

Series 300 Rotating Machine System

Educational Training Equipment for the 21st Century

Bulletin 163A

Series 300 Rotating Machine System

Purpose

The Hampden **Series 300** Three Horsepower machines, controllers, and accessories provide a total coordinated program for the study of the operating characteristics of large motors and generators. All equipment is designed for compatible electrical and mechanical characteristics. This provides complete versatility in the selection of machines and accessories for specific training objectives.

Description

All machines have double-ended shafts for fast and convenient coupling. Interconnecting leads plug into heavy-duty binding posts on silk-screened terminal panels. All machines are mounted on mobile bases. Each machine is equipped with either motor starter or circuit breaker protection.

Machines

- SM-300** Synchronous Machine
- DM-300** DC Machine
- SRM-300** Synchronous Reluctance Motor
- DCM-300** DC Motor
- DYN-300** Electrodynamometer
- WRM-300** Wound Rotor Motor
- IM-300** Squirrel Induction Motor (Wye/Delta)
- IM-300-4** Induction Motor (4/6/8/12 poles)
- MFM-300** Two Value Capacitor Motor
- DCG-300** DC Generator
- DSDM-300** Dahlander Motor
- MPB-300** Magnetic Particle Brake
- RSIM-300** Repulsion Start Induction Motor

Power & Instrumentation

- HMR-22016** AC/DC Power Supply
- ACVA-300** AC Voltmeter and Ammeter Module
- DCVA-300** DC Voltmeter and Ammeter Module
- ACWM-300A** AC Wattmeter Module 1 ϕ & 3 ϕ
- ACWM-3 ϕ -Y** AC Wattmeter Module 3 ϕ
- AC3A-300** AC Ammeter Module (3 meters)
- AC3V-300** AC Voltmeter Module (3 meters)
- H-PAM-300** Phase Angle Meter Module
- ACS-3** Synchroscope Module
- ACHZ-120/240** Frequency Meter Module (dual voltage)
- AC-VAR-3** Varmeter Module
- H-PFM-300** Power Factor Meter Module

Starters - DC

- DC-MS-300** DC Manual Starter
- DC-AS-300B** DC Automatic Starter

Starters - AC

- MS-300-3A** AC Magnetic Starter
- MS-300-YD** Wye/Delta Starter
- MS-300-DS** Drum Switch Manual Starter (AC and DC)
- ACAS-SM-300-2RA** Synchronous Motor Starter
- ACRS-300-C** Reduced Voltage Two-step Resistance Starter

Loading

- HMRL-4.2** Resistance Load Cart, 1 ϕ & 3 ϕ 4.2KW
- HMIL-4.2** Inductance Load Cart, 1 ϕ & 3 ϕ 4.2KVA
- HMCL-4.2** Capacitance Load Cart, 1 ϕ & 3 ϕ 4.2KVA
- RL-300-IM** Resistance Load, 1 ϕ 1200 Watts
- IL-300-IM** Inductance Load, 1 ϕ 1140 VAR
- CL-300-IM** Capacitance Load, 1 ϕ 1140 VAR
- PB-300** Prony Brake, 25 ft.lbs
- VIL-300** Variable Inertia Load (9 discs)

Switches

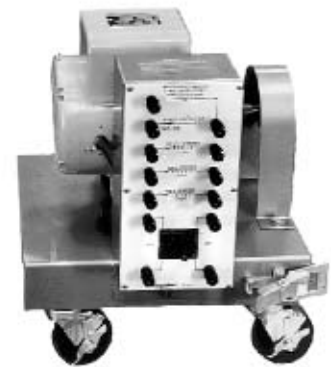
- H-SD-3PS** Wye/Delta Switch
- H-RS-3PDTCO** Reversing Switch
- H-LS-3PST** Load Switch
- SYN-300-A** Synchronizing Switch with lamps
- H-PSC-DM-3** Pole Changing Switch - Dahlander

Miscellaneous

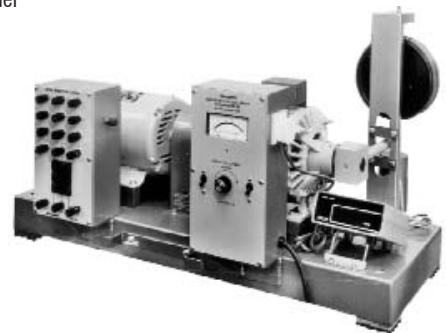
- DC-ARC-300A** DC Armature Resistance Controller (Resistor Type)
- WRSC-300** Wound Rotor Speed Controller
- WRSC-300R** Wound Rotor Speed Controller - Rheostat type
- SFR-300** Series Field Diverter
- SFR-300B** Shunt Field Rheostat
- T/OS-300A** Tachometer and Generator
- H-REM-LC-D** Load Cell with digital readout and signal conditioner
- CS-300** Cord Set



DM-300 DC Machine



MFM-300 Two Value Capacitor Motor



IM-300 Induction Motor coupled to
MPB-300 Magnetic Particle Brake

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

Hampden
ENGINEERING CORPORATION