



Elektro-Automatik



EL 9000 DT

Advanced Programmable Electronic DC Loads | 400 W - 1200 W

Multilingual Color Touch Panel: Provides intuitive operation and easy configuration of settings.

Integrated Function Generator: Offers standard and arbitrary waveforms for versatile testing scenarios.

Comprehensive Protection Features: Includes OVP, OCP, and OPP to ensure safety during operation.

Multiple Operation Modes: Supports CV, CC, CP, and CR modes for diverse application requirements.

Standard Galvanically Isolated Interfaces: USB, Ethernet, and analog ports facilitate seamless integration and remote control.

EA-EL 9000 DT 400 W - 1200 W

Programmable Electronic DC Load



General

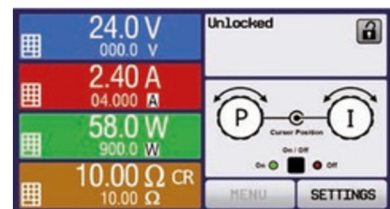
The EA-EL 9000 DT Series is a state-of-the-art range of compact electronic DC loads, offering an impressive blend of performance and functionality. Designed to extend the capabilities of the EA-EL 9000 T series, this line introduces 10 desktop models tailored for daily use in laboratories, schools, and workshops. With new voltage, current, and power ratings, the series caters to a wide array of testing applications. Equipped with an ARM microprocessor, it ensures improved response times and precise control via USB, Ethernet, or analog interfaces, all galvanically isolated for added safety and versatility.

Power Ratings, Voltages, Currents

The EA-EL 9000 DT Series boasts power ratings of 600 W and 1200 W, with voltage ranges spanning from 0–80 V to 0–750 V and currents from 0–5 A to 0–60 A per unit. These capabilities make it ideal for testing a variety of devices, from low-power electronics to higher-capacity systems. The flexibility in its operational range ensures reliable performance across diverse scenarios.

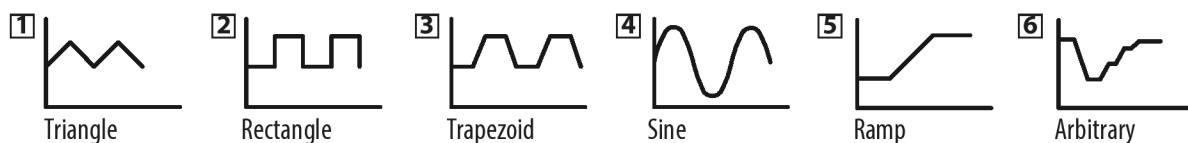
Handling (HMI)

User interaction is streamlined through an advanced TFT touch panel, complemented by two rotary knobs and a push button. The multilingual interface supports English, German, Russian, and Chinese, allowing easy configuration of settings and visualization of real-time parameters. This intuitive design, akin to smartphone interfaces, ensures a seamless experience for professionals and novices alike.



Function Generator

Every model in the series includes a versatile function generator capable of producing standard waveforms, such as sine, rectangle, and triangle, along with custom arbitrary functions. Users can configure these settings via the touch panel or through digital interfaces. With up to 99 programmable sequences, the function generator supports complex testing scenarios, making it invaluable for research, development, and production workflows.



Battery Test & MPP Tracking

The EA-EL 9000 DT Series excels in battery testing and maximum power point (MPP) tracking applications. It features specialized test modes for constant current or resistance discharging, recording capacity (Ah) and energy (Wh) metrics. Additionally, the MPP tracking mode simulates photovoltaic characteristics, analyzing typical operational parameters like UMPP and IMPP. These advanced capabilities make the series a powerful tool for renewable energy and battery research.

Power Derating

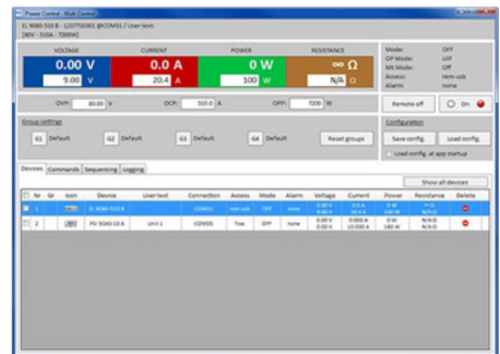
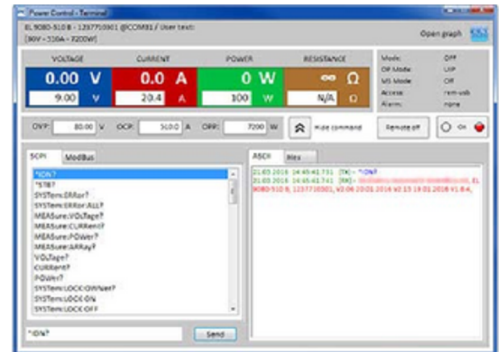
To maintain performance within safe operating limits, the EA-EL 9000 DT Series employs thermal derating. This ensures the devices operate reliably even under maximum load conditions, adjusting power intake based on ambient temperature. Nominal power is defined at 25°C, with automatic adjustments for higher temperatures to prevent overheating.

Remote Control and Connectivity

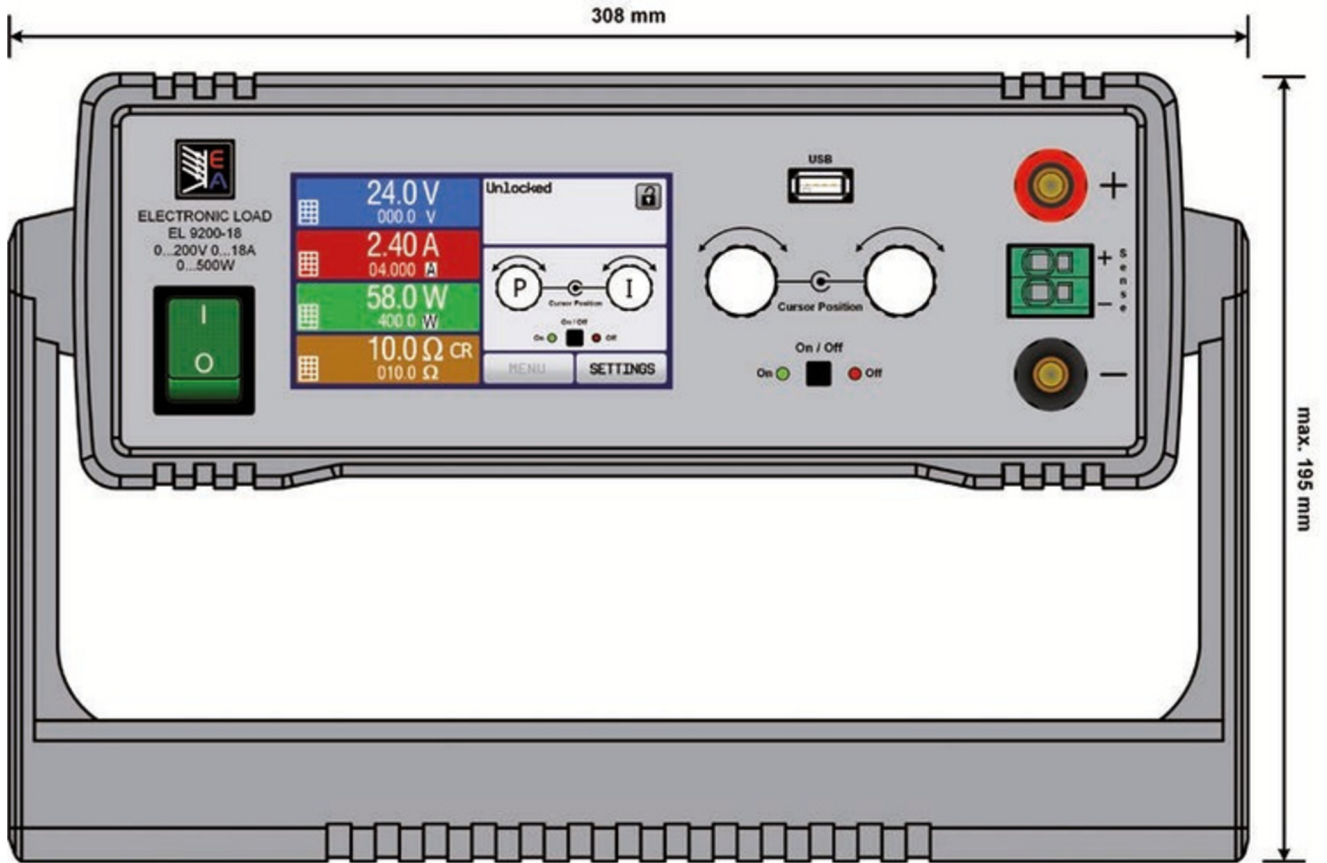
The EA-EL 9000 DT Series supports extensive remote control options through USB, Ethernet, and analog interfaces, with an additional USB port for user profile management. The free “EA Power Control” software includes a sequencing feature, enabling automated testing via CSV import/export. For large-scale operations, the optional “Multi Control” app allows users to manage up to 20 units simultaneously, enhancing scalability and convenience.

Options

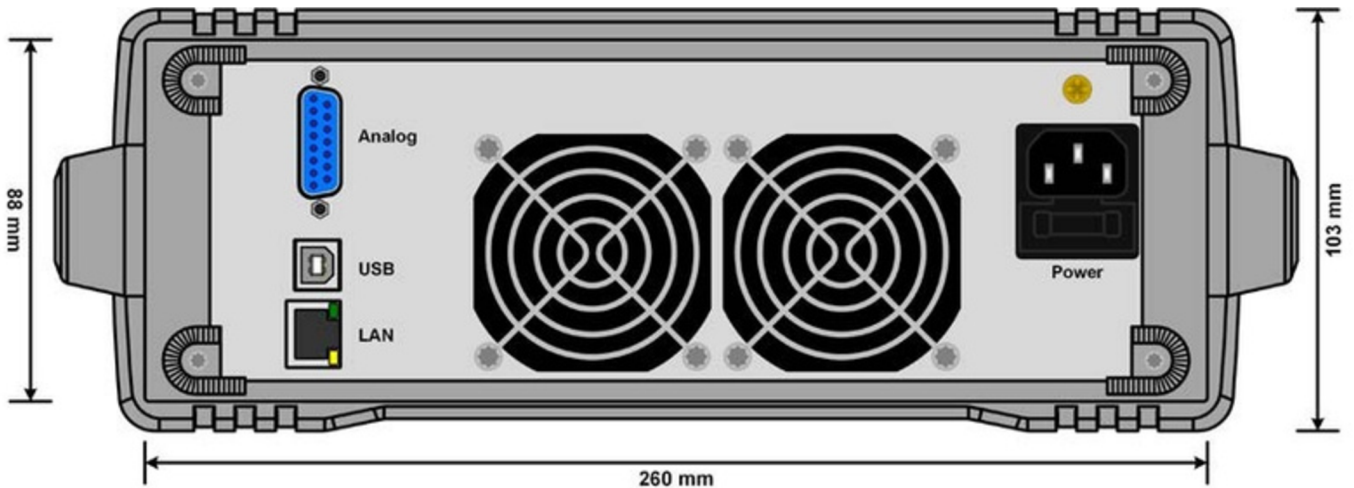
Enhance the functionality of the EA-EL 9000 DT Series with optional mounting frames for 19” systems, providing flexibility for integration into existing setups. These accessories further optimize the series for professional testing environments.



Product Views



Front view with tilt stand in vertical position



Rear view

Technical Data

AC Supply

- Voltage: 90...264 V
- Frequency: 45...66 Hz
- Power consumption: max. 40 W

DC Voltage

- Accuracy: <0.1% of rated value

DC Current

- Accuracy: <0.2% of rated value
- Load regulation $\pm 100\%$ ΔIUC : <0.1% of rated value
- Rise time 10–90%: <50 μ s

DC Power

- Accuracy: <0.5% of rated value

DC-Resistance

- Accuracy: $\leq 1\%$ of max. resistance + 0.3% of rated current

Display / Control Panel

- Graphics display with TFT touch panel

Digital Interfaces

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

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 input on-off, resistance mode on-off
- Outputs: U, I, overvoltage, alarms, reference voltage
- Accuracy U / I / P / R: 0...10 V: <0.2%, 0...5 V: <0.4%

Cooling

- Temperature controlled fan(s)

Operation temperature: 0...50 °C

Storage temperature: -20...70 °C

Mechanics

- Dimensions (W x H x D):
 - 308 x 103 x 415 mm (12.1" x 4" x 16.3")
- Weight:
 - 600 W: \approx 6.5 kg (14.3 lb)
 - 1200 W: \approx 7.5 kg (16.5 lb)

Available Models

Model	Power @ 25°C	Power @ 40°C	Voltage	Current	Resistance	U_min for I_max
EA-EL 9080-45 DT	0...600 W	0...500 W	0...80 V	0...45 A	0.09...30 Ω	≈ 2.2 V
EA-EL 9200-18 DT	0...500 W	0...500 W	0...200 V	0...18 A	0.5...170 Ω	≈ 2 V
EA-EL 9360-10 DT	0...450 W	0...450 W	0...360 V	0...10 A	1.6...540 Ω	≈ 2 V
EA-EL 9500-08 DT	0...400 W	0...400 W	0...500 V	0...8 A	3...1000 Ω	≈ 6.5 V
EA-EL 9750-05 DT	0...400 W	0...400 W	0...750 V	0...5 A	7...2200 Ω	≈ 5.5 V
EA-EL 9080-60 DT	0...1200 W	0...800 W	0...80 V	0...60 A	0.09...30 Ω	≈ 2.2 V
EA-EL 9200-36 DT	0...1000 W	0...800 W	0...200 V	0...36 A	0.5...170 Ω	≈ 2 V
EA-EL 9360-20 DT	0...900 W	0...800 W	0...360 V	0...20 A	1.6...540 Ω	≈ 2 V
EA-EL 9500-16 DT	0...600 W	0...600 W	0...500 V	0...16 A	3...1000 Ω	≈ 6.5 V
EA-EL 9750-10 DT	0...600 W	0...600 W	0...750 V	0...10 A	7...2200 Ω	≈ 5.5 V

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