

## SolStar I-20 Foldable Solar Charger Data Sheet

**Congratulations on your purchase of the SolStar™ I-20 folding solar power charger for use with Thrane & Thrane 100/110. The SolStar I-20 features the most advanced thin-film, solar cell technology available. The patented, copper-based materials used to make the I-20 solar cells provide some of the highest solar-electric efficiencies ever attained.**

**SolStar Energy is proud to be the market leader in providing mobile energy devices to discriminating customers who require the most advanced, lightweight, portable power wherever their work or adventures take them, anywhere on the planet!**

### Description

The SolStar I-20 Foldable Solar Charger provides 20-Watt power. This solar charger is lightweight and can easily fit into a backpack or carrying case. This product is ideal for WorldPro 1000 BGAN users who require lightweight portable power.

### Important Notes

*Please read the following information and instructions prior to using your SolStar I-20 Foldable Charger.*

*Although SolStar maybe used to power other electronic devices, the SolStar I-20 has been optimized to power the Thrane & Thrane 100/110. Other electronic devices may be charged at consumer's own risk.*

**ALWAYS FOLD THE PRODUCT WITH THE SOLAR  
PANEL PHOTOVOLTAIC SIDE FACING OUT!**



### Dimensions and Weight

Folded: 10.5" (26.7cm) x 6.5" (16.5cm) x 0.6" (1.5cm)  
Unfolded: 30" (76.2cm) x 30.5" (77.5cm) x 0.06" (0.15cm)  
Weight: .9 lb (.43kg)  
Max Power to Weight Ratio: 21 watt/lb (47 watt/kg)

### Electrical & Thermal Specifications

#### Electrical Characteristics

Nominal Operating Voltage 15.4V  
Nominal Rated Current 1.2-amps  
Typical Power at STC\* 20-watts

#### Thermal Characteristics

Operating Voltage +/-10%  
Operating Current +/-10%  
Cell Temperature Operating Range -40°F to 176°F / -40°C to 80°C

\*Data at Standard Test Conditions (STC)

STC: Irradiance level 1,000W / m<sup>2</sup>, spectrum AM 1.5 and cell temperature 25°C

\*\*Cigarette Lighter Adapter (CLAs) typically operate best between 11V and 14.5V

### FAQs

#### ***If I have a problem with this product, whom do I contact?***

First, contact the company that sold you the product. Additional information is available at [www.solstarenergy.com](http://www.solstarenergy.com).

#### ***How do I know if it is working?***

Your WorldPro 1000 terminal will indicate that charging is occurring.

#### ***Will this product drain my battery at night?***

No. It has a reverse diode in the module to prevent battery discharge.

#### ***Can I leave it outside permanently?***

No. Although the SolStar I-20 Foldable Charger is weather resistant, it was not designed for continuous outdoor usage. Once your application is finished charging, wipe the product with a clean, dry cloth and allow the product to dry before folding for storage.

#### ***What if the product gets wet?***

No problem, just wipe it off and continue using it.

#### ***What if the product goes under water?***

Simply wipe the product with a dry cloth and allow the product to dry before use. Prolonged period in or underwater may result in corrosion in the electronics.

#### ***Can I leave it outside in freezing temperature?***

Yes. The SolStar I-20 can operate at temperatures down to -40°.

#### ***Can I use an extension cord?***

You can purchase the 15ft. extension cord accessory (EXT-15). Total cord length greater than 30 feet likely will result in reduced power output.

#### ***How do I clean the product?***

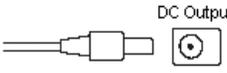
Use a damp cloth with a mild soap solution.

#### ***Where can I get more product information?***

Contact the company that sold you the product. Additional information can be found online at [www.solstarenergy.com](http://www.solstarenergy.com).

## I-20 Quick Connect Guide

### Connect the SolStar I-20 Solar Charger to Thrane & Thrane 100/110

 <p>Connect the barrel plug side of the male CLA (cigarette lighter adapter) to the Thrane &amp; Thrane 100/110 DC output.</p>	<p>Connect the male CLA plug side into the female CLA.</p>  <p>Then connect the other side of the female CLA into the SolStar I-20 solar charger.</p>	 <p>Orient SolStar I-20 Solar Charger directly towards the sun for optimal charging.</p>	<p>The WorldPro 1000 BGAN terminal will automatically be powered on and start charging once connected to the I-20 solar charger.</p>
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### Folding Instructions for the SolStar I-20 Solar Charger

 <p>Fold one side of the charger down the hinge-fold, active solar cells to the inside.</p>	 <p>Fold other side of the charger down the second hinge-fold, active solar cells to the inside.</p>	 <p>Starting at the end away from the cable, fold the charger along its hinge-folds.</p>
 <p>Then wrap the flap around until both the hook and loop sides of the Velcro are lined up.</p>	 <p>Lastly, press the Velcro together to secure the fold unit.</p>	

#### **SolStar™ Limited Warranty**

This SolStar™ I-20 Folding Solar Power Panel carries a one (1) year limited warranty against defects in workmanship and materials affecting performance. SolStar agrees to replace the defective product free of charge, within the stated warranty period, when returned by the original purchaser with proof of purchase. This product is not guaranteed against wear or breakage due to misuse and/or abuse. In addition, any units that show signs of creasing or folding on the active photovoltaic areas are not covered under this warranty.

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