PPST SOLUTIONS

TEST SOLUTIONS FOR ELECTRIC VEHICLES AND THE E-MOBILITY APPLICATIONS

Professional high-tech products for qualification, validation and final testing of electronic components in the field of e-mobility.

AC-sources, Grid Simulation
Regenerative AC -sources
DC-power supplies
Battery emulators
Bidirectional DC power supply
High power-source/sink systems

Electronic AC and DC loads
Regenerative AC and DC loads
Battery testsystems
AC&DC power supplies
Test Systems

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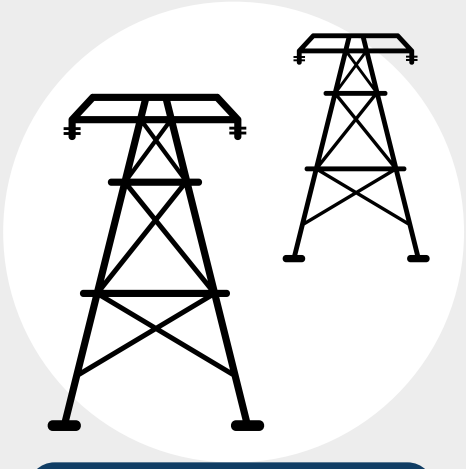
E-MOBILITY COMPONENTS

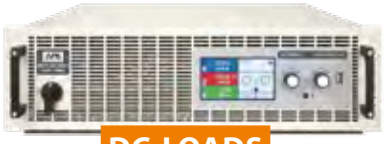


AC-Grid
Smart Grid

Charging station
Wireless charging
Charging infrastructure

Charging cable
Connectors
Fuses, Relays,
Breakers

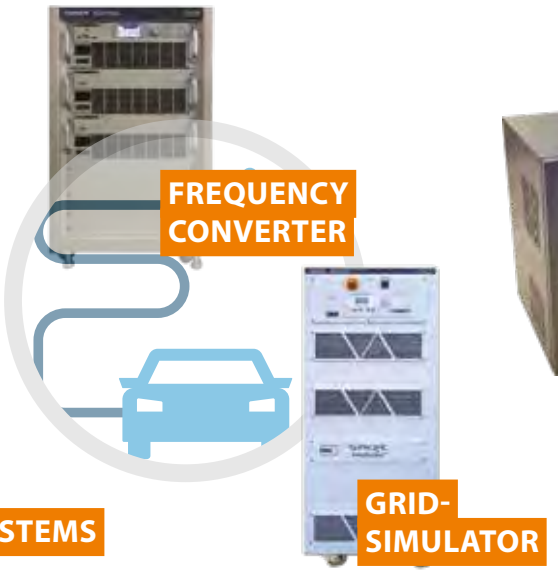
» AC/DC Sources
» Grid Simulators



DC-LOADS

EMC TEST SYSTEMS

» AC/DC Sources
» AC Loads
» DC Loads



FREQUENCY CONVERTER

GRID-SIMULATOR

» AC Sources
» AC Loads
» DC Power supplies
» DC Loads
» Current Sources

AC-LOADS

Regenerative

PPST Solutions offers a full range of AC and DC Power Solutions.
Generate and load with AC | Generate and load with DC | Generate and load with AC+DC

E-MOBILITY TEST SOLUTIONS

PPST Solutions offers a complete range of AC and DC solutions:

» Source and Sink AC Power
» Source and Sink DC Power

On Board Charger	DC-DC converter	Battery Fuel cell	Inverter	Electric motor
» AC/DC Sources » DC Loads	» DC Power Supplies » DC-loads	» Battery Test-Systems » DC Power Supplies	» Battery Emulators » AC Loads	» AC Sources

AC&DC-SOURCES

REGEN DC-POWER

AC-SOURCES

DC LOADS

BATTERY-TESTSYSTEMS

Regenerative

PPST Solutions offers a full range of AC and DC Power Solutions.
Generate and load with AC | Generate and load with DC | Generate and load with AC+DC

Programmable AC/DC-sources

Linear and switching 1-, 3-phase AC & DC Voltage Sources

- 1- and 3-phase, DC, 15-5000Hz
- 0-520Vac RMS up to 180kVA/kW
- Sine only Frequency Changers (45-500Hz)
- Arbitrary Waveform Models
- Test sequences for normative tests according to IEC61000-4-xx
- AC Voltage Amplifier mode for PHIL applications

AFX-Series from Pacific Power Source

The **AFX-Series from Pacific Power Source** is used for grid emulation for example to test charging stations. This is possible due to the floating output as well as programming your own test routines with the included software.

AFX Series from Pacific Power Source

- 1 and 3 phase, 6kVA up to 180kVA
- Frequency: 15-1200Hz (1Hz - 3kHz optional)
- Operation modes: AC, DC, AC+DC, DC+AC
- Voltage: Single voltage range with constant current, 0-333Vac / 425Vdc
- Sine and Arbitrary
- LAN (LXI™), RS232, USB, GPIB
- Harmonic waveform synthesis and analysis
- Programmable output impedance

AC & DC Higher Power Source & Sink

Regenerative

Programmable and Regenerative AC and DC-power supplies for Grid Emulation and Smartgrid Applications

- 0 to 624Vac L-L / 1040Vdc
- Auto-Ranging
- 30kW to 200kW
- Multichannel
- Regenerative
- Constant power dual voltage range
- Integrated arbitrary waveform generator

AZX Series from Pacific Power Source

The **AZX Series from Pacific Power Source** is a high power, high performance AC & DC programmable power source with 100% power regeneration to the grid. Ideal for Grid Simuation to test EV Chargers and other energy producing equipment.

NEW

AZX Series from Pacific Power Source

- 1,2 and 3 Phase/Channel, 30kVA to 200kVA
- Frequency 15-1000Hz
- Operation modes: AC, DC, AC+DC, DC+AC
- Dual Constant Voltage Ranges
- AC: 0~180Vac and 0~360Vac L-N
- DC: ±0~255Vdc and 0~510Vdc per channel
- Harmonic waveform synthesis and analysis
- Programmable output impedance
- Full Power Regenerative

More information on our website www.ppstsolutions.com

Electronic DC-loads

Regenerative

Electronic DC-loads as tabletop and desktop versions - Modular and multichannel, high power and regenerative

- 0-1500VDC
- 0-240kW
- Can be connected in parallel
- CC,CP,CR,CV
- Regenerative

6RL Series Regenerative DC Loads

The 6RL-Series from APS is an advanced regenerative DC load that offers an wide AC-Input range to include common industry grids with 400V or 480V and three-phase voltage.

The 6RL-Series from Adaptive Power Systems

- AC-Input 360-528V, for 400V and 480V grids
- Return of the absorbed DC-Power to the local grid
- Galvanically isolated DC input
- Power input up to 15kW per device, expandable up to 240kW
- Voltage input up to 1500V
- Current input up to 510A per device
- FPGA-based, digital controlling
- Higher Power Cabinet Load Systems Available

Battery testsystems

Regenerative

Full solutions for cell-, module- and pack-testing. The regenerative Test Systems can be used as battery emulators as well

- Up to 1500V/4MW
- Multichannel
- Complete solutions with software
- Optional EIS, temperature and pressure measurements
- Regenerative

B2C+ Series from Cinergia

Cinegia's B2C+-Series offers system solutions to validate and test high-power energy storage systems. The B2C+ Systems are fully regenerative and can be used in an 2-quadrant operating mode or an emulation mode.

B2C+ Series from Cinergia

- 1 and 3 Output Channel Modes
- 7,5kW up to 160kW, can be connected in parallel
- 1 Channel Output up to ±555Adc
- 3 Channel Output up to ±185Adc/channel
- Operating modes: CV, CC, CP
- Galvanic isolation

DC High Power Source & Sink

Regenerative

Bi-polar and 4-quadrant DC-power supplies

- 0-1200VDC/4MW
- Constant power version
- 4-quadrant optional
- 19“ sources, cabinets
- Multichannel
- Modular architecture, can be connected in parallel
- Specific versions available
- With ISO-guard, redundant safety circuit, output relay

AL-3000R Series from Zenone

Zenone‘s AL-3000R Series is being used for static conditions on battery emulation with fast rise times <1mS (10-90%). In a testing laboratory you can use them for burn-in applications as well.
This series is regenerative and can be customized according to your specific needs.

AL3000R Series from Zenone

- Output power up to 4MW, 5000A
- Voltage up to 1200V
- Quick rising times < 1ms
- Operating modes: CV, CC, CP, CR
- RS232, RS485, analog input, digital I/O, Safety circuit; optional LAN, USB, optic fibre
- Resistor simulation 0-1000Ω, 1mΩ resolution

Electronic AC-loads

Regenerative

1-/3-phase electronic AC-loads as tabletop, 19“ and cabinet versions

- 1- and 3-phase
- 0-480V/0-200kVA
- Can be connected in parallel
- CC, CI, CZ, CR, CP
- Optional AC and DC
- Regenerative
- AC-Current amplifier for PHIL-applications

EL+vAC Series from Cinergia

Cinergia offers a wide variety of AC, DC or AC&DC Loads. These are used in a wide variety of applications including the test of charging cables or on board chargers. Characteristic loading curves can easily be programmed using the included software. Inputs can be configured to be floating. You can also use the systems as a current source.

EL+vAC Series from Cinergia

- 3-phase (1-phase)
- 7.5kVA up to 200kVA, can be connected in parallel
- Up to 480Vrms
- Operating modes: CC, CP, CZ
- Galvanic isolation
- EL+ vPA-C Series: Current amplifier for PHIL applications

Current sources

AC&DC current sources for thermal and magnetical trip test, heating test and high current calibration.

- 1- and 3-phase
- Up to 50kA
- Continuous operating mode
- Pulsed operating mode
- DC, 10-1000Hz
- Can be connected in parallel
- Regenerative

GIS Series
from ZENONE

Current sources can be used to perform relay tests and trip tests of fuses and circuit breakers. They are also perfect to testing high current EV charging cables. The frequency range is scalable from DC..10Hz up to .1000Hz.

Our partner ZENONE has a lot of experience in this test area and offers customized test solutions as well.

GIS Series: For AC&DC high current test applications

- Current up to 5000A
- Power up to 200kVA
- 3-phase configuration is also available
- Software and sequencing programming included

AUTOMATED TEST EQUIPMENT

Fully Automated EV Cable Test
Station using LabView

Developing fully automated ATE stations for E-Mobility applications is made easier using insturment drivers for test equipment used. PPST Solutions partners provide LabView drivers for most instruments categories listed here.

We can also refer you to system integrators that specialize in custom test system development as needed.

We are experts in the field of power conversion and electronic test instrumentation and offer you the best in power supplies, electronic loads and Test & Measurement devices in the field of e-mobility. From the charging infrastructure to the high-voltage battery.

We've got what you need.

Professional power supplies, loads & Test-Instrumentation

Our products and solutions are used in R&D, quality inspection, on-site test, inline test, service and maintenance in the following industries:

- E-Mobility
- Avionics and space
- Industrial and medical electronics
- Household appliances and lightning
- Automotive and railway
- Test and measurement
- IT and Telecom
- EMC Compliance and Safety test labs
- Alternative energy and smart grids
- Electrical power industry

Technical sales engineers

Our technical sales engineers are here for you and apply their expertise to:

- Analyse your specifications and requirements
- Study your exact needs and find the best technically and commercially available solution
- Demonstrate test equipment on site as needed

Strong partners

Our partners and suppliers are recognized leaders in the field of power conversion and test&measurement instrumentation.

Expertise and manufacturer's support allow us to offer our customers high quality and affordable products and solutions.

Service & Calibration

We offer in-house service and support as well as professional training and commissioning.

Equipment rentals and RMA service for repairs and calibration complete our range.

System integration - Special solutions

You haven't found a device according to your needs? We also offer individual solutions. Additionally to the listed products we offer customized devices and testsystems specially fitted to your needs.

PPST SOLUTIONS

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Our partners

APS ADAPTIVE POWER SYSTEMS · cinergia · PACIFIC POWER SOURCE · STS INSTRUMENTS · ZENONE POWER ELECTRONIC TEST EQUIPMENTS