

POWER FACTOR CORRECTION TRAINING PANEL COMPLETE WITH RLC LOADING UNITS

EM-600306



**SCIENSCOPE
EDU-LABS**



The unit is specially developed for use in electrical teaching laboratory for the purposed of demonstrating the basic concept and the operating principle of power factor correction system.

FEATURES

- All Required components are systematically and didactically arranged on a sloping study panel with all internal components and circuit schematically represented by screen-printed mimic diagrams.
- Actual industrials system but specially adapted for teaching and demonstration purposes.
- Compact and self-contained unit available in a bench-top and mobile version.
- Circuit construction is achieved by patching together the desired components.
- All internal components and circuits are terminated as 4mm safety-type terminal sockets.
- Internal circuits are fully protected against overload and short-circuit faults.

TECHNICAL SPECIFICATIONS

- Input: 240/415VAC, 20A, 3 phase, 50Hz.
- Output: 240/415VAC, 20A, 3 phase, 50Hz to be connected to resistive, inductive and capacitive loading units.

POWER FACTOR CORRECTION PANEL

EM-60-01-06Q

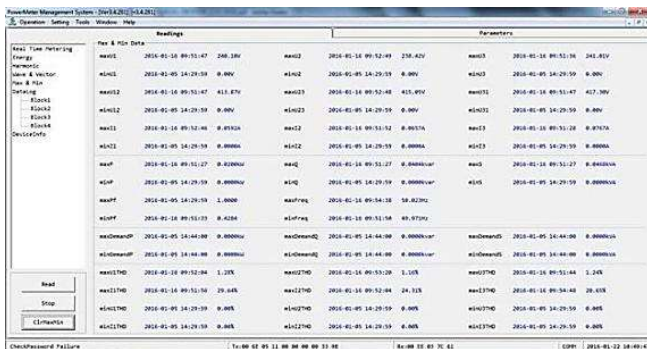


- 3 x 22mm Pilot Lamp (R/Y/B) Main Phase Lamp
- 1 x Power Factor Regulator/Controller 6 steps
- 6 x Capacitor Banks of assorted ratings 1KVAR
- 1 x Circuit Breaker 32A TP
- 6 x Circuit Breaker 16A TP
- 6 x Magnetic Contactors 240V
- 6 x Indicating lights 240V
- 1 x 32/5A Class 3, 5VA C/T Coil

- 1 x Three Phase Power Quality Meter
 - Display Type: HD LCD Display
 - Real-Time Measurement
 - Phase voltage: V1, V2, V3, Vlnavg Line voltage: V12, V23, V31, Vllavg Current: I1, I2, I3, Iavg
 - In Active power: per phase and total active power
 - Reactive power: per phase and total reactive power
 - Apparent power: per phase and total apparent power
 - Power factor: per phase and total power factor
 - Energy And Demand
 - Power Quality Analysis
 - Voltage unbalance, Current unbalance, Voltage THD (Total harmonic distortion), Odd-even harmonic distortion Voltage individual harmonics, Crest factor Current THD, Odd-even harmonic distortion Current individual harmonics, K factor
 - Communication
 - Ethernet 10/100M network port
 - RS485 communication port
 - MODBUS RTU communication protocol
 - PowerMeter Management Software Interface

POWER MANAGEMENT SOFTWARE

EM-30-13-16-PMS



- PC management software; web browse data
- True-RMS measuring parameters
- ANSI and IEC 0.2 accuracy class
- Power quality analysis
- 4 quadrant energy

- Data logging
- Measure individual harmonics from 2nd to 49th
- TOU, 4 Tariffs, 6 Seasons, 6 Schedules
- Trend Logging
 - Phase voltage, Line voltage, Current, Active power, Reactive power, Apparent power, Power factor, Frequency Three-phase, unbalance, Active energy, Reactive energy, Apparent energy, Phase
- Settable Logging Interval
 - Logging from 1min to 60min, interval settable
- Software Accessibility
 - 4 Tariffs (DataLog) Sharp, peak, flat, valley in different season and schedule (TOU)

**RESISTIVE LOAD UNIT
EM-30-07-01 (2KW)**



Single-Three phase Resistive Load 7 steps variable per phase

- Max Power: 3 X 700Watt
- Voltage: 240/415 Volt
- Unit Type: Top Table

Main Characteristics

- Can be connected in Series, Parallel, Star and Delta configurations.
- Can be connected to AC Single and 3 Phase sources.
- Controlled by 3 x 3 circuit breaker switches for 7 steps selection.

**INDUCTIVE LOAD UNIT
EM-30-07-02 (2KVA)**



Single-Three phase Inductive Load 7 steps variable per phase

- Max Power: 3 X 700VA
- Voltage: 240/415 Volt
- Unit Type: Top Table

Main Characteristics

- Can be connected in Series, Parallel, Star and Delta configurations.
- Can be connected to AC Single and 3 Phase sources.
- Controlled by 3 x 3 circuit breaker switches for 7 steps selection.

**CAPACITIVE LOAD UNIT
EM-30-07-03 (2KVA)**



Single-Three phase Resistive Load 7 steps variable per phase

- Max Power: 3 X 700VA
- Voltage: 240/415 Volt
- Unit Type: Top Table

Main Characteristics

- Can be connected in Series, Parallel, Star and Delta configurations.
- Can be connected to AC Single and 3 Phase sources.
- Controlled by 3 x 3 circuit breaker switches for 7 steps selection.

**4MM SAFETY STACKABLE TEST LEAD SET
EM-30-15-02**



- The set consists of 25 leads in 5 different coded colors (Red, Yellow, Blue, Black and Green) and lengths chosen to allow the realization of all experiment manual.
- Leads are capable of 15A current safety plugs.
- Safety Terminal Plug : 4mm
 - 250mm x 7 units
 - 500mm x 6 units
 - 1000mm x 6 units
 - 1500mm x 6 units

Note: Due to products continuous development process, layout and specification may change without prior notices.