TS-SCPOE-xx24-G

DATA SHEET

GigE PoE/Solar Charge Controller

Features

- **Dual Input - Charges 12/24V Batteries from Solar Panel and/or 802.at/bt or passive PoE**
- **Supports up to 120W/240W Total Device Load**
- **24V 30W Passive PoE Output**
- **10A Aux Output (VOUT = battery voltage)**
- **Compact and high temperature operation**
- **Low self consumption < 1W**
- **DIN Rail mount kit included**



TS-SCPOE-1224-G or TS-SCPOE-2424-G
Charge Controller

Applications

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

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 24VDC, 30W output via a Gigabit Passive 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-1224-G: Supports up to 120W for connected devices.
  - TS-SCPOE-2424-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.

TS-SCPOE-xx24-G

Specifications

	TS-SCPOE-1224-G	TS-SCPOE-2424-G
Solar Input	18-25VDC 120W Max	33-40VDC 240W Max
PoE Input (36-57V 802.3at/bt or Passive)	36-57VDC 35W Min Gigabit (1.7A~2.0A Internal Regulated). Suggest 60W Minimum for best results.	
POE IN Pinout	12.36 and/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 24V 1.25A 30W	
POE OUT Pinout	24V Passive PoE pins 4,5+ and 7,8-	
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	<1W
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.



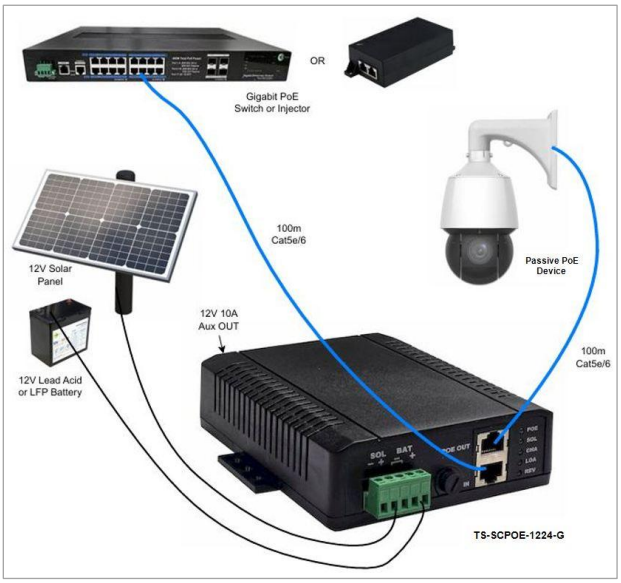
POE – POE IN is Powered
SOL – SOL IN is Powered
CHA – Battery is Charging. Flashing = Float
LOA – Load outputs are ON
REV – Battery Reverse Power

FUSE – 12A 5x20mm

POE OUT – 24V Passive 30W PoE
POE IN – 36-57VDC 802.3at/bt or passive 35W 2/4Pair

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

Typical Application



System Ordering:

TS-SCPOE-1224-G 120W Solar; GigE PoE in/out, 12VDC 10A Aux Out ; PoE/Solar 12V Charge Controller
TS-SCPOE-2424-G 240W Solar; GigE PoE in/out, 24VDC 10A Aux Out ; PoE/Solar 24V Charge Controller

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Specifications Subject to Change Without Notice