



EPS - Datasheet

Series E/PSI 10000 3U

EPS's programmable Electronic Power Supplies »E/PSI 10000 3U« series are especially suitable for test systems and industrial controls due to their compact construction in a 19" enclosure with 3U height units. DC output voltages between 0-60V (SELV) and 0-2000V, output currents between 0-20A and 0-510A and output power ratings of 5/10/15kW are available. The very high efficiency is up to 96%.

All models are controlled by microprocessors for fast and exact measurement and display of actual values. Set values and actual values, status and notifications are clearly represented on the intuitive 5" TFT touch panel, too.

Apart from basic functions of power supplies, set point curves can be generated in the integrated arbitrary function generator (sine, rectangular, triangular, Offset and other curve types). Arbitrary curves (99 points) can be saved to and loaded from an USB stick. Additionally a photovoltaic array (EN50530) and a fuel cell simulation as well as battery charging with charging characteristic is possible. Predefined test procedures for LV123, LV124 and LV148 as well as a simulated automobile engine start curve according to DIN 40839/EN ISO 7637 can also be run.

For remote control the devices are provided as standard with Ethernet, USB port on the back as well as a galvanically isolated analog interface. Via optional plug-in interface modules, other digital interfaces such as Profibus, ProfiNet, Modbus TCP, CAN, CANopen, EtherCAT or RS232 can be added. These enable the devices to be connected to standard industrial buses simply by replacing or adding a small module. The configuration, if necessary at all, is simple. 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 PLC, all using the digital interfaces.

In addition, multiple devices of same kind offer as standard the possibility for parallel connection in Share bus operation for constant current sharing plus a genuine master-slave connection with totalling of the slave units is also provided as standard. Using this operating mode, up to 64 devices can be connected to form a system that offers an increased total output of up to 960kW.

Optionally available is the calibration with protocol, extended warranty and 19" racks.

The devices are CE, UL as well as CSA certified.

Energy efficiency: Auto-ranging, high efficiency, temperature controlled fans

Scope of delivery:

Power Supply Unit

Test report

AC connector plug (clamp type)

Set for AC cable strain relief

Set DC terminal cover

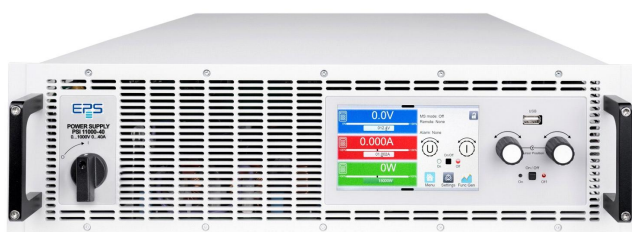
2x Plug for Remote Sense

Terminal cover sense

USB cable 1,8m

USB-Stick with documentation and Software

E/PSI 12000-20 3U Laboratory Power Supply



E/PSI 10000_3U

General data

| | |
|--------------------------------|---|
| Technology | Switching |
| Operation modes | CV. CC. CP. CR |
| Mains | 380V/400V/480V AC +-10% 3ph., 208V derating |
| Input frequency | 45-65Hz |
| Power factor | >0,99 |
| Display | TFT Touch Panel 5" |
| Voltage resolution | 0,1 V |
| Voltage accuracy | <=0,05% fs |
| Voltage Stability Load | <0,05% (0-100%) |
| Voltage Stability Mains | <0,01% (+-10%) |
| Response time Voltage | <1,5ms (10-100%) |
| Rise time Voltage | max.20ms (10-90%) |
| Current Resolution | 0,01 A |
| Current Accuracy | <=0,1% fs |
| Current Stability Load | <0,1% (0-100%) |
| Current Stability Mains | <0,01% (+-10%) |
| Rise time Current | max.10ms (10-90%) |
| Output Current Limitation | Standard |
| Power Accuracy | <1% |
| Internal Resistance Regulation | Standard |
| Overvoltage category | 2 |
| Overheat protection | Standard |
| Isolation In-/Output | 3750V DC |
| Isolation Output/Enclosure | neg.+1500V/pos.+2000V DC max. |
| Protection class | 1 |

| | |
|-----------------------|--|
| Parallel operation | Master-Slave |
| Current sharing | Standard |
| Cooling | Fan |
| Operation temperature | 0-50°C |
| Storage temperature | -20...70°C |
| Humidity | <80% n.c |
| Attitude | <2000m |
| Design | 19 inch |
| Standards | EN/UL/CSA-C22.2 61010-1,EN55011 cl.B,EN61326-1 |
| Power fail | Standard |
| Alarmmanagement | Standard |
| Function generator | +arbitrary |
| Output Preset | Standard |
| Memory | 5 Profile |
| Capacity | 60µF |

Interfaces

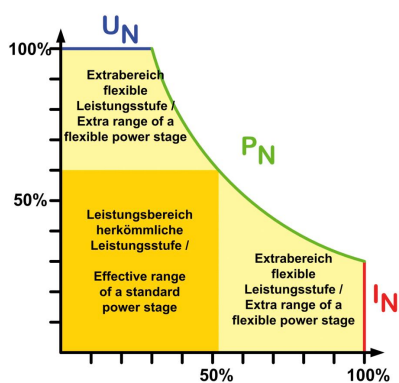
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| Analog Isolation | Standard |
| Accuracy Interface | 0-10V <=0,2%, 0-5V <=0,4% |
| USB Interface | Standard |
| RS232 Interface | Option EPS/IF-AB R |
| CAN Interface | Opt.EPS/IF-AB-CAN/O |
| Profibus | Option EPS/IF-AB PB |
| Ethernet Interface | Standard, Opt.IF-ETH1P/2P |
| Ethercat Interface | Option EPS/IF-AB-ECT |
| Software | Standard EPS/PC, Option EPS/MC |

Technical data

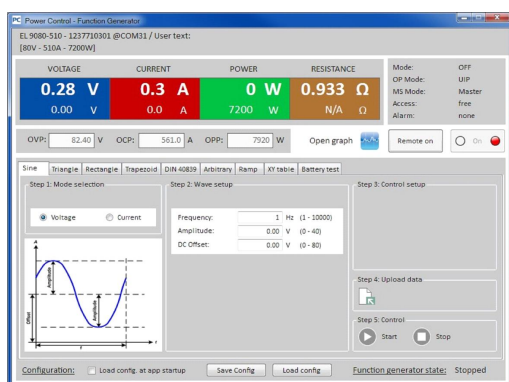
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| Output Voltage | 0-2000 VDC |
| Output Current | 0-20 A |
| Output Power | 15kW/ 9kW derating |
| Input Current | 3x 28A |
| Efficiency | <=95,5% |
| Ripple U | 400mVpp(20Mhz)/2400mVrms(300k) |
| Ripple I | <26mArms |
| Resistance Adjustment Range 1 | 3,5-5300 Ohm |
| Resistance Resolution Range 1 | 0,1 Ohm |
| Remote Sensing | Standard |
| Dimensions in mm (WxHxD) | 483 x 133 x 668 |
| Weight | 32,8 kg |
| Order code | 200260 |

Options

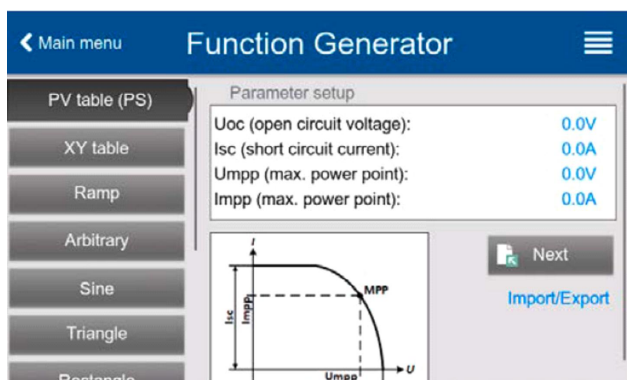
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| Option 1 | Calibration with protocoll EPS/I10000 CAL |
| Option 2 | Extended Warranty 2 / 3 / 5 years EPS/Gx |
| Option 3 | Serial Connection Box EPS/SCB 11500 |
| Option 4 | Modbus Interface 1/2 Port EPS/IF-AB MB1P/2P |
| Option 5 | EPS/BNC Cable Share-Bus connection cable |
| Option 6 | EPS/SL 4x 2x AWG Master-Slave patch cable |



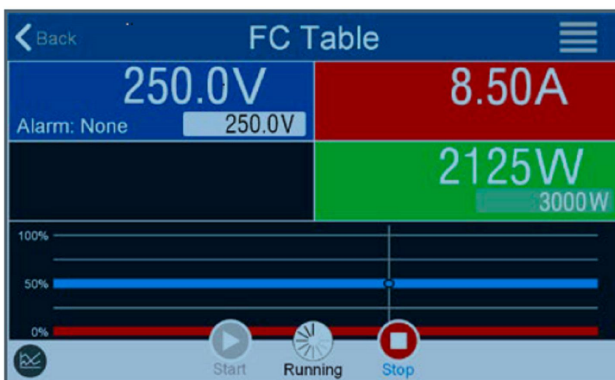
Autoranging



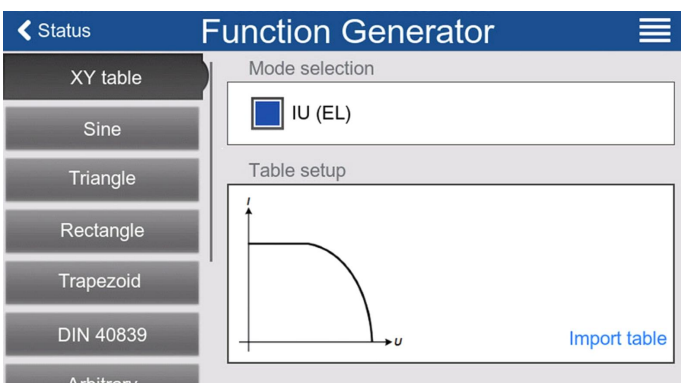
EPS/PC Software_en



E/PSI Photovoltaics function



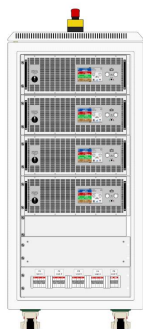
E/PSI 10000 Fuel Cell table



E/PSI XY-Tabelle -table



E/PSI 10000_3u_rear



EPS_Cabinet front example 120kW

Subject to modification without notice, errors and omissions exepted

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