

## Very High Power DC to DC Converter

### Features

- Input Voltage 24VDC or 48VDC
- 2 Channel 802.3at 56VDC POE Output
- High Power to 70W (35W per POE Channel)
- Dual DC Inputs for connecting 2 power sources
- Gigabit Data Thruput
- Low self consumption power (<2W)
- Short Circuit, Over Current and Reverse/Over Voltage Protection
- High Temperature Operation



### Applications

- 24VDC and 48VDC or -48VDC Remote Power Systems
- Axis Q6035-e PTZ Surveillance Cameras
- 802.3at High Power Applications.

### Description

The TP-DCDC-2456GD-VHP and TP-DCDC-4856GD-VHP are special very high power DC to DC converters / POE inserters designed and qualified for use with Axis Q6035-E outdoor PTZ security cameras. The DCDC converter supplies 35W per POE channel. One POE channel is using pins 4,5,7,8 and the other POE channel utilizes pins 1,2,3,6. By splitting the power onto separate POE channels, the device can achieve 70W total supplied power to the end device. The units have separate LED indicators for indicating which 802.3at channel is being used by the client. The RIGHT LED indicates POE Channel 1 and the LEFT LED indicates POE Channel 2

The TP-DCDC-2456GD-VHP and TP-DCDC-4856GD-VHP has been qualified by Axis to be used with their **Q6035-e** series of PTZ cameras. The unit can be used with any 802.3at device as it will supply 35W to any 802.3at POE channel detected. If two channels are detected on the client then 70W power will be supplied.

They have two isolated inputs for connecting 2 power sources, like a primary and backup power source. They have various protections for surge, short circuit and overload. The input and output are isolated.

### 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+, Vo-	Data Pair A+, Ch1 POE -
2	BI_DA-	Data Pair A-	BI_DA-, Vo-	Data Pair A-, Ch1 POE-
3	BI_DB+	Data Pair B+	BI_DB+, Vo+	Data Pair B+, Ch1 POE+
4	BI_DC+	Data Pair C+	BI_DC+, Vo+	Data Pair C+, Ch2 POE+
5	BI_DC-	Data Pair C-	BI_DC-, Vo+	Data Pair C-, Ch2 POE+
6	BI_DB-	Data Pair B-	BI_DB-, Vo+	Data Pair B-, Ch1 POE+
7	BI_DD+	Data Pair D+	BI_DD+, Vo-	Data Pair D+, Ch2 POE-
8	BI_DD-	Data Pair D-	BI_DD-, Vo-	Data Pair D-, Ch2 POE-

## Specifications

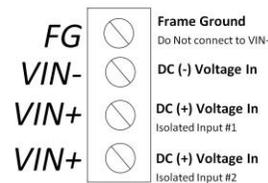
	TP-DCDC-2456GD-VHP	TP-DCDC-4856GD-VHP
<b>Input Voltage</b>	+/- 18VDC to 36VDC	+/- 36VDC to 72VDC
<b>DC Input Connector</b>	Removeable Screw Type Compression Wire Terminal (12 AWG Max)	
<b>POE Specification</b>	802.3at	
<b>Output Voltage (+/-2.5%)</b>	56VDC	
<b>Data in &amp; Data/POE Output Connector</b>	RJ45 (Shielded)	
<b>Output Current (max)</b>	0.625A per POE channel = 1.25A Total	
<b>Output Power (max)</b>	35W per POE channel = 70W Total Note: Output power up to 70W at 40C. Derate by 1W for every 1 Deg C above 40C ambient. Example: 60W at 50C	
<b>Self-Consumption Power</b>	2W	
<b>Efficiency (min)</b>	80%	
<b>Line Regulation, Ripple, Noise</b>	1%	
<b>Load Regulation</b>	5%	
<b>EMC Standards</b>	FCC Class B EN55022 Class B	
<b>Safety Standards</b>	UL1950, CSA 22.2 &TUV EN60950	
<b>Operating Temperature</b>	-40 to +70°C (-40 to +158°F)	
<b>Operating Humidity (RH)</b>	5% - 90%	
<b>Storage Temperature</b>	-40 to +80°C (-40 to +176°F)	
<b>Dimensions (LxWxH)</b>	125 x 75 x 38mm (4.9 x 3 x 1.5")	
<b>Weight</b>	255g (9oz)	

**Notes:**

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



**DC Input Connector**



### System Ordering:

**TP-DCDC-2456GD-VHP** +/- 18-36VDC IN 56VDC 802.3at OUT, 70W DC to DC Converter with POE Inserter for Axis Q6035-E outdoor cameras and other dual channel 802.3at high power devices.

**TP-DCDC-4856GD-VHP** +/- 36-72VDC IN 56VDC 802.3at OUT, 70W DC to DC Converter with POE Inserter for Axis Q6035-E outdoor cameras and other dual channel 802.3at high power devices.

### For further information contact:

[Tyconpower.com](http://Tyconpower.com)

