

Very High Power DC to DC Converter

Features

- Input Voltage 24VDC (18-36VDC)
- 8 wire 24VDC Passive PoE Output
- High Power Output to 70W
- Dual DC Inputs for Connecting 2 Power Sources
- Gigabit Data Thruput
- Low self consumption power (<2W)
- Short Circuit, Over Current and Reverse/Over Voltage Protection
- Industrial Temperature Range



TP-DCDC-2424GR-VHP

Applications

- 24VDC Remote Power Systems
- Ubiquiti airFiber x™ Radios

Description

The Gigabit compatible TP-DCDC-2424GR-VHP are special very high power DC to DC converters / PoE inserters designed especially for Ubiquiti airFiber x™ wireless radio systems and other systems which require high power passive PoE (High PoE). The unique PoE inserter supplies 24VDC PoE power on all 8 Ethernet wires (4 pair) with the following pinout: 1,2,4,5 V+ and 3,6,7,8 V-

They have two isolated inputs for connecting 2 power sources, like a primary and backup power source. They have various protections for surge, short circuit and overload. The input and output are isolated.

The units are DIN rail mountable with available adapters: Model DIN-ClipKit-Uni

Device Pinouts

| RJ-45 Input (Data Only) | | | RJ-45 Output (Data & Power) | |
|-------------------------|---------------|--------------------|-----------------------------|------------------------|
| <i>Pin</i> | <i>Symbol</i> | <i>Description</i> | <i>Symbol</i> | <i>Description</i> |
| 1 | BI_DA+ | Data Pair A+ | BI_DA+, Vo+ | Data Pair A+, Ch1 POE+ |
| 2 | BI_DA- | Data Pair A- | BI_DA-, Vo+ | Data Pair A-, Ch1 POE+ |
| 3 | BI_DB+ | Data Pair B+ | BI_DB+, Vo- | Data Pair B+, Ch1 POE- |
| 4 | BI_DC+ | Data Pair C+ | BI_DC+, Vo+ | Data Pair C+, Ch2 POE+ |
| 5 | BI_DC- | Data Pair C- | BI_DC-, Vo+ | Data Pair C-, Ch2 POE+ |
| 6 | BI_DB- | Data Pair B- | BI_DB-, Vo- | Data Pair B-, Ch1 POE- |
| 7 | BI_DD+ | Data Pair D+ | BI_DD+, Vo- | Data Pair D+, Ch2 POE- |
| 8 | BI_DD- | Data Pair D- | BI_DD-, Vo- | Data Pair D-, Ch2 POE- |

Specifications

| | TP-DCDC-2424GR-VHP |
|--|--|
| Input Voltage | +/- 18VDC to 36VDC |
| DC Input Connector | Removeable Screw Type Compression Wire Terminal (12 AWG Max) |
| POE Specification | Passive PoE (8 Wire , 4 Pair) |
| PoE Pinout | 1,2,4,5 V+ and 3,6,7,8 V- |
| Output Voltage (+/-2.5%) | 24VDC |
| Data in & Data/POE Output Connector | RJ45 (Shielded), Shield is connected to FG (Frame Ground) Input |
| Output Current (max) | Up to 2.9A |
| Output Power (max) | 70W Total Note: Output power up to 70W at 40C. Derate by 1W for every 1 Deg C above 40C ambient. Example: 60W at 50C |
| Self-Consumption Power | 2W |
| Efficiency (min) | 85% |
| Line Regulation, Ripple, Noise | 1% |
| Load Regulation | 5% |
| EMC Standards | FCC Class B EN55022 Class B |
| Safety Standards | UL1950, CSA 22.2 &TUV EN60950 |
| Operating Temperature | -40 to +70°C (-40 to +158°F) |
| Operating Humidity (RH) | 5% - 90% |
| MTBF (Mean Time Between Failure) | 55,489 Hours |
| 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 |



DC Input Connector

| | | |
|------|--|--|
| FG | | Frame Ground Do Not connect to VIN- |
| VIN- | | DC (-) Voltage In |
| VIN+ | | DC (+) Voltage In Isolated Input #1 |
| VIN+ | | DC (+) Voltage In Isolated Input #2 |

System Ordering:

TP-DCDC-2424GR-VHP +/- 18-36VDC IN 24VDC PoE OUT, 70W DC to DC Converter with Passive PoE Inserter for UBNT airFiber™ antennas.

For further information contact:

Tyconsystems.com

