



# Nishati Outpost™ 50 Solar Charging System

**450 Watts of Solar Energy Capacity • 50 Watts of Continuous 24/7 Power**  
**Self-contained, stand-alone solar system - packages in single transport case**

- Power command posts / small ops centers, remote communications and sensors
- Charge (2) BB-2590 Li-ion batteries to 85% in ~1.5 hrs. - expandable to (3) or (4) batteries
- Wall / generator charging rates!
- Simultaneous DC and AC power to C4 systems
- Hard case dimensions: 48" x 17" x 9" (~4 ft<sup>3</sup>)
- Complete system in hard case <80 lbs.
- Deployed footprint <4 ft. x 10 ft.
- 50 mph wind rating using sandbags
- Setup or pack-up in less than 10 minutes





- Integrated rack carrying handles along with optional soft case or back-pack for panels & accessories
- Spread load for tactical vehicle & aircraft transport
- Spread-load for man-pack:
  - Rack 14 lbs.
  - Panels + cable in soft case ~31 lbs.



## Power Availability

Power	Rating	Duration (per Day)
50 Watts	Continuous	24 hrs
300 Watts	Typical daytime	4 to 8 hrs

## Example Communications Power and Charging Capacities

Device	Typical Battery Capacities	Outpost 50 Power and Charging Per Day at Rated Power
Smart Phones	6 to 10 Watt-hrs	120 Complete re-charges
Tablets	28 to 42 Watt-hrs	Power 5 x Tablets continuously or fully re-charge up to 30
Commercial Laptops	48 to 94 Watt-hrs	Power 1 to 2 for 24 hrs. or fully recharge 12 or more
Panasonic Toughbook®	84 to 87 Watt-hrs	Power 4 x Toughbook® for 6 hrs. (daytime) while maintaining charge
Military Tactical Radios	16 to 86 Watt-hrs	Power 4 x PRC-148 for 24 hrs. + recharge 10 High-capacity MBITR batteries
Other 12V Accessories	20 to 60 watt-hrs	Fully charge 20 to 60 batteries

# Nishati Outpost™ 50

## Outpost 50 Kit and Options

<b>Part Number</b>	228217	
<b>Basic Components</b>	<p>(1) Nishati Expedition 450 Portable Solar Array kit with the following contents:</p> <ul style="list-style-type: none"> <li>• (4) 112W Glass-free Foldable Solar Panels</li> <li>• (1) Roll-able 50 mph wind-rated stand w/canvas cover &amp; carrying handles</li> <li>• (1) 35-foot power cable</li> <li>• (12) sandbags and (10) tent stakes</li> <li>• (1) Rugged transport case with polyurethane wheels</li> </ul> <p>(2) MilSpec X-90 V4 Portable Fast Charge Solar/DC Battery Charge Controllers</p> <p>(1) 125W ruggedized inverter with M12 connector input cable</p> <p>(1) Solar to SAE 2-pin mating cable</p> <p>(2) SAE 2-pin Y cables</p>	
<b>Optional Items</b>	<ul style="list-style-type: none"> <li>• Duffel or backpack style soft carrying case for solar panels, power cable, accessories</li> <li>• BB-2590 (225 Watt-hr) Li-ion batteries (294 Watt-hr option available)</li> <li>• DC Output cables – 3A (M8) or 6A (M12) &amp; 12-16.7V or 22-33.4V DC</li> <li>• 28V BA-5590 plug emulator for power to PRC-117, other BA-5590-powered devices</li> <li>• Tactical handheld radio power and charge adapter for PRC-148/152/MPU-5/etc.</li> <li>• MBITR to Trellisware TSM radio form factor adapter</li> <li>• AN/PRC-148 Li-ion battery (73 Watt-hr to 86 Watt-hr options)</li> <li>• Additional adapter / cable options available on request</li> </ul>	
<b>Warranty</b>	2 years limited warranty against defective material & workmanship	
<b>System Power*</b>	Rated solar capacity	450W
	Power capability	50W 24/7, 300 watts for 2 to 4 hours, 480 watts maximum
	Solar Array Open Circuit Voltage ( $V_{oc}$ )	63.82V
	Solar Array Short Circuit Current ( $I_{sc}$ )	9.04A
	Solar Array Output Voltage ( $V_{mp}$ )	51.39V
	Solar Array Output Current ( $I_{mp}$ )	8.77A
	Solar Array Maximum Voltage	600V DC
	Charge Controller DC Power In (each)	140W
	Charge Controller DC Power Out (each)	150W (continuous) / 240W (peak); 3 Amp M8 & 6 Amp M12 output ports; 12-16.7V or 22-33.4V DC output options on both
	Inverter Input	12-17V DC (10A max)
<b>System Dimensions</b>	Storage volume	4.99 ft <sup>3</sup>
	Transport case outside dimensions	47.0"L x 17.0"W x 10.8"H
	Total Weight	80 lbs. (not including batteries)
	Max Deployed Footprint @ 30° Tilt Angle	39.9 ft <sup>2</sup>
	Solar Fixed Deployment Angles	0°, 30°, 45° (other fixed angles built on request)
<b>Environmental</b>	Water and dust protection (IP67); Wind Load (50 mph); Operating Temp (-20°C to 60°C); Storage Temp (-32°C to 71°C); MIL-STD-810G 48" Drop and Loose Cargo qualified	

\*Solar ratings based on standard test conditions: 25°C, AM1.5, and 1000W/m<sup>2</sup>

\*\*Option: 220V/50Hz

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