

POWERMASTER[®] MODEL 8833

Transformer Rated Metering Site Training Bench



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The PowerMaster[®] 8813 is a true 3-phase training simulator for metering technicians to help improve their troubleshooting skills for applications encountered in the field. The Model 8813 provides a safe, controlled environment to help the trainee accelerate their education in meter testing and wiring verification. The training simulator also features the ability to simulate over 130 commonly found metering errors in the field. Paired with the Training Administrator Station (TAS), the bench can be controlled remotely over a closed WIFI network, and each trainee's performance is recorded and time stamped for every session.



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The Trainer's Interface

The Training Administrator Station (TAS), which can pair up to four Model 8833 and/or Model 8813 training benches, is a remote controller that uses a touchscreen Microsoft tablet communicating over a closed WIFI network. The handheld TAS gives the Trainer full control to remotely setup the bench, modify the test scenario, and monitor the Trainees real time. The Trainer has the ability to record the performance of the Trainee for each scenario, and is recorded and easily exported to a spreadsheet. In Technician mode, the PowerMaster® 8833 also uses an integrated Windows-based touchscreen interface to select and modify a simulated error scenario while located at the bench. This display is mounted on an articulating arm to maximize bench space and enable line-of-sight while standing.

Troubleshoot Metering Connections

The PowerMaster® 8833 also allows the technician to test meters under customer load (passive) or provide an artificial load (active) from the PowerMaster test equipment. The Trainer can simulate field conditions by adjusting amplitudes and phase angles to test the electric meter under a variety of conditions, including conditions beyond its calibrated range. Using a variety of Error Scenarios, Trainees can safely learn about metering problems they may encounter in the field for a customer complaint call.

Troubleshoot Instrument Transformers & Wiring

The Model 8833 allows the technician to test both CTs and PTs installed on the training simulator using a PowerMaster analyzer. The configuration allows easy access for flexible current probes, clamp-on probes, or Amp/Volt Litewire probes. By simulating different amplitudes from the Model 8833, the technician can learn how instrument transformers perform outside of their rated accuracy range.

Simulate Errors Found in the Field

One of the most powerful features of the Model 8833 is the ability to simulate more than 100 metering errors commonly found in the field within the comforts and safety of a lab environment. The PowerMaster® 8833 is designed to automate pre-defined error scenarios that do not require the user to physically change or modify any wiring. The Trainer can also override amplitudes and phase angles for further troubleshooting and run simulations of prior errors encountered in the field.

Safety

The PowerMaster® 8833 takes every consideration to ensure the classroom maintains a safe environment for teaching. The Model 8833 has a resettable Ground Fault Interrupt (GFI) for each energized point with a 5mA trip point and <200ms trip response. The PowerMaster® 8833 also includes a lighted beacon mounted on top to alert when the bench is active, and each meter, CT, and PT have illuminated lights when energized. Before a test can begin, the Trainee must interact with the bench to ensure all PPE is properly outfitted. The Model 8833 has a manual Emergency Stop integrated both on the bench and located on the touchscreen display. In addition, the TAS can remotely E-Stop a single bench or all connected benches simultaneously.

Specifications

Training Administrator Station (TAS)

- Interface on Windows Tablet In Ruggedized Case
- Full Control Up to 4 Training Benches In One Display
- WIFI Communication to Each Training Bench
- Display of Bench Status, Scenarios, and Trainee's Performance

Training Bench

- Locking Casters
- Locking Drawers
- Storage Shelf
- Custom Wiring Color & Test Switch Configuration

Three Phase Voltage and Current Source

- 19" Rack mounted design integrated in bench
- 69-480V (277 phase-Neutral; 480V phase-phase) RMS max per phase
- 100mA-30A RMS max per phase current source
- Phase angle adjustment from 0° to 360° in 0.1° steps each phase
- Frequency generation at 60Hz
- Ability to remove from bench for maintenance

Metering Services

- 3S Meter (120V & 240V)
- 4S Meter (120V)
- 5S/45S Meter (3W Delta & 3W 1-Phase)
- 6S/36S Meter (4W Wye Zcoil)
- 9S/8S Meter (4W Wye & 4W Delta)

Current Transformers

- 200:5 Window Type Instrument CTs
- 600:5 Window Type Extended Range CTs (optional)

Potential Transformers (with protective enclosure)

- 2:1 (240V:120) Instrument PTs
- 2.5:1 (300:120) Instrument PTs (optional)

Bench Interface

- Touchscreen (21.5") Custom Control System
- Custom software for voltage and current control
- Articulating mounting arm

Bench Dimensions

- 73" width x 79" height x 36" depth

Weight

- 340kg (750 lbs)

Power Requirements

- Auxiliary Power Input: 1x Single Phase 120V Outlet with Ground, 15A
- Bench Power Consumption: 700VA max
- PC Power Consumption: 200W

Operating Environment

- 25°C ± 5°C
- 30% to 80% Relative Humidity, Non Condensing

Warranty

- 2 Year Parts and Workmanship



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