

# 52V 1.85A 96Watt AC to DC Power Supply Adapter 100-240V for PoE Switch Injector

## Product Manual

### 1. Product Basic Information

Product Name: 52V 1.85A 96Watt AC to DC Power Supply Adapter 100-240V for PoE Switch Injector

Product Specification: This product is a professional switching power supply adapter, specially designed for PoE Switch Injector, designed to convert AC 100-240V universal alternating current (adjustment range 90-264Vac) into stable DC 52V direct current, with a rated output current of 1.85A and a maximum output power of 96W ( $96W=52V \times 1.85A$ ), ensuring stable and reliable power supply for PoE Switch Injector and its connected PoE terminal devices (such as IP cameras, wireless APs) through PoE power injection technology[2][3]. It features a standard DC output interface (matching PoE Switch Injector's power input port), which is perfectly compatible with most PoE Switch Injectors on the market that require DC 52V voltage, 1.85A current or below, and 96W power or below. The adapter adopts a high-efficiency switching power supply design, with a conversion efficiency of up to 88% when inputting 240Vac and full load, reducing energy consumption and no-load power consumption, which is in line with EU energy efficiency standards. The product is made of high-quality materials: the shell is made of flame-retardant ABS plastic (meets V0 flame-retardant standard), which is heat-resistant, impact-resistant and insulation-safe; the internal core is composed of high-quality transformers, inductors, capacitors and control ICs, with precise voltage stabilization technology to ensure that the output voltage fluctuation is within  $\pm 3\%$ , and the ripple and noise are effectively controlled to avoid interference to the PoE Switch Injector and its connected terminal equipment[1]. The power cord is made of wear-resistant, high-temperature-resistant PVC material, with a standard AC input plug (universal for global AC 100-240V voltage) and a dedicated DC output connector (matching PoE Switch Injector), easy to plug and unplug. The overall structure is compact, lightweight (only 140-160g), with a built-in heat dissipation structure to avoid overheating during long-time continuous use, suitable for PoE network deployment scenarios such as home, office, security monitoring, and small and medium-sized enterprise networks[2][3].

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 flame-retardant ABS shell, internal electronic components (transformers, capacitors, ICs), power cord and DC connectors comply with EU RoHS 2.0 Directive (2011/65/EU) hazardous substance restrictions, and do not contain prohibited harmful substances (lead, mercury, cadmium, hexavalent chromium, PBBs, PBDEs, DEHP, BBP, DBP, DIBP, etc.)[1]. It is strictly compatible with PoE Switch Injectors that require DC 52V voltage, 1.85A current or below, and 96W power or below; do not use it for PoE Switch Injectors or other devices with mismatched voltage, current or interface size to avoid equipment damage, power injection failure or safety hazards[3].

## 2. Product Description & Usage Instructions

### 2.1 Product Function

This product is a professional switching power supply adapter, specially designed for PoE Switch Injector, mainly used to convert AC 100-240V universal alternating current (suitable for global voltage standards) into stable DC 52V direct current, providing safe and reliable power supply for PoE Switch Injector, which further injects power into PoE terminal devices (such as IP cameras, wireless APs) through network cables, realizing simultaneous data transmission and power supply[2][3]. Its core functions include three aspects: first, voltage conversion and stabilization - the internal high-precision voltage stabilization circuit and filtering system can effectively convert AC voltage into stable DC 52V voltage, suppress voltage fluctuations, ripple and noise, ensuring that the PoE Switch Injector works stably, avoiding power injection failure and protecting connected terminal equipment from damage caused by voltage instability[1]. Second, PoE scenario dedicated adaptation - the dedicated DC output interface and 52V 1.85A 96W power specification are perfectly matched with PoE Switch Injector's working requirements, ensuring efficient power injection, compatible with IEEE 802.3af/at standard PoE Switch Injectors, and supporting stable power supply for multiple PoE terminal devices at the same time[2][3]. Third, safe and energy-saving - the flame-retardant shell and insulation design ensure safe use, preventing electric shock and fire hazards; the high-efficiency switching power supply design reduces energy consumption, and the low no-load power consumption meets EU energy efficiency standards. In addition, the adapter has built-in multiple protection functions (short circuit protection, overcurrent protection, overvoltage protection, over-temperature protection), which can automatically cut off or restore power when an abnormality occurs, effectively protecting the adapter, PoE Switch Injector and connected terminal equipment, and is widely used in PoE network deployment scenarios such as security monitoring, office networks and home intelligent networks[2][3].

### 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 intact (no breakage, peeling or exposed wires), the DC

connector is clean and free of debris or oxidation, and the AC plug is free of damage. Confirm that the connected PoE Switch Injector's rated voltage is DC 52V, rated current  $\leq 1.85\text{A}$ , rated power  $\leq 96\text{W}$ , and DC interface size matches the adapter's output connector; check that the PoE Switch Injector is clean and free of faults, and confirm that the connected PoE terminal devices comply with IEEE 802.3af/at standards[2][3].

2. Connection of DC Interface: Align the adapter's DC output connector with the PoE Switch Injector's DC power input port, and firmly insert it to ensure tight contact without loosening (do not insert the wrong interface or reverse the positive and negative poles to avoid poor contact, power injection failure or equipment damage[3]).

3. Connection of AC Power: Insert the AC plug of the adapter into a standard AC 100-240V power socket (ensure the socket is intact, grounded and in good contact), and confirm that the adapter's power indicator (if equipped) is on, indicating that the adapter is normally powered on and starts voltage conversion[1].

4. Use & Monitoring: Turn on the PoE Switch Injector, and the adapter will provide stable DC 52V power supply for it, which then injects power into the connected PoE terminal devices. During use, pay attention to monitoring the adapter's temperature: a slight warm feeling is normal, but if it is abnormally hot (exceeding  $65^{\circ}\text{C}$ ), has peculiar smell, smokes or makes abnormal noises, immediately turn off the PoE Switch Injector power, unplug the adapter's AC plug, and stop using it. After use, turn off the PoE Switch Injector and connected terminal devices first, then unplug the adapter's AC plug from the power socket[3].

5. Disassembly & Storage: After use, first disconnect the AC power supply, then gently pull out the DC connector from the device's power input port (do not pull the power cord directly to avoid wire breakage). Clean the DC connectors and AC plug with a dry soft cloth to remove dust or debris. Store the adapter in a dry, clean, well-ventilated and shockproof place, away from direct sunlight, high temperature, humidity and corrosive substances, and avoid placing heavy objects on the adapter or power cord[1].

## 2.3 Usage Restrictions

1. This product is strictly used for PoE Switch Injectors with rated voltage DC 52V, rated current  $\leq 1.85\text{A}$ , rated power  $\leq 96\text{W}$ ; it cannot be used for PoE Switch Injectors or other devices with mismatched voltage (higher or lower than 52V), excessive current/power (exceeding 1.85A/96W), or mismatched interface size, otherwise it may cause damage to the adapter, PoE Switch Injector, connected terminal equipment, power injection failure, or even fire hazards[2][3].

2. Do not use excessive force when plugging or unplugging the AC plug or DC connector, so as to avoid damage to the plug, connector, power cord or device interface; plug and unplug gently, and do not pull the power cord to prevent wire breakage and short circuit.

3. Do not use the product in humid (relative humidity  $\geq 90\%$ ), high-temperature (above  $60^{\circ}\text{C}$ ), low-temperature (below  $-10^{\circ}\text{C}$ ) or highly corrosive environments; avoid direct sunlight, rain, water splashing or contact with corrosive substances (such as acid, alkali, seawater), to prevent short circuit, leakage, insulation damage or component aging[1].
4. Do not disassemble, modify or repair the adapter by yourself (including opening the shell, changing internal components or modifying the power cord), and do not place heavy objects on the adapter or power cord, otherwise it may cause short circuit, electric shock, fire or damage to the adapter[4].
5. This product is a dedicated power supply conversion device for PoE Switch Injector; do not use it for other purposes (such as charging non-compatible batteries, powering high-power equipment that is not PoE-related), and do not connect multiple PoE Switch Injectors at the same time (total power shall not exceed 96W) to avoid overloading and overheating, which may lead to power injection failure[2][3].
6. Do not use the adapter for long-time continuous work (exceeding 16 hours) under full load, as PoE Switch Injectors usually work continuously in network scenarios; excessive continuous work may cause excessive fatigue of internal components, reduce service life, or cause overheating and safety hazards; it is recommended to shut down and cool down regularly after long-time use[2][3].

### 3. Safety Warnings & Precautions

**Warning!** Please read and follow all warnings and precautions carefully to avoid damage to the product, PoE Switch Injector, connected terminal devices, electric shock, fire or personal injury caused by improper use. The adapter involves high-voltage electricity during use, and it is used with PoE Switch Injector and terminal equipment; improper operation may cause serious safety hazards and network failure[3].

1. This product involves high-voltage circuits and small electronic components; it is not suitable for children under 36 months old to use alone; keep it away from children to prevent accidental plugging, electric shock, swallowing small parts or damage to the product.
2. Do not disassemble, modify, cut or puncture the adapter shell or power cord by yourself; if there is a fault (such as abnormal heating, peculiar smell, smoke, abnormal noise, power failure, short circuit, or DC connector damage), stop using it immediately, unplug the AC plug, and disconnect the connection with the PoE Switch Injector, then contact after-sales service for professional maintenance. Unauthorized disassembly will void the warranty and may cause electric shock, fire, product damage or PoE network failure[3].
3. When plugging and unplugging the AC plug or DC connector, ensure that your hands are dry; do not touch the plug, connector or power cord with wet hands, to avoid electric shock. Ensure that the power socket is intact and grounded to prevent leakage and electric shock hazards[4].

4. Do not touch the adapter shell for a long time during use (especially when working under full load), as it may be slightly hot; do not touch the internal components (even after power off) to avoid burns or electric shock (capacitors may retain residual electricity after power off) [1].
5. Before using the product, check the tightness of the AC plug and DC connector again to ensure that all parts are firmly connected; do not start using if there is any looseness, poor contact or wire exposure, to avoid short circuit, electric shock or equipment damage.
6. When carrying or storing the product, avoid collision, extrusion or falling; do not place it near flammable, explosive or heat-sensitive objects (such as paper, cotton, plastic products), to prevent fire hazards. Do not mix it with other sharp or heavy objects to avoid damaging the shell or power cord[1].
7. If the power cord is damaged (broken, peeled, exposed wires), stop using it immediately and replace it with a professional matching power cord; do not use a damaged power cord to avoid short circuit, electric shock or fire. Do not use the adapter if the DC connector is deformed or loose.

## 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 and relevant EU safety standards for power supply adapters. The CE mark is clearly visible on the product shell or outer packaging, with a size not less than 5mm, no deformation or fading, and is permanently attached, which is convenient for EU market supervision and inspection[3].
2. RoHS Compliance: This product complies with the EU RoHS 2.0 Directive (2011/65/EU) and subsequent amendments, including the 10 core controlled substances (lead, mercury, cadmium, hexavalent chromium, PBBs, PBDEs, DEHP, BBP, DBP, DIBP)[3]. The content of hazardous substances in flame-retardant ABS shell, internal electronic components (transformers, capacitors, ICs), power cord, DC connectors and internal components meets the EU limit requirements (cadmium  $\leq 0.01\%$ , others  $\leq 0.1\%$ ), without containing prohibited harmful substances. Relevant test reports and material declarations (MSDS/SDS) are retained for supervision and inspection, and a complete traceability chain from raw materials to finished products is established[3].

### 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](mailto: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, and assisting in providing relevant compliance documents (such as DoC, material declaration, test reports) when required[3].

## 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]
3. This product meets the relevant harmonized standards of the EU for switching power supply adapters, including safety standards for electronic and electrical equipment and energy efficiency standards, and the technical documents (including Declaration of Conformity (DoC), material declaration, safety test report, RoHS test report, energy efficiency test report, etc.) are kept for at least 10 years for inspection by EU market supervision departments, in line with EU compliance document retention requirements[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 power failure, abnormal heating, short circuit, interface damage, voltage instability, failure to supply power normally to PoE Switch Injector, or non-compliance with EU RoHS/GPSR 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, collision, extrusion, falling, contact with corrosive substances or water, overload use), natural wear and tear, or damage caused by using non-compliant PoE Switch Injectors or terminal devices[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[3].

## 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 mainly made of recyclable plastic, metal and electronic components, which are key components of PoE power supply systems. After use, please dispose of it in accordance with the EU WEEE Directive (Waste Electrical and Electronic Equipment Directive) and local environmental protection regulations[1]. Do not discard it at will; plastic, metal parts and electronic components should be sorted and recycled separately to avoid environmental pollution, in line with EU RoHS and environmental protection requirements, and ensure compliance with EU waste disposal regulations[1].
3. Document Update: This compliance manual will be updated in a timely manner in accordance with the changes of EU regulations (such as RoHS, GPSR) 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) and AliExpress platform. If there is any non-compliance, we will bear all corresponding responsibilities (including product removal, fines, compensation for losses, etc.)[3].

**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)