

# F8300-1 POWER SYSTEM SIMULATOR

Standard configuration of logic, voltage and current modules

F8000-series Power System Simulators are modular instruments configured from a versatile hardware platform that enables numerous chassis and module combinations. The expanded F8300 model is a seven-module instrument that is available in five standard configurations. Each unique configuration provides particular capabilities for a variety of conventional and digital protection testing applications.

**Configuration 1** of the F8300 Power System Simulator includes a Command Module, a 6 - 300 VDC 90 W battery simulator, a Low-Density Logic I/O module, three High VA Voltage modules, and three High VA Current modules. This F8300 configuration is designed for three-phase simulations making it ideal for differential testing.

## Command Module

Displays instrument status information and provides central control from Protection Suite and Doble RTS software. IEC 61850-compliant communication and synchronization functions are hosted and connections to other F8000-series instruments are supported.

## 1 x Low-Density Logic I/O Module

Provides four pairs of programmable input/output ports with LED light rings that indicate port assignments and changes in monitored voltage, current and contact states. The optional **F8800 DC Metering and Transducer** upgrade enables testing of transducers and Class 2 meters.



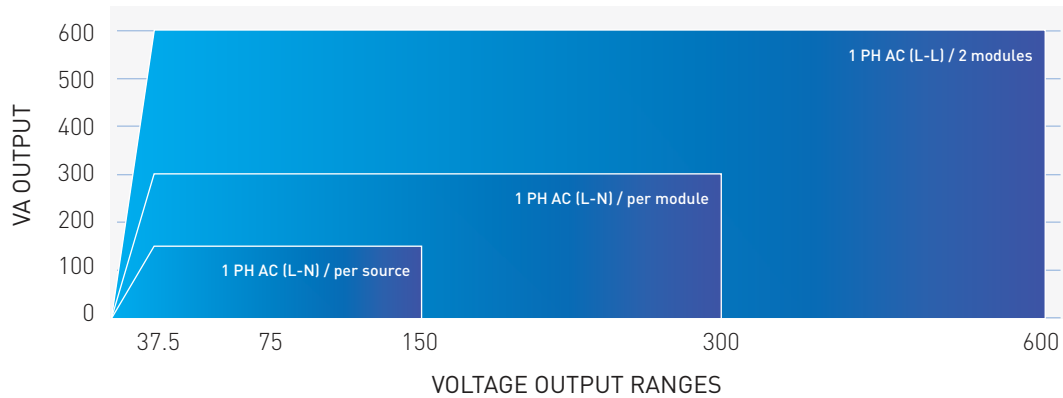
## 3 x HVA Voltage Modules

Each provides two 150 V sources at 150 VA or one 300 V source at 300 VA with both channels connected in parallel. The **F8810 Convertible Mode** option converts outputs of the HVA Voltage Module into high-VA/low-range current sources.

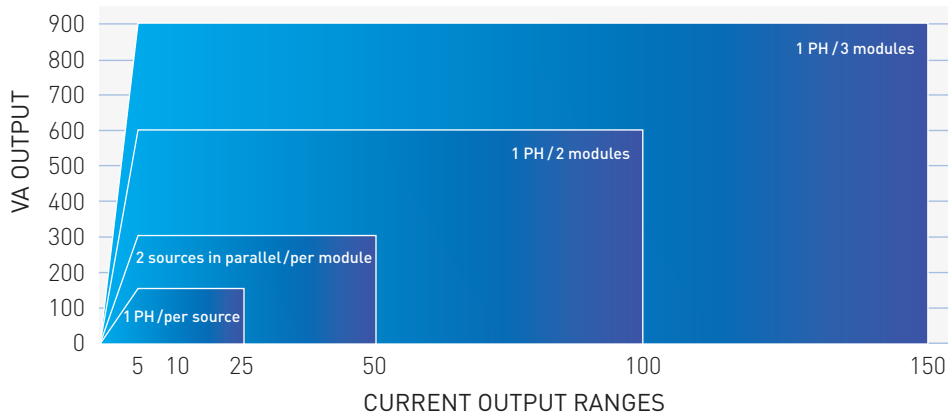
## 3 x HVA Current Modules

Each provides two 25 A sources at 150 VA per source. When both sources are connected in parallel, 50 A at 300 VA continuous power is produced per module. Transient mode extends power and range up to 90 A at 300 VA for 30 seconds per module. DC output is 50 A per module.

## Power Output (VA) vs Voltage Output (V)



## Power Output (VA) vs Current Output (A)



Drive this F8300 with your existing Protection Suite and RTS test procedures. The state-of-the-art digital componentry enables powerful simulations that include the necessary communication functions for testing modern protection schemes including architectures based on the IEC 61850 standard.

This F8300 can be ordered with a wrap-around protective bumper and carrying accessories, or with brackets and hardware for rack-mounting the instrument in 19" racks.

The versatility of F8000-series Power System Simulators like this F8300 model let you easily scale your test capabilities to the requirements presented by your protection systems. Simply connect this F8300 to other F8000-series instruments to expand your use case possibilities.



Instrument and Accessory Bags



Logic I/O Module Accessories



Voltage Module Accessories



Current Module Accessories



### Doble Engineering Company

Worldwide Headquarters  
123 Felton Street, Marlborough, MA 01752 USA  
tel +1 617 926 4900 | fax +1 617 926 0528  
[www.doble.com](http://www.doble.com)

Specifications are subject to change without notice.

Doble is an ISO 9001 & ISO/IEC 17025 & 17034 Certified Company.

Doble is an ESCO Technologies Company.

PUBLISHED: AUGUST, 2021