

Mini-Motors Laboratory

Educational Training Equipment for the 21st Century

Bulletin 259-15

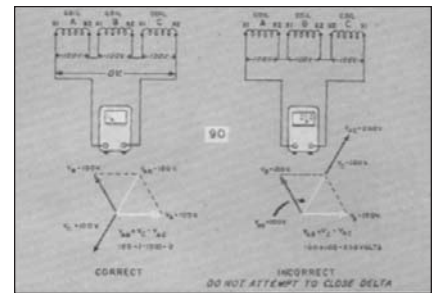
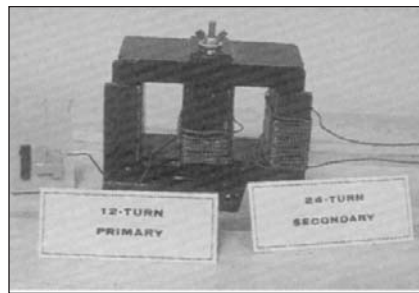
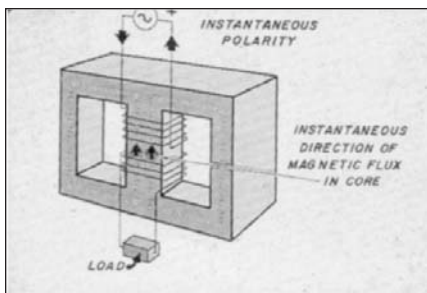
H-IPI-XFMR Individually Paced Instruction for Transformers



Description

The Hampden **Model H-IPI-XFMR** Individually Paced Instruction Transformer Program consists of three units. Each unit provides a multi-media introduction and a step-by-step tutorial covering all topics.

Shown below are typical frames from each unit. All frames on the supplied CD are in full color. Requires Windows® 95/98 with CD-ROM drive and multimedia capability.



UNIT 1 Basic Principles

Topics Covered

- Electromagnetism
- Electromagnetic Induction
- Induced Voltage
- Magnetic Linkage
- Turns Ratio
- Voltage Transformation
- Current Transformation
- Power Transformation
- Impedance Transformation
- Exciting Current
- Core Losses
- Copper Losses
- Leakage Reactance
- Equivalent Resistance
- Impedance Matching

UNIT 2 Transformer Computations

Topics Covered

- Regulation of Transformers
- Referring Resistance and Impedance to Secondary
- Equivalent Circuit of Transformer
- Efficiency with Unity Power Factor Load
- Efficiency with Lagging Power Factor Load
- Coil Polarity
- Multi-Coil Transformers
- Marking of Transformer Leads
- Additive and Subtractive Polarity
- Autotransformers

UNIT 3 Polyphase Connections

Topics Covered

- Three-Phase Power
- Phasor Diagrams
- Vector Addition
- Delta Connection
- Line and Phase Voltage and Current in Delta Connection
- Closing a Delta Connection
- Wye Connection
- Line and Phase Voltage and Current in Wye Connection
- Floating and Grounded Neutral
- Delta/Delta Transformers
- Wye/Wye Transformers
- Delta/Wye and Wye/Delta Transformers
- Open Delta (V) Connection

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

Hampden
ENGINEERING CORPORATION

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