

### Independent Solar Power Solution with Complete Connectivity and Remote Monitoring Features

QSP Kit 200 is an all-in-one solar power solution designed to serve as the primary power source for mission critical communication, control and surveillance equipment.

### Main Features

- Complete off-grid primary power solution
- Up to 200 Watts continuous power, 30 hours backup time
- 7 port Gigabit passive POE switch
- Grid input power port (AC adapter not included)
- Selectable 24v/48v POE power/Auxiliary DC port
- Top of pole solar panel mounting kit
- Ground mount battery and controls enclosure
- Advanced high performance AGM batteries
- 5 years battery float life
- Manageable MPPT charge controller
- Thermostatically controlled ventilation

### Main Applications

- Wireless base stations, end nodes and repeater sites
- Independent surveillance camera poles
- Utility power, water and gas control systems
- Off-grid patrol posts
- Remote sensing and SCADA
- Remote weather stations



## System Description

QSP Kit 200 outdoor power systems is designed for applications that require a primary off-grid power source to run various equipment. The vented weatherproof enclosures have generous space available inside for mounting customer equipment. A 19" 1U rackmount feature is integral to the enclosure as are multiple DIN Rail mounts.

Enclosure is hinged and gasket sealed with locking latches for security. The latches can be locked using a standard customer supplied padlock.

The enclosure can be mounted to a wall or pole with the included mounting bracket system. Poles up to 11" diameter can be accommodated.

The high quality solar panels have a 25 year power output guarantee. The panel can be mounted to a pole or wall with the included side-of-pole mounting system.

The 48V battery systems feature a state-of-the-art manageable, temp compensated, MPPT

charge controller with integrated monitoring/control and 7 port gigabit PoE switch.

The outputs are 24VDC/48VDC selectable via the web interface or SNMP.

Enclosures have three cable gland ports for CAT5 cable, antenna cables/connectors or other cabling. The enclosure include a thermostatically controlled fan which turns on automatically when the temperature exceeds 45°C.

Batteries are a Non-spillable Valve Regulated Sealed Lead Acid Advance Glass Matt (AGM) type which have excellent temperature and deep discharge performance. Expected battery life exceeds 5 years.

The systems come with all cabling required to connect the batteries to the controller and 20' outdoor rated cable to connect the solar panels to the controller.

## Remotely accessible Port Power Controls Page

The screenshot displays a web interface for 'Port Controls'. At the top, there is a navigation bar with links: Monitor, Graphs, Log, System, Control, SNMP, Upgrade. Below this, the 'Port Controls' section features eight columns for Port 1 through Port 7, and an 'Aux' port. Each port has a power status indicator (ON/OFF), a 'Cycle' button, and a voltage selector dropdown (24V or 48V). Below the ports, system metrics are shown: Battery Voltage (50.2V), Battery Current (1.9A), Input Voltage (62.3V), Input Current (1.9A), Load Watts (12W), Battery Temp (77.3F), and Battery Status (BULK). A 'Disable Confirm' checkbox is also present. System information includes Load Voltage Setting (24V/48V Enabled), Controller Time (08/16/2016 12:26:37), Uptime (0 days 01:00:25), MPPT Version (1.700), and Version (2.3.6).

## Specifications

<b>System General Specifications</b>	
Rated Power Generation	200 W
Reserve Time @ Rated Power	24 hrs
POE Output Voltage (DC)	24/48V Selectable
Secondary Volts Out (DC)	24/48V Selectable
12V Battery Capacity (Amp Hrs)	960 Ah
<b>Solar Panel / Panel Mount</b>	
Solar Panel Size (4 panels)	2.03m x 3.35 m (80" x 132")
Pole Mount Type	Top of pole mounted
Pole Diameter	2" to 4.5"
Pole Attach	Stainless Steel Hose Clamp (5/16" driver)
<b>Controller/POE Switch/Remote</b>	
Controller Type	Manageable Temp Compensated MPPT with 7Gigabit PoE ports
Overcharge Protection	59.2V
Over-discharge protection	45.8V to 47.8 – settable in web interface
Over-discharge recovery volts	48.1V to 49.2V – settable in web interface
Controller Self Consumption	3.5W Typical
Typical Controller Efficiency	96% (68VDC Input, 10A Load, 25C)
PoE Switch	Qty 7 RJ45, 10/100/1000MB Gigabit Ethernet, Layer 2, Auto Crossover
PoE Output Voltage	48VDC or 24VDC or OFF – settable in web interface
Auxiliary DC Output Voltage	24VDC or 48VDC – settable in web interface
Auxiliary DC Output Current	2.25A Maximum Continuous, 3A Max peak
Auxiliary DC Output Controls	Temperature, Voltage, Time – settable in web interface
Fuse Type	58V 20A Fast Blo Automotive Blade Type (Littlefuse 142.6185.5206)
Measurement Accuracy (V / I / T)	+/- 0.1V , +/- 0.1A , +/- 1 Deg C
Port Surge Protection	IEC 61000-4-2 (ESD) 15kV (air), 15kV (contact) IEC 61000-4-4 (EFT) 40A (5/50ns) IEC 61000-4-5 (Lightning) 25A (8/20µs)
Maximum Power Output	222W Total (150W @ 48VDC and 72W @ 24VDC) from all output ports (including Aux Output), Auto Shutdown and Autorecovery from Fail
Data-Logger	FIFO, 15,000 data sets, Programmable log interval
MTBF	>100,000 Hrs
Certifications	FCC/CE EN55022 (EMC) ; CE EN55024 (EMC); CE/UL EN60950-1 (LVD)
<b>Battery</b>	
Battery Type	Maintenance Free Non-Spillable Valve Regulated Sealed Lead Acid AGM
Battery Float Life	5 years
Dimensions (Each of 8 batteries)	228 x 139 x 235mm (9 x 5.5 x 9.24")
<b>Enclosure</b>	
Enclosure Type	2" to 11" Pole/Wall Mount, Powder Coat Steel
Enclosure External Size	612.5 x 612.5 x 445.6 mm (24.1 x 24.1 x 17.5")
Enclosure Internal Size	608 x 608 x 409.5 mm (23.9 x 23.9 x 16.1")
Internal Mount Features	1U 19" Rackmount (13.9" depth), 4" Long Din Rails(4), Din Rail Mounts (4)
<b>Mechanical / Environmental</b>	
Operating Temperature	-40°C to +60°C (-22°F to 140°F)
System Weight (no batteries)	221 kg (488 lb)
Battery Weight	247 kg (544 lb)
Wind Speed Rating	145 km/h (90 Miles/H)
Warranty	2 Years