Independent Solar Power Solution with Complete Connectivity and Remote Monitoring Features

QSP Kit 80 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 80 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**
- **Remote sensing 4 voltages, 4 currents and 2 temperatures**
- **Pole side solar panel mounting kit**
- **Pole/wall mount battery and controls enclosure**
- **Advanced high performance AGM batteries**
- **5 years battery float life**
- **PWM manageable MPPT charge 1controller**
- **Thermostatically controlled 1ventilation**

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 80 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 optional 500W and 1000W panel systems, increasing the output power to 130 and 250 Watts, come with a top-of-pole mount which includes the pole and concrete anchors for anchoring the flanged pole to a foundation.

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.

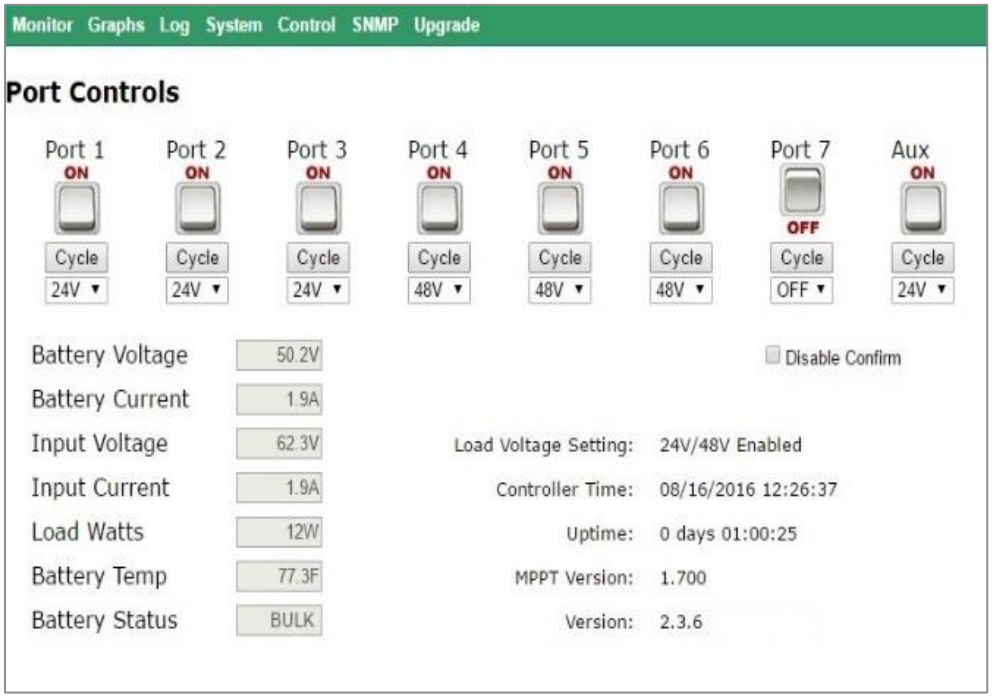
The outputs are 24VDC/48VDC selectable via the web interface or SNMP.

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



Specifications

System General Specifications	
Rated Power Generation	80 W
Reserve Time @ Rated Power	30 hrs
POE Output Voltage (DC)	24/48V Selectable
Secondary Volts Out (DC)	24/48V Selectable
12V Battery Capacity (Amp Hrs)	400 Ah
Solar Panel / Panel Mount	
Solar Panel Size (4 panels)	1.6m x 2m (66” x 79”)
Pole Mount Type	Top of pole mounted
Pole Diameter	2” to 4.5”
Pole Attach	Stainless Steel Hose Clamp (5/16” driver)
Controller/POE Switch/Remote	
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)
Battery	
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”)
Enclosure	
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)
Mechanical / Environmental	
Operating Temperature	-30°C to +60°C (-22°F to 140°F)
System Weight (no batteries)	185 kg (407 lb)
Battery Weight	138 kg (304 lb)
Wind Speed Rating	145 km/h (90 Miles/H)
Warranty	2 Years