Very High Power DC to DC Converter

Features

- **Input Voltage 10VDC to 60VDC**
- **8 wire (4 Pair) 56VDC High PoE Output**
- **High Power Output to 70W**
- **Dual DC Inputs for Connecting 2 Power Sources**
- **5 Gigabit Data Throughput**
- **Low Voltage Disconnect Feature**
- **Short Circuit, Over Current and Reverse/Over Voltage Protection**
- **Industrial Temperature Range to 70C**

TP-DC-1256Gx-VHP w/ Metal Housing

Applications

- **12VDC / 24VDC Remote Power Systems**
- **48VDC or -48VDC Remote Power Systems**
- **Ubiquiti airFiber™ Antennas**
- **Axis Q6032-E, Q6034-E and Q6035-E PTZ Security Cameras**
- **High PoE 4 Pair Powered Cameras and Radio's**

Description

The 5 Gigabit compatible TP-DC-1256G-VHP and TP-DC-1256GD-VHP are very high power DC to DC converters / PoE inserters designed especially for Ubiquiti airFiber™ antenna systems and other systems which require high power passive or active PoE such as Axis High Power PoE PTZ security cameras. The unique PoE inserter supplies 56VDC PoE power on all 8 Ethernet wires (4 Pair).

The wide input voltage range (10VDC to 60VDC) makes these units universal in battery powered applications. The units input/output is isolated so they work in a negative ground or positive ground system. They have two DC inputs for connecting 2 power sources, like a primary and backup power source. They have various protections for low voltage, surge, short circuit and overload. The units have a metal housing and come complete with a DIN Rail mounting kit for mounting to a standard DIN rail.

Device Pinouts

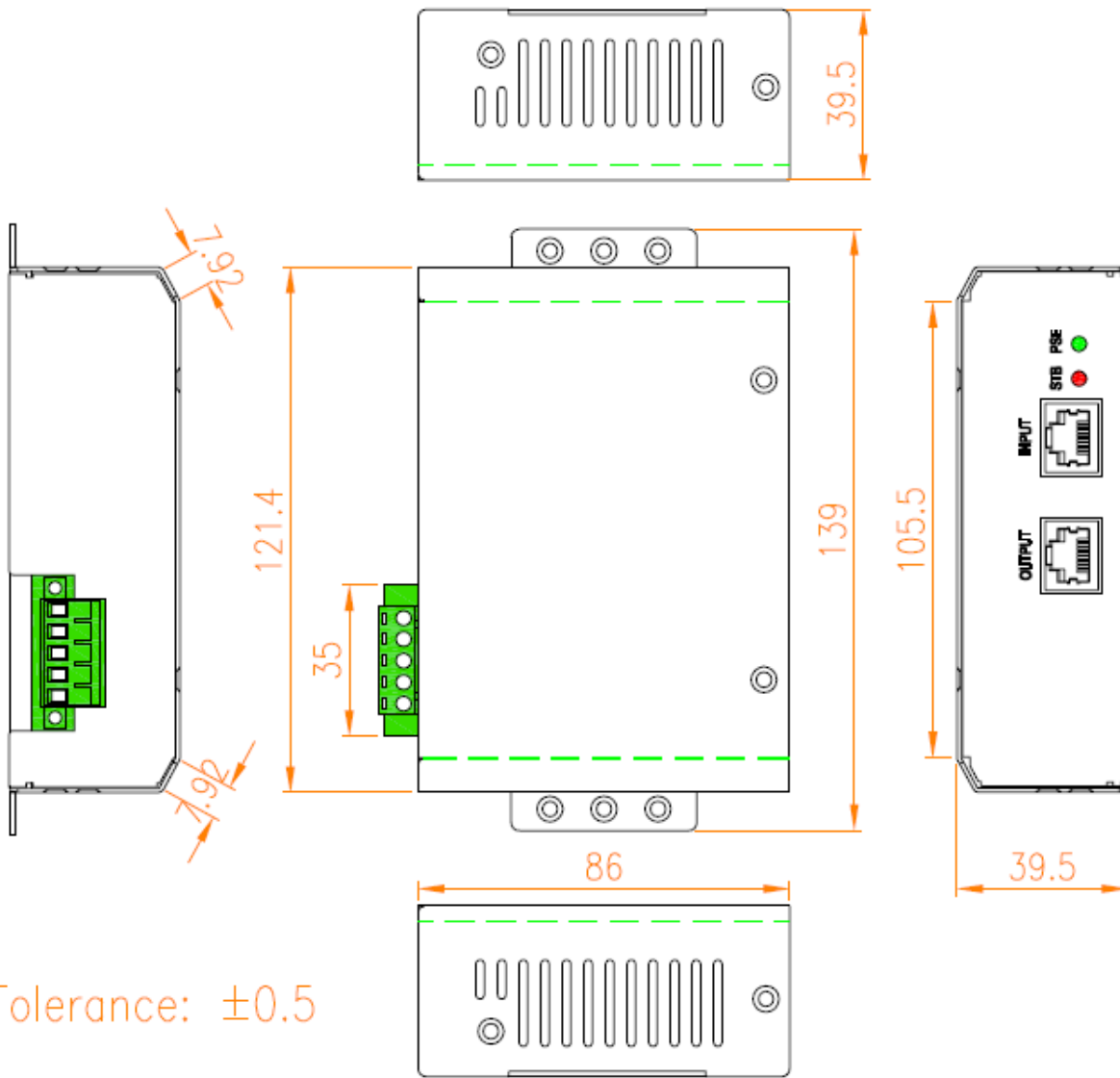| RJ-45 Input (Data Only)			TP-DC-1256GD-VHP RJ-45 Output (Data & Power)		TP-DC-1256G-VHP RJ-45 Output (Data & Power)	
Pin	*Symbol*	*Description*	*Symbol*	*Description*	*Symbol*	*Description*
1	BI_DA+	Data Pair A+	BI_DA+, Vo-	Data Pair A+ ,Ch1 POE -	BI_DA+, Vo+	Data Pair A+ ,Ch1 POE+
2	BI_DA-	Data Pair A-	BI_DA-, Vo-	Data Pair A-, Ch1 POE-	BI_DA-, Vo+	Data Pair A-, Ch1 POE+
3	BI_DB+	Data Pair B+	BI_DB+, Vo+	Data Pair B+, Ch1 POE+	BI_DB+, Vo-	Data Pair B+, Ch1 POE-
4	BI_DC+	Data Pair C+	BI_DC+, Vo+	Data Pair C+, Ch2 POE+	BI_DC+, Vo+	Data Pair C+, Ch2 POE+
5	BI_DC-	Data Pair C-	BI_DC-, Vo+	Data Pair C-, Ch2 POE+	BI_DC-, Vo+	Data Pair C-, Ch2 POE+
6	BI_DB-	Data Pair B-	BI_DB-, Vo+	Data Pair B-, Ch1 POE+	BI_DB-, Vo-	Data Pair B-, Ch1 POE-
7	BI_DD+	Data Pair D+	BI_DD+, Vo-	Data Pair D+, Ch2 POE-	BI_DD+, Vo-	Data Pair D+, Ch2 POE-
8	BI_DD-	Data Pair D-	BI_DD-, Vo-	Data Pair D-, Ch2 POE-	BI_DD-, Vo-	Data Pair D-, Ch2 POE-

Specifications

	TP-DC-1256G-VHP	TP-DC-1256GD-VHP
Input Voltage	+/- 10VDC to 60VDC	
DC Input Connector	Removeable Screw Type Compression Wire Terminal, 5 Pin (12 AWG Max)	
POE Specification	Passive (8 Wire , 4 Pair) 1245V+, 3678V-	IEEE 802.3at (4 Pair) Dual Detect 3645V+, 1278V-
LED Definition	**RJ45 Output Connector**: Left LED: Green = Pins 1,2,3,6 are Powered Right LED: Green = Pins 4,5,7,8 are Powered **Main LED**: STB LED: RED = PoE Output is OFF PSE LED: GREEN = PoE Output is ON	
Output Voltage (+/-2.5%)	56VDC	
Data in & Data/POE Output Connector	RJ45 (Shielded)	
Data Rate	Up to 5 Gigabit	
Output Current (max)	1.25A Total	
Output Power (max)	70W Total	
Self-Consumption Power	2W	
Low Voltage Protection	~8-9VDC Unit will power down to conserve battery	
Other protections	Overcurrent (110% of rated), Short Circuit, Reverse Polarity, Surge Protection	
Efficiency	85% Min (10VDC to 60VDC Input) (Full Load)	
Line Regulation, Ripple, Noise	1%	
Load Regulation	5%	
EMC Standards	EN55032/55035	
Safety Standards	EN62368-1	
Operating Temperature	-40 to +70°C (-40 to +158°F)	
Operating Humidity (RH)	5% - 90%	
MTBF (Mean Time Between Failure)	96,022 Hours	
Storage Temperature	-40 to +85°C (-40 to +185°F)	
Dimensions (LxWxH)	86 x 139 x 40mm (3.4 x 5.5 x 1.57")	
Weight	550g (19.4oz)	
Warranty	3 Years	

DIN Rail Adapters Included

TP-DC-1256Gx-VHP

39.5

7.92

121.4

139

105.5

35

86

39.5

PSE

STB

INPUT

OUTPUT

Tolerance: ±0.5

System Ordering:

TP-DC-1256G-VHP   +/- 10-60VDC IN, 56VDC PoE OUT, 70W DC to DC Converter with 4 Pair Passive PoE Inserter for UBNT airFiber™ antennas and other High PoE Devices. Metal Housing.

TP-DC-1256GD-VHP   +/- 10-60VDC IN, 56VDC PoE OUT, 70W DC to DC Converter with 4 Pair IEEE 802.3at dual detect PoE Inserter for Axis Q60 series PTZ Cameras and other High PoE devices. Metal Housing.

For further information contact:

Tyconsystems.com

RoHS compliant