

xantrex™ SOLAR MAX

DATASHEET



AVAILABLE IN:

80W
165W
220W

NO DRILLING, PEEL & STICK FLEXIBLE PANELS

The Xantrex Solar Max 80W, 165W, and 220W flex kits, feature solar panels with a mesh grid-technology that provides superior durability and performance benefits. With approximately 2000 points of contact per cell, this mesh grid-technology allows the panel to flex up to 180 degrees, without impacting power output. Subjected to extreme environmental and accelerated lifecycle testing beyond regulatory standards, the Max panel was tested to be 50 times more durable than a standard flexible panel. Also designed with a highly protective top-layer called ETFE (Ethylene-Tetra-Fluoro-Ethylene), this allows for better light transmittance, corrosion resistance, stain-resistance, weather resistance, and overall superior durability over a wide temperature range, compared to non-ETFE semi-flexible panels. In addition, the Max panel can harvest up to 20% more energy during the day in low light or shaded conditions compared to a standard solar panel.

The Max panels also feature a peel-and-stick adhesive backing that removes the need to glue or drill your flexible panel. The Max kits include a 30A charge controller and system hardware that is designed for a fast & easy installation, including PV cables & battery cables with a built-in fuse and ring terminals and built-in ferrule terminations for quick connections to the charge controller. Easily customize and extend your solar system using our expansion kits.

UP TO
180°
OF FLEXIBILITY

OVER
50x
MORE DURABLE*

UP TO
20%
MORE ENERGY HARVESTING**

MESH
GRID
TECHNOLOGY

2000
POINTS OF CONTACT PER CELL

*Results compared to a standard flexible panel with busbar technology

**During low light and shaded conditions

APPLICATIONS:



5 YEAR
WARRANTY*

*WARRANTY ON PANEL CONSTRUCTION

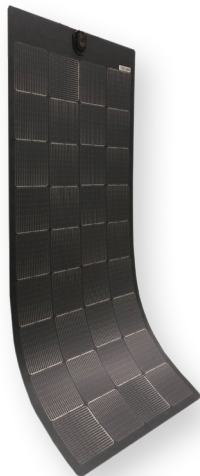
www.xantrex.com
CUSTOMER CARE: 1.800.670.0707

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WHAT'S INCLUDED



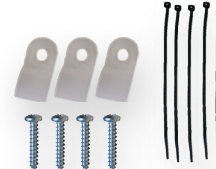
80W PANEL



165W/220W PANEL

PV CABLES
READY TO USE
'PLUG & PLAY'BATTERY CABLES
READY TO USE
'PLUG & PLAY'

30A CHARGE CONTROLLER



CABLE TIES AND CLAMPS

MC4-TYPE CONNECTOR



80W, 165W & 220W XANTREX SOLAR MAX FLEX KIT

EXPAND YOUR SOLAR KIT

of panels that can be
wired in only parallel per
30A charge controller:

80W Panels:

5

165W Panels:

2

220W Panels:

2

CONTENTS

Solar Panel

- a 80W, 165W or 220W solar panel featuring the new state-of-the-art mesh grid technology, which significantly increases durability and performance over standard flex panels.

Charge Controller

- A 30A Pulse-Width Modulation (PWM) flush-mounted charge controller is provided to charge and protect your batteries. Featuring an LCD screen, multi-stage battery charging, charging protections, two USB ports and real-time system indicators.

PV and Battery Cables

- Weather resistant and certified cables are provided to connect the solar panel to the charge controller and from the charge controller to the battery. The PV cables and battery cables, with a built-in fuse and ring terminals, built-in ferrule terminations for quick connections to the charge controller.

Expansion Kits

- Includes solar panel and a pair of male and female branch connectors to connect solar panels in parallel.

EXPANSION KITS

EXPAND YOUR SOLAR KIT



80W, 165W OR 220W PANEL



CABLE TIES AND CLAMPS



BRANCH CONNECTOR

RECOMMENDED POWER SOLUTIONS

COMPLETE YOUR ELECTRICAL SYSTEM

FREEDOM XC
INVERTER/CHARGERFREEDOM SW
INVERTER/CHARGER

ELECTRICAL DATA

PANEL TYPE	80W	165W	220W
Maximum power-Pmax (W) at STC*	80	165	220
Maximum power voltage-Vmp (V)	18.9	19.3	25.8
Maximum power current-Imp (A)	4.23	8.54	8.54
Open circuit voltage-Voc (V)	23.0	23.3	31.0
Short-circuit current-Isc (A)	4.36	8.81	8.81
Module efficiency μm (%)	18.2	18.76	18.8
Maximum system voltage	$\leq 30\text{VDC}$	600VDC	600VDC

*Standard Test Conditions (STC): Irradiance: 1000W/m², Cell Temperature: 25°C, Air Mass: 1.5

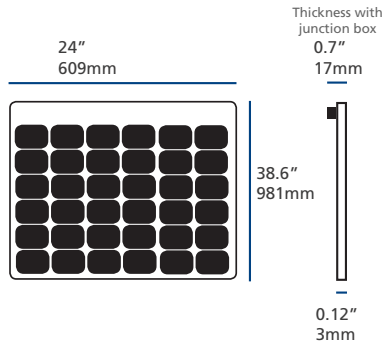
MECHANICAL DATA

PANEL TYPE	80W	165W	220W
Cell type	Mono-crystalline	Mono-crystalline	Mono-crystalline
Top layer protection	ETFE	ETFE	ETFE
Junction box	IP68 rated	IP68 rated	IP68 rated
Connector	MC4 - type	MC4 - type	MC4 - type
Number of cells	36 (6 x 6)	36 (4 x 9)	48 (4 x 12)
Weight	4.6lbs (2.1kg)	10.2lbs (4.62kg)	10.8lbs (4.9kg)
Dimensions	24in x 38.6in x 0.12in (0.71in thick at junction box) 609mm x 981mm x 3mm (17mm thick at junction box)	61.3in x 27.1in x 0.12in (0.71in thick at junction box) 1556mm x 689mm x 3mm (18mm thick at junction box)	79.9in x 26.9in x 0.12in (0.71in thick at junction box) 2029mm x 683mm x 3mm (18mm thick at junction box)
Charge controller dimensions	7.3in x 4in x 2.4in 181mm x 100.9mm x 59.8mm	7.3in x 4in x 2.4in 181mm x 100.9mm x 59.8mm	7.3in x 4in x 2.4in 181mm x 100.9mm x 59.8mm

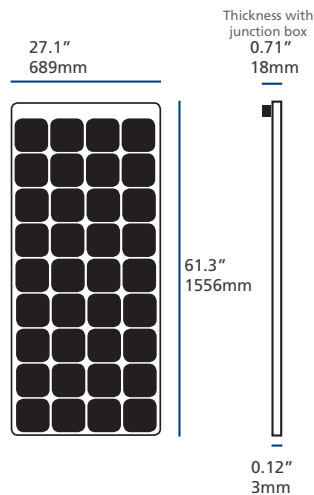
TEMPERATURE DATA

PANEL TYPE	80W	165W	220W
Operating temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Temperature coefficients of Pmax	-0.42%/°C	-0.42%/°C	-0.42%/°C
Temperature coefficients of Voc	-0.33%/°C	-0.33%/°C	-0.33%/°C
Temperature coefficients of Isc	0.05%/°C	0.05%/°C	0.05%/°C

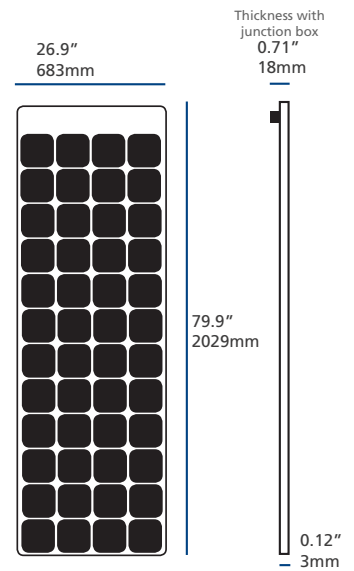
80W DIMENSIONS



165W DIMENSIONS



220W DIMENSIONS



SOLAR KITS

Mfg Part #	Description
784-0080-01	80W Xantrex Solar Max Flex Kit
784-0165-01	165W Xantrex Solar Max Flex Kit
784-0220-01	220W Xantrex Solar Max Flex Kit

EXPANSION KITS

Mfg Part #	Description
784-0080-02	80W Xantrex Solar Max Exp Kit
784-0165-02	165W Xantrex Solar Max Exp Kit
794-0220-02	220W Xantrex Solar Max Exp Kit

ACCESSORIES

Mfg Part #	Description
C12	C Series PWM 12A
C35	C Series PWM 35A
C40	C Series PWM 40A
C60	C Series PWM 60A
708-0030	PV Extension Cables (15')
708-0040	PV Single Connector (1 Pair)
708-0050	PV Branch Connector (1 Pair)
708-0060	PV Connector Assembly Tool
708-0080	Remote Battery Temperature Sensor
708-0090	Roof Entry Cable Plate
708-0100	PV Connector-to-SAE PV Adapter Cable (2')

UPC CODES

80W SOLAR MAX KIT	165W SOLAR MAX KIT	220W SOLAR MAX KIT
		
7 15535 90454 8	7 15535 90459 3	7 15535 90492 0
80W EXPANSION KIT	165W EXPANSION KIT	220W EXPANSION KIT
		
7 15535 90463 0	7 15535 90467 8	7 15535 90496 8

SHIPPING INFO

Mfg Part #	Estimated Weight (Kg)	Unit Dimensions (mm)	Master Carton Dimensions	Units in Pallet
784-0080-01	6.2	115 x 840 x 1020	No Master Carton	20
784-0080-02	3.8	115 x 840 x 1020	No Master Carton	20
784-0165-01	7.9	115 x 730 x 1790	No Master Carton	10
784-0165-02	5.5	115 x 730 x 1790	No Master Carton	10
784-0220-01	8.2	115 x 730 x 2290	No Master Carton	10
784-0220-02	5.8	115 x 730 x 2290	No Master Carton	10

CONTACT

CUSTOMER SERVICE

1.800.670.0707
 customerservice@xantrex.com
 Hours of operation:
 6:30am - 4:30pm PST, Monday to Friday



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