



Solar®

TS-SCPOE-xxAT-G

DATA SHEET

GigE PoE/Solar Charge Controller

Features

- Dual Input - Charges 12/24V Batteries from Solar Panel and/or 802.3at/bt PoE
- Supports up to 120W/240W Total Device Load
- 802.3at 35W PoE Output
- 10A Aux Output (VOUT = battery voltage)
- Compact and high temperature operation
- Low self consumption < 1.2W
- DIN Rail mount kit included

Applications

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



TS-SCPOE-12AT-G or TS-SCPOE-24AT-G
Charge Controller

Description

Tycon Solar® SCPOE PoE/Solar charge controllers are designed to keep critical systems running by charging batteries using two power sources: Power over Ethernet (PoE) and solar panels. This dual-input setup ensures reliability and uninterrupted operation. When sunlight is available, the controller prioritizes solar power to reduce reliance on grid electricity.

Key features:

- **Built-in PoE Injector:** Delivers a steady 56VDC, 35W output via a Gigabit 802.3at PoE connection.
- **Comprehensive Protections:** Guards against short circuits, reverse current, overvoltage, overcharging, and over-discharging (LVD).
- **Status Indicators:** Five LEDs show whether the power source is PoE or solar, if the battery is charging, if the load output is active, and if the battery is incorrectly connected.
- **Connections:**
 - Solar, battery, and auxiliary load connections use five screw terminals for wires up to 10AWG.
 - PoE input and output use two shielded RJ45 connectors.
- **Fuse Protection:** Includes a replaceable 12A fuse.
- **Power Capacity:**
 - TS-SCPOE-12AT-G: Supports up to 120W for connected devices.
 - TS-SCPOE-24AT-G: Supports up to 240W for connected devices.

This setup ensures efficient, reliable power management for demanding applications.



Aux 10A Output
(VOUT = Battery Voltage)

Note: "FG" connection should be connected to Earth Ground for Lightning/Surge protection.

Specifications

	TS-SCPOE-12AT-G	TS-SCPOE-24AT-G
Solar Input	18-25VDC 120W Max	33-40VDC 240W Max
PoE Input (802.3at/bt or Passive)	36-57VDC 35W Gigabit (1.7A~2.0A Internal Regulated)	
POE IN Pinout	12.36 or 45.78	2 Pair or 4 Pair
Battery Voltage	12VDC	24VDC
Battery Type	AGM/GEL Lead Acid or LiFePO4/LFP/Lithium with compatible BMS	
PoE Output	Gigabit 802.3at 56VDC 0.625A 35W	
POE OUT Pinout	802.3at Mode A Pins 12.36	
Aux Output (Battery Voltage)	12VDC 10A Max	24VDC 10A Max
Charging Voltage	14.4VDC	28.8VDC
Float Voltage	13.8VDC	26.8VDC
Low Voltage Detect (LVD)	Load Output Off: 11.0 +/-0.3V Load Output On: 12.0 +/-0.3V	Load Output Off: 20.0 +/-0.3V Load Output On: 24.0 +/-0.3V
Load-On Self Consumption	< 1W	<1.2W
Load-Off Self Consumption	0.04W Typical	
Max Wire Size	10 AWG	
Battery Fuse	5mm x 20mm 12A 250V Slo-Blow	
Operating Temp	-40°C to 60°C (-40°F to 140°F)	
Operating Humidity	5% - 90% Non-Condensing	
Dimensions	159 x 118 x 40mm (6.3 x 4.6 x 1.6")	
Weight	476 g (1.05 lb)	
Warranty	3 Years	

Front Panel Connections and Indicators

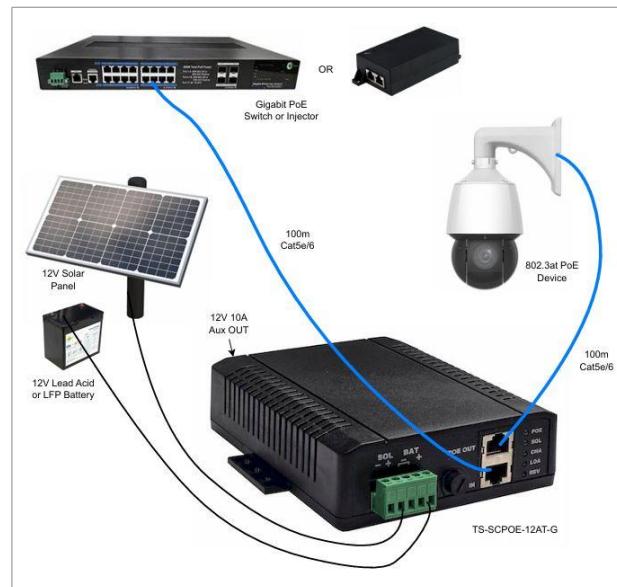
SOL – Solar / PV Connection
BAT – Battery Connection.
 Note: There are 2 BAT- connections for convenience.



POE – POE IN is Powered
SOL – SOL IN is Powered
CHA – Battery is Charging.
 Flashing = Float
LOA – Load outputs are ON
REV – Battery Reverse Power

Note: Always connect BAT first and disconnect last.
 The solar charger cannot be used without a BAT connection.

Typical Application



System Ordering:

TS-SCPOE-12AT-G 120W Solar; GigE 802.3at PoE in/out, 12VDC 10A Aux Out ; PoE/Solar 12V Charge Controller
TS-SCPOE-24AT-G 240W Solar; GigE 802.3at PoE in/out, 24VDC 10A Aux Out ; PoE/Solar 24V Charge Controller

For further information contact:

Tyconsystems.com

