

High Power DC to DC Converter

Features

- Input Voltage 24VDC or 48VDC
- Passive POE Output voltage 24VDC or 56VDC
- IEEE802.3at Model Available
- High Power up to 35W
- Dual DC Inputs for connecting 2 power sources
- Integrated POE Inserter
- Low self consumption power
- Short Circuit, Over Current and Reverse/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 24VDC or 56VDC to the CAT5 Ethernet cable. Passive POE and 802.3at models are available. 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 up to 35W. 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(-)
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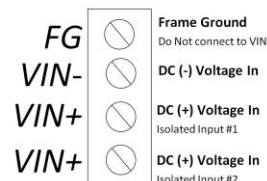
Specifications

	TP-DCDC-2448-HP	TP-DCDC-4824-HP	TP-DCDC-4848-HP	TP-DCDC-4848D-HP
Input Voltage	+/- 18VDC to 36VDC	+/- 36VDC to 72VDC	+/- 36VDC to 72VDC	+/- 36VDC to 72VDC
DC Input Connector	Removeable Screw Type Compression Wire Terminal (12 AWG Max)			
POE Specification	Passive			IEEE 802.3at
Output Voltage (+/-2.5%)	56VDC	24VDC	56VDC	56VDC
Data in & Data/POE Output Connector	RJ45 (Shielded)			
Output Current (max)	0.5A	1.25A	0.5A	0.625A
Output Power (max)	30W			35W
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)	125 x 75 x 38mm (4.9 x 3 x 1.5")			
Weight	300g (10.6oz)			

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-4824-HP** +/- 36-72VDC IN 24VDC OUT, 30W DC to DC Converter with POE Inserter
- TP-DCDC-4848-HP** +/- 36-72VDC IN 56VDC OUT, 30W DC to DC Converter with POE Inserter
- TP-DCDC-4848D-HP** +/- 36-72VDC IN 56VDC OUT, 35W DC to DC Converter with 802.3at POE Inserter

For further information contact:

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