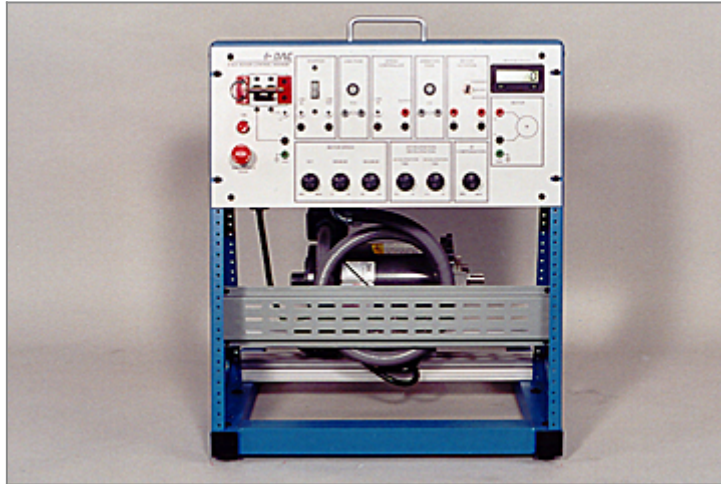


# DC Permanent Magnet Motor Control Training System



Model: 426-000

DAC Worldwide's DC Permanent Magnet Motor Control Training System (426-000) is a motor control-related device for training in the operational principles, wiring, fault troubleshooting, and application of industrial three-phase, reversing magnetic starters. The device is self-contained, allowing for individual study by a single student or a small student group. While often used independently, the training aid can be integrated with other products relating to PLCs, pilot devices, and motor-driven mechanical systems.

## **Explore DC Permanent Magnet Motor with Hands-On Training System**

A key training element within a series of related motor control-focused products, this device is often used independently due to its concentration on the most common motor starter configurations seen in industry and its on-board selection of common piloting components.

The training aid includes a welded aluminum base assembly, steel support structure and enclosure, aluminum motor mounting rails, and an industrial-duty, three-phase, squirrel-cage motor.

All wiring is accomplished through shielded banana-jack connections on the front panel face, rather than directly to individual components. Multiple safety systems are provided. Four instructor fault switches, creating common component faults, are provided. Supplemental components such as a motor loading device and a piloting switch module can be added to expand the system's capabilities in developing complex control circuits.

## **FEATURES & SPECIFICATIONS**

- Welded aluminum base assembly, using 1-1/2" square, 1/8" wall tubing
- Anti-slip, vibration-dampening, support feet
- Aluminum t-slotted mounting rails, allowing for attachment of tethered motor assembly and mechanical connection to associated devices
- 16-Gauge, formed-steel support structure, allowing for attachment to base assembly or alternate mounting bench products
- 16-Gauge, formed-steel electrical enclosure

- Silk-screened 1/8" aluminum front panel face
- Powder-coated surfaces throughout
- On-board safety components, including: 1) Keyed instructor power switch (Rear of product); 2) Circuit breaker with provision for representative lock-out/tag-out; 3) Permanent, redundant internal grounding (not dependent on student wiring); 4) Pilot light and large emergency stop switch; 5) Internal electrical interlock, de-energizing power when opening electrical enclosure; 6) Use of premium shielded banana jack patch cords
- Industrial-duty, 56C-frame, 1/4HP, 1750RPM, 90 VDC permanent magnet motor
- Internal, on-board DC motor controller with panel-mounted connections, control components and system fuses
- On-board wiring devices including stop/start switch, forward-Brake-Reverse switch as well as controller function rheostats including speed, acceleration/deceleration and IR compensation
- On-board, magnetic speed sensor and panel-mounted digital tachometer display
- Color-coded, banana-jack receptacles for all motor leads, supply connections and control components
- Four instructor fault switches (rear of device, behind access panel)
- Allows for attachment to optional control and mechanical devices directly and using optional mounting bench products

## **PRODUCT DIMENSIONS**

- 19-in. L x 19-in. W x 25-in. H (480 x 480 x 670 mm)
- 50 lbs. (22.5 kg)

**UTILITIES** 115V/60Hz/1Ph power

**REQUIRES** Requires #410-001/E Portable Digital Multimeter, #410-002 Non-Contact Tachometer Kit, and #410-100 Prony Brake Assembly

**INCLUDES** Includes Keyed Instructor Power Switch, Circuit Breaker, Pilot Light, E-Stop Switch, Electrical Interlock, Magnet Motor, DC Motor Controller, Magnetic Speed Sensor and Panel-Mounted Digital Tachometer Display, (4) Instructor Fault Switches

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