

Dissectible Motors

Educational Training Equipment for the 21st Century

Bulletin 258E

HDI-100 Dissectible Motors

Purpose

Hampden Dissectible Motors, **Series HDI-100**, are a versatile aid in teaching the construction, principle of operation, and operating characteristics of fractional horsepower motors. As such they complement and extend the Hampden Series 100 Rotating Electrical Machines Program.

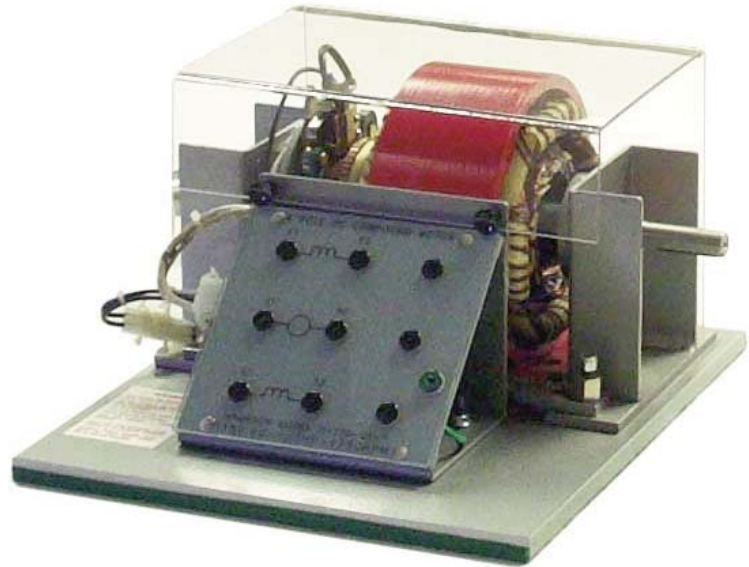
Description

The four stators and corresponding rotors of Hampden's Dissectible Motors are the same ones used in standard industrial motors. This provides the student with realistic construction and operating characteristics. Commutator, brushes, centrifugal switch, etc., may all be observed during operation.

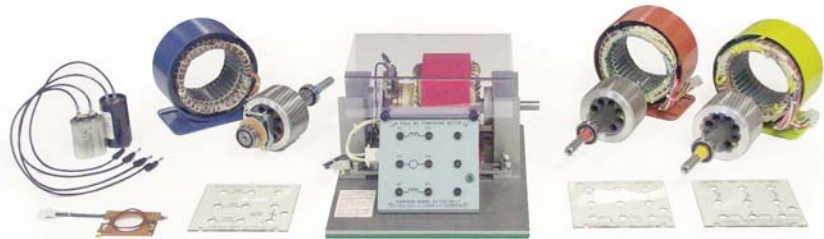
Each motor assembles in minutes. First the student clamps the selected stator on the terminal panel/base. Next, the rotor is inserted and held in position by specially designed end bells. A coupling flange is then secured to the motor shaft. The student then chooses the terminal panel overlay for that motor and begins the experimentation. Hampden Dissectible Motors are furnished complete with cords.

The motor program includes the following four motors:

1. **DC Motor.** This is a four-pole machine which may be operated as a shunt, or compound motor.
2. **Single-Phase AC Squirrel-Cage Induction Motor.** This is a four-pole machine, rated at 1725 rpm, which operates on 115 or 230 volts.
3. **Three-Phase, Four-Pole Squirrel-Cage Induction Motor.** The full load rated speed of this machine is 1725 rpm. It may be operated on 230 or 460 volts AC.
4. **Three-Phase, Two-Pole Squirrel-Cage Induction Motor.** The full load rated speed of this machine is 3450 rpm. It may be operated on 230 or 460 volts AC.



Single-phase motor assembled on standard mounting base. Note protective clear plastic cover. Shipping Weight: 125 lbs.



Hampden Dissectible Motors include DC and Single-phase and Three-phase AC in fractional horsepower size.



MODEL WRM-100-HDI Dissectible Wound Rotor Motor

To enhance the study of 3-phase machines, the Dissectible Wound Rotor Motor is available. Besides operating as a wound-rotor or synchronous motor and alternator, the unit functions as an induction regulator or (in pairs) as a power selsyn. A worm-and-wheel assembly and angle indicator are included.

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

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