TYCON Power®

INDUSTRIAL STRENGTH

**TP-xx-48DX2**

**DATA SHEET**

# High Power Dual Output PoE Injectors

## Features

*TP-POE-48Dx2*

- **Input Voltage 12VDC, 24VDC or 110VAC**
- **Dual 802.3af/at outputs**
- **High Power Output to 70W**
- **Surge Protected to 15kV**
- **Dual DC Inputs for Connecting 2 Power Sources**
- **10/100 Data Compatibility, Shielded Connectors**
- **Short Circuit, Over Current and Reverse/Over Voltage Protection**
- **Industrial Temperature Range, DIN Rail Mountable**

## Applications

- **12VDC or 24VDC Remote Power Systems running on batteries**
- **110/220VAC Backup Power Systems**
- **Power a Camera and Wireless using a single PoE Injector**
- **Power a Wireless AP and Backhaul using a single PoE injector**

## Description

The TP-DCDC-xx48DX2-HP and TP-POE-HP-48DX2 are unique high power PoE injectors with Dual 802.3af/at compatible outputs. This means that two devices can be powered from a single PoE injector. The data path between the devices is handled by the injector so no PoE switch is required.

There are models that will run on 12VDC or 24VDC as well as 110/220VAC grid power. The different models have different total combined outputs up to 70W.

They have two DC inputs for connecting 2 power sources, like a primary and backup power source. They have various protections for short circuit, overload and surges caused by ESD or lightning. The built-in surge protection protects sensitive connected devices from damage due to surges on data and PoE lines. All 8 wires are protected.

The input voltage and output voltage are isolated to avoid any grounding or negative voltage issues.

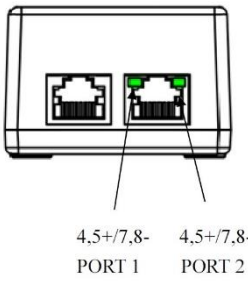
## Device Pinouts

| RJ-45 #1 (“POE1”) | | | RJ-45 #2 (“POE2”) | |
|---|---|---|---|---|
| ***Pin*** | ***Symbol*** | ***Description*** | ***Symbol*** | ***Description*** |
| 1 | RX+ | Data Receive(+) | RX+ | Data Receive(+) |
| 2 | RX- | Data Receive(-) | RX- | Data Receive(-) |
| 3 | TX+ | Data Transmit(+) | TX+ | Data Transmit(+) |
| 4 | +Vdc | DC power(+) | +Vdc | DC power(+) |
| 5 | +Vdc | DC power(+) | +Vdc | DC power(+) |
| 6 | TX- | Data Transmit(-) | TX- | Data Transmit(-) |
| 7 | -Vdc | DC power(-) | -Vdc | DC power(-) |
| 8 | -Vdc | DC power(-) | -Vdc | DC power(-) |

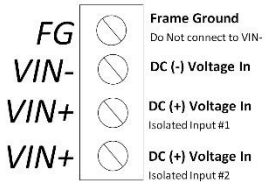
# Specifications

| | TP-DCDC-1248DX2-HP | TP-DCDC-2448DX2-HP | TP-POE-HP-48DX2 |
|---|---|---|---|
| ***Input Voltage*** | +/- 10VDC to 16VDC | +/- 18VDC to 36VDC | 90-264VAC 47-63hz |
| ***Input Connector*** | Screw Type Compression Wire Terminal (12 AWG Max) | | IEC C13 (incl. Power Cord) |
| ***POE Specification*** | Active PoE 802.3af/at (Mode B, 2 Pair) | | |
| ***Output Voltage (+/-2.5%)*** | 56VDC | | |
| ***Ethernet Connectors*** | RJ45 (Shielded) 10/100MB | | |
| ***Output Current (max)*** | 0.38A X 2 | 0.63A X 2 | 0.45A X 2 |
| ***Output Power (total)*** | 42W | 70W | 50W |
| ***Self-Consumption Power*** | 2W | | |
| ***Efficiency (min)*** | 80% | | |
| ***Line Regulation, Ripple, Noise*** | 1% | | |
| ***Load Regulation*** | 5% | | |
| ***Surge Protection*** | IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)<br>IEC61000-4-4 (EFT) 40A (5/50ns)<br>IEC61000-4-5 (Lightning) 20A (8/20μs) | | |
| ***Operating Temperature*** | -40 to +70°C (-40 to +158°F) | | -25 to +50°C (-13 to 122°F) |
| ***Operating Humidity (RH)*** | 5% - 90% | | |
| ***Storage Temperature*** | -40 to +80°C (-40 to +176°F) | | |
| ***Dimensions (LxWxH)*** | 125 x 75 x 38mm (4.9 x 3 x 1.5") | | |
| ***Weight*** | 255g (9oz) | | |
| ***Warranty*** | 3 Years | | |

**LED Functions**
Port 1 is connector labelled "POE1"
Port 2 is connector labelled "POE2"
LED will light when port is powered



***DC Input Connector***




FG = *Frame Ground Connect to Chassis or Earth Ground.*

## *System Ordering:*

| | |
|---|---|
| ***TP-DCDC-1248DX2-HP*** | +/- 10-15VDC IN 56VDC PoE OUT, 42W DC to DC Converter with Dual 802.3at PoE outputs |
| ***TP-DCDC-2448DX2-HP*** | +/- 18-36VDC IN 56VDC PoE OUT, 70W DC to DC Converter with Dual 802.3at PoE outputs |
| ***TP-POE-HP-48DX2*** | 110/220VAC IN 56VDC PoE OUT, 50W PoE Injector with Dual 802.3at PoE outputs |

## For further information contact:

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RoHS compliant



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