

Sorensen™

**Mi-BEAM**

MODULAR INTELLIGENT - BIDIRECTIONAL  
ENERGY AMPLIFIED

# High Performance, Modular Bidirectional, Regenerative Programmable DC Power System

12.5 / 25 / 37.5 kW  
0 to 2,000 V /  $\pm 50$  to  $\pm 150$

## PERFORMANCE. POWER. SAFETY.

The Sorensen™ Modular Intelligent - Bidirectional Energy Amplified (Mi-BEAM) Series is the newest addition to the AMETEK Programmable Power portfolio of high-power testing solutions. The new Mi-BEAM Series features full DC source and sink capabilities with power levels from 12.5 kW up to 37.5 kW. The Mi-BEAM Series is fully scalable up to 8.6 MW+ with parallel systems. The units have available voltage of 600V, 1,500V and 2,000VDC in a 4U rack height chassis and can provide full power up to  $\pm 150$ A within a single system.



## FEATURES

- ▶ Complete solution – battery test, simulation and drive train test software
- ▶ High power density up to 37.5 kW in 4U rack height (9.37 kW/U)
- ▶ Fast and clean power
- ▶ Fast transient response
- ▶ Low output ripple and noise
- ▶ 5-year warranty
- ▶ Parallel system power up to 8.6 MW+
- ▶ Series and Series split phase operation
- ▶ Output voltage up to 2,000 V
- ▶ Bidirectional output current up to  $\pm 150$  A per unit
- ▶ True extended wide-range autoranging output
- ▶ Regenerative to 95%
- ▶ 5-inch diagonal color touch panel
- ▶ Seamless transition between source and sink
- ▶ Built-in islanding detection

## APPLICATIONS

- Battery Simulation
- Battery Testing (charge/discharge)
- DC Motor Testing
- Electric Powertrain Testing
- Drive Train Testing
- Fuel Cell Load Testing
- Solar Panel Testing
- Datacenter Testing

[programmablepower.com](http://programmablepower.com)

**AMETEK**<sup>®</sup>  
PROGRAMMABLE POWER

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# CONTROL VIA FRONT PANEL TOUCHSCREEN AND DIGITAL OR ANALOG CONTROL INTERFACES



The Mi-BEAM Series has an intuitive, front panel touchscreen that enables the user to easily setup, control and monitor the output programming parameters, supervisory, set point limits, measurements, and system settings. Additionally, a variety of standard communication control interfaces are available including; LAN, USB, RS-232, CAN and Optional IEEE-488 are available.

## COMMUNICATION AND CONTROL INTERFACES

### Standard Communication Interfaces

- LAN (10 BASE-T and 100 BASE-T)
- USB 2.0
- RS-232C
- CAN
- Isolated Analog Programming
- SCPI Compliant Command Set
- IVI-C, IVI-COM and LabVIEW Drivers
- Virtual Panels GUI

### Optional Communication Interfaces

- Optional IEEE-488

## FEATURED EQUIPMENT CHARACTERISTICS

- Standard modes of operation
  - Bidirectional Mode (bi-DIR)
    - CV, CC, CV/CC, CC/CP, CV/CP, CV/CC/CP, CV-SER-RES
  - Source Mode (Source)
  - Electronic Load Mode (eLoad)
    - Current, Power and Resistance Programming
  - Battery Simulator Mode (BATSIM)
    - Charge/Discharge
  - Battery Test Mode (BATTEST)
  - Photovoltaic Simulator Mode (PVSIM)
  - Drive train testing with V-I characteristics for drive cycle tests
  - Voltage/Current Ramps
  - List/Waveform Generation
  - Remote Inhibits, Input/Output Triggers and Monitor Signals
  - Firmware Updates via LAN
  - Parallel Interface

The **Mi-BEAM Series** is designed for testing today's complex, high power electronics for the automotive, energy storage, industrial, and aerospace markets in a variety of applications. This platform covers all test needs through the product life cycle from advance research and development (R&D), design validation, and production test requirements.



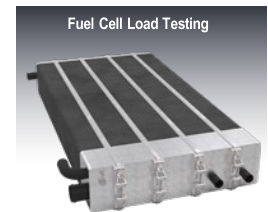
Battery Simulation and Testing



DC Motor Testing



Solar Panel Testing



Fuel Cell Load Testing



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