PLUTON Series®
By SPHEREA

AC & DC POWER EMULATORS FROM 40 KW TO 2 MW

MADE IN FRANCE

PLUTON® Series is the result of 5 years of R&D, and it's now the most valuable AC & DC Regenerative Power Source on the market.

PLUTON® Series is a configurable 4-quadrant Power Supply and Power System Emulator, working in various control capability with or without embedded real-time models:

- Power amplifier, voltage or current controlled
- Battery, Fuel Cell & e-motor emulator
- Regenerative Power Source/Load with high speed remote control capability

Integrating an innovative multi-level high frequency switching technology, it's ideally designed for real-time power system emulation. Integrated control sustem allows low latency custom models execution

PLUTON® Series solution can be combined with third party simulators, and used as power amplifier inside a Power Hardware In the Loop (PHIL) application. It is able to work in AC or DC mode.

KEY FEATURES

> Customizable assembly modules:
  Serial (up to 2) and/or Parallel mode (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)

APPLICATIONS

> Power Hardware in The Loop
> Battery and Fuel Cell emulation & testing
> eMotor emulation
> DC/DC, AC/DC, AC/AC Power converter testing

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	≤ 100 µs
CURRENT MODE RISE/FALL TIME	≤ 50 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 - 15 kHz

SPHEREA
POWER & INSTRUMENTATION