



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) batteries
- Wall / generator charging rates!
- Simultaneous DC and AC power to C4 systems
- Hard case dimensions: 48" x 17" x 9" (~4 ft³)
- Complete system in hard case <80 lbs.
- Deployed foot print <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

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Outpost 50 Kit and Options

Part Number	227X20INV125	
Basic Components	<p>(1) Nishati Expedition 450 Portable Solar Array kit with the following contents:</p> <ul style="list-style-type: none"> • (4) 112W Glass-free Foldable Solar Panels • (1) Roll-able 50mph wind-rated stand w/canvas cover & carrying handles • (1) 35-foot power cable • (12) sandbags and (10) tent stakes • (1) Rugged transport case with polyurethane wheels <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>	
Optional Items	<ul style="list-style-type: none"> • Duffel or backpack style soft carrying case for solar panels, power cable, accessories • BB-2590 (250 Watt-hr) Li-ion batteries (294 Watt-hr option available) • DC Output cables – 3A (M8) or 6A (M12) & 12-16.7V or 22-33.4V DC • 28V BA-5590 plug emulator for power to PRC-117, other BA-5590-powered devices • Tactical handheld radio power and charge adapter for PRC-148/152/MPU-5/etc. • MBITR to Trellisware TSM radio form factor adapter • AN/PRC-148 Li-ion battery (73 Watt-hr to 86 Watt-hr options) • Additional adapter / cable options available on request 	
Warranty	2 years limited warranty against defective material & workmanship	
System Power*	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)
System Dimensions	Storage volume	4.99 ft ³
	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 ²
	Solar Fixed Deployment Angles	0°, 35° (other fixed angles built on request)
Environmental	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/m²

**Option: 220V/50Hz

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