



## PSI 9000 DT

### Programmable Desktop DC Power Supplies | 320 W - 1500 W

**Wide Voltage and Current Ranges:** Output voltages up to 750 V and currents up to 60 A.

**Flexible Autoranging Design:** Supports high output voltage or current at maximum power for varied applications.

**Integrated Function Generator:** Generate standard and custom waveforms directly from the device.

**Galvanically Isolated Interfaces:** Includes analog, USB, and Ethernet for versatile connectivity.

**Advanced Protections:** Features overvoltage (OVP), overcurrent (OCP), and overpower (OPP) safeguards.

# EA-PSI 9000 DT 320 W - 1500 W

Programmable desktop DC Power Supply



## Features

- Wide AC supply voltage range: 90...264 V, with active PFC
- High efficiency: up to 92%
- Output power ratings: 0...320 W up to 0...1500 W
- Output voltages: 0...40 V up to 0...750 V
- Output currents: 0...4 A up to 0...60 A
- Flexible, power regulated output stage
- Supervisions and protections: (OVP, OCP, OPP, OT)
- Intuitive touch panel with display for values, status, and notifications
- Galvanically isolated interfaces: (analog, USB, Ethernet)
- Integrated function generator
- Internal resistance simulation and regulation
- Low ripple
- Desktop enclosure with carrying handle and tilt stand
- 40 V models compliant to SELV
- SCPI command set and ModBus RTU support

## Built-in interfaces

- USB
- Analog
- Ethernet

## Software

- EA - Power Control



## General

The PSI 9000 DT series offers a sophisticated solution for laboratory and industrial applications, combining precision, flexibility, and ease of use. With its microprocessor-controlled design and advanced features, users can configure output parameters, set protections, and streamline testing processes. The intuitive touch panel and ergonomic design make operation seamless, reducing the need for additional equipment or supervision hardware.

## Autoranging Power Stage

Experience unparalleled flexibility with the autoranging power stage, delivering maximum power at a wide range of voltages and currents. This feature ensures efficient operation for diverse applications, allowing a single unit to replace multiple conventional power supplies. Ideal for dynamic testing and varied load conditions, it provides reliable performance across your entire workflow.

## AC Supply

The PSI 9000 DT series supports a global voltage range of 90–264 VAC with active Power Factor Correction (PFC), ensuring compatibility with any mains power system. Even under challenging conditions, models with 1.5 kW can operate at 1 kW below 150 VAC, making it an ideal choice for international operations.

## DC Output

Delivering exceptional output capabilities, the PSI 9000 DT series offers voltages from 0–750 V, currents up to 60 A, and power ratings of 320 W to 1500 W. Its low ripple design ensures clean, stable power for sensitive applications, while user-friendly adjustments provide precision in manual or remote-controlled modes.

## Discharge Circuit

Safety is a top priority with the integrated discharge circuit for models rated at 200 V or higher. This feature rapidly reduces output voltage to a safe level below 60 V DC in low-load or no-load situations, ensuring compliance with human safety standards.

## Protective Features

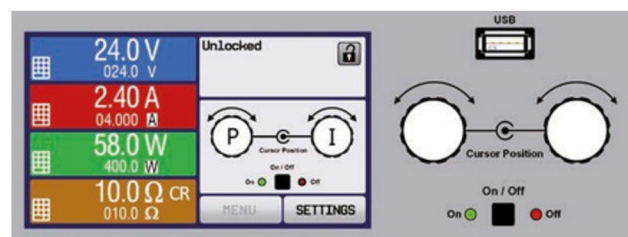
Safeguard your connected equipment with built-in protections against overvoltage (OVP), overcurrent (OCP), overpower (OPP), and overheating (OT). These features instantly shut off the DC output when thresholds are reached, with status alerts displayed and transmitted via the device's interfaces.

## Built-in Analog Interface

The galvanically isolated analog interface provides seamless integration with external control systems. Adjust voltage, current, power, and resistance remotely through analog inputs, while monitoring outputs with precision. Additional control and monitoring inputs make this interface ideal for automated testing environments.

## Display and Control Panel

Operate with confidence using the PSI 9000 DT's vibrant, touch-sensitive color TFT display. All key values—voltage, current, and power—are clearly represented, while the intuitive interface allows for rapid adjustments via rotary knobs or numeric entry. Lockable controls and multi-language options further enhance usability.





## Available Models

Model	Voltage	Current	Power	Efficiency	Ripple U (mVPP / mVRMS)	Ripple I (mARMS)
PSI 9040-20 DT	0...40 V	0...20 A	0...320 W	≤88%	8 / 0.8	1
PSI 9080-10 DT	0...80 V	0...10 A	0...320 W	≤89%	8 / 0.8	1
PSI 9200-04 DT	0...200 V	0...4 A	0...320 W	≤89%	20 / 2.5	1.5
PSI 9040-40 DT	0...40 V	0...40 A	0...640 W	≤89%	8 / 0.8	1
PSI 9080-20 DT	0...80 V	0...20 A	0...640 W	≤91%	8 / 0.8	1
PSI 9200-10 DT	0...200 V	0...10 A	0...640 W	≤92%	20 / 2.5	1.5
PSI 9040-40 DT	0...40 V	0...40 A	0...1000 W	≤92%	10 / 1.5	6
PSI 9080-40 DT	0...80 V	0...40 A	0...1000 W	≤92%	10 / 1.5	6
PSI 9200-15 DT	0...200 V	0...15 A	0...1000 W	≤93%	60 / 9	1.8
PSI 9360-10 DT	0...360 V	0...10 A	0...1000 W	≤93%	58 / 11	2
PSI 9500-06 DT	0...500 V	0...6 A	0...1000 W	≤93%	62 / 13	8
PSI 9750-04 DT	0...750 V	0...4 A	0...1000 W	≤93%	94 / 16	10
PSI 9040-60 DT	0...40 V	0...60 A	0...1500 W	≤92%	10 / 1.5	6
PSI 9080-60 DT	0...80 V	0...60 A	0...1500 W	≤92%	10 / 1.5	6
PSI 9200-25 DT	0...200 V	0...25 A	0...1500 W	≤93%	60 / 9	1.8
PSI 9360-15 DT	0...360 V	0...15 A	0...1500 W	≤93%	58 / 11	2
PSI 9500-10 DT	0...500 V	0...10 A	0...1500 W	≤93%	62 / 13	8
PSI 9750-06 DT	0...750 V	0...6 A	0...1500 W	≤93%	94 / 16	10



# Specifications

## AC Supply

- **Voltage:** 90...264 V, 1ph+N
- **Frequency:** 45...65 Hz
- **Power factor:** >0.99
- **Derating:** Only models with 1500 W: <150 V AC to Pout max 1000 W
- **Overvoltage Category:** 2

## DC Voltage

- **Accuracy:** <0.1% of rated value
- **Load regulation:** 0-100% <0.05% of rated value
- **Line regulation:**  $\pm 10\% \Delta U_{AC}$  <0.02% of rated value
- **Regulation:** 10-100% load <2 ms
- **Rise time:** 10-90% Max. 30 ms
- **Overvoltage protection:** Adjustable, 0...110% UNom

## DC Current

- **Accuracy:** <0.2% of rated value
- **Load regulation:** 1-100%  $\Delta U_{DC}$  <0.15% of rated value
- **Line regulation:**  $\pm 10\% \Delta U_{AC}$  <0.05% of rated value

## DC Power

- **Accuracy:**  $\leq 1\%$  of rated value

## Protective Functions

- Overtemperature (OT)
- Overvoltage Protection (OVP)
- Overpower Protection (OPP)
- Overcurrent Protection (OCP)
- Power Factor (PF)

## Insulation

- **AC input to enclosure:** 2500 V DC
- **AC input to DC output:** 2500 V DC
- **DC output to enclosure:** Negative: max. 400 V DC, positive: max. 400 V DC + output voltage

## Analog Interface

- **Built-in:** 15 pole D-Sub (female), galvanically isolated
- **Signal range:** 0...5 V or 0...10 V (switchable)
- **Inputs:** U, I, P, R, remote control on-off, DC output on-off
- **Outputs:** U, I, overvoltage, alarms, reference voltage
- **Accuracy:**
  - **0...10 V:** <0.2%
  - **0...5 V:** <0.4%

## Digital Interfaces

- 1x USB type B (for communication)
- 1x USB type A (for storage device)
- 1x Ethernet

## Safety

- **Standards:** EN 60950, EN 61326, EN 61010, EN 55022 Class B
- **Protection Class:** 1

## Environmental Conditions

- **Operating Temperature:** 0–50 °C (32–122 °F)
- **Storage Temperature:** -20–70 °C (-4–158 °F)
- **Relative humidity:**  $\leq 80\%$ , non-condensing
- **Altitude:**  $\leq 2000$  m ( $\leq 6,600$  ft)
- **Pollution Degree:** 2

## Mechanical Construction

- **Type:** Temperature-controlled fans
- **Weight:**
  - 320 W - 650 W:  $\approx 7.5$  kg (16.5 lb)
  - 1000 W - 1500 W:  $\approx 8.2$  kg (18.1 lb)
- **Dimensions:**
  - 320 W - 650 W: 308 x 103 x 355 mm (12.1" x 4" x 14")
  - 1000 W - 1500 W: 308 x 103 x 415 mm (12.1" x 4" x 16.3")

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