

### Nishati Outpost™ 50 Solar Charging System

455 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 two BB-2590 Li-ion batteries to 85% in ~1.5 hrs. = wall / generator charge 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 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/back-pack for panels and accessories enables spread load for tactical vehicle and aircraft transport
- Components spread-load for man-pack:
  - Rack <16 lbs./Panels 6.6 lbs.



#### Power Availability

Continuous 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

## Nishati Outpost 50 Specification

General Description / Components	
Outpost 50 Part Number	228651X50
Solar	Nishati Expedition 450 Portable Solar Array: (4) 114W 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 Optional: soft case for carrying solar panels, power cable, and accessories
Charge control	(2) MilSpec X-90 V4 Portable Fast Charge Solar/ DC Battery Chargers
Batteries	(2) BB-2590 or other BB-XX90 series (optional)
AC Power	(1) 125W ruggedized inverter with M12 connector input cable
Cables	(1) Solar to SAE 2-pin mating cable; (2) SAE 2-pin Y cables
Limited Warranty	2 Years
System Power*	
Rated solar capacity	455W
Power capability	50W 24/7, 300 watts for 2 to 4 hours, 480 watts maximum
Solar Array Open Circuit Voltage ( $V_{oc}$ )	64V
Solar Array Short Circuit Current ( $I_{sc}$ )	9.1A
Solar Array Output Voltage ( $V_{mp}$ )	52V
Solar Array Output Current ( $I_{mp}$ )	8.8A
Solar Array Maximum Voltage	600V DC
Charge Controller DC Power Input (per controller)	140W
Charge Controller DC Power Output (per controller)	150W (continuous) / 240W (peak); 3A M8 and 6A M12 output ports; 12-16.7V or 22-33.4V DC output options on both
Inverter Input	12-17V DC (10A max)
Inverter Output**	(1) 125W / 120V AC / 60Hz pure sine wave with U.S. 3-prong outlet (2) 5V / 1A USB ports
System Dimensions	
Storage volume	5.0 ft <sup>3</sup>
Transport case outside dimensions (LxWxH)	47.0" x 17.0" x 10.8"
Total Weight	80 lbs. (not including batteries)
Max Deployed Footprint @ 30° Deployed Angle	39.9 ft <sup>2</sup>
Solar Fixed Deployment Angles	0° , 35° (other fixed angles built on request)
Environmental Resistance	
Water and dust protection	IP67
Operating Temp. with Solar Loading	-20°C to 60°C
Storage Temp. Limits (In Hard Case)	-32°C to 71°C
Wind Load Limit From Any Direction	80 KPH
48" Drop and Loose Cargo Tests per MIL-STD 810G	PASS

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

\*\*Option: 220V/50Hz

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