

# Solid State Controllers

Educational Training Equipment for the 21st Century

Bulletin 257M

## H-VFD-100C Variable Frequency Drive Trainer



**MODEL H-VFD-100C**  
Dimensions 11"H x 16½"W x 8"D  
Shipping Weight: 39 lbs.

The Hampden **Model H-VFD-100C** Fractional Horsepower, 3Ø, Variable Frequency Drive controls the speed of induction or synchronous motors rated to 1/3 horsepower.

The unit consists of a fully operational VFD and all the push buttons and switches that will allow the user to program and run the VFD. The VFD is protected by a Main AC circuit breaker. The output is 0-230 V, 3Ø, 0-500 hz. The unit can be programmed and reprogrammed to teach students how a VFD works and what kind of parameters to set for various motor applications. The control terminal is brought out and can be patched in with the available push but-

tons and switches to teach students how to fully set up a VFD. A 4-20 ma output and 10k ohm potentiometer are also provided to give more options in controlling the motor speed.

Input power is 120V AC, 1Ø, 50/60Hz through an isolation transformer. This permits grounding of the control circuit for measurement and test purposes.

**Model H-VFD-300C** is also available for 3 HP machines.

## H-ACVD-100 AC Vector Drive Trainer System

The Hampden **Model H-ACVD-100** AC Vector Drive Trainer System provides students with hands-on experience with advanced motor controls and is available in two configurations; as a stand-alone trainer and as an adjunct trainer to the Hampden Series 100 Rotating Machine System. Either system is designed for bench top mounting or may be used with the optional **Model HMT-4** Mobile Table.



**MODEL H-ACVD-100** Vector Drive  
Dimensions: 20"H x 16"W x 10"D  
Shipping Weight: 120 lbs.

The Hampden AC Vector Drive Trainer System incorporates state-of-the-art features which surpasses the inverter drive for many applications. The basic difference is the on board high-speed processing computer with its associated three channel encoded motor. This system basically eliminates the "slip factor" of the motor by using a closed-loop feedback.

This system has many applications such as handling very high torque at low or even no speed which is desirable in a pick and place stacker crane or elevator. It also has precise speed regulation, hence can be used in applications where precise timing is required between interconnecting drives. Other applications include accurate positioning utilizing motion control cards for servo performance, braking, regeneration, high performance dynamometer, and precise metering pumps.

This system includes seventeen system diagnostic indications, six instructor insertable faults, and operating instructions. Furnished complete with interconnecting cords.

### Vector Drive Motor

The Vector Drive motor is a 1/3 HP squirrel-cage induction motor with built-in multi-channel encoder.

When ordering this system for a standalone configuration, the following components are necessary:

- **Model H-ACVD-100** AC Vector Drive
- **Model VDM-100** Vector Drive Motor
- **Model MGB-100DG** Base
- **Model RL-100A** DC Resistance Load

### Option

- **HMT-4** Mobile Table

Input power is 120V/208V AC, 3Ø, 60Hz

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



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