

eventek KPS-1505D-303D

eventek KPS-1505D-303D DC Power Supply User Manual

1. INTRODUCTION

The eventek KPS-1505D-303D is a high-precision, adjustable DC power supply designed for various electronic applications, including laboratory use, repair centers, and educational settings. This manual provides detailed instructions for the safe and efficient operation of your device. Please read this manual thoroughly before use and retain it for future reference.

2. SAFETY PRECAUTIONS

To ensure safe operation and prevent damage to the device or injury, please observe the following safety guidelines:

- Always connect the power supply to a grounded AC outlet.
- Do not operate the device in wet or damp conditions.
- Ensure adequate ventilation around the unit to prevent overheating. Do not block the cooling fan or vents.
- Do not open the casing of the power supply unless you are a qualified service technician. There are no user-serviceable parts inside.
- Verify the voltage and current settings before connecting any circuit or load to prevent damage to the connected device.
- Avoid short-circuiting the output terminals for extended periods.
- Keep the device away from flammable materials and explosive gases.

3. PRODUCT FEATURES

The eventek KPS-1505D-303D DC Power Supply offers a range of features designed for precision and reliability:

- **Adjustable DC Output:** Provides a continuously variable output from 0 to 30 Volts and 0 to 5 Amperes.

- **High Precision 4-Digit LED Display:** Clear and accurate display of voltage (0.01V resolution) and current (0.001A resolution), visible even in low light.
- **Constant Voltage (CV) and Constant Current (CC) Modes:** Automatic conversion between modes to maintain stable output voltage or current, indicated by front panel LEDs.
- **Independent Adjustment Knobs:** Separate coarse and fine adjustment knobs for both voltage and current allow for precise control.
- **Efficient Cooling System:** Features an integrated thermal sensor and a smart cooling fan to effectively dissipate heat and reduce operational noise.
- **Multiple Protection Functions:** Includes comprehensive safety features such as current limiting protection, thermal protection, overvoltage protection, short-circuit protection, and overload protection.
- **Durable and Compact Design:** Constructed with a flame-retardant casing for enhanced safety, lightweight portability, and high impact resistance.

4. PRODUCT OVERVIEW AND COMPONENTS

Familiarize yourself with the various parts of your eventek KPS-1505D-303D DC Power Supply.



Figure 1: Front view of the eventek KPS-1505D-303D DC Power Supply.

4-DIGIT LED POWER DISPLAY



Figure 2: Explanation of the 4-digit LED display showing voltage, current, and power resolution.

Front Panel Components



Figure 3: Detailed diagram of the power supply's front and rear panel components.

1. Voltage Display
2. Current Display
3. CV (Constant Voltage) Indicator
4. CC (Constant Current) Indicator
5. Power Display (Watts)
6. A-COARSE (Rough Current Regulation Knob)
7. A-FINE (Fine Current Regulation Knob)
8. V-COARSE (Rough Voltage Regulation Knob)
9. V-FINE (Fine Voltage Regulation Knob)
10. Power Switch
11. Output Interface Negative Electrode (-)
12. GND (Ground Strap) Terminal
13. Output Interface Positive Electrode (+)

Rear Panel Components

14. Cooling Fan

15. AC Input Socket
16. Fuse Block

5. SETUP

Follow these steps to set up your power supply:

1. **Unpack and Inspect:** Carefully remove the power supply from its packaging and inspect it for any signs of damage during transit.
2. **Placement:** Place the unit on a stable, level surface with sufficient space for ventilation, especially around the rear cooling fan.
3. **Power Connection:** Ensure the power switch (10) is in the OFF position. Connect the provided AC power cord to the AC Input Socket (15) on the rear panel, then plug the other end into a grounded AC power outlet.
4. **Initial Check:** Before connecting any load, turn on the power supply using the Power Switch (10). The LED displays should illuminate.

6. OPERATING INSTRUCTIONS

This section details how to operate your eventek DC power supply.

6.1 Setting Voltage and Current

1. **Power On:** Turn on the power supply using the Power Switch (10).
2. **Adjusting Voltage:** Use the V-COARSE (8) and V-FINE (9) knobs to set the desired output voltage. The Voltage Display (1) will show the current setting.
3. **Adjusting Current Limit:** Use the A-COARSE (6) and A-FINE (7) knobs to set the maximum output current (current limit). It is recommended to set the current limit before connecting a load. To do this, you can temporarily short the output terminals (using a thick wire for a very brief moment, or by connecting a multimeter in current mode) and adjust the current knobs until the desired current limit is displayed. Alternatively, you can estimate the current limit based on your load's requirements.

6.2 Connecting a Load

1. Ensure the power supply is OFF or the output is set to 0V before connecting your load.
2. Connect the positive (+) terminal of your load to the red Output Interface Positive Electrode (13).
3. Connect the negative (-) terminal of your load to the black Output Interface Negative Electrode (11).
4. For applications requiring grounding, connect the ground wire of your load to the green GND (Ground Strap) Terminal (12).

6.3 Constant Voltage (CV) and Constant Current (CC) Modes

- **Constant Voltage (CV) Mode:** When the load current is below the set current limit, the power supply operates in CV mode, maintaining the set output voltage. The CV Indicator (3) will illuminate.
- **Constant Current (CC) Mode:** If the load current attempts to exceed the set current limit, the power supply automatically switches to CC mode. In this mode, the output current is maintained at the set limit, and the output voltage will drop accordingly. The CC Indicator (4) will illuminate.

7. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your power supply.

- **Cleaning:** Always disconnect the power supply from the AC outlet before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners, solvents, or liquids that could enter the casing.
- **Ventilation:** Regularly check that the cooling fan (14) and all ventilation openings are free from dust and obstructions. Blocked vents can lead to overheating and reduced performance.
- **Fuse Replacement:** If the power supply fails to power on, the fuse may need replacement. Disconnect the AC power cord. Locate the Fuse Block (16) on the rear panel. Carefully remove the fuse holder and replace the fuse with one of the same type and rating (refer to the specifications section or the label near the fuse block).



Figure 4: Internal view highlighting the cooling system and components.

8. TROUBLESHOOTING

This section addresses common issues you might encounter and their potential solutions.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No power when switched on	AC power cord not connected; Power switch off; Blown fuse	Check AC power cord connection; Ensure power switch is ON; Replace fuse (refer to Maintenance section)
No output voltage/current	Output terminals not connected correctly; Current limit set too low; Load fault	Verify output connections; Adjust current limit (A-COARSE/A-FINE); Check the connected load for faults
Overheating/Fan running constantly	Blocked ventilation; Prolonged operation at high power; High ambient temperature	Ensure vents are clear; Reduce load or operating time; Operate in a cooler environment
Unstable output readings	Loose connections; Faulty load; External interference	Check all connections; Test with a different load; Relocate away from strong electromagnetic fields

9. SPECIFICATIONS

Key technical specifications for the eventek KPS-1505D-303D DC Power Supply:

- **Model:** KPS-1505D-303D
- **Input Voltage:** AC 220V \pm 10%
- **Output Voltage:** 0-30V (Adjustable)
- **Output Current:** 0-5A (Adjustable)
- **Voltage Display Accuracy:** 0.01V
- **Current Display Accuracy:** 0.001A
- **Dimensions (Package):** 29.4 x 20.3 x 11.8 cm
- **Weight (Package):** 1.7 kg
- **Manufacturer:** eventek

LIGHTWEIGHT & SMALL SIZE



Figure 5: Physical dimensions of the power supply compared to common objects.

PROFESSIONAL HIGH PRECISION MEASUREMENT

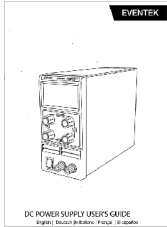


Figure 6: The power supply demonstrating professional high precision measurement capabilities.

10. WARRANTY AND SUPPORT

eventek is committed to providing quality products and customer satisfaction.

- **Warranty:** This product comes with a 24-month limited warranty from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use.
- **Customer Support:** For any questions, technical assistance, or warranty claims regarding your eventek KPS-1505D-303D DC Power Supply, please contact our support team at support@mokwheel.net. Please provide your model number and a detailed description of the issue when contacting support.



[Eventek KPS Series DC Power Supply User's Guide | Technical Specifications and Operation](#)

Comprehensive user's guide for the Eventek KPS series DC power supply. Covers safety, installation, operation, specifications, troubleshooting, and maintenance for scientific research, product development, and laboratory use.



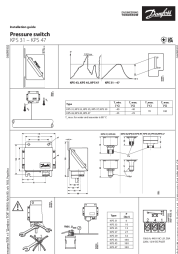
[Eventek GM9053 Infrared Thermometer User Manual - Non-Contact Temperature Measurement](#)

Comprehensive user manual for the Eventek GM9053 Infrared Thermometer. Learn about its features, specifications, operating instructions, and safety precautions for non-contact temperature measurement in cooking, industrial, and other applications. Covers models GM9053 and GM9050E.



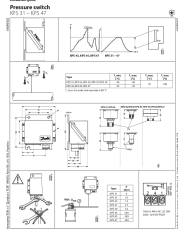
[Danfoss KPS Pressure Switch and Thermostat Technical Data](#)

Comprehensive technical data, specifications, and application information for Danfoss KPS series pressure switches and thermostats, including product overview, features, functions, technical data tables, installation guidelines, and ordering information.



[Installation Guide: Danfoss Pressure Switch KPS 31 - KPS 47 Series](#)

Comprehensive installation guide for Danfoss KPS 31 to KPS 47 series pressure switches, detailing specifications, operating conditions, and safety precautions.



[Danfoss KPS 31-47 Pressure Switch Installation Guide](#)

Installation guide for Danfoss KPS 31 to KPS 47 series pressure switches, covering technical specifications, dimensions, wiring diagrams, and operating principles.