TYCON Power®

Gigabit DC to DC Converter

Features

- **Input Voltage 48VDC**
- **IEEE 802.3af Compliant**
- **Dual Inputs for Connecting 2 Power Sources**
- **Integrated 10/100/1000MB PoE Inserter**
- **High Power up to 17W**
- **Low Self Consumption Power**
- **Short Circuit, Over Current and Reverse/Over Voltage Protect**
- **High Temperature Operation**
- **Compact Size – Maximize Available Space**

TP-DCDC-4848GD
17W 802.3af

Applications

- **48V Battery Systems, Telecom Applications**
- **Wireless Access Points and Client Devices**
- **IP Phone and Security Camera Systems**
- **PoE Lighting Applications**

Description

The TP-DCDC-4848GD Gigabit Series of DC to DC converters offered by Tycon Power® are a low cost and high efficiency solution for those requiring IEEE802.3af Power over Ethernet from a +48VDC or -48VDC voltage source like a battery system or telecom power source. They have an integrated Gigabit 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 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 17W.
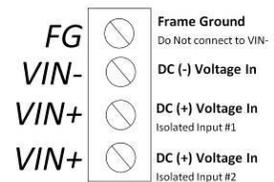
Device Pinouts

Pin	RJ-45 Input (Data Only)		RJ-45 Output (Data & Power)	
	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-4848GD
DC Input Voltage	+/- 36 to 72VDC
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
Isolation	PRI to SEC 1500VDC, SEC to GND 500VDC
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)	111,863 Hours
Dimensions (LxWxH)	85 x 76 x 36mm (3.4 x 3 x 1.4")
Weight	134g (4.7oz)
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-4848GD   36-72VDC IN 56VDC 802.3af OUT, 17W DC to DC Converter/PoE Inserter

For further information contact:

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RoHS compliant

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