direct starting control
- Three phase asynchronous motor contactor jog control
- Three phase asynchronous motor contactor self-locking control
- Manual reduced voltage starting control of three phase asynchronous motor stator series resistance
- Automatic reduced voltage starting control of three phase asynchronous motor stator series resistance
- Automatic Y/Δ starting control
- Contactor interlocked three phase asynchronous motor forward and reverse control
- Button interlocked three phase asynchronous motor contactor forward and reverse control
- Double-interlocked three phase asynchronous motor forward and reverse control
- Three phase asynchronous motor unidirectional reduced voltage starting and reverse braking control
- Three phase asynchronous motor dynamic braking control
- Three phase asynchronous motor sequential control
- Three phase asynchronous motor remote and local control
- Jog starting control of three phase asynchronous motor forward and reverse
- Work table automatic round trip control
- Work table automatic jog round trip control
- X62W type universal milling machine spindle and feed motor gang control
- C620 lathe control circuit
- Electric block electrical control circuit
- Unidirectional motor starting control

Lighting Circuit

- Incandescent light control circuit
- Fluorescent lamp control circuit
- Touch switch controlled incandescent light control circuit
- Voice operated switch controlled incandescent light control circuit
- Single phase kilowatt hour meter installation circuit
- Installation of three phase-four-wire active kilowatt hour meter
- Installation of three phase-four-wire reactive kilowatt hour meter
- Voltmeter and ammeter installation circuit
- Wiring circuit of using universal change-over switch and voltmeter to measure three phase line voltage
- One current transformer used single loop wiring circuit
- Two current transformers connected incomplete star connection circuit
- Three current transformers connected star connection circuit
- Two current transformers differential connected wiring circuit
- Three current transformers connected delta connection circuit

Note :

Due to keeping innovation, the specification and Machine pictures or color are subject to alteration without notice!