

High Power DC to DC Converter

Features

- Input Voltage 18-36VDC or 24-72VDC
- POE Output voltage 56VDC
- High Power 30W
- Non-compliant POE
- Dual DC Inputs for connecting 2 power sources
- Integrated POE Inserter
- Low self consumption power
- Short Circuit, Over Current and Over Voltage Protection
- High Temperature Operation



TP-DCDC-HP

Applications

- 24V and 48V Battery Systems
- Wireless Access Points and Client Devices
- IP Phone and Security Camera Systems

Description

The TP-DCDC-HP Series of DC to DC converters offered by Tycon Power Systems are a low cost and high reliability solution for those requiring 56VDC Power Over Ethernet voltage from a 24V or 48V battery system. They have an integrated POE injector to apply the 56VDC to the CAT5 Ethernet cable. They have two isolated inputs for connecting 2 power sources, like a primary and backup power source.

They accept data-in to a shielded RJ45 Jack and provide data-out and POE power on the shielded RJ45 output jack. They work by supplying power on the unused Ethernet pins 4,5(V+) and 7,8(V-). They have various protections for surge, short circuit and overload. The units have a power output of 30W. The input and output are isolated so the units can accept minus voltage on input and can be wired for positive voltage on the output for those systems which are negative voltage based.

If the remote device does not support power over Ethernet, splitters (POE-SPLT) 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

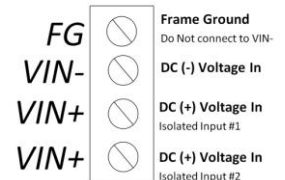
| RJ-45 Input (Data Only) | | | RJ-45 Output (Data & Power) | |
|-------------------------|--------|------------------|-----------------------------|------------------|
| Pin | Symbol | Description | Symbol | Description |
| 1 | RX+ | Data Receive(+) | RX+ | Data Receive(+) |
| 2 | RX- | Data Receive(-) | RX- | Data Receive(-) |
| 3 | TX+ | Data Transmit(+) | TX+ | Data Transmit(+) |
| 4 | NC | No Connection | +Vdc | DC power(+) |
| 5 | NC | No Connection | +Vdc | DC power(+) |
| 6 | TX- | Data Transmit(-) | TX- | Data Transmit(-) |
| 7 | NC | No Connection | -Vdc | DC power(-) |
| 8 | NC | No Connection | -Vdc | DC power(-) |

Specifications

| | TP-DCDC-2448-HP | TP-DCDC-4848-HP |
|--|--|--------------------|
| Input Voltage | +/- 18VDC to 36VDC | +/- 24VDC to 72VDC |
| DC Input Connector | Removeable Screw Type Compression Wire Terminal (12 AWG Max) | |
| Output Voltage (+/-2.5%) | 56VDC | 56VDC |
| Data in & Data/POE Output Connector | RJ45 (Shielded) | |
| Output Current (max) | 0.5A | 0.5A |
| Output Power (max) | 30W | 30W |
| Self Consumption Power | 2W | |
| Efficiency (min) | 75% | |
| Line Regulation | 1% | |
| Load Regulation | 5% | |
| Ripple | 1% | |
| Noise | 1% | |
| 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 | 134g (4.7oz) | |

Notes:

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

DC Input Connector


System Ordering:

TP-DCDC-2448-HP 18-36VDC IN 56VDC OUT, 30W DC to DC Converter with POE Inserter

TP-DCDC-4848-HP 24-72VDC IN 56VDC OUT, 30W DC to DC Converter with POE Inserter

POE-XOVER POE Voltage Crossover Cable - converts standard POE pin-out to reverse voltage pin-out

POE-SPLT Passive Splitter – 5.5/2.1mm DC Plug

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



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