

NEI Trainers

Educational Training Equipment for the 21st Century

Bulletin 250-6B



General

Hampden **NEI Series Trainers** were developed for the specific training of wind turbine technicians in Electrical Generation of motors and machines.

The Hampden **NEI Series Trainers** will provide the understanding of the principles of motors and how varying loads effect these motors.

Modules

BPS-100-NEI AC/DC Power Supply with **RL-100-NEI Resistance Load**

- Electrical Services Provided:
- Fixed 125VDC
- Variable 0–125 VDC *
- Variable 0–150 VDC *
- Variable 0–135 VAC

120VAC Duplex receptacle instrumentation provided:

- 0–150 volts AC/DC
- 0–5 Amps DC
- -5–0–5 Amps DC
- 0–150 volts DC

Resistance load provided:

- 25 watts
- 7 watts

* Controlled by the same autotransformer

Model SFR-100-NEI Series Field Rheostat Variable 0–3 ohms

MGB-10-NEI-A Two Machine Motor Base with **CSM-10P Capacitor Start Motor**, **DM-10P DC Generator** and **VIL-10P Variable Inertia Load**
The base incorporates all the motor winding connections and switches.

MGB-10-NEI-B Two Machine Motor Base with **DM-10P DC Motor** and **PB-10P Proxy Brake**.
The base incorporates all the motor winding connections.

HPT-100A Digital Photo Tachometer The **Model HPT-100A Hand Tachometer** measures rotational speed between 50 rpm and 10,000 rpm. The photo sensor is mounted on a magnetic bracket that allows “hands free” speed measurement. Line-powered (115V or 230V AC) digital circuits display speed via five 0.5" high 7-segment LEDs. Accurate within 1 rpm. Also provides a 0 to 5 volt DC analog output for use as a feedback signal in closed loop motor speed control systems

Three Phase Modules

MGB-10-NEI-C Two machine Motor Base with **SM-100 -3 Synchronous Machine** and **PB-10P Proxy Brake**. The base incorporates all the motor winding connections.

BPS-104 AC/DC Power Supply

These electrical services are provided:

- Fixed 208/120V AC, 3Ø, 15 amps
- Variable 0–125V DC, 6 amps, isolated, 1% ripple*
- Variable 0–140V AC, 6 amps, 1Ø, isolated*
- Variable 0–240/140V AC, 9 amps 3Ø, 4-wire*
- Variable 0–150V DC, 1 amp, isolated, 1% ripple

The following meters are provided:

- AC Voltmeter—0 to 150/300V
- AC Ammeter—0 to 0.5/2/4/8A
- DC Voltmeter—0 to 75/150V
- DC Ammeter—0 to 0.5/1/2.5/5A

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

Hampden
ENGINEERING CORPORATION

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