

## ACCREDITED SOLUTION

EXPLORER<sup>®</sup> – UnatSolar P3 Portable Power Packs



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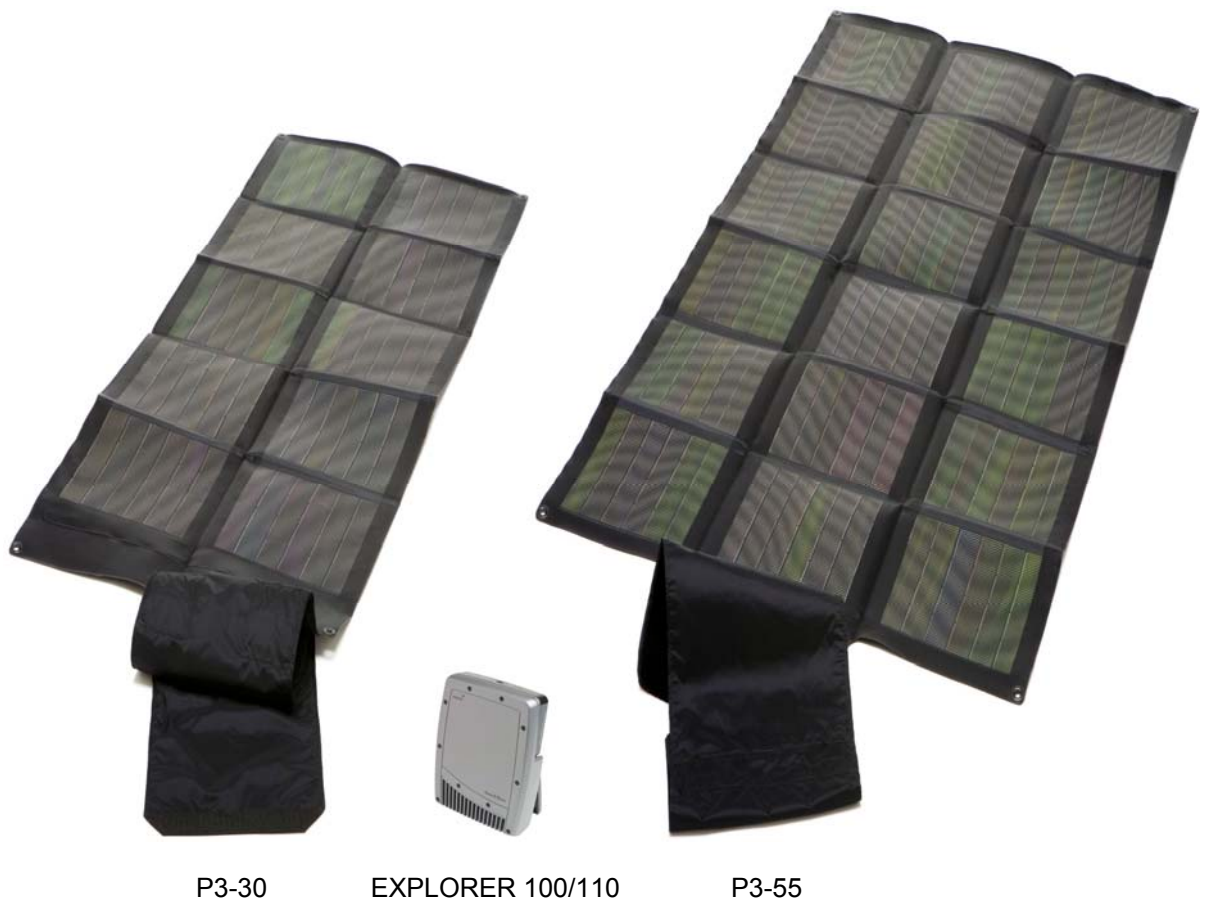
Introduction: This document describes the portable power packs from UnatSolar as a power source to the Thrane & Thrane EXPLORER 100/110 (WorldPro 1000 series) terminals.

Typical Users:

- ▶ Aid
- ▶ Expeditions
- ▶ Government and military
- ▶ Emergency Response / Disaster Relief

Product Description: Incorporating solid state, thin-film, PowerFLEX™ solar cells the UnatSolar foldable power packs is a flexible, lightweight, rugged and reliable source of power in remote areas, with limited or no power service.

The two UnatSolar products tested are the P3-30 (30 Watt) and P3-55 (55 Watt) Power Packs.



Included as standard:

- ▶ DC cable with a female car-plug connector (connects the Power Pack to the DC/DC adapter).
- ▶ 0,45 ft/ 14 cm SAE plug to 2.5 mm barrel connector.
- ▶ DC cable with male adapter.
- ▶ Battery clamps.
- ▶ 8 ft / 2,4 m extension cable.



Features:

- ▶ Read the UnatSolar product documentation for more information.
- ▶ The P3-30 and P3-55 comes in three different colors, Black, Desert Camo Tan and Woodland Camo Green.

Product specifications:

	P3-30	P3-55
Nominal Rated Power @ STC	30 Watt	55 Watt
Nominal Voltage Rating	12 Volt	16 Volt
Nominal Rated Current	1.5 Amps	2.8 Amps
Size (Folded)	10.5 x 8.5 x 1.2 in 257 x 216 x 30.5 mm	11 x 9 x 1.3 in 280 x 230 x 33 mm
Size (Deployed)	44 x 21 x 0.1 in 1118 x 533 x 2.5 mm	55 x 32 x 0.1 in 1400 x 815 x 2.5 mm
Weight	2.4 lb 1.1 kg	3.7 lb 1.7 kg
Power to Wight ratio	12.5 Watt/lb 27.5 Watt/kg	14.9 Watt/lb 32.4 Watt/kg
Cell Temp. Operating Range	-40° F to 176° F -40° C to 80° C	-40° F to 176° F -40° C to 80° C

More product info:

P3-30: [http://www.unatsolar.eu/images/UNATSOLAR-p3\\_30Specs.pdf](http://www.unatsolar.eu/images/UNATSOLAR-p3_30Specs.pdf)

P3-55: [http://www.unatsolar.eu/images/UNATSOLAR-P3\\_55\\_Spec.pdf](http://www.unatsolar.eu/images/UNATSOLAR-P3_55_Spec.pdf)

Maintenance:

- ▶ Make sure that there is no dirt or moisture inside the connector.
- ▶ When disconnecting a device from the panel, do not pull on the cable; always hold onto the connector.
- ▶ Keep the front of the panel clean. Do not expose to sharp objects. The panel can be cleaned with a wet cloth and a mild soap solution when necessary.

You can preserve power by following below guidelines:

- ▶ Point the EXPLORER terminal carefully to obtain best possible signal strength.
- ▶ Switch OFF the EXPLORER terminal when not used for more than 30 min.

To use the solar panels a DC/DC adapter needs to be inserted between the terminal and the UnatSolar Power Pack.

The Thrane & Thrane DC/DC adapter Article code 102228 is the only adapter needed between the Power Pack and the EXPLORER 100/110 (WorldPro 1000/1010) terminal. The adapter has a LED showing when the input power is high enough to generate 12 volt output.

DC/DC adapter specifications:

Input Voltage	10 to 32 VDC
Output Voltage	12 VDC +/-5%
Max. load	30 Watt
Connector	Car-plug for 21 & 12 mm
Protection	Overheat/Overload/short circuit
Total Cable Length	11.5 ft (3.5 m)



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Tested on products:

EXPLORER 100 / WorldPro 1000 Software version: 2.8.5  
EXPLORER 110 / WorldPro 1010 Software version: 2.8.5

Note:

The EXPLORER battery must be inserted before connecting the solar panel and DC/DC adapter. Remember to order the DC/DC adapter article code 102228. The terminals must be switched ON to charge the battery. If the EXPLORER battery is completely discharged, it is recommended to charge the terminals for some time before pointing towards the satellite.

Tested:

In direct sunlight the charge time is approx. 4 hours, when the system is registered on the network and the handset is connected.  
Charge time is 3 hrs. if the system is only charging.  
EXPLORER 100/110 powers on automatically when external power is connected.

Information in this document is subject to change without notice and does not represent a commitment on the part of Thrane & Thrane A/S.  
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