

DOBLE PROTECTION TESTING

# F6150sv

Power System Simulator

## ALL-IN-ONE SOLUTION FOR TESTING IEC 61850-BASED PROTECTION DEVICES AND SCHEMES

The Doble F6150sv is your versatile solution for testing IEC 61850-based protection devices and schemes. This power system simulator performs the simplest through the most complex tests. The F6150sv has the highest output current of any simulator on the market - all within a single box. Meeting all your testing needs, the F6150sv is available in three different models. The F6150sv tests IEC 61850-based systems at the process level and station level using both sampled values and GOOSE messages.\*

### FEATURES

- Simulate three streams of IEC 61850 9-2LE sampled values through one fiber-optic port and one copper (RJ45) port\*
- Wi-Fi capable (optional)
- Simulates (publishes) and subscribes to IEC 61850 GOOSE messages involving multiple IEDs\*\*
- Performs standard relay calibration and verification testing of high-burden (electromechanical), solid-state, and microprocessor-based relays
- Delivers full VA power with resistive, inductive and capacitive loads at maximum current rating. The following ranges are available with the F6005 Enhanced Rating Option: (6 x 35, 3 x 70, 1 x 210 A).
- Performs state simulation and transient testing
- Tests 0.2-class metering CTs and transducers
- Implements end-to-end testing of communications-based schemes with GPS time syncing
- Maximum of 12 high-level analog sources (six voltage, six current) configurable for bench testing and proof-of-concept testing for complicated relaying schemes

### BENEFITS

- Select from a number of instrument models that feature various power levels and complexity. Choose the best solution according to your testing and budgetary requirements.
- Rugged construction and proven state-of-the-art design provide laboratory accuracy with uncompromising field performance
- Convenient front-panel display indicates active voltage/current amplitudes and phase values during testing



\*F6870 Sampled Values option required

\*\*F6860 GSE Configurator option required

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## DOBLE F6150sv CUSTOMIZED MODELS

NAME	F6150sv	F6150sv-SGD	F6150sv-IEC
DESCRIPTION	PREMIER MODEL	GRID DISTRIBUTION MODEL	IEC MODEL
Applications	<p>Test IEC 61850-based protection devices and schemes</p> <p>Maximum power to test high-burden relays</p> <p>Test complex schemes</p> <p>Run in mixed mode</p>	<p>Test IEC 61850-based protection devices and schemes</p> <p>Test digital three-phase systems</p> <p>Test single-phase &amp; low-burden, three-phase relays</p>	<p>Test IEC 61850-based protection devices and schemes</p> <p>Test S&amp;C Electric IntelliRupter® and other devices using low-level sources</p>
Technical Highlights	<p>Maximum of 12 high-level analog sources are available at any time</p> <p>Maximum of 12 low-level analog sources are available at any time</p>	<p>Maximum of 8 high-level analog sources are available at any time</p> <p>Maximum of 8 low-level analog sources are available at any time</p>	<p>Maximum of 12 low-level analog sources are available at any time</p>
Technical Details	<p>6 AC/DC Amplifiers: 3 x 150 VA Voltages &amp; 3 x 150/225 VA currents</p> <p>AC volts: (1 x 600 V), (3 x 300 V), (6 x 150 V)</p> <p>AC amps: (1 x 180 A), (3 x 60 A), (6 x 30 A)</p> <p>Each 150 VA Voltage/Current amplifier can be split into 2 x 75 VA sources; total 12 sources</p>	<p>4 AC/DC Amplifiers: 2 x 150 VA Voltages, 2 x 175/262.5 VA currents</p> <p>AC volts: (1 x 600 V), (2 x 300 V), (4 x 150 V)</p> <p>AC amps: (1 x 120 A), (2 x 60 A), (4 x 30 A)</p> <p>Each 150 VA Voltage/Current amplifier can be split into 2 x 75 VA sources; total 8 sources</p>	
	<b>WITH OPTIONAL F6005 INCLUDED</b>	<b>WITH F6005 OPTION INCLUDED</b>	
	<p>Each 175/262.5 VA Current amplifier can be split into 2 x 87.5/131.25 VA sources; total 6 sources</p> <p>AC amps: (1 x 210 A), (3 x 70 A), (6 x 35 A)</p> <p>Each 175/262.5 VA Current source can be combined into 1 x 525/787.5 VA source or 1 x 175/262.5 VA &amp; 1 x 350/525 VA sources</p>	<p>Each 175/262.5 VA Current amplifier can be split into 2 x 87.5/131.25 VA sources; total 4 sources</p> <p>AC amps: (1 x 140 A), (2 x 70 A), (4 x 35 A)</p> <p>Each 175/262.5 VA Current source can be combined into 1 x 350/525 VA source</p>	



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Specifications are subject to change without notice.  
 Doble is ISO certified.  
 Doble is an ESCO Technologies Company.  
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