



Elektro-Automatik



## PSI 9000 15U/24U

Programmable high efficiency autoranging DC power supplies in 19" cabinets | 30 kW - 90 kW

**Flexible Autoranging Output Stage:** Automatically adjusts to higher voltage or current needs for optimized power delivery.

**Wide Voltage and Current Ranges:** Outputs from 0–1500 V and up to 3060 A, supporting diverse applications.

**Integrated True Function Generator:** Generates customizable waveforms for precise simulation and testing.

**Multilingual TFT Touch Panel:** Intuitive interface for real-time control and monitoring of all key parameters.

**Comprehensive Protection Systems:** Includes overvoltage (OVP), overcurrent (OCP), overpower (OPP), and overtemperature (OTP) protections.

# EA-PSI 9000 15U/24U 30 kW - 90kW

Programmable DC Power Supply



## Features

- Wide range 342...528 V AC supply
- Wide AC supply voltage range for operation on 380 V, 400 V, and 480 V grids
- Output power ratings between 30 kW and 90 kW
- Output voltages: 80 V, 200 V, 360 V, 500 V, 750 V, 1000 V, and 1500 V
- Currents of up to 3060 A
- Pre-configured, pre-wired, ready to be installed
- Includes power supplies of series EA-PSI 9000 WR and EA-PSI 9000 WR Slave with:
  - True function generator
  - USB and analog interface built in
  - Slot for optional interface modules for Profinet, Profibus, CAN, CANopen, Ethernet, EtherCAT, ModBus TCP
  - SCPI command language & ModBus RTU
  - Multilingual color TFT touch panel

## General

The EA-PSI 9000 15U/24U series enhances the popular PSI 9000 3U models by delivering higher power outputs in standard 19-inch cabinets. With up to 35 configurations and five distinct power ratings, these units are optimized for flexible and scalable applications. Designed for ease of use, they come fully assembled and operational upon delivery, offering features equivalent to their 3U counterparts.

## Autoranging Power Stage

The advanced autoranging power stage provides adaptive voltage and current adjustments, maximizing efficiency without exceeding the rated power. This ensures that a single unit can meet diverse operational needs, covering wide-ranging applications effortlessly.

## DC Output

The color TFT touch panel simplifies device control, offering real-time visualization of voltage, current, and power settings. With features like numeric input, rotary adjustments, and panel locking, the interface prioritizes ease of use and operator safety.

## Multi-Language Screen

The intuitive display supports multiple languages, including English, German, Chinese, and Russian, ensuring seamless usability for a global audience.



English



Chinese



Russian



German

## Function Generator

Every model includes a true function generator capable of producing complex waveforms for simulation and testing. Fully configurable through the touch panel or remote interface, it enables precise control of output voltage and current.

## Options

Expand your system's functionality with optional digital interface modules for RS232, CAN, ModBus TCP, and more. Additional customization options include water cooling and an integrated emergency stop system, enhancing safety and performance in critical applications.



Rear view 24U 90 kW



DC bus terminal



AC input terminal

## Available Models

Model	Voltage (V)	Current (A)	Power (kW)	Insulation DC-DC ± (V)	Insulation DC-PE ± (V)	Height (U)
PSI 9080-1020 15U	0...80 V	0...1020 A	0...30 kW	±400 V	±400 V	15U
PSI 9200-420 15U	0...200 V	0...420 A	0...30 kW	±725 V	±1000 V	15U
PSI 9360-240 15U	0...360 V	0...240 A	0...30 kW	±725 V	±1000 V	15U
PSI 9500-180 15U	0...500 V	0...180 A	0...30 kW	±1500 V	±1800 V	15U
PSI 9750-120 15U	0...750 V	0...120 A	0...30 kW	±1500 V	±1800 V	15U
PSI 91000-80 15U	0...1000 V	0...80 A	0...30 kW	±1500 V	±1800 V	15U
PSI 91500-60 15U	0...1500 V	0...60 A	0...30 kW	±1500 V	±1800 V	15U
PSI 9080-1530 15U	0...80 V	0...1530 A	0...45 kW	±400 V	±400 V	15U
PSI 9200-630 15U	0...200 V	0...630 A	0...45 kW	±725 V	±1000 V	15U
PSI 9360-360 15U	0...360 V	0...360 A	0...45 kW	±725 V	±1000 V	15U
PSI 9500-270 15U	0...500 V	0...270 A	0...45 kW	±1500 V	±1800 V	15U
PSI 9750-180 15U	0...750 V	0...180 A	0...45 kW	±1500 V	±1800 V	15U
PSI 91000-120 15U	0...1000 V	0...120 A	0...45 kW	±1500 V	±1800 V	15U
PSI 91500-90 15U	0...1500 V	0...90 A	0...45 kW	±1500 V	±1800 V	15U
PSI 9080-2040 24U	0...80 V	0...2040 A	0...60 kW	±400 V	±400 V	24U
PSI 9200-840 24U	0...200 V	0...840 A	0...60 kW	±725 V	±1000 V	24U
PSI 9360-480 24U	0...360 V	0...480 A	0...60 kW	±725 V	±1000 V	24U
PSI 9500-360 24U	0...500 V	0...360 A	0...60 kW	±1500 V	±1800 V	24U
PSI 9750-240 24U	0...750 V	0...240 A	0...60 kW	±1500 V	±1800 V	24U
PSI 91000-160 24U	0...1000 V	0...160 A	0...60 kW	±1500 V	±1800 V	24U
PSI 91500-120 24U	0...1500 V	0...120 A	0...60 kW	±1500 V	±1800 V	24U
PSI 9080-2550 24U	0...80 V	0...2550 A	0...75 kW	±400 V	±400 V	24U
PSI 9200-1050 24U	0...200 V	0...1050 A	0...75 kW	±725 V	±1000 V	24U
PSI 9360-600 24U	0...360 V	0...600 A	0...75 kW	±725 V	±1000 V	24U
PSI 9500-450 24U	0...500 V	0...450 A	0...75 kW	±1500 V	±1800 V	24U
PSI 9750-300 24U	0...750 V	0...300 A	0...75 kW	±1500 V	±1800 V	24U
PSI 91000-200 24U	0...1000 V	0...200 A	0...75 kW	±1500 V	±1800 V	24U
PSI 91500-150 24U	0...1500 V	0...150 A	0...75 kW	±1500 V	±1800 V	24U
PSI 9080-3060 24U	0...80 V	0...3060 A	0...90 kW	±400 V	±400 V	24U
PSI 9200-1260 24U	0...200 V	0...1260 A	0...90 kW	±725 V	±1000 V	24U
PSI 9360-720 24U	0...360 V	0...720 A	0...90 kW	±725 V	±1000 V	24U
PSI 9500-540 24U	0...500 V	0...540 A	0...90 kW	±1500 V	±1800 V	24U
PSI 9750-360 24U	0...750 V	0...360 A	0...90 kW	±1500 V	±1800 V	24U
PSI 91000-240 24U	0...1000 V	0...240 A	0...90 kW	±1500 V	±1800 V	24U
PSI 91500-180 24U	0...1500 V	0...180 A	0...90 kW	±1500 V	±1800 V	24U

# SPECIFICATIONS

## AC Supply

- **Voltage:** 342...528 V, 3-phase
- **Frequency:** 45...66 Hz
- **Power factor:** >0.99

## DC: Voltage

- **Accuracy:** <0.1% of rated value
- **Load regulation (0-100%):** <0.05% of rated value
- **Line regulation ( $\pm 10\%$   $\Delta UAC$ ):** <0.02% of rated value
- **Regulation (10-100% load):** <2 ms
- **Slew rate (10-90%):** Max. 30 ms
- **Overvoltage protection:** Adjustable, 0...110% UNom
- **No load discharge time on DC off (100% U to <60 V):** Less than 10 s

## DC: Current

- **Accuracy:** <0.2% of rated value
- **Load regulation (0-100%  $\Delta UDC$ ):** <0.15% of rated value
- **Line regulation ( $\pm 10\%$   $\Delta UAC$ ):** <0.05% of rated value

## DC: Power

- Accuracy <1% of rated value

**Overvoltage category:** 2

**Protection:** OTP, OVP, OCP, OPP, PF

## Display and Panel

- Graphics display with touch panel

## Insulation

- **AC input to enclosure:** 2500 V DC
- **AC input to DC output:** 2500 V DC
- **DC output to enclosure (PE):** Depending on model, see model table

## Interfaces (Digital)

- Built-in: 1x USB type B for communication
- Slot: 1x for retrofittable plug-in modules

## Interfaces (Analog)

- **Built-in:** 15 pole D-Sub (female), galvanically isolated
- **Signal range:** 0...5 V or 0...10 V (switchable)
- **Accuracy:** U/I/P/R 0...10 V: <0.2%, 0...5 V: <0.4%

## Device Configuration

- **Parallel Operation:** Not Available

## Safety Standards

- EN 60950
- EN 61326
- EN 55022 Class B
- **Protection Class:** 1

## Environmental Conditions

- **Ambient temperature:** 0...40 °C
- **Storage temperature:** -20...70 °C
- **Relative humidity:** <80%, non-condensing
- **Operation altitude:** <2000 m (1.242 mi)
- **Pollution Degree:** 2

## Mechanical Construction

- **Cooling:** Temperature-controlled fans (optional:water)
- **Dimensions (W x H x D):** 15U models: 60 cm x 95 cm x 100 cm (23.6" x 37.4" x 39.4")
- **24U models:** 60 cm x 135 cm x 100 cm (23.6" x 53.1" x 39.4")

**W5 Engineering**  
**Phone:** (971) 244-8200  
**Email:** [help@W5engineering.com](mailto:help@W5engineering.com)  
[www.W5engineering.com/eapowered](http://www.W5engineering.com/eapowered)

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

