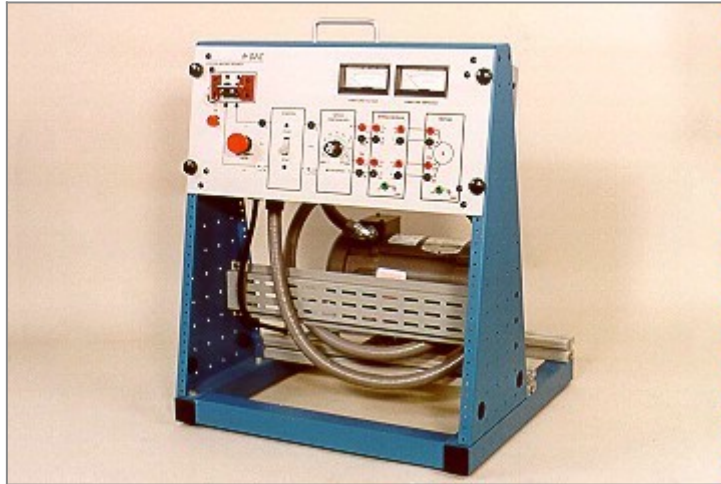


Shunt Wound, DC Motor Training System



Model: 415-000

A shunt wound DC motor is a DC motor with its field windings shunted to or connected in parallel to its armature winding. These motors are often called constant flux or constant speed motors, because they're able to maintain a constant speed, regardless of the load on the motor.

Because of their self-regulating speed capabilities, these motors are perfect for applications where precise speed control is necessary. However, they cannot produce high starting torque, so loads at startup must be small.

Shunt wound DC motors are popular in a wide variety of industrial applications, such as: lathes, grinders, and other machine tools; and fans, compressors, and other pieces of industrial equipment.

DAC Worldwide's Shunt Wound, DC Motor Training System (415-000) features a common shunt wound DC motor used frequently throughout industry. Each motor module includes a welded aluminum mounting baseplate, aluminum control box support structure, and a steel control enclosure.

All motor wiring is accomplished through banana jack receptacles on the control enclosure's front panel face. Each unit comes equipped with an appropriate voltmeter and ammeter. In addition, four instructor fault insertion switches are provided on each motor module.

Industry-Standard Components Provide Realistic, Hands-On Training

Technical training is most effective when learners can gain hands-on practice with industry-standard components they'll encounter on the job. The Shunt Wound, DC Motor Training System features a wide variety of common, industrial-quality components to provide learners with a realistic training experience that will build skills that translate easily to the workplace.

The system features industrial-quality components, such as: shunt wound DC motor mounted on T-slotted rails; master circuit breaker with lock-out/tag-out capability; color-coded banana jack patch cord receptacles; voltmeter; ammeter; enclosure cover safety interlock switch; fault insertion switches; large emergency stop switch; and keyed instructor power switch.

Courseware & Hands-On Exercises

The Shunt Wound, DC Motor Training System's courseware consists of a textbook on motors and motor control, instructor and student wiring diagrams, and a user's guide with hands-on exercises. These can be used as part of either an instructor-led course or self-directed study.

Learners will explore a wide variety of fundamental motor control topics, including: motor control terminology and construction; motor nameplate data; and DC motor troubleshooting. Hands-on exercises include industry-relevant motor control skills, such as wiring and troubleshooting the shunt wound DC motor.

Expand Training Capabilities with Custom Options

The Shunt Wound, DC Motor Training System can be customized with a variety of options to create a training system that matches a particular industry's or user's specific needs. In industry, one size rarely fits all and this trainer can be tailor-made to your exact needs.

For example, training capabilities can be expanded by adding the following available options: motor loading module; instructional videos, handbooks, and training manuals; portable digital multimeter; non-contact tachometer; and prony brake assembly.

FEATURES & SPECIFICATIONS

- Service requirement: electric - 110 VAC - 240 VAC/3-phase (based on individual product).
- Welded aluminum baseplate.
- Provision for bench-top mounting.
- Motors mounted on T-slotted rails which accommodate 184T and 56 frame motors (56 frame standard).
- Silkscreened panel face with identification of line and motor lead numbers.
- Color-coded banana-jack patch cord receptacles.
- Voltmeter and ammeter.
- Permanent internal grounding of all elements.
- Enclosure cover safety interlock switch.
- Four instructor fault insertion switches (on rear of control enclosure).
- Large emergency stop switch.
- Keyed instructor power switch (on rear of control enclosure).
- Large pilot light.
- Patch cords.
- Use/Exercise Guide.

- Instructor and student wiring diagrams.
- Related textbook (with purchase of four or more devices).
- Packaging for shipment via motor freight.

PRODUCT DIMENSIONS

- **Product Dimensions**
(L x W x H)
Approx. 19in. x 19in. x 25in. (480 x 480 x 640 mm)
50lbs. (23kg)
- **Shipping Dimensions**
Approx. 85lbs. (39kg)

OPTIONS

- #410-001/E - Portable Digital Multimeter. (required)
- #410-002 - Non-Contact Tachometer. (required)
- #410-100 - Prony Brake Assembly. (required)
- #560-000 - Electrical Trades Training Manual (IPT)
- #560-001 - Electrical Trades Handbook (IPT)
- #562-000 - Electric Motor Repair
- #040-747 - Video series, 2-part, titled, "AC Motor Control & Troubleshooting" (Industrial Text & Video).
- #040-749 - Videos, two-part series titled "DC Motor Control & Troubleshooting" (Industrial Text & Video)
- #410-001 - Portable digital multimeter.
- #410-500 - Use/Exercise Guide (additional)
- #410-PAC - Motor Fundamentals Training System, Quick-Start Package, (includes #410, #411, #412, #415, #416, #417, (2) #419, (2) #410-001A, (2) #410-002.)

INCLUDES

- Motor
- Circuit Breaker
- Voltmeter
- Ammeter
- Safety Interlock Switch
- Four (4) Instructor Fault Insertion Switches

- E-Stop
- Large Pilot Light
- Keyed Instructor Power Switch
- #410-500 Use/Exercise Guide

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