EPS - Datasheet

Series E/PS 10000 2U

The programmable laboratory power supply units in the "E/PS 10000 2U" series from EPS Power Supplies are particularly suitable for test systems and industrial control systems as well as for laboratories and workshops thanks to their very compact 19" rack-mount housing with 2 height units (2U). The devices are available with DC output voltages between 0-60V (SELV) and 0-1500V, currents between 0-6A and 0-120A and power ratings of 0-1500/3000W.

All models are microprocessor-controlled. This enables accurate and fast measurement and display of the actual values. Set and actual values, status displays and messages are also clearly shown on an intuitive 5" TFT touch display. The "graph" is a visual representation of the progression of voltage, current and power, which can be called up on the HMI display during operation.

For remote control, the device has an Ethernet interface on the rear, a USB-B interface and an isolated analogue interface as standard. Other digital interfaces such as Profibus, ProfiNet, ModBus TCP, CAN, CANopen, EtherCAT or RS232 can be added using optional, pluggable and retrofittable interface modules. This means that the devices can be connected to common industrial buses by simply changing or adding a small module. Configuration is simple and, if at all necessary, is carried out on the device. This means that the power supply units can be operated via the digital interface in combination with other loads or other types of device or controlled by a PC or PLC.
The data can be recorded on a USB stick (logging). All interfaces are galvanically isolated from the device up to 1000V DC (up to 360V output) and up to 2000V (from 500V output).
The devices also offer the option of parallel connection in share bus mode as standard for constant current distribution as well as a genuine master-slave connection with totalling of the slave devices. In this operating mode, up to 64 devices can be connected to form a system that offers an increased total output of up to 192 kW.
The power supply units are CE, UL and CSA certified.

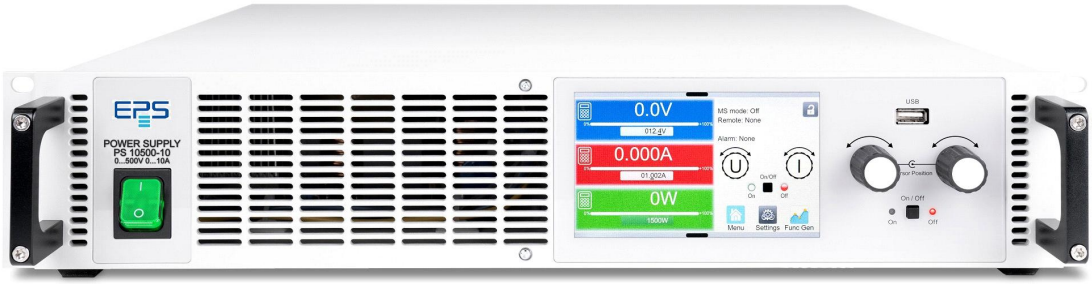
Further options are the calibration with protocol, warranty extension and 19" racks.

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

Scope of delivery:
Power Supply Unit
Test report
2x Plug for Remote Sense
Set DC terminal cover
Terminal cover sense
Cable tie for strain relief
USB cable 1,8m
USB-Stick with documentation and Software

Series E/PS 10000 2U

E/PS 10060-60 2U
Laboratory Power Supply



E/PS 10000 2U

General data

Behavior	Unidirectional
Technology	Switching
Operation modes	CV. CC. CP
Mains	208/220V/230V/240V AC +-10% 1ph., 110V/120V derati
Input frequency	45-65Hz
Power factor	>0,99
Display	TFT Touch Panel 5"
Voltage resolution	0,01 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%
Overvoltage category	2
Overheat protection	Standard
Isolation In-/Output	3750V DC
Isolation Output/Enclosure	neg.+-600VDC, Pos.+-600VDC max.
Protection class	1

Series E/PS 10000 2U

Series operation	Standard (400V max.)
Master-Slave Series operation	Standard
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
Output Preset	Standard
Memory	5 Presets
Capacity	8640µF

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

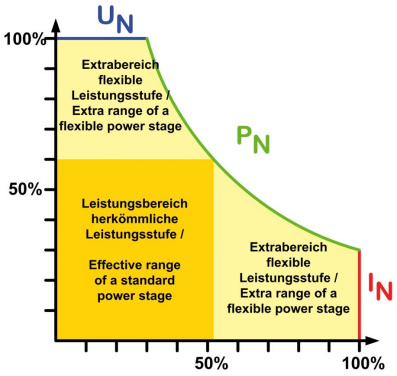
Technical data

Output Voltage	0-60 VDC
Output Current	0-60 A
Output Power	1500W/1200W derating
Input Current	11A
Efficiency	94%
Ripple U	100 mVpp(20Mhz)/10 mVrms(300k)
Ripple I	<5,6mArms
Resistance Adjustment Range 1	0,04-80 Ohm
Remote Sensing	Standard
Dimensions in mm (WxHxD)	19" x 89 x 462
Weight	9,5 kg
Order code	200029

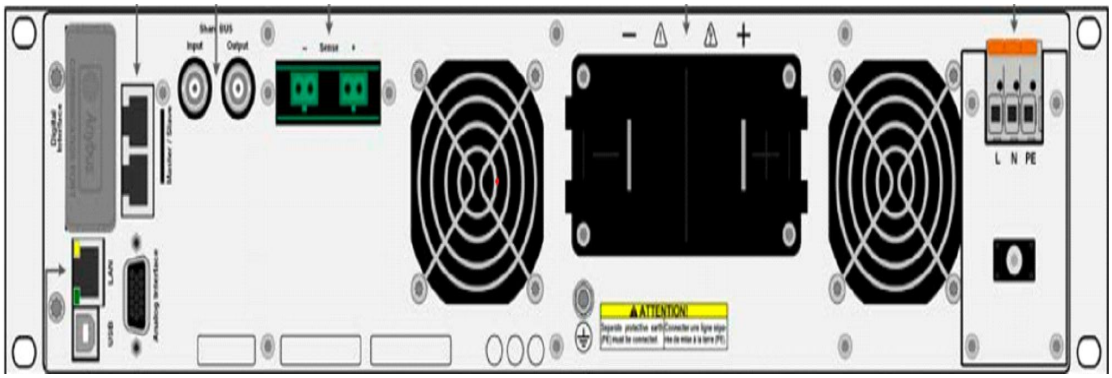
Options

Option 1	Calibration with protocoll EPS/I10000 CAL
Option 2	Extended Warranty 2 / 3 / 5 years EPS/Gx
Option 3	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

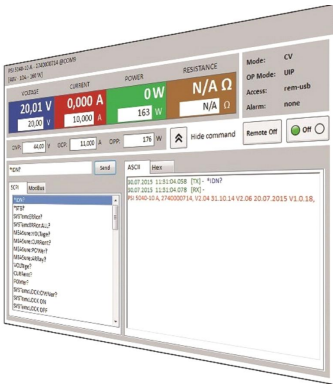
Series E/PS 10000 2U



Autoranging



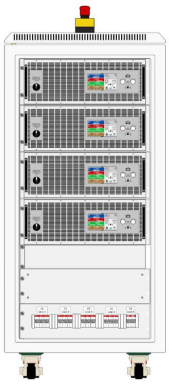
E/PS 10000-2U rear



EPS/PC_Software

Series E/PS 10000 2U

EPS 10000 Graph (HMI)



E_PS 1200_Cabinet front 120kW

Subject to modification without notice, errors and omissions excepted

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