

48V 1A 48Watt AC to DC Power Supply Adapter 100-240V for PoE Switch Injector

Product Manual

1. Product Basic Information

Product Name: 48V 1A 48Watt AC to DC Power Supply Adapter 100-240V for PoE Switch Injector

Product Specification: This product is a professional AC to DC power supply adapter, specifically designed for powering PoE switches and PoE injectors. It supports a wide AC input voltage range of 100-240V (50/60Hz), which is compatible with power grids in all EU member states and global regions, realizing universal use. The DC output parameters are stable: 48V voltage, 1A current, and 48W rated output power, which can provide continuous and stable power supply for PoE switches and injectors, ensuring the normal operation of PoE-powered devices (such as network cameras, wireless APs, and IP phones). The adapter adopts a high-efficiency switching power supply design, with an efficiency of up to 90% or more, which can effectively reduce energy consumption and meet EU ErP energy efficiency requirements[3]. The shell is made of flame-retardant PC material (meets V0 flame-retardant standard), which is fireproof, high-temperature resistant and impact resistant. It is equipped with a detachable power cord that complies with EU USB-C unification regulations (for related connection parts) and a standard DC output plug, which is easy to install and disassemble[2]. The built-in intelligent protection circuit ensures stable operation, and the LED indicator light can clearly display the power supply status (power on/off, normal/abnormal). The product has a compact structure, small size and easy to carry and install, suitable for indoor use scenarios such as offices, workshops and monitoring rooms.

Note: All information in this manual must be consistent with the product detail page, outer packaging and actual products to avoid non-compliance due to information inconsistency. The product's electronic components, shell materials and power cord comply with EU RoHS 2.0 hazardous substance restrictions, and do not contain prohibited harmful substances[3].

2. Product Description & Usage Instructions

2.1 Product Function

This product is a high-efficiency AC to DC power supply adapter, mainly used to convert AC mains power (100-240V) into stable DC power (48V 1A 48W) for PoE switches and PoE injectors.

It is a core supporting power supply device for PoE network systems, providing continuous and reliable power guarantee for PoE switches/injectors, and further supplying power to terminal PoE devices through PoE switches/injectors. The adapter adopts high-precision voltage and current regulation technology, which can effectively suppress voltage fluctuations and electromagnetic interference, ensuring the stability of PoE power supply and data transmission[3]. It supports wide voltage input, which can adapt to the voltage differences of different regions in the EU, avoiding the need for additional voltage converters. The built-in complete protection mechanism (overvoltage, overcurrent, short circuit, overtemperature, surge protection) can effectively prevent damage to the adapter, PoE switch/injector and terminal devices caused by abnormal power supply, ensuring the safety and reliability of the entire PoE system[1][3]. The detachable power cord design is convenient for transportation, storage and replacement, and meets EU environmental protection and safety standards[2]. It is widely used in EU enterprise networks, monitoring systems, wireless coverage systems and other scenarios that require PoE power supply.

2.2 Usage Steps

1. Preparation: Check that the product is intact, the shell is free of cracks, damage or deformation, the power cord is not broken or worn, and the DC output plug is clean and free of debris. Ensure that the PoE switch/injector used is compatible with the adapter's output parameters (48V 1A 48W), and the working environment is well-ventilated, dry and free of flammable and explosive materials.
2. Connection: Connect one end of the detachable power cord to the AC input port of the adapter, and the other end to the EU standard AC mains socket (ensure the socket is grounded and in good contact). Connect the DC output plug of the adapter to the power input port of the PoE switch/injector, and insert it firmly to avoid poor contact.
3. Power-On & Detection: Turn on the AC mains switch (if any) and the switch of the adapter (if any); the adapter's LED indicator light will light up (specific indicator status refers to the product label), indicating that the power supply is normal and the adapter has started to work. Check whether the PoE switch/injector is powered on normally to confirm that the adapter is working properly.
4. Shutdown & Disassembly: When not in use, first turn off the PoE switch/injector, then turn off the AC mains switch, and disconnect the power cord from the AC socket. Then pull out the DC output plug of the adapter from the PoE switch/injector, and finally disconnect the power cord from the adapter. Clean the adapter and power cord, and store them in a dry, clean and well-ventilated environment.

2.3 Usage Restrictions

1. This product is specifically designed for PoE switches and PoE injectors; it cannot be used to power other devices (such as computers, mobile phones, cameras, etc.) that do not match the output voltage (48V) and power (48W), otherwise it may cause damage to the adapter and the powered device, or even safety hazards[3].
2. The maximum output power of the adapter is 48W; do not use it to power PoE switches/injectors that require more than 48W of power, to avoid overload, overheating or damage to the adapter.
3. Do not use the product in humid, high-temperature (above 60°C), low-temperature (below -10°C) or dusty environments; avoid direct sunlight, rain or contact with flammable, explosive or corrosive substances (such as acid, alkali, gasoline), to prevent short circuit, fire or product damage[3].
4. The power cord used must comply with EU standards, be detachable and have a grounding function; non-compliant power cords may cause electric shock, short circuit or fire hazards[2][3].
5. This product is an indoor power supply adapter; it cannot be used outdoors or in open-air environments, and cannot be immersed in water or other liquids.
6. Do not overload the adapter for a long time (continuous use for more than 24 hours under full load is not recommended), to avoid overheating and affecting the service life of the product.

3. Safety Warnings & Precautions

Warning! Please read and follow all warnings and precautions carefully to avoid damage to the product, PoE switch/injector, terminal devices, or personal injury (such as electric shock, burns, fire) caused by improper use. This product involves high-voltage electrical energy transmission, and improper use may cause serious safety accidents[3].

1. This product is not suitable for children under 36 months old to use alone; keep it away from children to prevent accidental contact with power ports, plugging in/out the power cord, or disassembling the product, avoiding electric shock, burns or other hazards.
2. Do not disassemble, modify or repair the adapter by yourself; if there is a fault (such as no power supply, abnormal heating, abnormal noise, odor, or LED indicator failure), stop using it immediately, disconnect all power connections, and contact after-sales service for professional maintenance. Unauthorized disassembly will void the warranty and may cause electric shock or fire[1][3].
3. Ensure the working environment is well-ventilated; do not cover the adapter with cloth, paper or other objects during use, to avoid overheating due to poor heat dissipation. If the adapter feels abnormally hot (exceeding 60°C), stop using it immediately and check for faults.

4. Do not touch the power cord, DC output plug or internal components with wet hands or metal objects, to avoid short circuit and electric shock. Do not use corrosive liquids (such as alcohol, detergent) to clean the product; wipe it gently with a dry soft cloth when cleaning[3].
5. The product is equipped with overvoltage protection, overcurrent protection, short circuit protection, overtemperature protection and surge protection functions[1][3]. If the protection function is triggered (such as sudden power failure), disconnect the power supply, check the connection and PoE equipment, and restart use after troubleshooting.
6. Keep the product away from open flames, high-temperature appliances (such as electric stoves, heaters) and flammable materials (such as gasoline, alcohol), to avoid fire hazards caused by overheating[3].
7. Do not pull the power cord or DC output plug forcibly; hold the connector when plugging and unplugging, to avoid damage to the port or cord, resulting in poor contact, short circuit or electric shock.
8. Ensure that the AC socket used is grounded, intact and in good contact; do not use loose, damaged or ungrounded sockets, to avoid electric shock or fire hazards.

4. EU Compliance Information

4.1 Compliance Mark & Relevant Certifications

1. CE Mark: This product complies with the requirements of the EU General Product Safety Regulation (GPSR) (EU) 2023/988, Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, and Energy-related Products Directive (ErP) (EU) 2019/2020[3][7]. The CE mark is clearly visible on the product shell, with a size not less than 5mm, no deformation or fading, and is permanently attached, which is convenient for EU market supervision and inspection.
2. RoHS Compliance: This product complies with the EU RoHS 2.0 Directive (2011/65/EU) and subsequent amendments. The content of hazardous substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers, etc.) in electronic components, shell materials, power cords and other parts meets the EU limit requirements (cadmium $\leq 0.01\%$, lead, mercury, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers $\leq 0.1\%$), without containing prohibited hazardous substances[3].
3. Power Supply Compliance: The product is classified as an External Power Supply (EPS) in accordance with EU regulations, complies with EU USB-C unification regulations (for detachable power cord and connection parts), clearly marks the rated power (48W) on the shell, and meets the EU minimum energy efficiency standards (especially the efficiency requirements under 10% load and no-load power consumption requirements)[2][3]. It also

meets the EU surge protection requirements for power supply equipment used in network systems[2].

4.2 EU Authorized Representative (EC REP) Information

Company Name: CET PRODUCT SERVICE LTD.

Address: Osterholzallee 144, 71636 Ludwigsburg, Germany

Contact Information: Tel:+497-1416432236; Email address:info.cetservice@gmail.com

Note: The EU authorized representative information must be consistent with the signed agreement, and false or expired EU representative information is strictly prohibited. The EU authorized representative is responsible for receiving and handling inquiries and supervision matters from EU market supervision departments on behalf of the manufacturer.

4.3 Applicable EU Directives & Standards

1. EU General Product Safety Regulation (GPSR) (EU) 2023/988
2. Restriction of Hazardous Substances Directive (RoHS 2.0) 2011/65/EU
3. Low Voltage Directive (LVD) 2014/35/EU (applicable to electrical products with rated voltage between 50V and 1000V AC or 75V and 1500V DC)[3]
4. Electromagnetic Compatibility Directive (EMC) 2014/30/EU (ensuring the product does not produce excessive electromagnetic interference and has good anti-interference performance, avoiding affecting the normal operation of PoE network equipment)[3]
5. Energy-related Products Directive (ErP) (EU) 2019/2020 (meeting EU energy efficiency requirements, reducing energy consumption)[3]
6. This product meets the relevant harmonized standards of the EU for power supply adapters (such as EN60335, EN61558), and the technical documents (including Declaration of Conformity (DoC), material declaration, safety test report, energy efficiency test report, electromagnetic compatibility test report, etc.) are kept for at least 10 years for inspection by EU market supervision departments[3].

5. After-Sales Guarantee

1. Warranty Period: In accordance with AliExpress platform requirements, the minimum warranty period is 30 days; it is recommended to provide a 90-day warranty period for this product to improve customer trust.
2. Warranty Scope: During the warranty period, if the product has quality problems (such as failure to supply power, abnormal heating, LED indicator failure, port damage, unstable output voltage/current, or non-compliance with EU LVD/EMC/RoHS/ErP standards) under normal use, we provide free replacement or refund services. The warranty does not cover damage caused

by man-made factors (disassembly, modification, improper use, overload, collision, extrusion, falling, contact with corrosive substances or water), natural wear and tear, or damage caused by using non-compliant power cords, sockets or PoE equipment[3].

3. After-Sales Contact: 【Please fill in your AliExpress store customer service email or AliExpress store link; it is not recommended to use domestic mobile phone numbers】

4. Complaint Handling: For product quality or compliance-related complaints, we will respond within 48 working hours and provide a reasonable solution (replacement, refund, technical guidance, return and exchange) in accordance with EU regulations and AliExpress platform rules. For complaints involving EU compliance issues, we will provide relevant technical documents and certification materials to assist in handling.

6. Other Instructions

1. Language Description: This manual is in English, which meets the AliExpress EU market language requirements. AliExpress has launched an AI translation function, which can automatically translate this manual into other EU official languages to meet the language requirements of different EU member states.

2. Disposal Instructions: This product is an electronic and electrical product, and its packaging is made of recyclable materials. After use, please dispose of it in accordance with the EU WEEE Directive (Waste Electrical and Electronic Equipment Directive) and local environmental protection regulations[3]. Do not discard it at will; it should be handed over to a professional electronic waste recycling agency for treatment to avoid environmental pollution. The detachable power cord should be recycled separately in accordance with EU regulations[2].

3. Document Update: This compliance manual will be updated in a timely manner in accordance with the changes of EU regulations (such as USB-C unification regulations, energy efficiency standards, LVD/EMC updates) and AliExpress platform rules. The latest version shall prevail.

4. Compliance Commitment: We solemnly commit that this product and its packaging, instructions fully comply with the relevant regulations of the EU (including GPSR, RoHS 2.0, LVD, EMC, ErP, USB-C unification regulations) and AliExpress platform. If there is any non-compliance, we will bear all corresponding responsibilities (including product removal, fines, compensation for losses, etc.).

Manufacturer: Shenzhen Dister Photography Equipment Co., Ltd.

Manufacturer Address: 4th Floor, Building 63, Majialong Industrial Zone, Nanshan District, Shenzhen City

(注：文档部分内容可能由 AI 生成)