



SIGMA 2 Load Control



avtronpower.com


AVTRON
POWER SOLUTIONS


SIGMA 2, Advanced Load Control and Test Automation

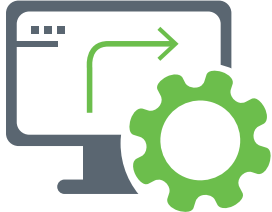
SIGMA Load Control is the Avtron platform for monitoring, controlling, and recording load tests using select Avtron SERIES load banks.

SIGMA 2 Load Control was developed as a sophisticated platform for testing the capacity and performance of engine-generator sets. It has evolved to become Avtron's most advanced load test solution for equipment manufacturers and mission-critical facilities that test resistive, reactive, and capacitive loads.

Product Knowledge


 [Benefits of Networking Load Banks](#)

 [SIGMA Control Overview Brochure](#)




AUTOMATED

A range of automated testing choices are available to verify the accuracy of your power source's load testing.



FEATURE-RICH

Manage numerous load banks, record data, conduct tests according to standards, and generate reports.



INTELLIGENT

Skip the need for pre-calculations. Simply configure your load parameters and get started!

SIGMA 2 Availability

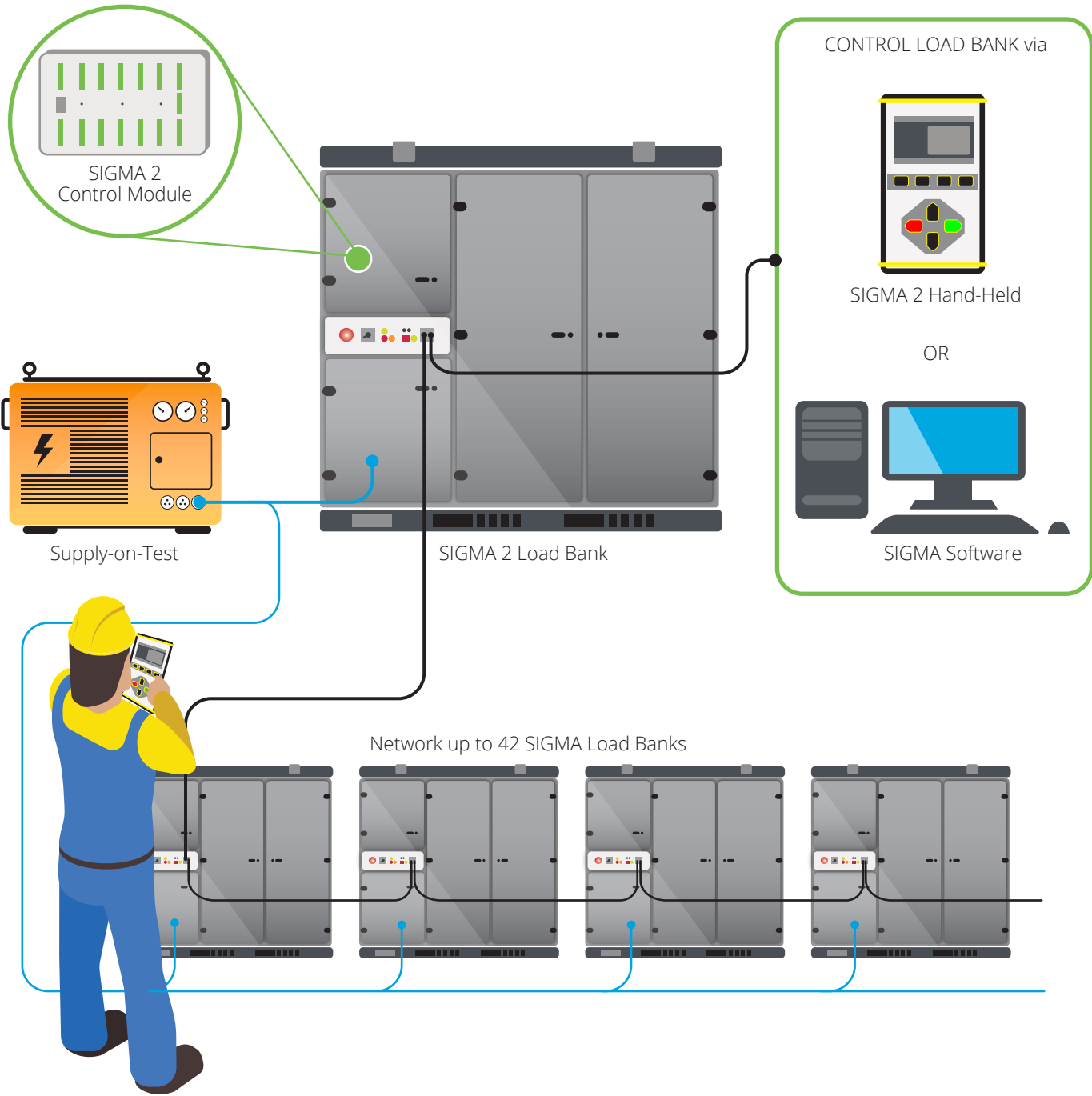
SERIES	MODEL
3000	3024, 3044, 3066, 3103, 3110, 3164, 3220
4000	ALL
5000	5500, 5600, 5800, 5900
6000	ALL
7000	ALL
8000	ALL
9000	ALL

Load Bank Monitoring and Control

SIGMA 2 is Avtron Power Solutions' load bank control system with high level of instrumentation and data acquisition offering solutions for a range of configurations. It provides essential load test capabilities for a single load bank or a network of up to 42 units.

Common load tests require control of one or more load banks, then collecting the resulting operating data. SIGMA 2 can accomplish this with basic controls to enhanced functions with communication products and software that enable the highest levels of configurability to meet most facility challenges.

How to Control SIGMA Load Bank System



Meeting Industrial-Strength Load Challenges



From marine to industrial to water treatment applications, users require load banks for specific load types and sizes across a wide range of conditions. Equipment manufacturers and mission-critical facilities require precise, repeatable load tests. New energy developers need solutions for stabilizing power grids that are served by Distributed Energy Resources.

SIGMA 2 features make load testing precise, repeatable, and productive test after test, even to ISO 8528 requirements. SIGMA 2 solutions use permanent load banks to apply supplemental resistive, reactive, and/or capacitive load to meet the minimum requirements of power sources or to adjust power factor. Load banks like the Avtron Model 8800, Model 8400, or Model 9830 and SIGMA 2 controls can provide effective stabilization for grids powered by traditional and sustainable sources.

Product Knowledge

[Load Banks for Test Cell Applications](#)

[Using Load Banks to Verify Engine-Generator Performance](#)

[Manage Load to Avoid Diesel Wet-Stacking](#)

[Three Approaches to Grid Stabilization](#)

[Load Banks for Microgrid Applications](#)

Control Options

Optional SIGMA Hand-Held



The SIGMA hand-held is an optional accessory to any SIGMA 2 load bank for fast and accurate testing with maximum productivity. The rugged SIGMA hand-held interface is encased in a robust aluminum enclosure providing IP65 protection. It provides enhanced load control and instrumentation.

Product Knowledge

[SIGMA 2 Hand-Held Basics](#)

[SIGMA 2](#)

[SIGMA Hand-Held](#)

Optional SIGMA PC Software



SIGMA PC software is an alternative to the SIGMA Hand-Held. It provides further enhanced load control along with transient speed instrumentation, full data acquisition reporting with graphical displays, real-time data such as recovery times and percent errors necessary for testing to ISO8528.

Product Knowledge

[SIGMA PC](#)

[SIGMA PC Tutorials](#)

Optional SIGMA PC Basic Software



SIGMA PC Basic software is a streamlined version of PC Software. It provides a fast, cost-effective, and user friendly platform for load testing. PC Basic can test up to 42 load banks with data logging. It has a graphical instrumentation display and is also optimized for Windows based tablet.

Product Knowledge

[SIGMA PC Basic](#)

[SIGMA PC Basic Tutorial](#)



HEALTHCARE
MISSION CRITICAL



RENEWABLE
ENERGY



GENERATOR-SET
TEST CELLS



MAINTENANCE



BUILDING POWER
MANAGEMENT

Expand SIGMA 2 Load Bank Capabilities with

Optional SIGMA Gateway



The Avtron SIGMA Wired Gateway can be used to communicate with Avtron SIGMA 2 load banks and multiple gateways can be used to control both Avtron SIGMA 2 and SIGMA LT Load Banks. The gateway communicates through micro-USB cable for SIGMA PC and SIGMA PC Basic. It can connect with up to 14 SIGMA 2 resistive, reactive or combined load banks.

Product Knowledge

[SIGMA Gateway](#)

[SIGMA Gateway](#)

Optional SIGMA Instrumentation System

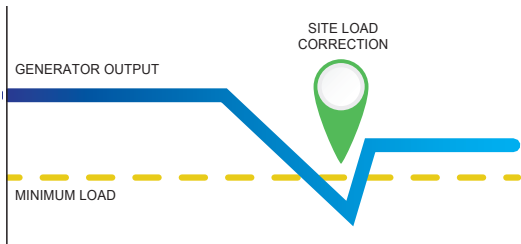


The SIGMA Instrumentation System directly measures the actual power, voltage, current, and frequency in medium and high-voltage applications. The SIGMA Instrumentation System enables the application of both medium and low voltage load using a single load bank system when a step-down transformer is used.

Product Knowledge

[SIGMA Instrumentation System](#)

Optional Site Load Correction



Avtron SIGMA 2 Site Load Correction ensures that minimum required loads are applied to a power source at all times. When demand is insufficient Site Load Correction automatically adjusts one or more load banks to supplement the load. When demand increases, Site Load Correction reduces or terminates load bank operation.

Product Knowledge

[Site Load Correction](#)

[Site Load Correction](#)

Optional Accessories and Software

Additional SIGMA software expands SIGMA 2's capabilities

Characteristics	SIGMA PC	SIGMA PC Basic	SIGMA Network Pro
Windows® PC Platform	Yes	Yes	Yes
TCP/IP Communication	No	No	Yes
SIGMA Gateway (Wired)	Yes	Yes	Yes
SIGMA Gateway (Wireless)	No	No	Yes
Maximum Number of SIGMA 2 Load Banks	14	Up to 3 groups of 14 - each group controlled by a gateway	Control up to 14 - dependent on network configuration
Controls Load Banks Individually	No	Yes	Yes
ISO 8528 Test Scripts and Automatic Pass/Fail Reports	Yes	No	No
Interface for Windows® Tablet Devices	No	Yes	No

Product Knowledge

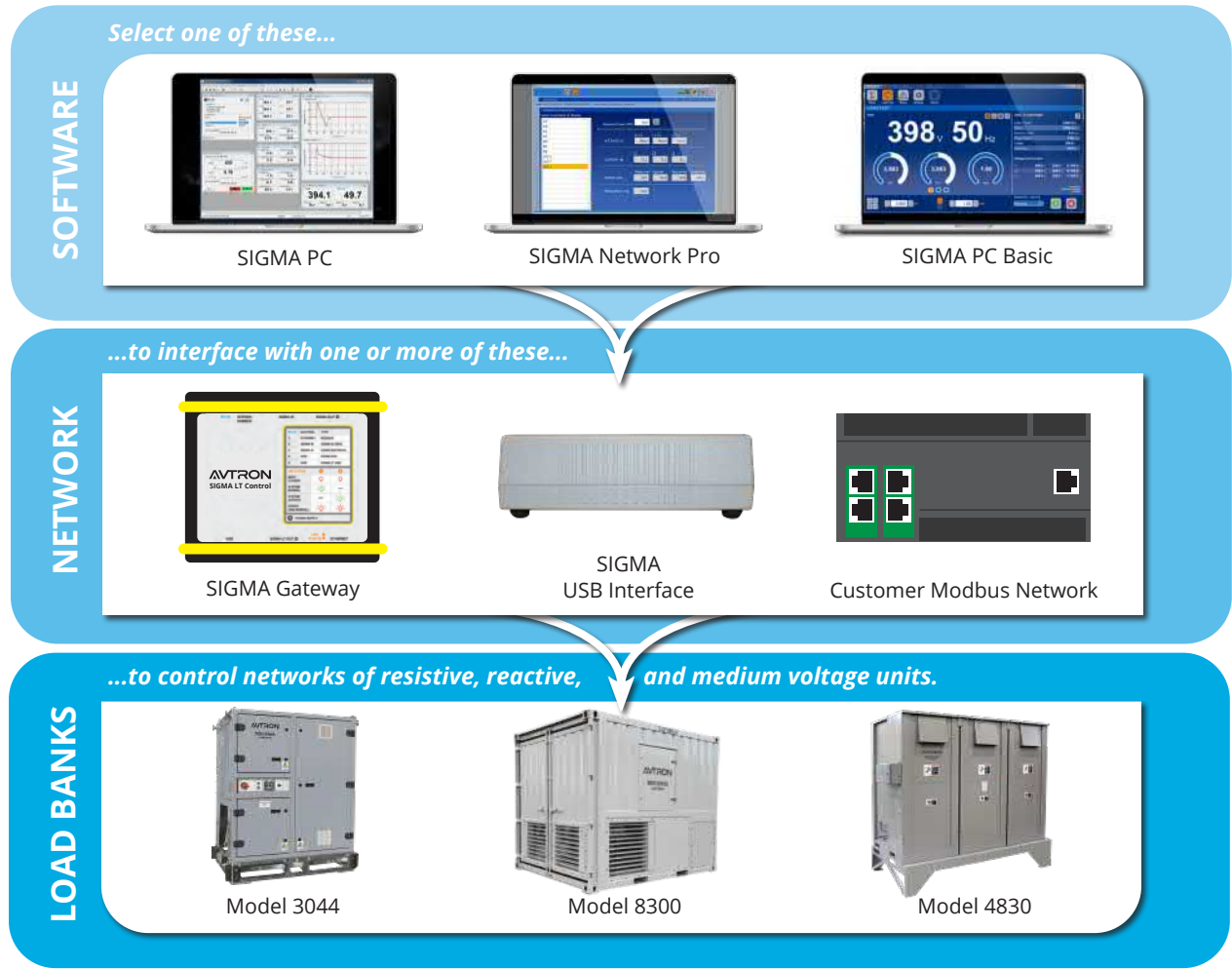
[SIGMA PC](#)

[SIGMA PC Basic](#)

[SIGMA Network Pro](#)

The SIGMA 2 Platform Possibilities

Controls multiple load banks using SIGMA Gateways and SIGMA Software.





www.avtronpower.com

Avtron Power Solutions

6255 Halle Drive
Cleveland, OH 44125, USA
Tel: 216 573 7600

Cliffe Road, Easton-on-the-Hill
Stamford PE9 3NP, United Kingdom
Tel: +44 (0) 1780 480033

customercare@avtronpower.com