Catalogue
8. edition (A)

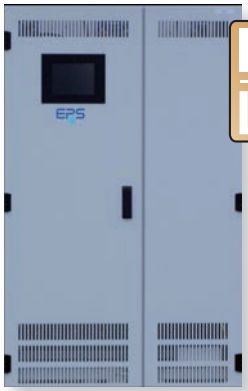
THE WHOLE WORLD OF POWER SUPPLY

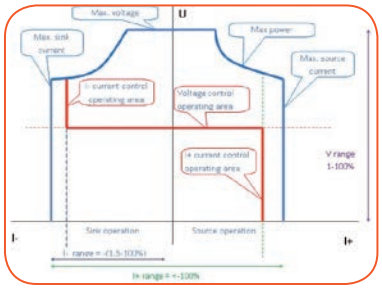
www.eps-germany.de

CONTENT

Subject to change

The contents of this catalogue were compiled with the utmost care and comply with our actual level of information. All previous catalogues are invalid with this additional catalogue 8.A edition, except the main catalogue 8.
Pictures of the devices are partly exemplary and not available for all device series.
The software, partly Freeware and free of charge, does not claim to be complete, correct, exact or free from errors. Any modification of content, name, logo or trademark, as well as resale, rental or other use is prohibited. Download and installation at one's own risk. Any damage, caused by the use of the software on a PC, is not subject of adherence of the vendor. Deviations are possible.





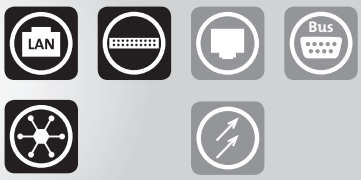
EPS/TSDCR

- Bidirectional –power supply and load in one
- Output 60kW up to 500kW
- Flexible, power regulated DC <-> AC stage
- Intuitive bilingual TFT Touchpanel
- Microprocessor controlled
- Battery test
- Protection: Performance level “d”
- Energy recovery with high efficiency up to 95%

Hybrid and electric drives for vehicles are developed increasingly for a sustainable and environmentally safe mobility. Development-accompanying tests within this range like e.g. the simulation of the electrical system, simulation of energy storages (e.g. Li-Ion battery simulation) require units of extremely high power. Further applications are appropriate for test of fuel cells and feed-in at solar plants (Option Inverter), electric motors, supercaps as well as peak load illustrations.

The test system operates as source/sink feeds back into the grid with high efficiency power conversion obviating the need for external load and it is redundant. Such feed back into grid is crucial feature in these test applications which works with unusually high power. All units have an electrically isolated output and have a TFT touch panel for Voltage, Current and Power. The system can be customized „upgraded“, e.g. with an additional discharge unit during a power failure (mode simulator).

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-60000W	5-200V DC	+-600A	1400x2000x800	EPS/TSDCR 0600200600	124070
0-120000W	5-200V DC	+-600A	2000x2000x800	EPS/TSDCR 1200200600	124076
0-100000W	5-800V DC	+-600A	2000x2000x800	EPS/TSDCR 1000800600	124074
0-100000W	5-800V DC	+-1000A	2200x2000x800	EPS/TSDCR 10008001000	124075
0-160000W	5-800V DC	+-600A	2200x2000x800	EPS/TSDCR 1600800600	124078
0-160000W	5-800V DC	+-1000A	2400x2000x800	EPS/TSDCR 16008001000	124079
0-250000W	5-800V DC	+-600A	2400x2000x800	EPS/TSDCR 2500800600	124082
0-250000W	5-800V DC	+-1000A	2600x2000x800	EPS/TSDCR 25008001000	124083
0-320000W	5-800V DC	+-600A	2400x2000x800	EPS/TSDCR 3200800600	124086
0-320000W	5-800V DC	+-1000A	2600x2000x800	EPS/TSDCR 32008001000	124087
0-400000W	5-800V DC	+-1000A	3600x2000x800	EPS/TSDCR 40008001000	124090
0-500000W	5-800V DC	+-1000A	3600x2000x800	EPS/TSDCR 50008001000	124093
0-100000W	5-1000V DC	+-600A	2200x2000x800	EPS/TSDCR 1001000600	124076
0-100000W	5-1000V DC	+-1000A	2200x2000x800	EPS/TSDCR 10010001000	124077
0-160000W	5-1000V DC	+-600A	2400x2000x800	EPS/TSDCR 1601000600	124080
0-160000W	5-1000V DC	+-1000A	2400x2000x800	EPS/TSDCR 16010001000	124081
0-250000W	5-1000V DC	+-600A	2600x2000x800	EPS/TSDCR 2501000600	124084
0-250000W	5-1000V DC	+-1000A	2600x2000x800	EPS/TSDCR 25010001000	124085
0-320000W	5-1000V DC	+-600A	2600x2000x800	EPS/TSDCR 3201000600	124088
0-320000W	5-1000V DC	+-1000A	2600x2000x800	EPS/TSDCR 32010001000	124089
0-400000W	5-1000V DC	+-600A	3600x2000x800	EPS/TSDCR 4001000600	124091
0-400000W	5-1000V DC	+-1000A	3600x2000x800	EPS/TSDCR 40010001000	124092
0-500000W	5-1000V DC	+-600A	3600x2000x800	EPS/TSDCR 5001000600	124094
0-500000W	5-1000V DC	+-1000A	3800x2000x800	EPS/TSDCR 50010001000	124095



Optional
- Battery simulation, Discharge Unit
- Sink operation
  (eg Photovoltaic, fuel cell)
- Parallel operation
- Protection up to IP54 (Watercooling)
- Multi Channel System

E/PSB 9000-3U

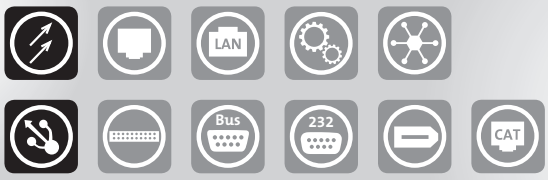
- Bidirectional –power supply and load in one
- 19“ design with 5kW, 10 and 15kW up to 240kW
- Flexible, power regulated DC <-> AC stage
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Integrated arbitrary function generator
- Photovoltaic array, fuel cell simulation, battery test
- MPP-Tracking Simulation
- Protection: OVP, OCP, OPP, OTP, alarm management
- 40V models according to SELV (EN 60950]
- Energy recovery with high efficiency up to 95%

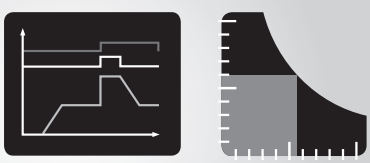
One of the biggest challenges in electromobility is the development of efficient batteries and consequently increasing requirements for testing technology as well as the simulation of energy storage. In order to test functions such as braking and boost operation or purely electric driving in the bench, EPS can now offer an innovative concept for simulating dynamic charging and unloading processes of the batteries.

It is also possible to combine up to 16 devices in a single composite to build up up to 240kW systems. The 2 quadrant power supplies are controllable and refeedable, can be adapted modularly or individually and can be used separately as well as integrated into a test-bench system.

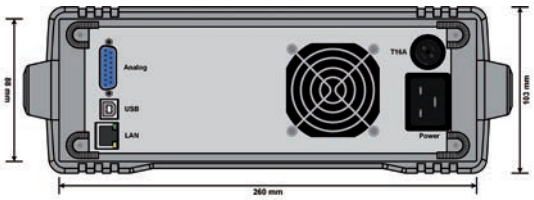
Through the software, the results are made available to the developer and the quality planning, in order to determine the test procedures and limit values for the production together.

Power	Voltage	Current	WxHxD	Model	Webcode
0-5000W	0-60V DC	0-120A	19“x3Ux669mm	E/PSB 9060-120 3U	103200
0-5000W	0-80V DC	0-120A	19“x3Ux669mm	E/PSB 9080-120 3U	103201
0-5000W	0-200V DC	0-70A	19“x3Ux669mm	E/PSB 9200-70 3U	103202
0-5000W	0-360V DC	0-40A	19“x3Ux669mm	E/PSB 9360-40 3U	103203
0-5000W	0-500V DC	0-30A	19“x3Ux669mm	E/PSB 9500-30 3U	103204
0-5000W	0-750V DC	0-20A	19“x3Ux669mm	E/PSB 9750-20 3U	103205
0-10000W	0-60V DC	0-240A	19“x3Ux669mm	E/PSB 9060-240 3U	103206
0-10000W	0-80V DC	0-240A	19“x3Ux669mm	E/PSB 9080-240 3U	103208
0-10000W	0-200V DC	0-140A	19“x3Ux669mm	E/PSB 9200-140 3U	103209
0-10000W	0-360V DC	0-80A	19“x3Ux669mm	E/PSB 9360-80 3U	103210
0-10000W	0-500V DC	0-60A	19“x3Ux669mm	E/PSB 9500-60 3U	103211
0-10000W	0-750V DC	0-40A	19“x3Ux669mm	E/PSB 9750-40 3U	103212
0-10000W	0-1000V DC	0-30A	19“x3Ux669mm	E/PSB 91000-30 3U	103213
0-15000W	0-60V DC	0-360A	19“x3Ux669mm	E/PSB 9060-360 3U	103207
0-15000W	0-80V DC	0-360A	19“x3Ux669mm	E/PSB 9080-360 3U	103214
0-15000W	0-200V DC	0-210A	19“x3Ux669mm	E/PSB 9200-210 3U	103215
0-15000W	0-360V DC	0-120A	19“x3Ux669mm	E/PSB 9360-120 3U	103216
0-15000W	0-500V DC	0-90A	19“x3Ux669mm	E/PSB 9500-90 3U	103217
0-15000W	0-750V DC	0-60A	19“x3Ux669mm	E/PSB 9750-60 3U	103218
0-15000W	0-1000V DC	0-40A	19“x3Ux669mm	E/PSB 91000-40 3U	103219
0-15000W	0-1500V DC	0-30A	19“x3Ux669mm	E/PSB 91500-30 3U	103220





Optional
- Calibration
- Warranty extension

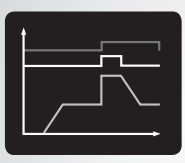


E/PSI 9000 DT

- Desktop design with 320W, 640W, 1000W, 1500W
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Integrated arbitrary function generator (e.g. DIN40839)
- Internal resistance simulation and regulation
- Protection: OVP, OCP, OPP, OTP, alarm management
- Discharge circuit (Uout < 60V ≤ 10s)
- 40V models according to SELV (EN 60950]

The user-friendly laboratory power supplies are suitable by their compact desktop design with carrying handle and tilt stand especially for test systems and training institutions. About the common features of power supplies also with the integrated function and arbitrary waveform sine, rectangular or triangular setpoint curves, offset, and other waveforms can be generated. Thus, complex processes, for example, for product testing, up to 100 sequences are both created and executed, as well as stored on a USB stick or loaded them (front). Also a photovoltaic source, a battery and a fuel cell simulation are possible. Setpoints and actual values, status displays and messages are clearly displayed on an intuitive TFT touch panel. Models with a nominal voltage of 200V or higher include a discharge circuit for the output capacities. For no load or low situations, it ensures that the dangerous output voltage can sink to below 60V DC in max.10 seconds (SELV according to EN60950).

Power	Voltage	Current	WxHxD	Model	Webcode
0-320W	0-40V DC	0-20A	276x103x355mm	E/PSI 9040-20 DT	103110
0-320W	0-80V DC	0-10A	276x103x355mm	E/PSI 9080-10 DT	103111
0-320W	0-200V DC	0-4A	276x103x355mm	E/PSI 9200-04 DT	103112
0-640W	0-40V DC	0-40A	276x103x355mm	E/PSI 9040-40 DT 1kW	103113
0-640W	0-80V DC	0-20A	276x103x355mm	E/PSI 9080-20 DT	103114
0-640W	0-200V DC	0-10A	276x103x355mm	E/PSI 9200-10 DT	103115
0-1000W	0-40V DC	0-40A	276x103x415mm	E/PSI 9040-40 DT 1kW	103126
0-1000W	0-80V DC	0-40A	276x103x415mm	E/PSI 9080-40 DT	103116
0-1000W	0-200V DC	0-15A	276x103x415mm	E/PSI 9200-15 DT	103117
0-1000W	0-360V DC	0-10A	276x103x415mm	E/PSI 9360-10 DT	103118
0-1000W	0-500V DC	0-6A	276x103x415mm	E/PSI 9500-06 DT	103119
0-1000W	0-750V DC	0-4A	276x103x415mm	E/PSI 9750-04 DT	103120
0-1500W	0-40V DC	0-60A	276x103x415mm	E/PSI 9040-60 DT	103127
0-1500W	0-80V DC	0-60A	276x103x415mm	E/PSI 9080-60 DT	103121
0-1500W	0-200V DC	0-25A	276x103x415mm	E/PSI 9200-25 DT	103122
0-1500W	0-360V DC	0-15A	276x103x415mm	E/PSI 9360-15 DT	103123
0-1500W	0-500V DC	0-10A	276x103x415mm	E/PSI 9500-10 DT	103124
0-1500W	0-750V DC	0-6A	276x103x415mm	E/PSI 9750-06 DT	103125



Optional
- Calibration
- Warranty extension

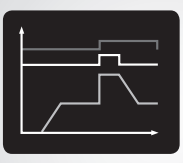
≤ 640W

E/PSI 9000 T

- Desktop design with 320W, 640W, 1000W, 1500W
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Integrated arbitrary function generator
- Internal resistance simulation and regulation
- Protection: OVP, OCP, OPP, OTP, alarm management
- 40V models according to SELV (EN 60950]
- High efficiency up to 92%

The space-saving laboratory power supplies are especially suitable for the use in test and development applications, in laboratories and research. Owing to a special filtering, the HF and NF output ripple are reduced to a level closing up to those of linear technology power supplies.
The implemented supervisions for all output parameters (Alarm Manager) can help to reduce test equipment and make it almost unnecessary to install external supervision hardware and software. For the integration into semi-automatic and remotely controlled test and automatic systems, the units offer a USB interface for standard.
The control software EPS/PC (124175) for Windows allows remote control of multiple similar or different devices (optional, up to 20). It has a clear display for all set and actual values, as well as direct input mode of SCPI and ModBus commands, a firmware update function and the semi-automatic control table „Sequencing“.

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-320W	0-40V DC	0-20A	92x237x352	E/PSI 9040-20 T	103170
0-320W	0-80V DC	0-10A	92x237x352	E/PSI 9080-10 T	103171
0-320W	0-200V DC	0-4A	92x237x352	E/PSI 9200-04 T	103172
0-640W	0-40V DC	0-40A	92x237x352	E/PSI 9040-40 T 640W	103173
0-640W	0-80V DC	0-20A	92x237x352	E/PSI 9080-20 T	103174
0-640W	0-200V DC	0-10A	92x237x352	E/PSI 9200-10 T	103175
0-1000W	0-40V DC	0-40A	92x237x412	E/PSI 9040-40 T 1000W	103176
0-1000W	0-80V DC	0-40A	92x237x412	E/PSI 9080-40 T	103177
0-1000W	0-200V DC	0-15A	92x237x412	E/PSI 9200-15 T	103178
0-1000W	0-500V DC	0-6A	92x237x412	E/PSI 9500-06 T	103179
0-1500W	0-40V DC	0-60A	92x237x412	E/PSI 9040-60 T	103180
0-1500W	0-80V DC	0-60A	92x237x412	E/PSI 9080-60 T	103181
0-1500W	0-200V DC	0-25A	92x237x412	E/PSI 9200-25 T	103182
0-1500W	0-500V DC	0-10A	92x237x412	E/PSI 9500-10 T	103183



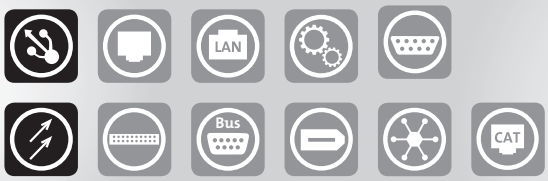
Optional
- Calibration
- Warranty extension

E/PSE 9000-3U

- 19“ design with 3,3kW, 5kW, 10 and 15kW up to 150kW
- Backlight up to five-digit display
- Microprocessor controlled
- Memory functions for settings
- Keyboard lock
- High efficiency up to 95,5%
- Protection: OVP, OCP, OPP, OTP
- 40V models according to SELV (EN 60950]

Actual values, set values, status and alarms are clearly represented on the blue LCD-display. Thus the power supplies may, for example, be operated with other power supplies or even other types of equipment or controlled by a PC or PCL, all using the digital interfaces. In addtion, the devices offer as standard the parallel switching in Shared Bus operation for constant current sharing and for extension of the total power of up to 150kW and up to 5100A per 42U rack. Also you have the possibility to connect the compatible power supplies via a Shared Bus, in order to create a so-called two-quadrant system. Typical applications e.g. for the source-sink principle are: battery test with automatic charge and discharge cycles, automotive electronic tests with simulation of transients (like voltage break-ins during engine starts) and cyclic charging and discharging of capacitors. In order to achieve rapid voltage changes with minimal ramp up and down times, the filter capacity can be reduced by some version with the option High speed »EPS/HS«. It results in ramp times in the range of microseconds.

Power	Voltage	Current	WxHxD	Model	Webcode
0-3300W	0-40V DC	0-170A	19“x3Ux609mm	E/PSE 9040-170 3U	124200
0-5000W	0-80V DC	0-170A	19“x3Ux609mm	E/PSE 9080-170 3U	124201
0-5000W	0-200V DC	0-70A	19“x3Ux609mm	E/PSE 9200-70 3U	124202
0-5000W	0-360V DC	0-40A	19“x3Ux609mm	E/PSE 9360-40 3U	124203
0-5000W	0-500V DC	0-30A	19“x3Ux609mm	E/PSE 9500-30 3U	124204
0-5000W	0-750V DC	0-20A	19“x3Ux609mm	E/PSE 9750-20 3U	124205
0-6600W	0-40V DC	0-340A	19“x3Ux609mm	E/PSE 9040-340 3U	124206
0-10000W	0-40V DC	0-510A	19“x3Ux609mm	E/PSE 9040-510 3U	124207
0-10000W	0-80V DC	0-340A	19“x3Ux609mm	E/PSE 9080-340 3U	124208
0-10000W	0-200V DC	0-140A	19“x3Ux609mm	E/PSE 9200-140 3U	124209
0-10000W	0-360V DC	0-80A	19“x3Ux609mm	E/PSE 9360-80 3U	124210
0-10000W	0-500V DC	0-60A	19“x3Ux609mm	E/PSE 9500-60 3U	124211
0-10000W	0-750V DC	0-40A	19“x3Ux609mm	E/PSE 9750-40 3U	124212
0-10000W	0-1000V DC	0-30A	19“x3Ux609mm	E/PSE 91000-30 3U	124213
0-15000W	0-80V DC	0-510A	19“x3Ux609mm	E/PSE 9080-510 3U	124214
0-15000W	0-200V DC	0-210A	19“x3Ux609mm	E/PSE 9200-210 3U	124215
0-15000W	0-360V DC	0-120A	19“x3Ux609mm	E/PSE 9360-120 3U	124216
0-15000W	0-500V DC	0-90A	19“x3Ux609mm	E/PSE 9500-90 3U	124217
0-15000W	0-750V DC	0-60A	19“x3Ux609mm	E/PSE 9750-60 3U	124218
0-15000W	0-1500V DC	0-30A	19“x3Ux609mm	E/PSE 91500-30 3U	124219



Optional
- Calibration
- Warranty extension
- Water cooling
- High Speed

E/PS 9000 T

- Desktop design with 320W, 640W, 1000W, 1500W
- Intuitive multi-language TFT Touchpanel
- Up to five-digit display for voltage and current
- Microprocessor controlled
- Flexible, power regulated output stage
- Temperature regulated fan
- Protection: OVP, OCP, OPP, OTP
- 40V models according to SELV (EN 60950]

≥ 1000W

The space-saving laboratory power supplies are especially suitable for the use in test and development applications, in laboratories and research. Owing to a special filtering, the HF and NF output ripple are reduced to a level closing up to those of linear technology power supplies.
Models with a nominal voltage of 200V or higher include a discharge circuit for the output capacities. For no load or low situations, it ensures that the dangerous output voltage can sink to below 60V DC in max.10 seconds (SELV according to EN60950). The implemented supervisions can help to reduce test equipment and make it almost unnecessary to install external supervision hardware and software. For the integration into semi-automatic and remotely controlled test and automatic systems, the units offer a USB interface for standard.

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-320W	0-40V DC	0-20A	92x237x352	E/PS 9040-20 T	103186
0-320W	0-80V DC	0-10A	92x237x352	E/PS 9080-10 T	103187
0-320W	0-200V DC	0-4A	92x237x352	E/PS 9200-04 T	103188
0-640W	0-40V DC	0-40A	92x237x352	E/PS 9040-40 T 640W	103189
0-640W	0-80V DC	0-20A	92x237x352	E/PS 9080-20 T	103190
0-640W	0-200V DC	0-10A	92x237x352	E/PS 9200-10 T	103191
0-1000W	0-40V DC	0-40A	92x237x412	E/PS 9040-40 T 1000W	103192
0-1000W	0-80V DC	0-40A	92x237x412	E/PS 9080-40 T	103193
0-1000W	0-200V DC	0-15A	92x237x412	E/PS 9200-15 T	103194
0-1000W	0-500V DC	0-6A	92x237x412	E/PS 9500-06 T	103195
0-1500W	0-40V DC	0-60A	92x237x412	E/PS 9040-60 T	103196
0-1500W	0-80V DC	0-60A	92x237x412	E/PS 9080-60 T	103197
0-1500W	0-200V DC	0-25A	92x237x412	E/PS 9200-25 T	103198
0-1500W	0-500V DC	0-10A	92x237x412	E/PS 9500-10 T	103199

Optional
- Calibration
- Warranty extension

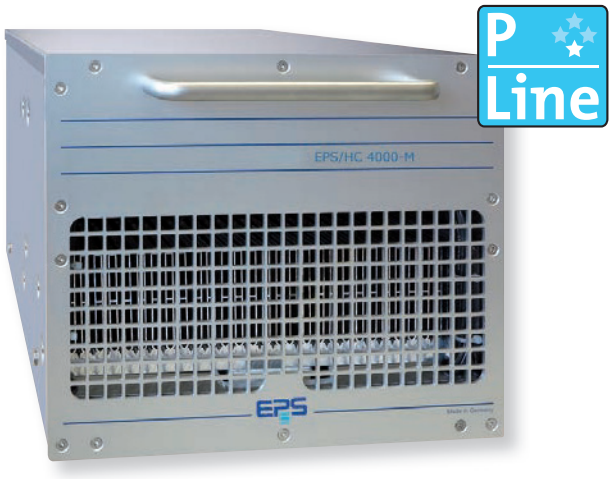
E/PS 3000 C

- Desktop Power Supplies 160W, 320W, 640W
- Coloured display
- Microprocessor controlled
- Suitable for schools and laboratories
- Internal resistance regulation
- Protection: OVP, OCP, OPP, OTP
- 40V Models according to SELV (EN 60950]
- Carrying handle and tilt stand

Cost-effective desktop units for a wide range of laboratory applications? We now have power supplies with Voltages from 0-40V to 200V and Currents up to 40A. They ensure clean output Voltages and Currents with low ripples and noise. The small size of the housing, the intuitive control panel with the coloured display, together with the DC output on the front, facilitate the construction, connection and operation at work. The standard carrying handle and tilt stand make handling easy. Furthermore to standard features of power supply devices, they offer some additional features, which simplify working with these devices and help save time. In addition to set values, monitoring limits and user profiles can also be quickly configured or retrieved. The Laboratory power supplies can be extended by different interfaces. For this purpose, digital interfaces such as USB, USB and Ethernet or an analogue interface are available as an option. All interfaces and the control unit are galvanically isolated to the input.

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-160W	0-40V DC	0-10A	260x88x323	E/PS 3040-10 C	113000
0-160W	0-80V DC	0-5A	260x88x323	E/PS 3080-05 C	113001
0-160W	0-200V DC	0-2A	260x88x323	E/PS 3200-02 C	113002
0-320W	0-40V DC	0-20A	260x88x323	E/PS 3040-20 C	113003
0-320W	0-80V DC	0-10A	260x88x323	E/PS 3080-10 C	113004
0-320W	0-200V DC	0-4A	260x88x323	E/PS 3200-04 C	113005
0-640W	0-40V DC	0-40A	260x88x323	E/PS 3040-40 C	113006
0-640W	0-80V DC	0-20A	260x88x323	E/PS 3080-20 C	113007
0-640W	0-200V DC	0-10A	260x88x323	E/PS 3200-10 C	113008

Optional
- Calibration



EPS/HC 4000-M

- Built-in Power Supply with up to 48.000W
- Power unit
- High efficiency up to 92%
- Protection: Input current limitation, OVP, OCP
- Low voltage models according to SELV (EN 60950]
- Optimized cooling air channel
- Ideally for high-current application, e.g. electroplating

We have expanded our built-in Power Supplies series with low voltages and high currents up to 2200A to 48kW. Dispensing with a control panel and a display, these devices are designed for high power at a low price, ideal for integration in an automated industrial environment. The Power Supply units can be equipped with numerous functions. Via the internal CAN interface, numerous bus couplers can be connected to the device. We can offer these reliable, proven rectifiers also with other ranges of voltage and power thanks to the flexible design of the power unit. Benefit from truly affordable bulk power and low operating costs!

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
6000W	0-6V DC	0-1000A	314x262x455	EPS/HC 40006-1000-M	102785
7200W	0-6V DC	0-1200A	314x262x455	EPS/HC 40006-1200-M	102786
10000W	0-10V DC	0-1000A	314x262x455	EPS/HC 40010-1000-M	102787
12000W	0-10V DC	0-1200A	314x262x455	EPS/HC 40010-1200-M	102788
13200W	0-6V DC	0-2200A	413x261x596	EPS/HC 40006-2200-M	102857
18000W	0-15V DC	0-1200A	314x262x455	EPS/HC 40015-1200-M	102789
18000W	0-18V DC	0-1000A	314x262x455	EPS/HC 40018-1000-M	102792
18000W	0-30V DC	0-600A	314x262x455	EPS/HC 40030-600-M	102790
22000W	0-10 VDC	0-2200A	413x261x596	EPS/HC 40010-2200-M	102858
24000W	0-40V DC	0-600A	314x262x455	EPS/HC 40040-600-M	102791
39600W	0-18V DC	0-2200A	413x261x596	EPS/HC 40018-2200-M	102860
48000W	0-30V DC	0-1600A	413x261x596	EPS/HC 40030-1600-M	102863
48000W	0-40V DC	0-1200A	413x261x596	EPS/HC 40040-1200-M	102865

Optional
- External LCD control panel
- Remote sense
- Reverse polarity function
- Customized solutions

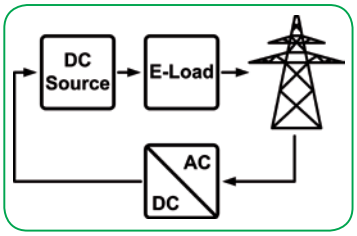
EPS/HPE

- 19” Power Supplies with 20, 30, 40, 60, 80, 100, 120 and 150kW
- Grafic display
- Constant Voltage and Current
- Parallel operation
- Protection: OVP, OTP, short circuit
- High efficiency up to 92%

The microprocessors controlled Power Supplies are due to their compact construction in a 19“ enclosure are ideally suited to easily transition into cost effective production and bulk power solutions, i.e. semiconductor tests and burn-in. Available are units with high output voltages between 0-1500V DC. For remote control using a PC or PLC the devices are provided as standard with an RS232 interface as well as an isolated analog interface on the rear side.
Further options are the »EPS/ATE« without front operation and a DC input from 250-750V. Also, other AC input voltages are available on request.

Power	Voltage	Current	Model	Webcode
20000W	0-20V DC	0-1000A	EPS/HPE-20201000	113500
20000W	0-40V DC	0-500A	EPS/HPE-2040500	113501
20000W	0-80V DC	0-250A	EPS/HPE-2080250	113502
20000W	0-150V DC	0-133A	EPS/HPE-20150133	113503
20000W	0-300V DC	0-66A	EPS/HPE-2030066	113504
20000W	0-600V DC	0-33A	EPS/HPE-2060033	113505
20000W	0-800V DC	0-25A	EPS/HPE-2080025	113506
20000W	0-1000V DC	0-20A	EPS/HPE-20100020	113507
20000W	0-1200V DC	0-16A	EPS/HPE-20120016	113508
20000W	0-1500V DC	0-13A	EPS/HPE-20150013	113509
30000W	0-20V DC	0-1500A	EPS/HPE-30201500	113520
30000W	0-40V DC	0-750A	EPS/HPE-3040750	113521
30000W	0-80V DC	0-375A	EPS/HPE-3080375	113522
30000W	0-150V DC	0-200A	EPS/HPE-30150200	113523
30000W	0-300V DC	0-100A	EPS/HPE-30300100	113524
30000W	0-600V DC	0-50A	EPS/HPE-3060050	113525
30000W	0-800V DC	0-37A	EPS/HPE-3080037	113526
30000W	0-1000V DC	0-30A	EPS/HPE-30100030	113527
30000W	0-1200V DC	0-25A	EPS/HPE-30120025	113528
30000W	0-1500V DC	0-20A	EPS/HPE-30150020	113529
40000W	0-20V DC	0-2000A	EPS/HPE-40202000	113540
40000W	0-40V DC	0-1000A	EPS/HPE-40401000	113541
40000W	0-80V DC	0-500A	EPS/HPE-4080500	113542
40000W	0-150V DC	0-266A	EPS/HPE-40150266	113543
40000W	0-300V DC	0-133A	EPS/HPE-40300133	113544
40000W	0-600V DC	0-66A	EPS/HPE-4060066	113545
40000W	0-800V DC	0-50A	EPS/HPE-4080050	113546
40000W	0-1000V DC	0-40A	EPS/HPE-40100040	113547
40000W	0-1200V DC	0-33A	EPS/HPE-40120033	113548
40000W	0-1500V DC	0-26A	EPS/HPE-40150026	113549
60000W	0-20V DC	0-3000A	EPS/HPE-60203000	113560
60000W	0-40V DC	0-1500A	EPS/HPE-60401500	113561
60000W	0-80V DC	0-750A	EPS/HPE-6080750	113562
60000W	0-150V DC	0-400A	EPS/HPE-60150400	113563
60000W	0-300V DC	0-200A	EPS/HPE-60300200	113564
60000W	0-600V DC	0-100A	EPS/HPE-60600100	113565
60000W	0-800V DC	0-75A	EPS/HPE-6080075	113566
60000W	0-1000V DC	0-60A	EPS/HPE-60100060	113567
60000W	0-1200V DC	0-50A	EPS/HPE-60120050	113568
60000W	0-1500V DC	0-40A	EPS/HPE-60150040	113569
80000W	0-20V DC	0-4000A	EPS/HPE-80204000	113580
80000W	0-40V DC	0-2000A	EPS/HPE-80402000	113581
80000W	0-80V DC	0-1000A	EPS/HPE-80801000	113582
80000W	0-150V DC	0-533A	EPS/HPE-80150533	113583
80000W	0-300V DC	0-267A	EPS/HPE-80300267	113584
80000W	0-600V DC	0-133A	EPS/HPE-80600133	113585
80000W	0-800V DC	0-100A	EPS/HPE-80800100	113586
80000W	0-1000V DC	0-80A	EPS/HPE-80100080	113587
80000W	0-1200V DC	0-66A	EPS/HPE-80120066	113588
80000W	0-1500V DC	0-53A	EPS/HPE-80150053	113589
100000W	0-20V DC	0-5000A	EPS/HPE-100205000	113600
100000W	0-40V DC	0-2500A	EPS/HPE-100402500	113601
100000W	0-80V DC	0-1250A	EPS/HPE-100801250	113602
100000W	0-150V DC	0-666A	EPS/HPE-100150666	113603
100000W	0-300V DC	0-333A	EPS/HPE-100300333	113604

Optional
- Without frontpanel (ATE)
- DC input 250-750V
- Warranty extension

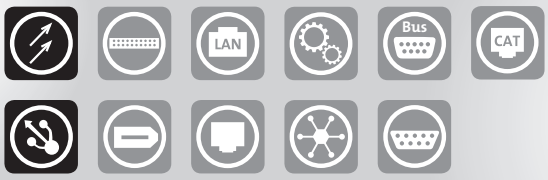


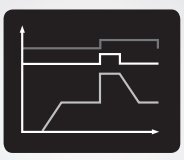
EPS/ELR 9000-HP

- 19“ regenerative load 5kW, 10 and 15kW
- Modi: U, I, P, R
- Multilingual control TFT Touchpanel
- FPGA/DSP-based, digital control
- Integrated arbitrary function generator
- Battery test, MPP-Tracking function
- Master/Slave operation with total formation
- USB-Port on the front side for USB-sticks
- Galvanically isolated DC input

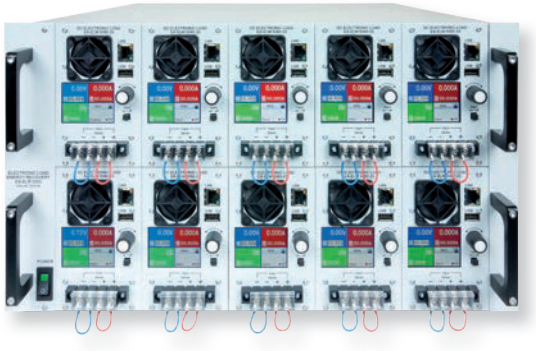
We have expanded our regenerative loads EPS/ELR as a high power series up to 240kW.
Simply feed back the electrical energy with an average efficiency of 93% in the grid and save yourself the cost of air conditioning or other cooling system.
The scalable loads have an intuitive TFT display panel with touch function to adjust and read all parameters quickly. An arbitrary generator allows the user to configure and run various work profiles in all modes. Thanks to a wide range of different interface cards, the device is also quickly connected to a PC or integrated into a complex test stand.
Opt for this load it is simply the best available!

Power	Voltage	Current	WxHxD	Model	Webcode
0-5kW	0-80V DC	0-170A	19“x3Ux670mm	EPS/ELR 9080-170-HP	103140
0-5kW	0-200V DC	0-70A	19“x3Ux670mm	EPS/ELR 9200-70-HP	103141
0-5kW	0-360V DC	0-40A	19“x3Ux670mm	EPS/ELR 9360-40-HP	103142
0-5kW	0-500V DC	0-30A	19“x3Ux670mm	EPS/ELR 9500-30-HP	103143
0-5kW	0-750V DC	0-22A	19“x3Ux670mm	EPS/ELR 9750-22-HP	103144
0-10kW	0-80V DC	0-340A	19“x3Ux670mm	EPS/ELR 9080-340-HP	103145
0-10kW	0-200V DC	0-140A	19“x3Ux670mm	EPS/ELR 9200-140-HP	103146
0-10kW	0-360V DC	0-80A	19“x3Ux670mm	EPS/ELR 9360-80-HP	103147
0-10kW	0-500V DC	0-60A	19“x3Ux670mm	EPS/ELR 9500-60-HP	103148
0-10kW	0-750V DC	0-44A	19“x3Ux670mm	EPS/ELR 9750-44-HP	103149
0-10kW	0-1000V DC	0-30A	19“x3Ux670mm	EPS/ELR 91000-30-HP	103150
0-15kW	0-80V DC	0-510A	19“x3Ux670mm	EPS/ELR 9080-510-HP	103151
0-15kW	0-200V DC	0-210A	19“x3Ux670mm	EPS/ELR 9200-210-HP	103152
0-15kW	0-360V DC	0-120A	19“x3Ux670mm	EPS/ELR 9360-120-HP	103153
0-15kW	0-500V DC	0-90A	19“x3Ux670mm	EPS/ELR 9500-90-HP	103154
0-15kW	0-750V DC	0-66A	19“x3Ux670mm	EPS/ELR 9750-66-HP	103155
0-15kW	0-1000V DC	0-40A	19“x3Ux670mm	EPS/ELR 91000-40-HP	103156
0-15kW	0-1500V DC	0-30A	19“x3Ux670mm	EPS/ELR 91500-30-HP	103157





Optional
- Mains Supervision System
- 19” Cabinet
- Calibration
- Warranty extension

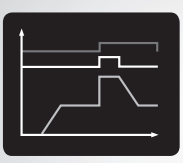


EPS/ELR/ELM 5000

- 19“ Multi-channel load with 320W up to 3200W
- Intuitive bilingual TFT Touchpanel
- Microprocessor controlled
- Modes: I, U, P
- Integrated sequence generator
- Protection: OVP, OCP, OPP, OTP
- Energy recovery with high efficiency up to 92%

The electronic multi-channel DC load is a combination of a 19“ 6U rack (EPS/ELR 5000) and up to 10 units of electronic DC load modules EPS/ELM. The modular units operate seperately from each other, but require the rack as it contains the energy recovering DC/AC inverter. The modules are also extendable. Parallel connection on the DC inputs of the module is possible. A mixed setup of 80 V and 200 V versions is also possible. The modules run separate from each other and form a multi-channel DC load for industrial applications, for instance to test multiple E.U.T at once. Beyond standard features of electronic loads, set point based runs can be generated by the integrated sequence generator. It offers 100 points for arbitrary configurations of voltage, current, power and time each. The resulting sequence can be stored to or loaded from a USB stick. Remote control and/or monitoring is supported by the devices via the protocols ModBus RTU and the prolific SCPI.

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-320W	0-80V DC	0-25A	81x132,5x310	EPS/ELM 5080-25	124181
0-320W	0-200V DC	0-12A	81x132,5x310	EPS/ELM 5200-12	124182
			19“x6Ux500mm	EPS/ELR 5000	124185



Optional
- Ethernet Patch-Rack
- Multi-Control Software
- 19” Cabinet
- Warranty extension

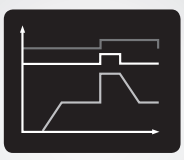
EPS/EL 9000B-HP

- 19“ electronic loads with 600W up to 2400W
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Modes: I, U, P, R
- Integrated arbitrary function generator
- MPP-Tracking and battery test function
- Protection: OVP, OCP, OPP, OTP

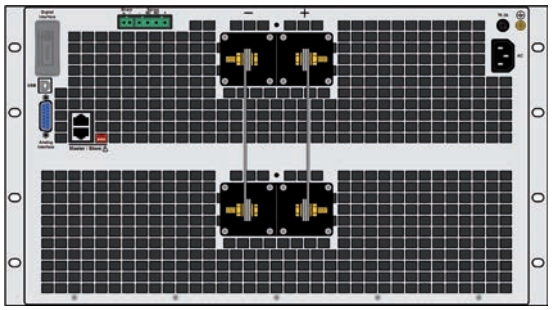
The new electronic high performance loads are especially suitable for test systems and industrial controls due to their compact construction of a 19“ enclosure with 2 height units (2U). The result is a space saving of 33%. In the battery test mode, a battery can be discharged with a constant current, - power or - resistance until the battery voltage reaches an adjustable final discharge voltage. If this threshold is exceeded, the load input is automatically switched off (deep discharge protection). The discharge time and consumed charge (Ah) are measured and displayed.
In addition the devices offer the possibility to connect to compatible power supplies via a Shared Bus, in order to create a so-called two-quadrants system. This operation mode uses the source-sink principle for testing devices, components and other parts in many industrial areas. A genuine master-slave connection with totalling of the slave units is also provided as standard. Operating in this way allows up to 10 units to be combined to a single system with a total power of up to 24 kW at 1700 A.

Power	Voltage	Current	WxHxD	Model	Webcode
0-600W	0-500V DC	0-15A	19“x2Ux464mm	EPS/EL 9500-15-HP 2U	113723
0-600W	0-750V DC	0-10A	19“x2Ux464mm	EPS/EL 9750-10-HP 2U	113724
0-900W	0-360V DC	0-20A	19“x2Ux464mm	EPS/EL 9360-20-HP 2U	113722
0-1000W	0-200V DC	0-35A	19“x2Ux464mm	EPS/EL 9200-35-HP 2U	113721
0-1200W*	0-80V DC	0-85A	19“x2Ux464mm	EPS/EL 9080-85-HP 2U	113720
0-1200W	0-500V DC	0-30A	19“x2Ux464mm	EPS/EL 9500-30-HP 2U	113728
0-1200W	0-750V DC	0-20A	19“x2Ux464mm	EPS/EL 9750-20-HP 2U	113729
0-1800W	0-360V DC	0-40A	19“x2Ux464mm	EPS/EL 9360-40-HP 2U	113727
0-2000W	0-200V DC	0-70A	19“x2Ux464mm	EPS/EL 9200-70-HP 2U	113726
0-2400W*	0-80V DC	0-170A	19“x2Ux464mm	EPS/EL 9080-170-HP 2U	113725

*Derating @ 40°C



Optional
- 19” cabinet
- Multi Control Software
- Calibration
- Warranty extension

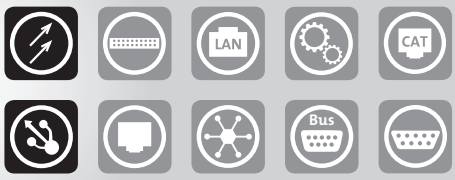


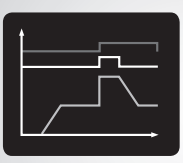
EPS/EL 9000B-6U

- 19“ load with 7200W up to 14400W
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Integrated arbitrary function generator
- High dynamic
- Modes: I, U, P, R, Battery and MPPT function
- Master-Slave operation possible up to 144kW
- Isolated DC-input
- USB-Port on the front side for USB sticks

We have expanded our electronic high performance loads to 14,4kW which provides exactly the features you need to facilitate and speed up your work. A genuine master-slave connection with totalling of the slave units is also provided as standard. Operating in this way allows up to 10 units to be combined to a single system with a total power of up to 144 kW at 10200 A.
The powerful FPGA microprocessor (16bit) with integrated function generator for predefined curves (sine, trapezoidal, square, ramp) or freely programmed sequences and the intuitive, color touch panel are precisely the tools you need every day. The units have a high accuracy and stability, are very dynamic (current pulses of up to 30µs) and thanks tot he FET linear amplifier they are free of ripple. Due to the many interfaces, the electronic loads are ideal for integration into automated test sequences in test rigs or building cascaded, scalable high-load applications.

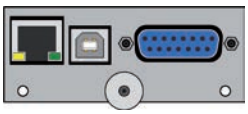
Power	Voltage	Current	WxHxD	Model	Webcode
0-7200W	0-500V DC	0-180A	19“x6Ux464mm	EPS/EL 9500-180B 6U	112928
0-7200W	0-750V DC	0-120A	19“x6Ux464mm	EPS/EL 9750-120B 6U	112929
0-10800W*	0-360V DC	0-240A	19“x6Ux464mm	EPS/EL 9360-240B 6U	112927
0-12000W*	0-200V DC	0-420A	19“x6Ux464mm	EPS/EL 9200-420B 6U	112926
0-14400W*	0-80V DC	0-1020A	19“x6Ux464mm	EPS/EL 9080-1020B 6U	112925
*Derating @ 25°C					





Optional
- 19” cabinet
- Multi Control Software
- Calibration
- Warranty extension

Interface T models



EPS/EL 9000 T/DT

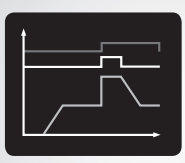
- Desktop design with 400W up to 1200W
- Intuitive multi-language TFT Touchpanel
- Microprocessor controlled
- Modes: I, U, P, R
- Integrated arbitrary function generator
- MPP-Tracking and battery function
- Protection: OVP, OCP, OPP, OTP

The compact DC loads are especially suitable for research laboratories, test applications or educational, all due to their compact construction in a rugged desktop enclosure. Apart from basic functions of electronic loads, set point curves can be produced in the integrated function generator (sine, rectangular, triangular and other curve types). Arbitrary curves (100 sequences) can be stored on and uploaded from a USB stick. For purposes of testing all kinds of batteries, such as for example constant current or constant resistance discharging, the devices offer a battery test mode. It counts values for elapsed testing time and cosumed capacity (Ah) and energy (Wh). Data recorded by the PC during tests with EPS/PC Software can be exported as Excel table in CSV format and analysed later in MS Excel or similar tools and even visualised as a discharge diagram. A carrying handle at –DT models can serve as tilt stand, allowing for simple setup of different positions by the user in order to make it easier to read from the display or access the control elements.

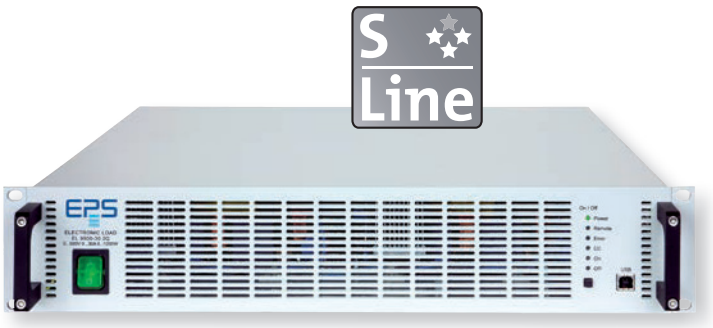
Power	Voltage	Current	WxHxD (mm)	Model	Webcode
400W	0-500V DC	0-10A	92x239x352	EPS/EL 9500-10 T	113683
500W	0-200V DC	0-18A	92x239x352	EPS/EL 9200-18 T	113682
600W*	0-80V DC	0-45A	92x239x352	EPS/EL 9080-45 T	113681
400W	0-500V DC	0- 8A	276x103x415	EPS/EL 9500-08 DT	113673
400W	0-750V DC	0- 5A	276x103x415	EPS/EL 9750-05 DT	113674
450W	0-360V DC	0-10A	276x103x415	EPS/EL 9360-10 DT	113672
500W	0-200V DC	0-18A	276x103x415	EPS/EL 9200-18 DT	113671
600W*	0-80V DC	0-45A	276x103x415	EPS/EL 9080-45 DT	113670
600W	0-500V DC	0-16A	276x103x415	EPS/EL 9500-16 DT	113678
600W	0-750V DC	0-10A	276x103x415	EPS/EL 9750-10 DT	113679
900W	0-360V DC	0-20A	276x103x415	EPS/EL 9360-20 DT	113677
1000W*	0-200V DC	0-36A	276x103x415	EPS/EL 9200-36 DT	113676
1200W*	0-80V DC	0-60A	276x103x415	EPS/EL 9080-60 DT	113675

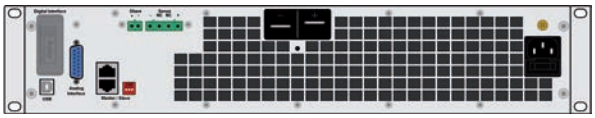
*Derating @ 40°C

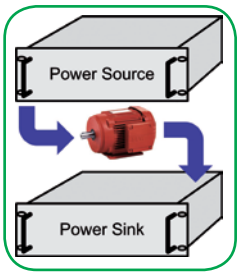
T models



Optional
- Calibration
- Warranty extension
- 19” frame kit for DT version







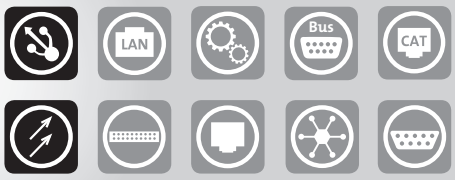
EPS/EL 9000-2Q

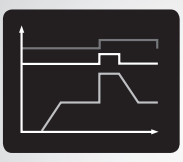
- 19” built-in load with 600W up to 2400W
- Control panel with status LEDs
- Microprocessor controlled (FPGA)
- Integrated arbitrary function generator
- Modes: I, U, P, R
- Master/Slave operation up to 24kW
- Protection: OVP, OCP, OPP, OTP

The electronic loads can be combined with our laboratory power supplies of the series EPS9000, E/PSI9000 and E/PSE9000 (2 Quadrant operation in CV Mode). The DC input range features new voltages up to 750V, currents up to 170A at power ratings with 2400W.
Due to their compact construction of a 19“ enclosure with 2 height units (2U) are these for applications like e.g. the consumption of the regenerated energy of a decelerating motor, tests of various types of batteries and other kinds of energy stores or simulation of their characteristics.
A battery can be charged and discharged with a system using 2Q. When running the loads in parallel to a power supply it can achieve very short voltage fall times. This is done by loads discharging the typical output capacitor of power supplies, resulting in dynamic voltage progression.
The sinks have an active electronic damping of the DC input circuit and thus guarantee a high current stability. This will prevent unwanted oscillation tendencies. By numerous analog and digital interfaces you control the devices comfortably via PC or integrated into a complex test stand.

Power	Voltage	Current	WxHxD	Model	Webcode
0-600W	0-500V DC	0-15A	19“x2Ux464mm	EPS/EL 9500-15B-2Q	113703
0-600W	0-750V DC	0-10A	19“x2Ux464mm	EPS/EL 9750-10B-2Q	113704
0-900W	0-360V DC	0-20A	19“x2Ux464mm	EPS/EL 9360-20B-2Q	113702
0-1000W	0-200V DC	0-35A	19“x2Ux464mm	EPS/EL 9200-35B-2Q	113701
0-1200W*	0-80V DC	0-85A	19“x2Ux464mm	EPS/EL 9080-85B-2Q	113700
0-1200W	0-500V DC	0-30A	19“x2Ux464mm	EPS/EL 9500-30B-2Q	113708
0-1200W	0-750V DC	0-20A	19“x2Ux464mm	EPS/EL 9750-20B-2Q	113709
0-1800W	0-360V DC	0-40A	19“x2Ux464mm	EPS/EL 9360-40B-2Q	113707
0-2000W	0-200V DC	0-70A	19“x2Ux464mm	EPS/EL 9200-70B-2Q	113706
0-2400W*	0-80V DC	0-170A	19“x2Ux464mm	EPS/EL 9080-170B-2Q	113705

*Derating @ 40°C





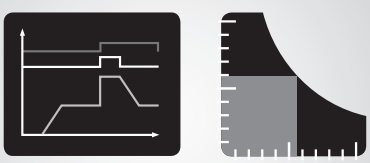
Optional
- 19” Cabinet
- Multi Control Software
- Calibration
- Warranty extension

EPS/EL 3000B

- Desktop design with 400W
- Microprocessor controlled
- Integrated function generator
- Variable rise/fall time
- Modes: I, U, P, R
- MPP-Tracking and battery test function
- Parallel operation
- Protection: OVP, OCP, OPP, OTP

The classic electronic loads are the second generation of small desktop loads. Due to their compact size they are especially suitable for research laboratories, test applications or educational purposes. Apart from basic functions of electronic loads, set point curves can be produced now in the integrated function generator (ramp, rectangular, triangular and trapezoidal curve types).
For purposes of testing all kinds of batteries, such as for example constant current or constant resistance discharging, the devices offer a battery test mode. It counts values for elapsed testing time and cosumed capacity (Ah) and energy (Wh). For more detailed setup, there is also an adjustable threshold to stop the battery test on low battery voltage, as well an adjustable max. test period. The battery test function is usually applied on the DC input current and can either be selected and run in static (constant current) or dynamic (pulsed current) mode at the load (HMI).
For the remote control using a PC or PLC the devices can be equipped with an optional, seperately available and user-retrofitable interface card.
A carrying handle can serve as tilt stand, allowing for simple setup of different positions by the user in order to make it easier to read from the display or access the control elements.

Power	Voltage	Current	WxHxD (mm)	Model	Webcode
0-400W	0-80V DC	0-60A	260x88x325	EPS/EL 3080-60B	113694
0-400W	0-200V DC	0-25A	260x88x325	EPS/EL 3200-25B	113695
0-400W	0-500V DC	0-10A	260x88x325	EPS/EL 3500-10B	113696



Optional
- Calibration
- Warranty extension

EPS/CO

- 19” Converter 3000VA up to 17500VA
- 50% overloadable
- Constant Current characteristic
- Microprocessor controlled
- Digital display for output voltage and current
- LED status signals
- Protection: OPP, OTP, short-circuit

We have reworked our AC/AC converters with more power of 17500VA and a single output with up to 65A now. These are especially developed for the simulation of non-european grids and avionics.

Simply adjust the required voltage continuously to up to max. 270V, select the frequency and test, check and evaluate your products for the international market. The AC/AC converter also serves as a „stable“ power supply for the european grid, without fluctuations and with a clean sine wave. There is also an interface for automated tests. This product series is a powerful and cost-effective alternative to AC-sources for laboratory use. The devices are overloadable for 6 s and 1.5 times. The output voltage and frequency settings are made via the digital display with push-buttons. The display settings can also use the „Keyboard lock“ to be locked.

Power	Voltage	Current	Frequency	WxHxD	Model	Webcode
3000VA	3-270V AC (L-N)	11A	50/60Hz	19“x4Ux560 mm	EPS/CO 11FR0-11	100929
5000VA	3-270V AC (L-N)	18,5A	50/60Hz	19“x5Ux560 mm	EPS/CO 18FR0-11	100930
7500VA	3-270V AC (L-N)	28A	50/60Hz	19“x6Ux560 mm	EPS/CO 28FR0-11	100931
7500VA	3-270V AC (L-N)	28A	50/60Hz	19“x6Ux560 mm	EPS/CO 28FR0-31	100933
10000VA	3-270V AC (L-N)	37A	50/60Hz	19“x6Ux560 mm	EPS/CO 37FR0-31	100932
15000VA	3-270V AC (L-N)	55,5A	50/60Hz	19“x6Ux700 mm	EPS/CO 65FR0-31	100934
17500VA	3-270V AC (L-N)	65A	50/60Hz	19“x6Ux720 mm	EPS/CO 65FR0-31	100935

Optional
- Potentiometer Voltage regulation
- Output frequency 400Hz
- 19” cabinet

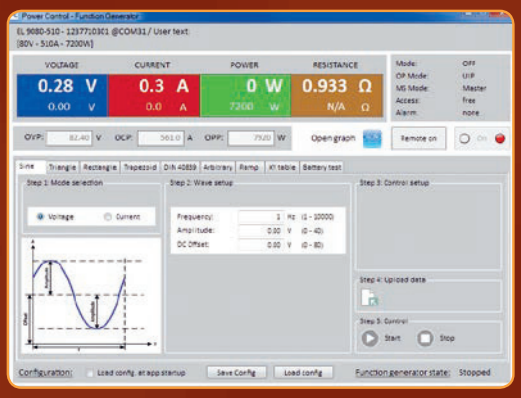
Software EPS/PC

EPS Power Control (EPS/PC) is a WindowsTM software to remotely control one or multiple units of compatible power supplies and/or electronic loads which feature the ModBus protocol. This happens via digital interfaces. Currently supported are USB and Ethernet/LAN.

In the current version the software offers manual control, monitoring, direct input of commands (SCPI and ModBus), the semi-automatic table control (Sequencing) and a data recording feature named Logging.

It can handle up to 10 units in seperate windows or up to 20 units at once in one window (Multi Control Option). A visualisation feature (Graph), as well as the remote control of the function generator includes a battery test function. There is furthermore the option to install firmware updates for the supported device series.

Furthermore are (certain devices) seperate control and visualisation of the Photovoltaics function, the fuel cell function as well the battery test. Also table control in Multi Control for all units at once or groups.



EPS/IF-AB Ethernet Interface

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