

High Power DC to DC Converter

Features

- Input Voltage 12VDC, 24VDC or 48VDC
- Passive PoE Output voltage 24VDC or 56VDC
- IEEE802.3at Model Available
- High Power up to 35W
- Integrated PoE Inserter
- Low self consumption power
- Short Circuit, Over Current and Reverse/Over Voltage Protection
- High Temperature Operation



TP-DCDC-HP

Applications

- 12V, 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® are a low cost and high reliability solution for those requiring 24VDC or 56VDC Power over Ethernet voltage from a 12V, 24V or 48V battery system. They have an integrated PoE injector. Passive PoE and 802.3at models are available. They have two 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-S) are available to split the data and DC voltage at the remote device. If the remote device requires reverse voltage the POE-XOVER-S 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(-)

Specifications

	TP-DCDC-1224-HP	TP-DCDC-2448-HP	TP-DCDC-4824-HP	TP-DCDC-4848-HP	TP-DCDC-4848D-HP
Input Voltage	+/- 10VDC to 15VDC	+/- 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%)	24VDC	56VDC	24VDC	56VDC	56VDC
Data in & Data/POE Output Connector	RJ45 (Shielded)				
Output Current (max)	1.46A	0.5A	1.5A	0.625A	0.625A
Output Power (max)	35W	30W	35W	35W	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)				
MTBF (Mean Time Between Failure)	106,924 Hours				
Dimensions (LxWxH)	125 x 75 x 38mm (4.9 x 3 x 1.5")				
Weight	300g (10.6oz)				
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-1224-HP** +/- 10-15VDC IN 24VDC OUT, 35W DC to DC Converter with PoE Inserter
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:

Tyconsystems.com

