



EPS - Datasheet

Series E/PSI 10000 4U

EPS's Electronic Power Supplies »E/PSI 10000 4U« series new electronic high performance power supplies are especially suitable for test systems and industrial controls due to their compact construction in a 19" enclosure with 4 height units (U). DC output voltages between 0-60V (SELV) and 0-2000V, output currents between 0-40A and 0-1000A with an output power of 30kW are available. Set values and actual values, status and notifications are clearly represented on the intuitive 5" TFT touch panel. Apart from basic functions of power supplies, set point curves can be produced in the integrated function and arbitrary generator (sine, rectangular, triangular, Offset and other curve types). Arbitrary curves can be saved to and loaded from a USB flash drive. 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 using a PC or PLC the devices are provided as standard with a Ethernet, USB-B slot on the rear side as well as a galvanically isolated analog interface. Via optional plug-in interface modules, other digital interfaces such as RS232, Profibus, ProfiNet, ModBus TCP, CAN, CANopen or EtherCAT can be added. These enable the devices to be connected to standard industrial buses simply by changing or adding a small module. The configuration, if necessary at all, is simple.

In addition, multiple devices of same kind offer as standard the possibility for parallel connection in so-called Shared Bus operation for constant current sharing plus a true master-slave connection with totaling of all the actual values 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 1920 kW.

A series operation is also possible with a potential shift (depending on the model) against PE on any DC plus or minus pole.

Optionally there are also a water-cooled version available which are usually configured and offered in cabinet systems with a complete water-cooling distribution inside. For DIY water-cooled systems, single units can also be obtained upon request.

Further options are calibration with protocol and extended warranty.

Energy efficiency: Auto-ranging, high efficiency, temperature controlled fans, water cooling system

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 11000-80-4U Laboratory Power Supply



E/PSI10000-4U

General data

Behavior	Unidirectional
Technology	Switching
Operation modes	CV. CC. CP. CR
Mains	380V/400V/480V AC +-10% 3ph., 208V derating 18 kW
Input frequency	45-66Hz
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	<=2ms (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	3750VDCmax
Isolation Output/Enclosure	neg.+1500V, pos.+2000V DC max.

Series E/PSI 10000 4U

Protection class	1
Series operation	Standard (1500V max)
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	200µF

Interfaces

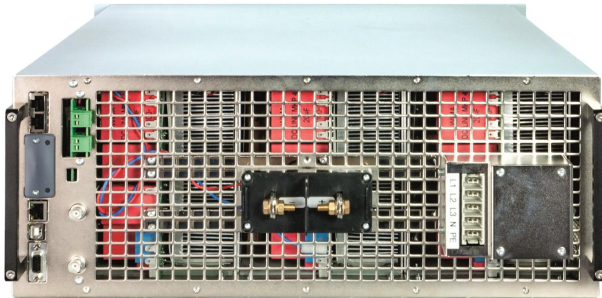
Analog Isolation	Standard
Accuracy Interface	0-10V <= 0.2%; 0-5V <=0.4%
USB Interface	Standard
RS232 Interface	Option EPS/IF-AB R
CAN Interface	Opt.EPS/IF-AB-CAN/o
Profibus	Option EPS/IF-AB PB
Ethernet Interface	Standard, Opt.IF-ETH2P
Ethercat Interface	Option EPS/IF-AB-ECT
Software	Standard EPS/PC, Option EPS/MC

Technical data

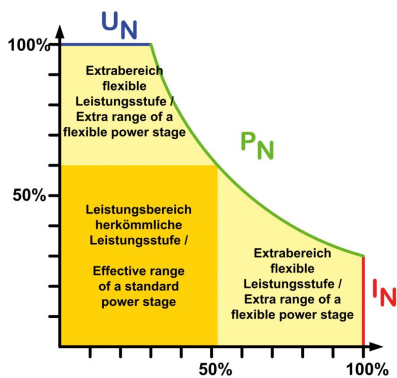
Output Voltage	0-1000 VDC
Output Current	0-80 A
Output Power	30 kW/18 kW derating
Input Current	<= 56A
Efficiency	<=95,8%
Ripple U	1600mVpp(20Mhz)/300mVrms(300k)
Resistance Adjustment Range 1	0,4...650 Ohm
Remote Sensing	Standard
Dimensions in mm (WxHxD)	483 x 177 x 668
Weight	50 kg
Order code	200367

Options

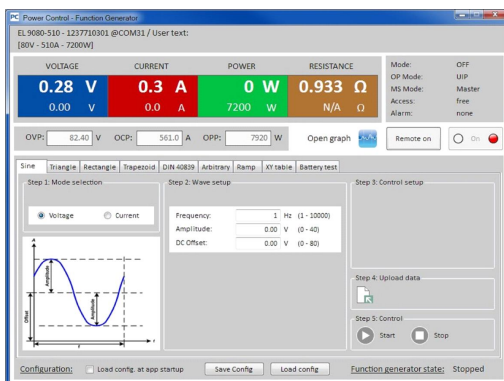
Option 1	Calibration with protocoll EPS/I10000 CAL
Option 2	Extended Warranty 2 / 3 / 5 years EPS/G2/3/5
Option 3	Watercooling EPS/WC-Cu 30 kW
Option 4	Serial Connection Box EPS/SCB 11000
Option 5	EPS/BNC Cable Share-Bus connection cable
Option 6	EPS/SL 4x 2x AWG Master-Slave patch cable



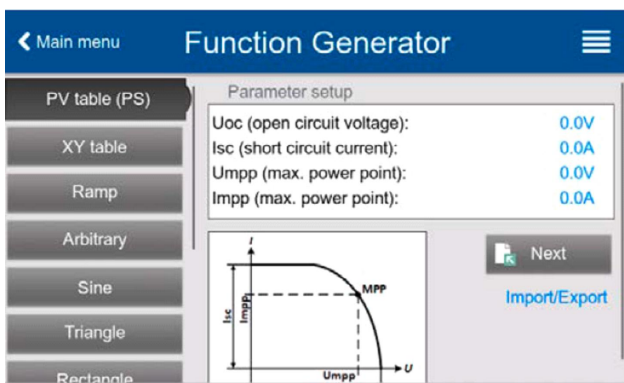
EPS 10000_rear



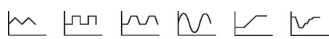
Autoranging



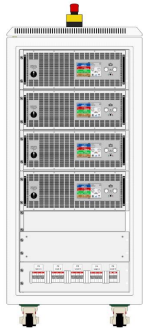
EPS/PC Software_en



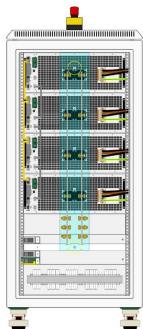
E/PSI Photovoltaics function



Triangle Rect. Trapez Sine Ramp DIN40839



E/PSI 1200_Cabinet front 120kW



EPS_Cabinet rear example 120kW

Subject to modification without notice, errors and omissions excepted

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