

### PoE /Solar Charge Controllers

#### Features

- Dual Input - Charges 12V or 24V Batteries from Solar Panel and / or Passive PoE
- Built in DC to DC converter with various Passive PoE output voltages available: 12V,18V,24V,48V
- Compact and high temperature operation
- Low self consumption < 0.5W

#### Applications

- Remote Power Systems; Surveillance, Sensors
- Wireless Stations ; AP / Client / Repeaters
- UPS Systems ; Lighting, Fences, Gates



TP-SCPOE Charge Controller

#### Description

Tycon Solar® unique PoE/Solar charge controllers have dual inputs to charge batteries from a PoE source and also a secondary source like solar panels in order to provide redundancy and insure 100% uptime for critical applications. The solar panel input takes priority so that when the sun is shining the grid power usage is minimized. They have a built in PoE inserter with DC to DC converter that delivers 12V, 18V, 24V or 48V at the PoE port. They have full electronic protections for short circuit, reverse current, overvoltage, overcharge and over discharge.

They have five LED indicators to give a quick visual status if current is being supplied by a PoE source or solar panel, if battery is charging, If load output is turned on and a warning if battery is connected with reverse polarity.

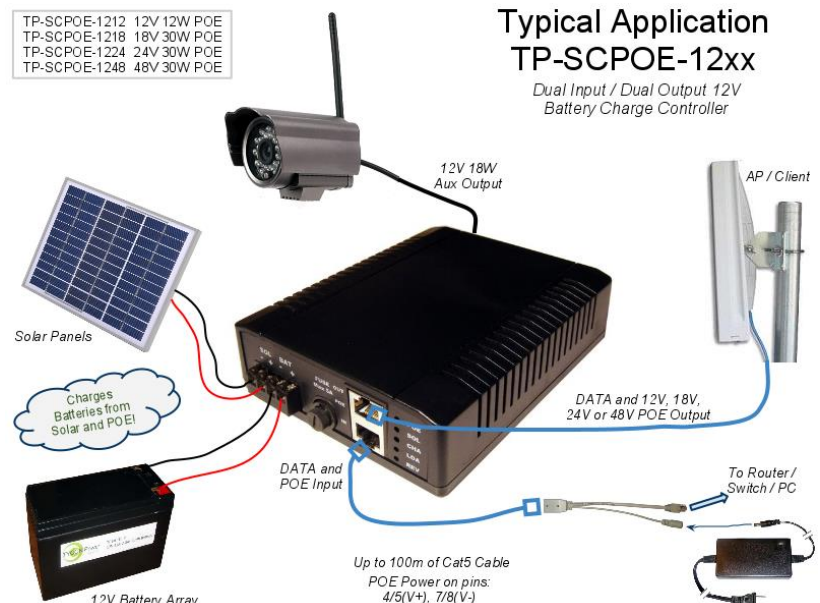
Solar and Battery Connections are via 5 screw terminals for wire size up to 10AWG. PoE Input and Output is via 2 RJ45 shielded connectors. There is a secondary output connector on the back with 5 screw terminals for connecting other electronics to the controller using up to 10AWG wire. This secondary output is equal to the battery voltage. The controllers are externally fused with a standard replaceable fuse.



TP-SCPOE-1212	12V 12W POE
TP-SCPOE-1218	18V 30W POE
TP-SCPOE-1224	24V 30W POE
TP-SCPOE-1248	48V 30W POE

#### Typical Application TP-SCPOE-12xx

Dual Input / Dual Output 12V Battery Charge Controller



There are two separate 12V output connections Gnd (or V-) and +12V (or V+):  
Gnd-1 and +12V-1  
Gnd-2 and +12V-2

FG = Frame Ground – Do not connect this to the GND 1 or 2 terminals. Frame Ground may be left unconnected or connected to earth ground.

# Specifications

	TP-SCPOE-1212	TP-SCPOE-1218	TP-SCPOE-1224	TP-SCPOE-1248	TP-SCPOE-2424
<b>Solar Input Voltage</b>	15V - 36V @ 10A max				24V - 36V @ 10A max
<b>POE Input Voltage</b>	18V - 57V @ 2.0A max				36V - 57V @ 1.3A max
<b>Battery Voltage</b>	12V				24V
<b>POE Output</b>	11-15V @ 1A	18V @ 1.67A	24V @ 1.25A	48V @ .625A	24V @ 1.0A
<b>Secondary Output</b>	11V to 15V @ 1.5A max				20V to 25V @ 1.5A max
<b>Charge Voltage</b>	14.6 +/- 0.3V				28.6 +/-0.5V
<b>Maintenance Voltage</b>	13.5 +/-0.3V				27.3 +/- 0.5V
<b>Over Discharge Voltage</b>	Output OFF: 11.0 +/-0.3V Output ON: 12.0 +/-0.3V				20.0 +/-0.3V 22.3 +/-0.3V
<b>Load-On Consumption</b>	< 0.5W				
<b>Load-Off Consumption</b>	1.7mA Typ 0.02W				
<b>Max Wire Size</b>	12 AWG				
<b>Operating Temp</b>	-30°C to 60°C (-22°F to 140°F)				
<b>Dimensions</b>	159 x 118 x 40mm (6.3 x 4.6 x 1.6")				
<b>Weight</b>	312 g (11 oz)				
<b>Warranty</b>	3 Years				

## PoE Pinout

RJ-45 Input (Data & Power)			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	+Vdc in	DC Power to battery charge circuit	+Vdc out	DC power(+) to device
5	+Vdc in	DC Power to battery charge circuit	+Vdc out	DC power(+) to device
6	TX-	Data Transmit(-)	TX-	Data Transmit(-)
7	-Vdc in	DC Power to battery charge circuit	-Vdc out	DC power(-) to device
8	-Vdc in	DC Power to battery charge circuit	-Vdc out	DC power(-) to device

## System Ordering:

<b>TP-SCPOE-1212</b>	12V in 12V out PoE/Solar Charge Controller
<b>TP-SCPOE-1218</b>	12V in 18V out PoE/Solar Charge Controller
<b>TP-SCPOE-1224</b>	12V in 24V out PoE/Solar Charge Controller
<b>TP-SCPOE-1248</b>	12V in 48V out PoE/Solar Charge Controller
<b>TP-SCPOE-2424</b>	24V in 24V out PoE/Solar Charge Controller for 24V battery systems

## For further information contact:

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