TP-SCPOE

DATA SHEET

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**



TP/TS-SCPOE Charge Controller

Applications

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

Description

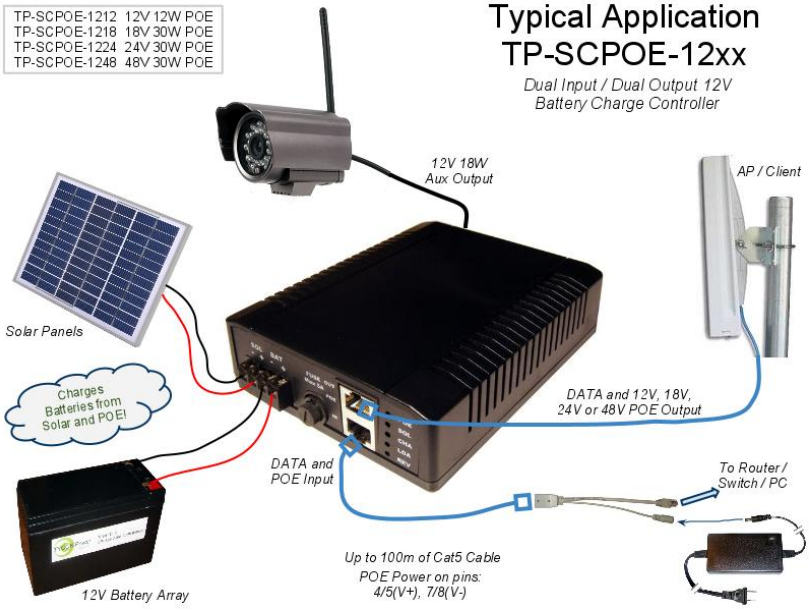
Tycon Solar® unique PoE/Solar charge controllers have dual inputs to charge batteries from a PoE source and also a secondary source like solar panels in order to provide redundancy and insure 100% uptime for critical applications. The solar panel input takes priority so that when the sun is shining the 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.



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

TP-SCPOE-1212 12V in 12V out PoE/Solar Charge Controller
TP-SCPOE-1218 12V in 18V out PoE/Solar Charge Controller
TP-SCPOE-1224 12V in 24V out PoE/Solar Charge Controller
TS-SCPOE-1224G 12V in 24V out Gigabit PoE/Solar Charge Controller
TP-SCPOE-1248 12V in 48V out PoE/Solar Charge Controller
TP-SCPOE-2424 24V in 24V out PoE/Solar Charge Controller for 24V battery systems
TS-SCPOE-2424G 24V in 24V out Gigabit PoE/Solar Charge Controller for 24V battery systems

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