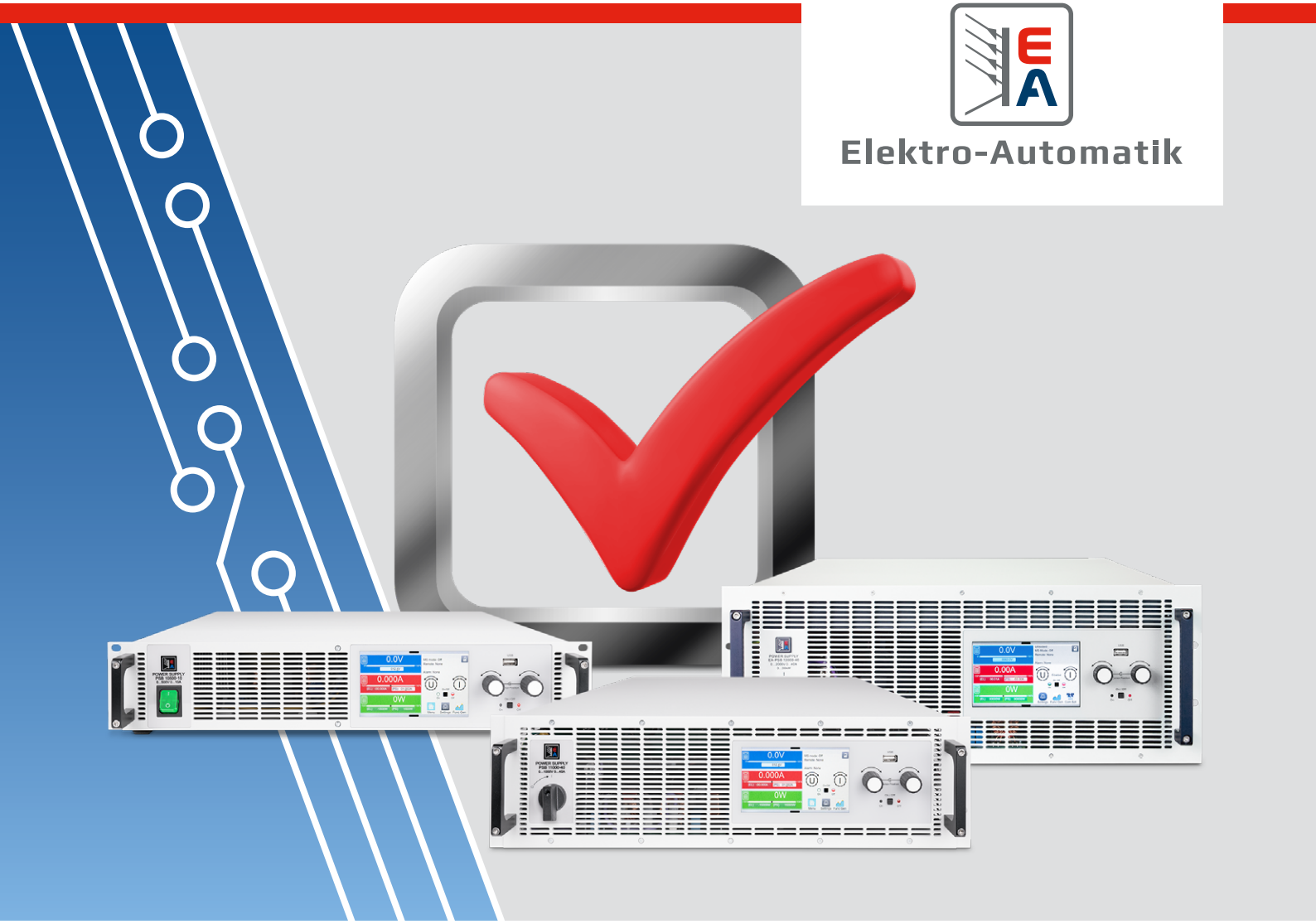
Elektro-Automatik



AUTOMOTIVE | RAILWAY TECHNOLOGY | AVIONICS | MARINE & OFFSHORE | AUTOMATIC TESTING EQUIPMENT | BATTERY | FUEL CELL | RENEWABLE ENERGY | MANUFACTURING AND PROCESS INDUSTRY

YES TO EA-10000 SERIES

Wide range of improved DC power supplies and electronic loads

ENGINEERING

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info@W5engineering.com
866-400-1300

www.W5engineering.com

sales: EA@W5Engineering.com www.elektroautomatik.com

THE EA-10000 SERIES

The most versatile range of programmable laboratory power supplies (PS, PSI), electronic loads (ELR) and bidirectional power supplies (PSB, PSBE) with regenerative mains feedback with common fittings and operation.

EA-10000 4U SERIES

The flagship unit, 10000 4U is, in this form and performance range, the market leader. With 30 kW power all models are available either air or water cooled. Thus, they are available for operation in hostile conditions. With a factor of 3.83 our 920 V 125 A model, which was specially developed for automotive applications (800 V powertrain), offers the widest autoranging range. Thus, with a single device, multiple applications can be covered, saving costs. With the best efficiency in the market no energy is wasted in unnecessary heat generation and hence contributes to CO_2 reduction.

Power Supply	**EA-PS 10000 4U**
Power Supply	**EA-PSI 10000 4U**
Power Supply Bidirectional	**EA-PSBE 10000 4U**
Power Supply Bidirectional	**EA-PSB 10000 4U**
Electronic Load Regenerative	**EA-ELR 10000 4U**

Model	Voltage	Current	Power
10010-1000*	0 – 10 V	0 – 1000 A	0 – 10000 W
10060-1000	0 – 60 V	0 – 1000 A	0 – 30000 W
10080-1000	0 – 80 V	0 – 1000 A	0 – 30000 W
10200-420	0 – 200 V	0 – 420 A	0 – 30000 W
10360-240	0 – 360 V	0 – 240 A	0 – 30000 W
10500-180	0 – 500 V	0 – 180 A	0 – 30000 W
10750-120	0 – 750 V	0 – 120 A	0 – 30000 W
10920-125	0 – 920 V	0 – 125 A	0 – 30000 W
11000-80	0 – 1000 V	0 – 80 A	0 – 30000 W
11500-60	0 – 1500 V	0 – 60 A	0 – 30000 W
12000-40	0 – 2000 V	0 – 40 A	0 – 30000 W

* Only available as a bidirectional device (EA-PSB 10000 & EA-PSBE 10000)

Features

- Uniform device series across all power classes
- Nominal power 10000 4U with 30 kW
- AC mains input with extended range (208 V – 480 V, 3 ph AC)
- DC input / output with autoranging
- Digital (FPGA) controlled DC input / output U – I – P – R
- Colour 5“ TFT touchscreen display
- Common intuitive user interface
- Built-in interfaces: Ethernet, USB, Analog
- Optional interfaces: CAN, CANopen, RS232, Profibus, Profinet, Modbus, Ethercat, Ethernet
- USB-Host for LUT, logging, sequencing
- Galvanically isolated Share-Bus for all power classes
- Master-Slave-Bus for up to 64 participating devices of Series 10000
- Integrated function generator with predefined curves
- Predefined functions for LV123, LV124 and LV148
- Battery test mode, battery and fuel cell simulation
- PV test mode, MPPT tracking, EN50530
- Command languages: SCPI and ModBus
- VI driver, IVI driver, control software for Windows
- Optional stainless steel water cooling

EA-10000 3U SERIES

Our series 10000 3U offers the established devices with 5 kW, 10 kW and 15 kW power in a new dimension. The AC variable input range of 3 phase 208 V to 480 V for global use is achieved with the latest SiC technology. Efficiency of over 96% make these devices highly economic. These devices can be expanded with a 2000 V DC variant for applications in e.g., the PV industry. Thanks to the new intelligent Master-Slave-Bus all power classes with the same output voltage can be combined (2U, 3U and 4U). Thus, a system can be exactly configured to meet your performance needs.

Power Supply	**EA-PS 10000 3U**
Power Supply	**EA-PSI 10000 3U**
Power Supply Bidirectional	**EA-PSBE 10000 3U**
Power Supply Bidirectional	**EA-PSB 10000 3U**
Electronic Load Regenerative	**EA-ELR 10000 3U**

Model	Voltage	Current	Power
10010-510*	0 – 10 V	0 – 510 A	0 – 5100 W
10060-510	0 – 60 V	0 – 510 A	0 – 15000 W
10080-510	0 – 80 V	0 – 510 A	0 – 15000 W
10200-210	0 – 200 V	0 – 210 A	0 – 15000 W
10360-120	0 – 360 V	0 – 120 A	0 – 15000 W
10500-90	0 – 500 V	0 – 90 A	0 – 15000 W
10750-60	0 – 750 V	0 – 60 A	0 – 15000 W
11000-40	0 – 1000 V	0 – 40 A	0 – 15000 W
11500-30	0 – 1500 V	0 – 30 A	0 – 15000 W
12000-20	0 – 2000 V	0 – 20 A	0 – 15000 W

* Only available as a bidirectional device (EA-PSB 10000 & EA-PSBE 10000)

The table shows the 15 kW models. 5 kW and 10 kW models are also available, please see series datasheets.

Features

- Uniform device series across all power classes
- Nominal power 10000 3U with 5 kW, 10 kW and 15 kW
- AC mains input with extended range (208 V – 480 V, 3 ph AC)
- DC input / output with autoranging
- Digital (FPGA) controlled DC input / output U – I – P – R
- Colour 5“ TFT touchscreen display
- Common intuitive user interface
- Built-in interfaces: Ethernet, USB, Analog
- Optional interfaces: CAN, CANopen, RS232, Profibus, Profinet, Modbus, Ethercat, Ethernet
- USB-Host for LUT, logging, sequencing
- Galvanically isolated Share-Bus for all power classes
- Master-Slave-Bus for up to 64 participating devices of Series 10000
- Integrated function generator with predefined curves
- Predefined functions for LV123, LV124 and LV148
- Battery test mode, battery and fuel cell simulation
- PV test mode, MPPT tracking, EN50530
- Command languages: SCPI and ModBus
- VI driver, IVI driver, control software for Windows

EA-10000 2U SERIES

With the series 10000 2U has expanded its product portfolio for applications needing less power but still high flexibility. Starting with 3 kW uni- and bidirectional devices are available, as laboratory power supply, electronic load with power feedback and as a bidirectional power supply.

All devices are programmable via analogue and digital interfaces as well as via the 5" TFT touch display. They offer the same configuration and functionality as those in this series with higher power.

Power Supply	**EA-PS 10000 2U**
Power Supply	**EA-PSI 10000 2U**
Power Supply Bidirectional	**EA-PSB 10000 2U**
Electronic Load Regenerative	**EA-ELR 10000 2U**

Model	Voltage	Current	Power
10010-60*	0 – 10 V	0 – 60 A	0 – 600 W
10060-60	0 – 60 V	0 – 60 A	0 – 1500 W
10080-60	0 – 80 V	0 – 60 A	0 – 1500 W
10200-25	0 – 200 V	0 – 25 A	0 – 1500 W
10360-15	0 – 360 V	0 – 15 A	0 – 1500 W
10500-10	0 – 500 V	0 – 10 A	0 – 1500 W
10750-06	0 – 750 V	0 – 6 A	0 – 1500 W
10010-120*	0 – 10 V	0 – 120 A	0 – 1200 W
10060-120	0 – 60 V	0 – 120 A	0 – 3000 W
10080-120	0 – 80 V	0 – 120 A	0 – 3000 W
10200-50	0 – 200 V	0 – 50 A	0 – 3000 W
10360-30	0 – 360 V	0 – 30 A	0 – 3000 W
10500-20	0 – 500 V	0 – 20 A	0 – 3000 W
10750-12	0 – 750 V	0 – 12 A	0 – 3000 W
11000-10	0 – 1000 V	0 – 10 A	0 – 3000 W
11500-06	0 – 1500 V	0 – 6 A	0 – 3000 W

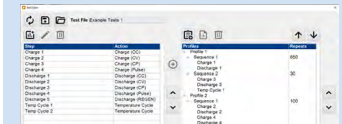
* Only available as a bidirectional device (EA-PSB 10000)

Features

- Uniform device series across all power classes
- Nominal power 10000 2U with 1.5 kW and 3 kW
- AC mains input with extended range (110 V – 240 V AC)
- DC input / output with autoranging
- Digital (FPGA) controlled DC input / output U – I – P – R
- Colour 5" TFT touchscreen display
- Common intuitive user interface
- Built-in interfaces: Ethernet, USB, Analog
- Optional interfaces: CAN, CANopen, RS232, Profibus, Profinet, Modbus, Ethercat, Ethernet
- USB-Host for LUT, logging, sequencing
- Galvanically isolated Share-Bus for all power classes
- Master-Slave-Bus for up to 64 participating devices of Series 10000
- Integrated function generator with predefined curves
- Predefined functions for LV123, LV124 and LV148
- Battery test mode, battery and fuel cell simulation
- PV test mode, MPPT tracking, EN50530
- Command languages: SCPI and ModBus
- VI driver, IVI driver, control software for Windows

EA POWER RACKS

- 19” cabinet system with up to 1.92 MW
- Systems with programmable laboratory power supplies, electronic loads with energy recovering and bidirectional laboratory power supplies
- Optionally available:
  Emergency stop (machine standards EN60204-1)
  Grid monitor (ENS) and insulation monitor
  Stainless steel water cooling
  Copper busbar for DC output
- Special construction for various applications



Test setup display allowing entry of parameters and sequence of execution.

Results display screen showing voltage, current, and the results of a capacity simulation test.

SCALABLE BATTERY TEST SYSTEMS AND CYCLERS

- 0-2000Vdc for Testing High Voltage Batteries & Modules
- Ultra-Compact; 360kW in just one 19" Rack power and up to 3.84MW in Parallel Racks
- Up to 2,400A per rack and 30,720A total capacity
- Slew rates under 500 µs for fast voltage transitions
- Regenerate power to the grid with up to 96.5% efficiency
- Program test parameters, test sequences, output displays, and data files without coding
- Performs all standard drive cycle simulations including FUDS, SFUDS, GSFUDS, DST, and ECE-ISL

INTERFACES, PORTS / SOFTWARE

- **Extensive portfolio of interfaces:**
  Analog, USB, CAN, CANopen, DeviceNet, RS232, EtherCAT, Ethernet 1 and 2 port, Profinet 1 and 2 port, Modbus 1 and 2 port, Profibus, USB-Host
- **Operating software EA-Power Control:**
  Monitor and control up to 20 devices simultaneously.
  Set and actual values in one graphic
- **Software EA-Battery Simulator:**
  Simulates Li-Ion and lead batteries

LEADING-EDGE POWER ELECTRONICS MADE BY EA

Wide application spectrum. Technological excellence. Global customer contact.

The EA Elektro-Automatik Group is Europe's leading supplier in the area of power electronics for R & D and industrial application. At the headquarter in Germany in the industrial centre of North Rhine Westphalia more than 300 qualified associates, research, develop and manufacture high-tech equipment for laboratory power supply, high power mains adaptors and electronic loads with or without power feedback.

Development partner in forward looking sectors

With convincing performance criteria and a broad application spectrum, EA has established itself as the development partner in forward looking sectors. Our devices are used across industries – from battery and fuel cell technology, wind and solar energy, to electrochemicals processes, telecommunications and more.

Automated quality assurance

Results and experience from decades of R & D flow continually into new solutions. Automatic test systems with specially developed soft- and hardware assure a consistently high product quality. Flexible production processes support fast reaction to changing customer requirements.

Global customer contact, value sharing

As a mid-size company EA is totally responsible for the production location in Germany but acts globally with branches in China and USA, sales office in Spain and a wide network of partners. Value sharing, mutual respect and open communication characterise our organization.

Technological excellence is the demand of tomorrow

The foundation of the company in 1974 was based on innovation, a tradition which is maintained today. What started with the development of simple mains adaptors is continued today in the overall concept of technology leadership. With highly specialised power supply systems for a multitude of applications, EA is driving the future of power electronics – technologically excellent, designed for resource protection and energy saving and conceived for a multitude of applications.