



Elektro-Automatik



PS 5000 A

Programmable Desktop DC Power Supplies | 160 W - 640 W

Wide Power Range: Supports output power from 160 W to 640 W for various applications.

Auto-Ranging Power Stage: Flexible voltage and current combinations for diverse testing needs.

Integrated Protections: Includes OVP, OCP, and OPP to safeguard devices and equipment.

High Efficiency: Operates at up to 92% efficiency, reducing energy consumption and heat.

User-Friendly Design: Features a blue LCD display and intuitive controls for effortless operation.

EA-PS 5000 A 160 W - 640 W

Programmable desktop DC Power
Supply



Features

- Wide input voltage range: 90...264 V with active PFC
- High efficiency: Up to 92%
- Output power ratings: 0...160 W up to 0...640 W
- Output voltages: 0...40 V up to 0...200 V
- Output currents: 0...2 A up to 0...40 A
- Flexible, power-regulated output stage
- Supervision: OVP, OCP, OPP
- Blue LCD display: For all values and status
- Memory: Stores 9 different presets
- Temperature-controlled fans for cooling
- Chassis: Top and bottom closed
- 40 V models: According to SELV (EN 60950)
- EMC compliance: According to EN 55022 Class B
- LabView VIs
- Control software: For Windows

Built-in interfaces

- USB
- Analog
- Ethernet

Software

- EA - Power Control



General

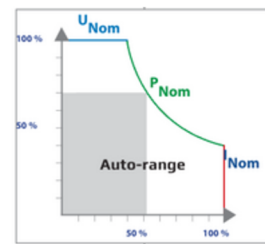
The PS 5000 A Series combines precision, reliability, and efficiency in a compact design, ideal for laboratory and industrial use. With microprocessor control and features like auto-ranging output stages and integrated protection mechanisms, this series ensures ease of operation and safety for a wide range of applications. Its intuitive blue LCD display provides real-time visibility of all key parameters, streamlining workflows and improving testing efficiency.

AC Input

The PS 5000 A Series supports a wide input voltage range of 90...264 V AC with active power factor correction (PFC), making it suitable for global operation. This feature ensures stable performance and energy efficiency, regardless of input variations.

Auto-Ranging Power Stage

Equipped with a flexible auto-ranging output stage, the PS 5000 A Series adapts to various voltage and current demands without exceeding its maximum nominal power. This capability expands its application range, reducing the need for multiple devices and improving versatility.



DC Output

The series offers a wide range of DC output voltages (0...40 V to 0...200 V), currents (up to 40 A), and power ratings (up to 640 W). These outputs can be adjusted from 0% to 100%, ensuring precise control for both manual and remote operation via analog or digital interfaces.

Protective Features

Integrated overvoltage (OVP), overcurrent (OCP), and overpower (OPP) protections safeguard connected devices and equipment. These protections automatically deactivate the output if limits are exceeded, with alerts displayed on the screen and via interfaces. An overtemperature protection further ensures safe operation under demanding conditions.

Display and Controls

The blue LCD display clearly shows both set and actual values for output voltage, current, and power, along with system status. Rotary knobs allow for precise adjustments, while a lock function prevents unintentional changes, ensuring secure and reliable operation.

Presetting of Output Values

The presetting feature allows users to configure output values, including voltage, current, and power, before activating the output. This prevents abrupt changes to connected devices and provides a safe and controlled setup for sensitive applications.

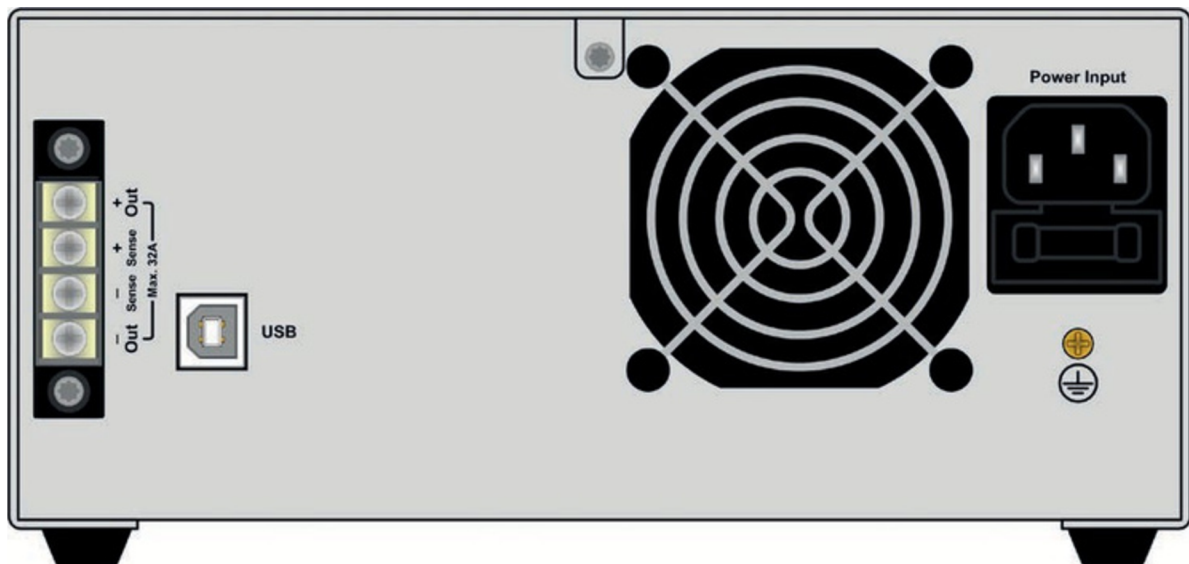
Recall Feature

With the ability to store up to nine preset configurations, the PS 5000 A Series enables quick recall of frequently used settings for voltage, current, power, and protection thresholds. This feature reduces setup time and ensures consistent performance in repetitive tasks.

Options

Enhance the functionality of the PS 5000 A with optional accessories such as a safety adapter set for secure connections to the DC output. These options provide added versatility and safety, making the series adaptable to specialized requirements.

EA-PS 5000 A 160 W - 640 W



Available Models

Specifications	PS 5040-10 A	PS 5080-05 A	PS 5200-02 A	PS 5040-20 A	PS 5080-10 A
AC Input Voltage (V)	90...264 V	90...264 V	90...264 V	90...264 V	90...264 V
Frequency (Hz)	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz
Power Factor	>0.95	>0.95	>0.95	>0.97	>0.97
DC Output Voltage (V)	0...40 V	0...80 V	0...200 V	0...40 V	0...80 V
Load Regulation (0-100%)	<0.08%	<0.08%	<0.08%	<0.08%	<0.08%
Line Regulation ($\pm 10\%$ ΔUAC)	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
Ripple (pp)	≤ 80 mV	≤ 80 mV	≤ 150 mV	≤ 80 mV	≤ 80 mV
Ripple (rms)	≤ 10 mV	≤ 10 mV	≤ 30 mV	≤ 10 mV	≤ 10 mV
Regulation Time (10-100%)	<1 ms	<1 ms	<1.5 ms	<1 ms	<1 ms
Accuracy	<0.2%	<0.2%	<0.2%	<0.2%	<0.2%
Output Current (A)	0...10 A	0...5 A	0...2 A	0...20 A	0...10 A
Load Regulation (0-100%)	<0.15%	<0.15%	<0.15%	<0.15%	<0.15%
Line Regulation ($\pm 10\%$ ΔUAC)	<0.02%	<0.02%	<0.02%	<0.02%	<0.02%
Ripple Current (pp)	≤ 40 mA	≤ 20 mA	≤ 8 mA	≤ 80 mA	≤ 40 mA
Output Power (W)	0...160 W	0...160 W	0...160 W	0...320 W	0...320 W
Power Accuracy	<1%	<1%	<1%	<1%	<1%
Cooling	Convection	Fan	Fan	Fan	Fan
Operating Temperature ($^{\circ}C$)	0...50 $^{\circ}C$	0...50 $^{\circ}C$	0...50 $^{\circ}C$	0...50 $^{\circ}C$	0...50 $^{\circ}C$
Storage Temperature ($^{\circ}C$)	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$
Dimensions (mm)	200 x 87 x 301	200 x 87 x 301	200 x 87 x 301	200 x 87 x 301	200 x 87 x 301
Weight (kg)	3 kg	3 kg	3 kg	3 kg	3 kg
Ordering Number	05100300	05100301	05100302	05100303	05100304

Specifications	PS 5200-04 A	PS 5040-40 A	PS 5080-20 A	PS 5200-10 A
AC Input Voltage (V)	90...264 V	90...264 V	90...264 V	90...264 V
Frequency (Hz)	45...65 Hz	45...65 Hz	45...65 Hz	45...65 Hz
Power Factor	>0.95	>0.97	>0.97	>0.97
DC Output Voltage (V)	0...200 V	0...40 V	0...80 V	0...200 V
Load Regulation (0-100%)	<0.08%	<0.08%	<0.08%	<0.08%
Line Regulation ($\pm 10\%$ ΔUAC)	<0.02%	<0.02%	<0.02%	<0.02%
Ripple (pp)	≤ 150 mV	≤ 80 mV	≤ 80 mV	≤ 150 mV
Ripple (rms)	≤ 30 mV	≤ 10 mV	≤ 10 mV	≤ 30 mV
Regulation Time (10-100%)	<1.5 ms	<1 ms	<1 ms	<1.5 ms
Accuracy	<0.2%	<0.2%	<0.2%	<0.2%
Output Current (A)	0...4 A	0...40 A	0...20 A	0...10 A
Load Regulation (0-100%)	<0.15%	<0.15%	<0.15%	<0.15%
Line Regulation ($\pm 10\%$ ΔUAC)	<0.02%	<0.02%	<0.02%	<0.02%
Ripple Current (pp)	≤ 8 mA	≤ 80 mA	≤ 40 mA	≤ 20 mA
Output Power (W)	0...640 W	0...640 W	0...640 W	0...640 W
Power Accuracy	<1%	<1%	<1%	<1%
Cooling	Fan	Fan	Fan	Fan
Operating Temperature ($^{\circ}C$)	0...50 $^{\circ}C$	0...50 $^{\circ}C$	0...50 $^{\circ}C$	0...50 $^{\circ}C$
Storage Temperature ($^{\circ}C$)	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$	-20...70 $^{\circ}C$
Dimensions (mm)	200 x 87 x 301	200 x 87 x 301	200 x 87 x 301	200 x 87 x 301
Weight (kg)	3 kg	3 kg	3 kg	3 kg
Ordering Number	05100305	05100306	05100307	05100308

W5 Engineering
Phone: (971) 244-8200
Email: help@W5engineering.com
www.W5engineering.com/eapowered

EA Elektro-Automatik Inc.
9845 Via Pasar
San Diego, CA 92126 USA

