# TYCON Power Systems

## Gigabit
## 802.3af/at POE Converter

## Features

- **Converts 48V 802.3af/at POE Input to 12V or 24V POE Output**
- **Run non-compliant equipment on 802.3af/at POE switches**
- **POE output switchable between 12VDC and 24VDC**
- **Remotely Power Equipment thru CAT5 Cable up to 100m**
- **Short Circuit, Over Current and Over Voltage Protection**
- **High Temperature Operation, Gigabit Ethernet Operation**
- **Compact size – Floor / Desktop / Wall Mount**

*TP-POE-1224G*
*802.3af/at POE Converter*

## Applications

- **Wireless Access Points and Client Devices**
- **IP Phone and Security Camera Systems**

## Description

The **TP-POE-1224G** is a unique Gigabit Power Over Ethernet adapter which converts an 802.3af/at 48VDC POE input into a 12V or 24VDC regulated non-compliant POE output. The POE output voltage is external jumper selectable and capable of up to 25W power output. The POE input is IEEE 802.3af/at compatible so the TP-POE-1224G will work with standard 802.3af/at compliant POE switches or routers. The TP-POE-1224G enables the powering of non compliant POE devices from standard 802.3af/at POE switches, which eliminates the extra expenses usually required to power non compliant equipment.

They accept Gigabit data-in and 802.3af/at POE to a shielded RJ45 Jack and provide Gigabit data-out and 12V or 24V POE on the shielded RJ45 output jack. They work by supplying power to the remote device on the unused Ethernet pins 4,5(V+) and 7,8(V-). The Ethernet spec supports distances up to 100m (328 feet).
They have various protections for surge, short circuit, overload and overvoltage.

If the remote device does not support power over Ethernet, splitters (POE-SPLT-S) are available to split the data and DC voltage at the remote device. If the remote device requires reverse voltage the POE-XOVER cable can be used.

## Device Pinouts

| | RJ-45 Input (Data & Power) | | RJ-45 Output (Data & Power) | |
|---|---|---|---|---|
| *Pin* | *Symbol* | *Description* | *Symbol* | *Description* |
| 1 | BI_DA+, Vin +/- | Data RX+ / Power(+/-) | BI_DA+ | Data RX(+) |
| 2 | BI_DA-, Vin +/- | Data RX- / Power(+/-) | BI_DA- | Data RX(-) |
| 3 | BI_DB+, Vin +/- | Data TX+ / Power(+/-) | BI_DB+ | Data TX(+) |
| 4 | BI_DC+, Vin +/- | Data RX+ / Power(+/-) | BI_DC+, Vo+ | Data RX(+) , DC power(+) |
| 5 | BI_DC-, Vin+/- | Data RX- / Power(+/-) | BI_DC-, Vo+ | Data RX(-) , DC power(+) |
| 6 | BI_DB-, Vin +/- | Data TX- / Power(+/-) | BI_DB- | Data TX(-) |
| 7 | BI_DD+, Vin+/- | Data RX+ / Power(+/-) | BI_DD+, Vo- | Data RX(+) , DC power(-) |
| 8 | BI_DD-, Vin+/- | Data RX- / Power(+/-) | BI_DD-, Vo- | Data RX(-) , DC power(-) |

# Specifications

| | TP-POE-1224G |
|---|---|
| **DC POE Output Voltage** *(+/-2.5%)* | 12V or 24V (switchable) |
| **Overvoltage Protection** | 16V or 28V |
| **POE Input (IEEE 802.3af/at)** | 36 - 60VDC |
| **Output Current** | 1A @ 12V<br>1A @ 24V |
| **Output Power** | 25W Max |
| **Load Regulation** | 5% |
| **Ripple / Noise** | 2% |
| **EMC Standards** | FCC Class B  NE55022 Class B |
| **Safety Standards** | UL1950, CSA 22.2 & TUV EN60950 |
| **Operating Temperature** | -30 to +60°C (-22 to +140°F) |
| **Operating Humidity** *(RH)* | 5% - 90% |
| **Storage Temperature** | -40 to +80°C (-40 to +176°F) |
| **Dimensions** *(LxWxH)* | 85 x 76 x 36mm (3.4 x 3 x 1.4") |
| **Weight** | 150g (5.3oz) |

**Notes:**
- All shipments F.O.B. Draper, UT 84020
- Tycon Power Systems Power Sources carry a 1 year warranty

## *System Ordering:*

***TP-POE-1224G***      802.3af/at POE Converter with 12V or 24V 24W POE output

### *Related Items:*
***POE-XOVER***  POE Voltage Crossover Cable - converts standard POE pin-out to reverse voltage pin-out

***POE-SPLT-S***   Passive Splitter – 5.5/2.1mm DC Plug
***POE-YSPLT-S*** Passive Y* Splitter – 5.5/2.1mm DC Plug
            (*Power is supplied on both RJ45 and DC Plug)

## For further information contact:

Tyconpower.com

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