



## 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

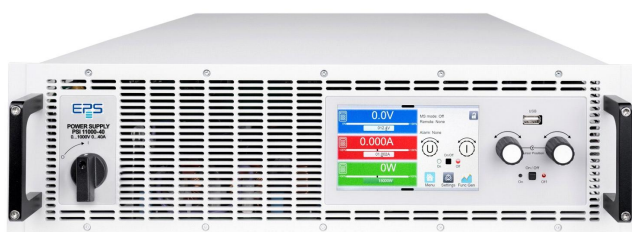
Terminal cover sense

USB cable 1,8m

USB-Stick with documentation and Software

## E/PSI 11500-20 3U Laboratory Power Supply

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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	$\leq 0,05\%$ fs
Voltage Stability Load	$< 0,05\%$ (0-100%)
Voltage Stability Mains	$< 0,01\%$ (+-10%)
Response time Voltage	$< 1,5\text{ms}$ (10-100%)
Rise time Voltage	max.20ms (10-90%)
Current Resolution	0,01 A
Current Accuracy	$\leq 0,1\%$ 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	90µF

### **Interfaces**

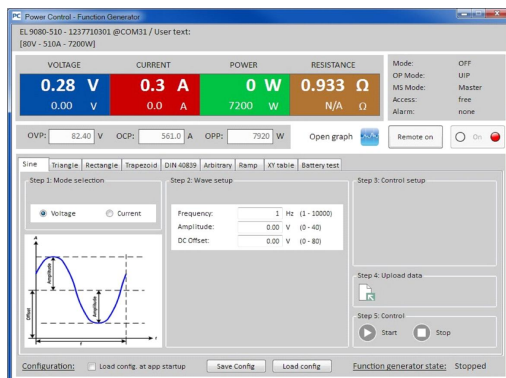
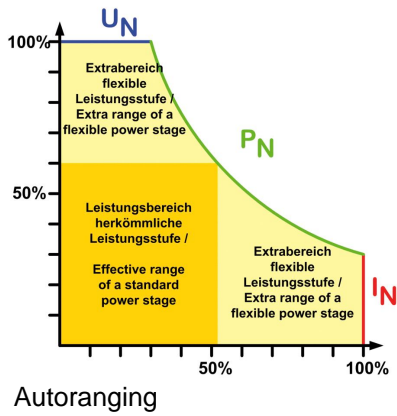
Analog Isolation	Standard
Accuracy Interface	0-10V <=0,2%, 0-5V <=0,4%
USB Interface	Standard
RS232 Interface	Option EPS/IF-AB R
CAN Interface	Opt.EPS/IF-AB-CAN/O
Profibus	Option EPS/IF-AB PB
Ethernet Interface	Standard, Opt.IF-ETH1P/2P
Ethercat Interface	Option EPS/IF-AB-ECT
Software	Standard EPS/PC,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

### **Technical data**

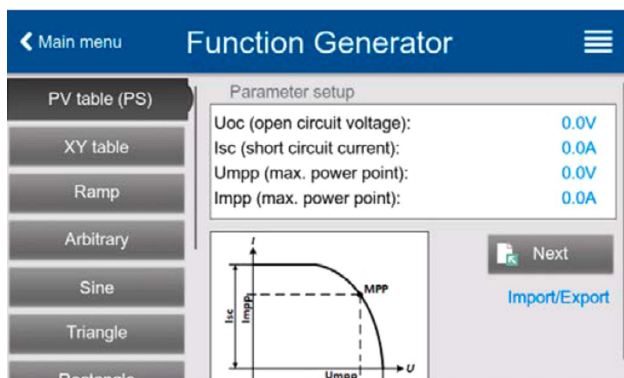
Output Voltage	0-1500 VDC
Output Current	0-20 A
Output Power	10 kW/ 6kW derating
Input Current	2x28,1x16A
Efficiency	<=95,5%
Ripple U	2000mVpp(20Mhz)/400mVrms(300k)
Ripple I	<22mArms
Resistance Adjustment Range 1	2,6-4500 Ohm
Resistance Resolution Range 1	0,1 Ohm
Remote Sensing	Standard
Dimensions in mm (WxHxD)	483 x 133 x 668
Weight	25,4 kg
Order code	200248

### **Options**

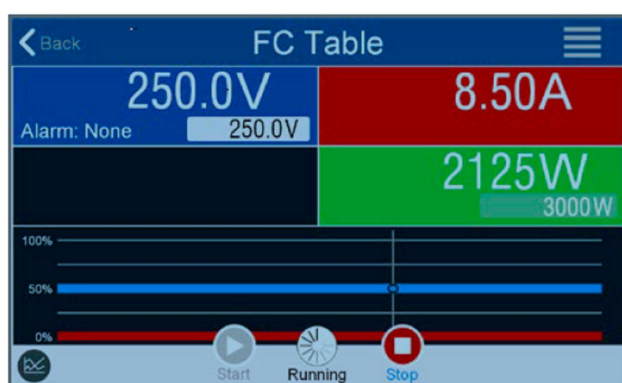
Option 1	Calibration with protocoll EPS/I10000 CAL
Option 2	Extended Warranty 2 / 3 / 5 years EPS/Gx
Option 3	Serial Connection Box EPS/SCB 11500
Option 4	Modbus Interface 1/2 Port EPS/IF-AB MB1P/2P
Option 5	EPS/BNC Cable Share-Bus connection cable
Option 6	EPS/SL 4x 2x AWG Master-Slave patch cable



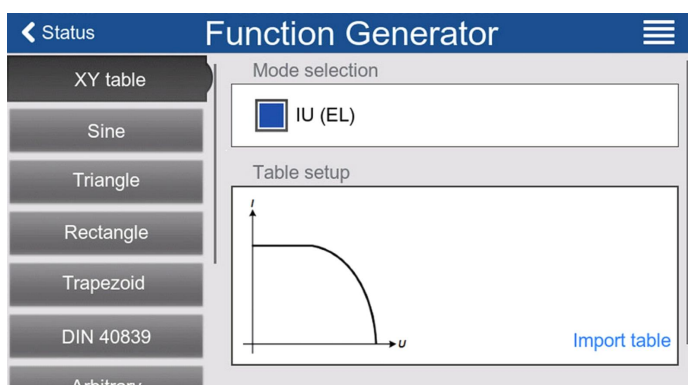
EPS/PC Software\_en



E/PSI Photovoltaics function



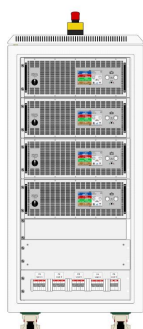
E/PSI 10000 Fuel Cell table



E/PSI XY-Tabelle -table



E/PSI 10000\_3u\_rear



EPS\_Cabinet front example 120kW

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Subject to modification without notice, errors and omissions exepted

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