

Gigabit DC to DC Converter

Features

- Input Voltage 12VDC or 24VDC or 48VDC
- IEEE 802.3af/at compliant POE output
- Dual Inputs for connecting 2 power sources
- Integrated 10/100/1000MB POE Inserter
- High Power up to 35W
- Low self consumption power
- Short Circuit, Over Current and Reverse/Over Voltage Protect
- High Temperature Operation
- Compact size – Maximize Available Space



TP-DCDC-1248GD
17W 802.3af



TP-DCDC-1248GD-HP
35W 802.3af/at

Applications

- 12V / 24V / 48V Battery Systems, Vehicle Applications
- Wireless Access Points and Client Devices
- IP Phone and Security Camera Systems

Description

The TP-DCDC Gigabit Series of DC to DC converters offered by Tycon Power Systems are a low cost and high efficiency solution for those requiring IEEE802.3af and IEEE802.3at Power Over Ethernet from a 12VDC or 24VDC or 48VDC voltage source like a battery system or vehicle. They have an integrated POE injector to apply the 802.3af or 802.3at output to the CAT5 Ethernet cable. The output voltage is regulated 48VDC-56VDC. They have two isolated inputs for connecting 2 power sources, like a primary and backup power source. A metal enclosure model is available for industrial applications.

They accept gigabit data-in to a shielded RJ45 Jack and provide gigabit 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 power outputs up to 35W.

If the remote device does not support 802.3af or 802.3at power over Ethernet, a TP-POE-1224 802.3xx converter is available to change the POE output to passive POE with 12V or 24VDC POE output.

Device Pinouts

RJ-45 Input (Data Only)			RJ-45 Output (Data & Power)	
Pin	Symbol	Description	Symbol	Description
1	BI_DA+	Data Pair A+	BI_DA+	Data Pair A+
2	BI_DA-	Data Pair A-	BI_DA-	Data Pair A-
3	BI_DB+	Data Pair B+	BI_DB+	Data Pair B+
4	BI_DC+	Data Pair C+	+Vdc + BI_DC+	power(+)+Data Pair C+
5	BI_DC-	Data Pair C-	+Vdc + BI_DC-	power(+)+Data Pair C-
6	BI_DB-	Data Pair B-	BI_DB-	Data Pair B-
7	BI_DD+	Data Pair D+	-Vdc + BI_DD+	power(-)+Data Pair D+
8	BI_DD-	Data Pair D-	-Vdc + BI_DD-	power(-)+Data Pair D-

Specifications

	TP-DCDC-1248GD	TP-DCDC-1248GD-M	TP-DCDC-1248GD-HP	TP-DCDC-2448GD-HP	TP-DCDC-4848GD-HP
DC Input Voltage	9VDC – 36VDC	9VDC – 36VDC	10VDC – 15VDC	18VDC – 36VDC	+/- 36 to 72VDC
DC Input Connector	Removeable Screw Type Compression Wire Terminal (12 AWG Max)				
DC Output Voltage	48V (802.3af)	48V (802.3af)	56V (802.3af/at)	56V (802.3af/at)	56V (802.3af/at)
Data in & Data/POE Output Connector	RJ45 (Shielded)				
Output Current (max)	0.35A	0.35A	0.625A	0.625A	0.625A
Output Power (max)	17W	17W	35W	35W	35W
Self Consumption Power	1W				
Efficiency (min)	75%				
Line Regulation	1%				
Load Regulation	5%				
Ripple	1%				
Noise	1%				
EMC Standards	FCC Class B EN55022 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")		125 x 75 x 38mm (4.9 x 3 x 1.5")		
Weight	134g (4.7oz)		300g (10.6oz)		

Notes:

- All shipments F.O.B. Bluffdale, UT 84065
- Tycon Power Systems Power Sources carry a 1 year warranty



TP-DCDC-1248GD-M
(Metal Enclosure)

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-1248GD

9-36VDC IN 48VDC 802.3af OUT, 17W DC to DC Converter with POE Inserter

TP-DCDC-1248GD-M

9-36VDC IN 48VDC 802.3af OUT, 17W DCDC Converter/POE Inserter. Metal Case

TP-DCDC-1248GD-HP

10-15VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/POE Inserter

TP-DCDC-2448GD-HP

18-36VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/POE Inserter

TP-DCDC-4848GD-HP

36-72VDC IN 56VDC 802.3af/at OUT, 35W DC to DC Converter/POE Inserter

For further information contact:

Tyconpower.com



14641 S 800 W Suite A
Bluffdale, UT 84065
PH: 801-432-0003
FAX: 801-618-4220