

Gigabit DC to DC Converter

Features

- Input Voltage 9-36VDC
- IEEE 802.3af Compliant 17W Mode A PoE Output
- Dual Inputs for Connecting 2 Power Sources
- Integrated 10/100/1000MB PoE Inserter
- Low Self Consumption Power
- Short Circuit, Over Current and Reverse/Over Voltage Protect
- High Temperature Operation
- Compact Size – Maximize Available Space



TP-DCDC-1248GAD
17W 802.3af

Applications

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

Description

The TP-DCDC-1248GAD Gigabit DC to DC converters / PoE Injectors offered by Tycon Power® are a low cost and high efficiency solution for those requiring IEEE802.3af Power over Ethernet from a 12VDC or 24VDC voltage source like a battery system or vehicle. They have an integrated Mode A PoE injector to apply the power and data output to the CAT5 Ethernet cable. The output voltage is regulated and protected. 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 Ethernet pins 1,2(V+) and 3,6(V-). They have various protections for surge, short circuit and overload. The units have power outputs up to 17W.

Device Pinouts

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

Specifications

	TP-DCDC-1248GAD
DC Input Voltage	9VDC – 36VDC
DC Input Connector	Removeable Screw Type Compression Wire Terminal (12 AWG Max)
DC Output Voltage	48V (802.3af)
Data in & Data/POE Output Connector	RJ45 (Shielded)
Output Current (max)	0.35A
Output Power (max)	17W
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	CSA 22.2 &TUV EN60950
Operating Temp	-30 to +60°C (-22 to +140°F)
Operating Humidity	5% - 90%
Storage Temp	-40 to +80°C (-40 to +176°F)
MTBF (Mean Time Between Failure)	166,000 Hours
Dimensions (LxWxH)	85 x 76 x 36mm (3.4 x 3 x 1.4")
Weight	134g (4.7oz)
Warranty	3 Years



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

DC Input

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-1248GAD

9-36VDC IN, 48VDC 802.3af OUT, 17W DCDC Converter with GigE Mode A PoE Inserter

TP-DCDC-1248GAD-M

9-36VDC IN, 48VDC 802.3af OUT, 17W DCDC Conv GigE Mode A PoE Inserter. Metal Case

For further information contact:

TP-DCDC-1248GAD Gigabit Spec Rev 1 22-Mar-22 Specifications Subject to Change Without Notice



Tyconsystems.com

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