Distribution Trainer

Educational Training Equipment for the 21st Century

Bulletin 180-112M

H-DTT-26

Transformer Lab Kit

Purpose

The Hampden **Model H-DTT-26** allows students to correctly make connections to power transformers located on utility poles.

Description

Following instruction, students will work in a lab using miniature hardware that mimics the appearance of real-world equipment. They will use an apparatus that looks like a short length of power line. The upper 3 wires will represent the high voltage line (an optional 4th wire, representing a common neutral is also supplied), the lower 3 wires (4 wires for some configurations) will represent the service voltages from the transformer to the customer's secondary connections.

While the model is de-energized, students will mount the necessary transformers on the utility poles, make the primary and secondary connections using quick connect terminals and flexible leads. Students will also connect the secondary line to the customer's meter base using a service entry point and additional flexible leads.

Once connections are made, the model will be energized (a key switch operated by the instructor) and voltages and motor rotation will be checked and verified at one of the model's meter sockets. Digital volt meters to measure voltages are required.

Specifications

Power Source

The model is powered by 120/208V AC, provided from outlets in the lab room. The model contains safety features to limit current should a direct short circuit occur. The **Model H-DTT-26** is designed for 3Ø input. If 120V input is required, specify **Model H-DTT-26-120**.

Safety

Low voltage outputs provide a safe environment for students.

Transformers

Each apparatus has 6 single phase transformers with a step-down ratio of 10:1 that simulates the power transformers found on utility poles. There are 2 primary leads and 4 secondary leads. The secondary leads of the transformer can be connected in series or parallel.

General

- The base of the model measures 36" x 18", made from 14 gauge furniture stock steel finished in a gloss white enamel.
- Voltage Source: 120/208V AC–3Ø–Wye
- Primary Working Voltage: 120 Delta, or 120/208 Wye V AC
- Secondary Voltage: 12-24V AC
- Main Circuit Breaker, 3-pole GFI
- Key Switch to Energize Output Voltages
- Hampden HB-3 and HR-1S Quick connect/disconnect jacks - color coded
- Model meter bases wired in parallel
- Utility poles and transformers constructed of non-conducting materials
- Single Phase Transformers (6)
- Hampden H-DTT-26-CS Cord Set

MODEL H-DTT-26
Transformer Lab Kit
Shown with **MODEL H-PRM-26** option
Dimensions: 36" H x 36" W x 20" D
Weight: 65 lbs.

Optional Accessories

- ▶ Hampden **Model H-DTT-26-FP** Electrical Fault Package
- ▶ Hampden **Model H-DTT-26-CSX** Color-coded Cord Set
- ▶ Hampden **Model H-DTT-26-X-3T-B2** Blue Transformer Set 120V/12-24V, 3 per set
- ▶ Hampden **Model H-DTT-26-X-3T-Y2** Yellow Transformer Set 120V/12V, 3 per set
- ▶ Hampden **Model H-DTT-26-X-3T-R2** Red Transformer Set 120V/24-48V, 3 per set
- ▶ Hampden **Model H-DTT-26-X-3T-G2** Green Transformer Set 208V/27V, 3 per set
- ▶ Hampden **Model H-PRM-26** Phase Rotation Meter
- ▶ Hampden **Model H-HMR-26** Roll Around Storage Cabinet for all components of 6 lab sets

All Hampden units are available for operation at any voltage or frequency

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H-HMR-26
Storage Cabinet

Purpose

The Hampden **Model H-HMR-26** Storage Cabinet – Extra heavy duty construction designed for rugged use with plenty of storage space. Contains five adjustable shelves for storing portable shop equipment. The cabinet has the full length lockable doors. Dimmensions are 84”H x 47”W x 22”D. Cabinets are available as stationary or mobile.

All Hampden units are available for operation at any voltage or frequency

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