RP-SP112C series

Solar & PoE Battery Charger

RP-SP112C Solar & PoE Battery Charger equips dual input sources to charge batteries, the first is via PoE source and secondary solar panels in order to provide redundancy and insure 100% uptime for critical applications. The solar panel input takes priority, when receive sunshine, the power usage would be minimized.

RP-SP112C has a built in PoE inserter with DC to DC converter that delivers optional PoE power 24V, 48V, 56V. The device supports full electronic protections for short circuit, reverse current, overvoltage, over charge and over discharge.

RP-SP112C helps users to monitor the current status easily and efficiently by its advanced LED indication. The 5 LEDs Indicate: current is being supplied by a POE source or solar panel, battery is charging, load output is turned on and a warning if battery is connected with reverse polarity.

Solar and Battery Connections are via terminal block for wire size up to 12AWG. PoE Input and Output is via RJ45 shielded connectors. There is a secondary output connector on the back side with terminals for connecting other electronics to the controller using up to 12AWG wire. This secondary output is equal to the battery voltage.

Features

- Dual Input, from solar panel and/or PoE (Solar First) to charge 12V battery, and another two outputs: PoE output on front and/or terminal block on rear
- Built-in DC/DC converter, with various passive PoE output, 24V, 48V, 56V available.
- Active PoE Output support 802.3at handshake (RP-SP112C-56DB, RP-SP112C-56DA)
- DIN Rail Mountable
- Support Gigabit Ethernet

Application

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

Specifications

<table>
<tr><td>Standard</td><td>

IEEE 802.3 10Base-T Ethernet
IEEE 802.3u 100Base-TX Fast Ethernet
IEEE 802.3ab 1000Base-T Gigabit Ethernet
IEEE 802.3af PoE
IEEE 802.3at PoE+

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<tr><td>Interface</td><td>

1 x 10/100/1000Mbps RJ-45 port PoE/Data Intput
1 x 10/100/1000Mbps RJ-45 port PoE Output
Fuse: for output over current protection, limiting the battery output current <= 10A
SOL/BAT Terminal block: for Solar Panel & Battery
LOA Terminal block: for wire size up to 12AWG

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<tr><td>Input Source type</td><td>

Solar Panel
PoE

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<tr><td>Input Voltage</td><td>

Solar Panel: 18V~55Vmax.
POE: 36V~57V (only use 4 pairs injector for more than 35W input.)

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<tr><td>Output</td><td>
<table>
<tr><td>Model</td><td>SP112C-24B</td><td>SP112C-48A</td><td>SP112C-48B</td><td>SP112C-56DA</td><td>SP112C-56DB</td></tr>
<tr><td>Output 1 (Terminal)</td><td colspan="5">12V/10A (as Bat. Volt.)</td></tr>
<tr><td>Output 2 (PoE Pin Assignment)</td><td>24V/1.25A (45+/78-) (regulated)</td><td>48V/0.625A (12-/36+) (regulated)</td><td>48V/0.625A (45+/78-) (regulated)</td><td>56V/0.625A (12-/36+) (regulated)</td><td>56V/0.625A (45+/78-) (regulated)</td></tr>
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<tr><td>Battery Charge Type</td><td>

Solar Panel: depends on the solar panel, 10A max
PoE: fixed current, 2.0A max

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<tr><td>Battery Type</td><td>

12V AGM Battery

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<tr><td>Protection</td><td>

Battery Polarity Reverse Protection
Battery Over Charge Protection
Battery Over Discharge Protection
Solar Panel Polarity Reverse Protection
Solar Panel Over Charge Protection
Output Short Circuit Protection
Battery Output Current Limit
Load Output Voltage Limit

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<tr><td>POE Charge Voltage</td><td>

Float = 13.4V ± 0.2V Equalize = 14.2V ± 0.2V

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<tr><td>SOLAR Charge Voltage</td><td>

Charge Voltage = 14.4 V ± 0.2V

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<tr><td>LED Indications</td><td>

POE: PoE power input indicator
SOL: Solar power input indicator
CHA: Charging indicator
LOA: Loading indicator
REV: Battery polarity reverse indicator

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<tr><td>Environment</td><td>

Operation Temperature: -40 ~ +50°C
Storage Temperature: -40 ~ +85°C
Operation Humidity: 5% ~ 90%

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<tr><td>Cooling</td><td>

Free air cooling

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<tr><td>Dimension</td><td>

118 x 150 x 40 mm (WxHxD), DIN rail mountable

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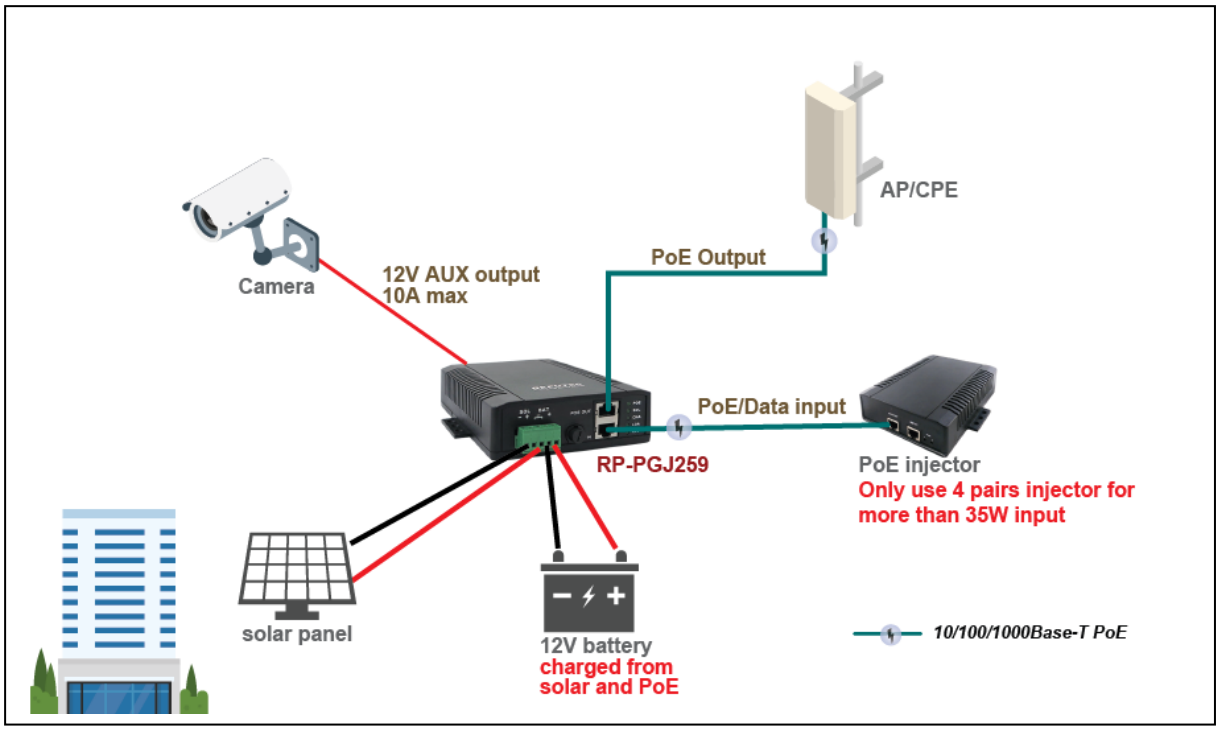
Application



Ordering information

RP-SP112C-24B	Solar & PoE Battery Charger with 24V passive PoE output (Mid-Span mode B)
RP-SP112C-48A	Solar & PoE Battery Charger with 48V passive PoE output (Mid-Span mode A)
RP-SP112C-48B	Solar & PoE Battery Charger with 48V passive PoE output (Mid-Span mode B)
RP-SP112C-56DA	Solar & PoE Battery Charger with 56V 802.3at PoE output (Mid-Span mode A)
RP-SP112C-56DB	Solar & PoE Battery Charger with 56V 802.3at PoE output (Mid-Span mode B)

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