EA-PS 8000T Series

LAB POWER SUPLIES 320-1500W

FEATURES:

- **Wide input voltage range 90...264V with active PFC**
- **High efficiency up to 92%**
- **Output powers: 320W up to 1500W**
- **Output voltages: 16V up to 360V**
- **Output currents: 4A up to 60A**
- **Flexible, power regulated output stage (from 1kW)**
- **Overvoltage protection (OVP)**
- **Over temperature protection (OT)**
- **Four-digit display for voltage and current**
- **Status indication via LEDs**
- **Remote sense with automatic detection**
- **Analogue interface with multiple functions**
- **U / I programmable via 0...10V or 0...5V**
- **U / I monitoring via 0...10V or 0...5V**
- **Temperature controlled fans for cooling**
- **CE marked compliance to EMC, Low voltage directives**
- **Options:**
  - **Digital Interfaces**
  - **RS232, CAN, USB, GPIB (IEEE)**
  - **Ethernet (upon request)**
  - **Carrying handle**

OUTPUT

Output voltages between 16V and 360V between 4A and 60A and output powers between 320W and 1500W are available.

The output terminal is located in the front panel. Units with more than 1kW output power are equipped with a flexible power output stage that provides a higher output voltage at reduced output current or higher output current at reduced output voltage output power. Units with 1.5kW are power-reduced to 1kW at mains voltages <150V AC.

INPUT

The equipment uses an active **P**ower **F**actor **C**orrection circuit to enable using it worldwide on a mains input from 90V up to 264V AC.

OVER VOLTAGE PROTECTION (OVP)

To protect the connected loads it is possible to adjust an over-voltage protection limit (OVP). If the output voltage exceeds the adjusted limit, the output is shut off and status message signals via a LED and via the analogue interface will be generated.

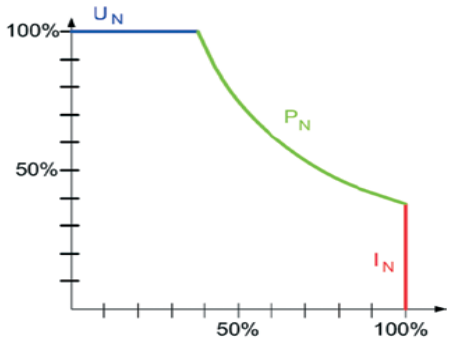
GENERAL

The microprocessor controlled laboratory power supplies of series EA-PS 8000 T cover state-of-the-art technology. They already offer many functions and features in their standard version, making the use of this equipment remarkably easy and most effective.

The units are provided with a memory function for five different preset values, with the ability to save and recall these just by the push of a button. Thus frequently used settings are at immediate reach to the user making the work easy and efficient.

Units as from 1kW output power are equipped with a flexible auto ranging output stage which provides a higher output voltage at lower output current, or a higher output current at lower output voltage, always limited the max. nominal output power. See figure bellow. Therefore, a wide range of applications can already be covered by the use of just one single unit.

AUTO RANGING OUTPUT



REMOTE SENSE

The remote sense input can be connected directly to the load equipment in order to compensate voltage drops on the power leads. The power-supply detects automatically whether the sense input is connected and will stabilize the voltage directly at the load. The remote sensing input terminals are located on the front panel.

ANALOUGE INTERFACE

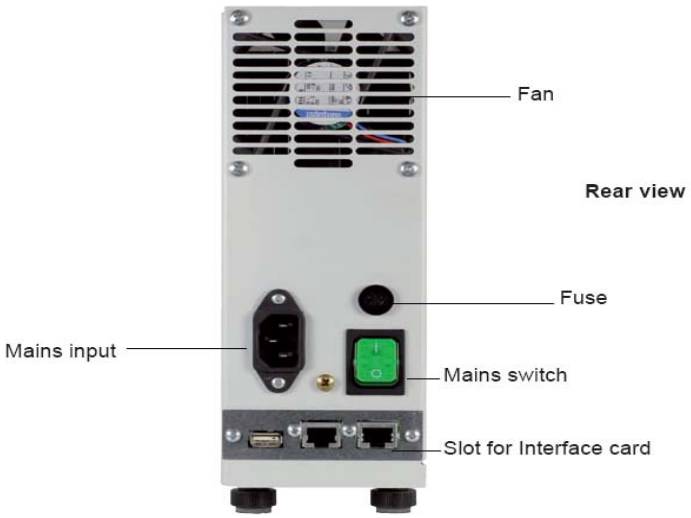
The connection for the analogue interface is located on the front of the device. Analogue inputs are available here, to set voltage and current from 0...100% in the voltage ranges 0V...10V or 0V...5V. To monitor output voltage and current, analogue outputs with voltage ranges from 0V...10V or 0V...5V can be read out. Furthermore, several inputs and outputs are available for controlling and monitoring the device status.

OPTIONS

- The power supplies of series EA-PS 8000 T can be remotely controlled by a computer via isolated digital interfaces like RS232, CAN, USB, GPIB (IEEE) or Ethernet (upon request). The interface slot is located on the rear panel, making it easy for the user to plug-in a new interface or to replace an existing one. For the choice of interfaces see page 45.
- High speed ramping (units as from 1kW), see page 43

DISPLAY AND CONTROLES

Output voltage and current are clearly visualized on two four-digit displays. The functional status of the unit and its buttons are indicated via LEDs, providing easier and most comfortable usage to the user. Output voltage, current and OVP values can be set by two rotary encoders. A “fine setting” mode for high resolution adjustment is provided as well. With the „lock“ mode, buttons and encoders can be locked to prevent unintentional change of settings. The main power switch is located on the back panel, an output shutdown button on the front panel.



PRESETTING OF OUTPUT VALUES

To set output values, without affecting the condition, a preset function is implemented. With this function the user can preset values for the output voltage output current and overvoltage protection (OVP).

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SELECTION TABLE

Technical Data	EA-PS 8016-20 T	EA-PS 8032-10 T	EA-PS 8065-05 T	EA-PS 8032-20 T	EA-PS 8065-10 T
Input voltage	90...264V	90...264V	90...264V	90...264V	90...264V
Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
Power factor correction	>0,99	>0,99	>0,99	>0,99	>0,99
Output voltage	0...16V	0...32V	0...65V	0...32V	0...65V
Stability at 10-90% load	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
Stability at ±10% Δ U_{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
Ripple	<40mVpp	<40mVpp	<40mVpp	<40mVpp	<40mVpp
Regulation 10-100% load	<2ms	<2ms	<2ms	<2ms	<2ms
OVP adjustment	0...17,6V	0...35,2V	0...71,5V	0...35,2V	0...71,5V
Output current	0...20A	0...10A	0...5A	0...20A	0...10A
Stability at 0-100% Δ U_{OUT}	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
Stability at ±10% Δ UIN	<0,05%.	<0,05%.	<0,05%.	<0,05%.	<0,05%.
Ripple	.<50mA pp	.<50mA pp	.<50mA pp	.<50mA pp	.<50mA pp
Output power	320W	320W	325W	640W	650W
Dimensions (WxHxD)	90x240x280mm	90x240x280mm	90x240x280mm	90x240x280mm	90x240x280mm
Weight	5kg	5kg	5kg	5kg	5kg
Article No.	09200120	09200121	09200122	09200123	09200124

SELECTION TABLE (Continued)

Technical Data	EA-PS 8160-04 T	EA-PS 8080-40 T	EA-PS 8080-60 T	EA-PS 8360-10 T	EA-PS 8360-15 T
Input voltage	90...264V	90...264V	90...264V	90...264V	90...264V
Frequency	45...65Hz	45...65Hz	45...65Hz	45...65Hz	45...65Hz
Power factor correction	>0,99	>0,99	>0,99	>0,99	>0,99
Output voltage	0...160V	0...80V	0...80V	0...360V	0...360V
Stability at 10-90% load	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
Stability at ±10% Δ U_{IN}	<0,02%	<0,02%	<0,02%	<0,02%	<0,02%
Ripple	<40mVpp	<70mVpp	<70mVpp	<100mVpp	<100mVpp
Regulation 10 to 100% load	<2ms	<2ms	<2ms	<2ms	<2ms
OVP adjustment	0...176V	0...88V	0...88V	0...396V	0...396V
Output current	0...4A	0...40A	0...60A	0...10A	0...15A
Stability at 0 to 100% Δ UOUT	<0,15%	<0,15%	<0,15%	<0,15%	<0,15%
Stability at ±10% Δ UIN	<0,05%	<0,05%	<0,05%	<0,05%	<0,05%
Ripple	<50mA pp	<100mA pp	<100mA pp	<15mA pp	<15mA pp
Output power	640W	0...1000W	0...1500W	0...1000W	0...1500W
Dimensions (WxHxD)	90x240x280mm	90x240x395mm	90x240x395mm	90x240x395mm	90x240x395mm
Weight	5kg	9kg	9,3kg	9kg	9,3kg
Article No.	09200125	09200126	09200127	09200128	09200129