

### POE /Solar Charge Controller

#### Features

- Dual Input - Charges 24V Batteries from Solar Panel and / or Passive POE
- Supports up to 60W Device Load
- Regulated Output Voltage
- 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-2424-HP Charge Controller

#### Description

Tycon Power Systems 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 regulated voltage output. 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 POE output and secondary output are regulated at 24VDC to prevent damage to devices due to overvoltage. The controllers are externally fused with a standard replaceable fuse.

The TP-SCPOE-2424-HP can provide up to 60W total power for powering various equipment.

#### 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 |

**Specifications**

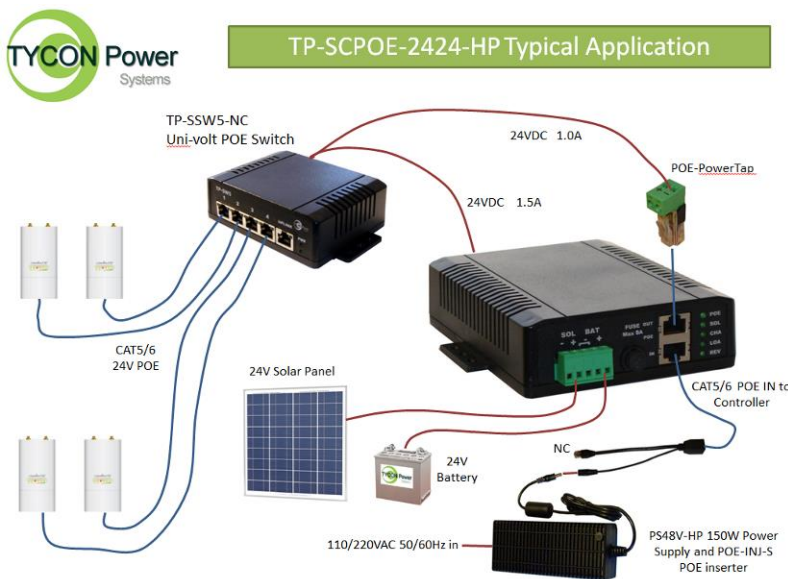
|                                 | TP-SCPOE-2424-HP  |
|---------------------------------|---|
| <b>Solar Input Voltage</b>      | 24V - 36Vmax @ 8A max<br>(up to 270W 24V Panel)               |
| <b>POE Input Voltage</b>        | 36V - 57V max @ 2.6A max                                      |
| <b>Battery Voltage</b>          | 24V   |
| <b>POE Output</b>               | 24V @ 1.0A  |
| <b>Secondary Output</b>         | 20V to 25V @ 1.5A max   |
| <b>Maintenance Voltage</b>      | 27.3 +/- 0.5V   |
| <b>Overcharge Protection</b>    | 28.6 +/- 0.3V   |
| <b>Over Discharge Voltage</b>   | Load Output Off: 20.0 +/-0.3V<br>Load Output On: 24.3 +/-0.3V |
| <b>Load-On Self Consumption</b> | < 0.5W  |
| <b>Load-Off Consumption</b>     | 1.7mA Typ 0.02W   |
| <b>Max Wire Size</b>            | 10 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)   |

**Notes:**

- All shipments F.O.B. Bluffdale, UT 84065
- TP-SCPOE Charge Controllers carry a 1 year warranty



Back panel view



**System Ordering:**

**TP-SCPOE-2424-HP**

24V in 24V 60W out POE/Solar Charge Controller for 24V battery systems

**For further information contact:**

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