



BATTERIES  
INCLUDED



803.2at



The NetWave® NWKSP4 Solar off the grid power system is designed for applications where a remote camera or wireless repeater is needed but power is not available or the cost to run power is too expensive. NetWave Solar is a complete system for providing remote power to edge communications equipment. The kit includes a high quality photovoltaic solar panels, valve-regulated lead-acid batteries, outdoor enclosure, solar charge controller, PoE midspan injector and mounting hardware. The steel outdoor enclosure has a gasket hinged lid with two tamper proof locks operated by a special key for high security. The enclosure can be mounted on a two to four inch pole or wall mounted with the included mounting hardware. The Solar Panels include a top of pole mount requiring a 4" diameter pole. A side of pole mount is available as an optional accessory. The included 30A solar charge controller supports an LCD screen for local diagnostics and system health monitoring, Intelligent PWM charging mode and battery protection from overcharge and over discharge while the batteries provide outstanding deep cycle and cold weather performance.

## FEATURES

- › Warranty: 1 Year on Batteries  
2 Years on Solar Panels and Hardware
- › Solar panels are designed with heavy duty anodized frames that are capable of withstanding high wind pressure, hail and snow load.
- › Solar Panels feature outstanding low light performance
- › Four High Efficiency Multicrystalline Photovoltaic Solar Panels
- › Weatherproof powder coated steel enclosure that meets NEMA 4X/IP65 weatherproofing standards
- › Valve Regulated Sealed Lead Acid AGM Battery with great low temperature performance to -40°C
- › 24 VDC Solar Charge Controller with LCD Screen, Intelligent PWM Charging Mode, Adjustable charging and discharging parameters
- › 56 VDC Gigabit PoE+ Injector
- › Intelligent Controller Featuring:
  - Solar Controller Diagnostics LCD Display Supporting Readout of Several Parameters Including System Charge/ Discharge and Battery Voltage
  - Ampere Hours Monitoring of Accumulated Charge/ Discharge
  - Intelligent PWM Charge Controller
  - Automatic Temperature Compensation
  - Adjustable Charge/Discharge Control Parameters
  - Battery Low Voltage Disconnection
  - Battery Reverse Connection Protection
  - Overload/Short Circuit Protection

## APPLICATIONS

- › Remote Surveillance Cameras
- › Wireless Perimeter Surveillance
- › Temporary Network Surveillance Deployments
- › Construction Site Network Access

### SPECIFICATIONS

#### Controller

Controller Type	12 -24 V Solar Charge Controller
Controller Self Consumption	< 0.5 W

#### IEEE 802.3at Compliant Power Injector

Input	24 VDC
Output	56 VDC @ .625 A
Self Consumption	1 W

#### Solar Panels (QTY 4)

Maximum Power (Pmax)	120 W
Voltage at Pmax (Vmp)	17.2 V
Current at Pmax (Imp)	6.98 A
Open-circuit voltage (Voc)	21.6 V
Short-circuit current (Isc)	7.72 A
Temperature coefficient of Voc	-(80±10)mV/°C
Temperature coefficient of Isc	-(0.065±0.015)%/°C
Temperature coefficient of power	-(0.5±0.05)%/°C
NOCT <sup>1</sup>	47±2°C
Operating temperature	-40°C to +85°C
Maximum system voltage	1000 VDC
Power tolerance	±5%

#### Peak Sunlight

Battery Capacity	110 Ah
Battery Voltage	24 V
Reserve Time	40 Hours <sup>2</sup>
PoE Output Voltage	56 VDC
System Weight with Batteries <sup>3</sup>	410 lb (186 kg)

#### 3 Hours

#### Mechanical

Enclosure	Powder Coated Steel
Enclosure Size	24 × 15 × 14 in (60.96 × 38.1 × 35.56 cm)
Solar Panels	4 × 120 W Solar Panels
Solar Panel Size	48.98 × 26.57 × 1.38 in (124.4 × 67.5 × 3.5 cm)
Solar Panel Weight	24.25 lb / 11 kg

#### Environmental

MTBF	>100,000 hours
Operating Temp	-30° C to +60° C
Storage Temp	-40° C to +85° C
Relative Humidity	5% to 95%

#### Warranty

Batteries	1 Year
Solar Panels & Hardware	2 Years

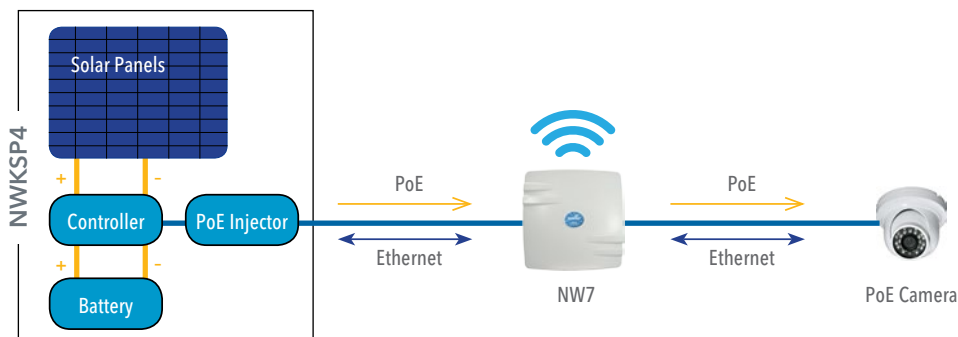
[1] Nominal Operating Cell Temperature: Air 20°C; Sun 0.8kW/m<sup>2</sup>; Wind 1m/s

[2] Actual Reserve Time is condition-dependent.

### ORDERING INFORMATION

Part Number	Description
NWKSP4	30W continuous power solution requiring 3 hours of peak sun a day
Included Accessories	Enclosure, Top of Pole mounting hardware for the Solar Panel, Controller, Midspan Injector and Cables
Options	User selection of Industrially Hardened NetWave® Wireless Ethernet Units [3] Add suffix 'NB' to the part number you order if you wish to exclude battery from the kit

### TYPICAL APPLICATION



#### LEGEND

	WIRELESS
	CAT5
	POWER
	ETHERNET



Low Power Consumption