PLUTON SERIES®

AC & DC POWER EMULATORS FROM 40 kW TO 2 MW

After 5 years of R&D,
the PLUTON Series has
become the most valuable
AC & DC regenerative
power source on the market.

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The solution is a flexible and configurable 4-quadrant power supply and power system emulator, with or without embedded real-time models. Applications include:

- Power amplifier, voltage or current controlled
- Battery, fuel cell & e-motor emulator
- Regenerative power source/load with high-speed remote control capabilities

Integrating an innovative multi-level high-frequency switching technology, it's ideally designed for real-time power system emulation. The integrated control system delivers low-latency custom model execution.

The PLUTON Series can be combined with third-party simulators, and/ or used as a power amplifier for Power Hardware-in-the-Loop (PHIL) applications.

Applications

- Power hardware-in-the-loop
- Battery and fuel cell emulation & testing
- E-motor emulation
- DC/DC, AC/DC, AC/AC power converter testing

Key Features

- Customisable and modular configuration options: Serial (up to 2) and/ or parallel (up to 50)
- High-speed Aurora optical interface
- Fast transient < 50µs
- Seamless transitions, fully regenerative
- Includes waveform generation from DC to 5 kHz
- Wide bandwidth 5 kHz full span
- Embedded emulators (down to 1 µs refresh time)

Specifications

POWER RANGE	0 - 40 kW per module up to 160 kW per cabinet up to 2 MW system
EFFICIENCY	94 %
REGULATION MODES	CV,CC
VOLTAGE MODE RISE/FALL TIME	≤ 50 µs
CURRENT MODE RISE/FALL TIME	≤ 100 µs
DC MAX OUTPUT VOLTAGE	750 V per module 1500 V (in series)
DC MAX OUTPUT CURRENT	200 A per module Up to 5 kA
AC MAX OUTPUT VOLTAGE	250 Vrms per module 500 Vrms (in series)
FULL SPAN BANDWIDTH	0 - 5 kHz
SMALL SIGNAL BANDWIDTH	0 - 20 kHz

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