

## Hampden SIM-100 Virtual Motors and Machines

### Purpose

The **Model SIM-100** Virtual Motors and Machines computer program allows students to develop typical motor control and electrical generation experiments on their computer with "drag and drop" component placement.

### Description

An essential line-up of Hampden Series 100 Motors, Machines, Loads, & Controls are computer modeled, allowing unlimited flexibility for students.

In a typical session, a student selects the required components, assembles them on the computer screen's workbench and makes connections to virtual power supplies and meters of all ranges and inputs—allowing complete analysis of relevant signals.

Analysis software tools are provided for graphing, such as V-Curves, Torque curves, etc. Real-world replication is stressed by using full-color renditions of the Hampden Series 100 Fractional Horsepower AC and DC Motors and Machines, and emphasizing connections to all appropriate terminals.

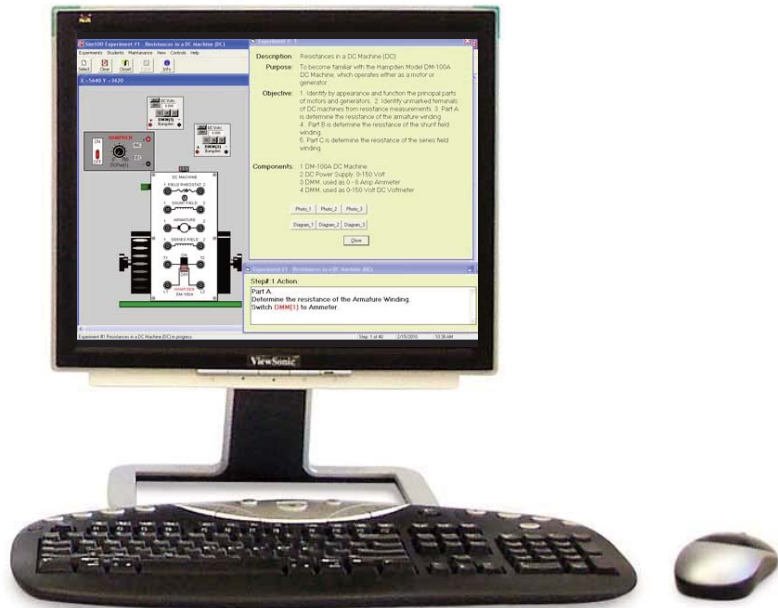
### Software

The Hampden **MODEL SIM-100** allows the students to explore motor control and troubleshooting, with interactive prompting on the computer screen.

The provided lesson plan consists of 20 pre-programmed experiments. If incorrect steps are performed, a help screen pops up to immediately help the student understand and make the needed corrections.

The software includes an instructor's set-up program complete with password.

Instructor access to student progress reports and quick quiz results are password protected under the program maintenance menu. Optional network setup centralizes instructor database information.



The Hampden SIM-100 Virtual Motors and Machines Software provides a "Virtual Workbench," allowing students to assemble, test and analyze a large range of equipment.

### Recommended Equipment

The **MODEL SIM-100** will run on any Windows-based PC with 256Mb RAM.

Requires 20Mb of Hard Drive space, and is best viewed on a 17" monitor (800/600 resolution).

Also available is the SIM-200 and 300 Controls packages, which provide:

#### SIM-200

- DCC-100V  
DC Controls
- ACC-100V  
AC Controls

#### SIM-300

- VFD-100-V  
Variable Frequency Drive
- SCR-104  
SCR Drive

### Modeled Units For Basic SIM-100:

<b>HMD-100-CM</b>	Console
<b>DM-100A</b>	DC Machine
<b>DYN-100A-DM</b>	Fractional H.P. Dynamometer
<b>IM-100</b>	3 Phase Induction Motor
<b>MFM-100</b>	Multi-Function Machine
<b>SM-100-3</b>	Synchronous Machine
<b>WRM-100-3A</b>	Wound Rotor Motor
<b>WRSC-100</b>	Wound Rotor Speed Controller
<b>RL-100A</b>	Resistance Load
<b>RLC-100</b>	Resistance-Reactance Load
<b>SFR-100</b>	Series Field Rheostat
<b>SLA-100M</b>	Strobe Tachometer
<b>HT-100K</b>	Tachometer
<b>ACHZ-120/240</b>	Frequency Meter
<b>2PDT-100</b>	Switch
<b>MGB-100-DG</b>	Bedplate

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

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