

# IO-Power IOP-DAPI-24243A-2

## Outdoor 24VDC to 24VAC Power Inverter

(Special Design for Speed Dome 24VAC Power Solution)



## IOP-DAPI-24243A-2


### User Manual

IOP-DAPI-24243A-2

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## Trademark and Copyright Notice

IOP-DAPI-24243A-2 is specially designed for 24VDC to 24VAC. For example, Speed Dome powered by 24VAC is especially suitable.

Adopting power by Outdoor DC UPS 24VDC, transforming from 24VDC to 24VAC to establish Outdoor DC to AC UPS power system.

All parts of the product, including software and accessories, their copyrights are owned by IO-Power technology limited, without IO-Power technology license, transcript may not be any imitation, copying or translation.




Product specifications and information referred to in this manual are for reference only, specification changes, without prior notice, please consult with agent or dealer before purchase latest product specification data.

## Copyright reserved

# About this Manual

This manual discusses IO-Power 24VDC to 24VAC Power Inverter which can be used in outdoor environment. Powered by on-line Outdoor DC UPS, IOP-DAPI-24243A-2 Power Inverter powers up 24VAC devices. Integrate the Inverter and DC UPS into DC to AC UPS power system.

This manual uses the following criteria to communicate instructions and information:

 NOTE	Readers 'attention'. These attentions to include the special conditions referred to in this manual or use the recommendation and note references.
 CAUTION	Reader 'beware'. In this case, readers can result in equipment damage or risks.
 WARNING	Hazard. Means that there is a potential risk of this can result in physical damage. Before using any equipment, please pay attention to the risks associated with the circuit, as well as familiar with standard practices required to prevent accidents from happening.

**Bold:** has an important function and set of steps require your attention.

## Product Warranty

### Housing Warranty

IO-Power IOP-DAPI-24243A-2 is a specially designed outdoor DC to AC Inverter, adopting industrial metal shell and professional antirust powered coating. It is suitable for outdoor environment.

Users operate this product under the construction of this manual, and under normal use. IO-Power provides 1 year warranty for the housing.

### DC to AC Control Board Warranty

IOP-DAPI-24243A-2 is designed to input 24VDC and to output 24VAC, providing 60W output power (max) @ 24VAC, 2.5A (Peak output power support 100W Max) to power up 24VAC devices. The Control Board can normally work at -30°C~70°C.

The range of input voltage for Control Board is 24VDC (20VDC~26VDC Max).The limitation for

input current is 24VDC 6A~ while output current is 2.5A(Max), output voltage 24VAC. The output 24VAC-60W(Max) (Peak output power support 100W Max)。

Users operate this product under the construction of this manual, and under normal use. IO-Power provides 1 year warranty for the Control Board.

## Attention of the Product Use

### Attention of the Product storage

#### High and low temperature storage



IOP-DAPI-24243A-2 must be stored at  $-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$  to keep the safety and normal operation.

#### Attention of the product use



This product is DC to AC Power Inverter; users should pay attention to the following:


1. In accordance with the product specification data for the use of this product, please do not remove or change this equipment without authorization of any of the main parts, so as to avoid the safe use of the extension of the problem.
2. This product do not exceed  $80^{\circ}\text{C}$  heat and closer to the source of fire or less than  $-40^{\circ}\text{C}$  to direct low-temperature cooling, resulting in damage of electronic components and batteries.
3. When the product casing when the temperature exceeds  $70^{\circ}\text{C}$ , do not carry out charging and discharging operations to avoid danger.
4. Do not place this product in high humidity and put into water or close to the highly volatile chemical solvents to avoid danger.
5. Installation and assembly connectors in accordance with product instructions, not adjacent to the wrong wire connection to avoid the danger.
6. Do not hammer or other items to the hammer strike, trample on the battery and cause strong impact or throws, drops, heavy blow to this product to avoid danger.



7. When erecting system IOP-DAPI-24243A-2 series, if the distribution box or patch box space license case, recommend this product fixed inside the box, it will help to reduce this product at the risk of excessive high temperature operating temperature.
8. When erecting system IOP-DAPI-24243A-2 series, under erection conditions permit, recommends that this product is fixed to the Lee side, or not to be in the rain, it will help to reduce this product is too high or low humidity and rain water environments such as operational risks.
9. When erecting system IOP-DAPI-24243A-2 series, under erection conditions permit, recommend this product fixed on the back of sunshine, or not to be light, it will help to reduce this product is caused by excessive heat and sunshine of sunshine product ageing body and wiring to speed up operation of the environmental risks.
10. When system erecting IOP-DAPI-24243A-2series, even this products has IP66~IP67 of waterproof dust of grade, but for seeking products and system of indoor outside electricity security, recommendations all connector are then for professional of waterproof department in; if used general electrical tape for waterproof Department in, please be sure to for 2 times different direction of package covered waterproof Department in, has reached actual waterproof dust of benefit.
11. IOP-DAPI-24243A-2 is designed to adopt by Outdoor 24VDC UPS power system. Therefore, please make sure that both input and output voltage and current are in its range to avoid dangers

# Product Specification

## IOP-DAPI-24243A-2 Specification

Model Number	IOP-DAPI-24243A-2
Outdoor 24VDC to 24VAC Iron Airtight Housing IP 67	
<b>Input DC Voltage</b>	24VDC (20VDC~26VDC Max) **Before using, please confirm that the upper cover is marked with input 12Vdc / 6A~ or 24Vdc / 3A~ voltage mode, please follow the instructions input voltage power supply.
<b>Input DC Current</b>	24VDC 3A~ (Recommended for 5A above will be better)
<b>Output AC Voltage</b>	24VAC (22VAC~28VAC Max)
<b>Output AC Current</b>	2.5A and peak power supply 4A Max
<b>Output Power Frequency</b>	47-63 Hz
<b>Output Power Watts</b>	Operating power 60W and peak power supply 100W Max
<b>Input Connector</b>	DC Female Jack, 1mm spring leaf in $\Phi 6.5\text{mm}$ , OD: 5.5mm / Pin ID: 2.0mm, insertion depth: 7.8mm The chassis can be inserted into the joint depth: 30mm
<b>Output Connector</b>	DC Female Jack, 1mm spring leaf in $\Phi 6.5\text{mm}$ , OD: 5.5mm / Pin ID: 2.0mm, insertion depth: 7.8mm The chassis can be inserted into the joint depth: 30mm
<b>DC Plug to DC Plug</b>	DC Plug to DC Plug Connector Cable : OD: 5.5mm / ID 2.1mm, Barrel Length: 29.2mm



<b>Connector Cable</b> (Newly added product accessories)	Cable Length: 19cm, OD 5.0mm, 18AWG
<b>Transform Efficiency</b>	80% ~ +-5%
<b>Protection</b>	Input power overcurrent protection Low input voltage protection High input voltage protection Output power overcurrent protection Short circuit protection Imported power polarity protection for anti-welding Power surge 5KVA protection
<b>Industrial Housing &amp; Connector</b>	Iron Airtight Housing IP 67 Gland Connector ** Top cover marked 12VDC / 6A ~ and 24VDC / 3A ~ of the shipping product input voltage mark distinction
<b>Operating Temperature</b>	-30°C ~ +70°C (Use at -30°C environment, please be sure to inform in advance, related accessories and wires should be replaced; Recommends that the equipment will be installed in the power distribution box)
<b>Storage Temperature</b>	-40°C ~ +80°C
<b>Rel. Humidity</b>	10~95%RH
<b>Dimension</b>	210mm(L) x 92mm(W) x 50mm(H)
<b>Weight</b>	0.5Kg (body); 0.7Kg (packing with fixing sheet)
<b>Housing</b>	IP67
<b>Certification</b>	CE : EMC Directive 2014/30/EU for CE Marking / EN55032:2015 Class A FCC: FCC Part 15 Subpart B Class A / ANSI C63.4 : 2014
<b>Installation</b>	1. Street lamp pole mount or Upright pole mount 2. Wall mount installation
<b>Warranty</b>	12 months

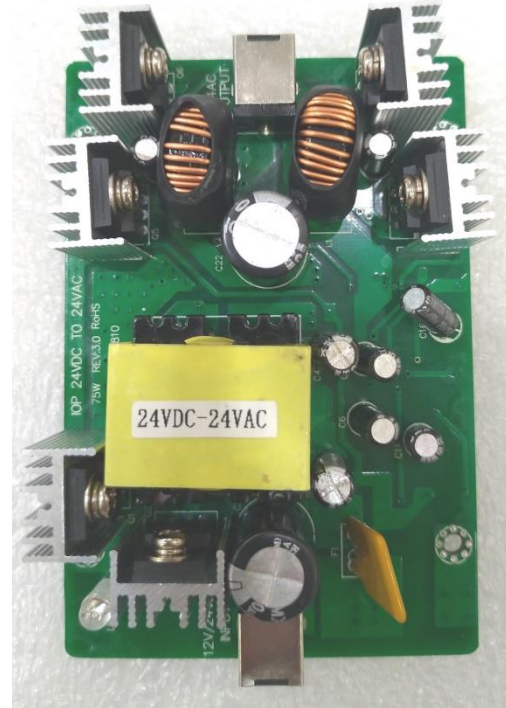
**Remark 1: Product specifications change, without notice, consultation with agent or dealer before buying the latest specifications**

**Remark 2: Before using, please confirm that the upper cover is marked with input 12Vdc / 6A ~ or 24Vdc / 3A ~ voltage mode, please follow the instructions input voltage power supply.**



# Product Installation Instructions

## Input DC 24V power

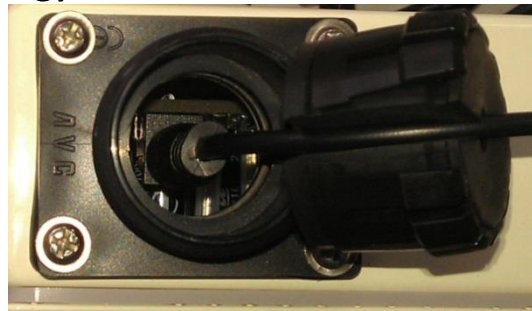
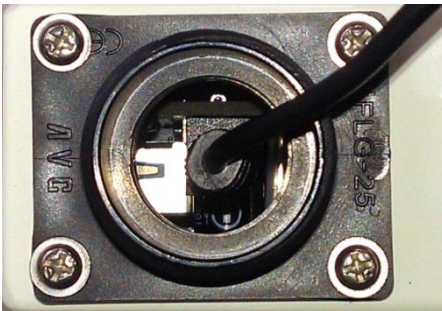


24VAC – 60W  
2.5A Max

## DC Jack Female insert hole (DC Plug insert)



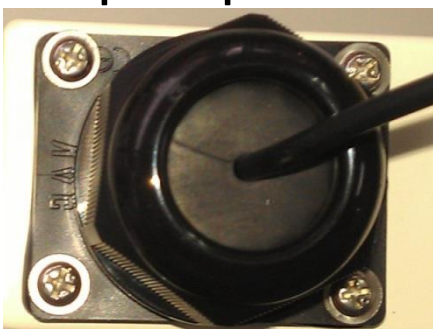
## Waterproof and heat-resistant beam head (waterproof rubber harvest broken hold stuffing)



Insert the DC Jack Male head-end and into a waterproof rubber at the PCBA Female hole.

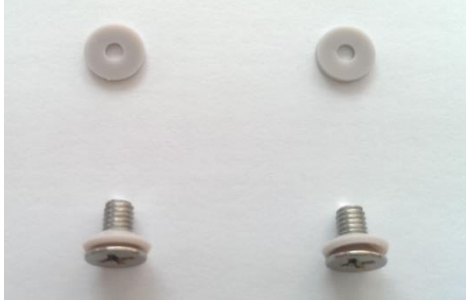


## Lock waterproof and heat-resistant beam head (please do the waterproof protection)



## Mounting instructions

Firstly, put the waterproof rubber gaskets on the screws



Then set the screw, through another set of waterproof rubber gaskets, on the stainless steel bracket



Finally, screw the bracket tight into the screw holes in the bottom side of the housing



## Pole fixation

Suggest using stainless steel cable belt to pass through the stainless steel fixing brackets on either side of the hole, and then fix the belt tightly to poles or garden lamp posts or street light lay ... etc.

## Wall fixation

Drill two holes on the wall, and put plastic plugs into the holes. And then screw the self-tapping stainless screws in. Finally, go through the stainless steel fixing brackets on either side of the holes, pressing down and keep the product fixed.



# Product operation instructions

## 24VDC input power instruction

Powered by on-line Outdoor DC UPS, IOP-DAPI-24243A-2 Power Inverter powers up 24VAC devices. It transforms from input 24VDC to output 24VAC.

## 24VAC output power instruction

By transforming from 24VDC to 24VAC, IOP-DAPI-24243A-2 provides 24VAC 2.5A 60W for 24VAC devices, such as Speed Dome.