

WhisperPower Solar Panels

For cases when energy consumption is limited, purchasing and installing solar panels can be a good solution for providing onboard electrical power. The actual yield is determined by the type of panel, its dimensions, the geographical location of the boat and the position of the panel in relation to the sun.

In general, solar panels are used as the power source for basic power requirements and maintenance of the battery. If a shore power connection is not available, the solar panels act as the means to keeping the battery under voltage. The yield of the panels is specified in Watts-peak. This is the maximum power and not a constant output. Visit: re.jrc.ec.europa.eu/pvgis/apps4/pvest.php to calculate the yield of a panel.

We only use industrial grade cells guaranteeing long life and high efficiency

For a complete system, WhisperPower delivers the following solar panels



Flexible panels with walkable top layer from 50 to 100 Wp

- For fixed mounting (sealant) on deck or dockhouse
- Or mounting on railing or rigging (fixing eyes)
- No rear ventilation necessary
- Panels can be walked on



Rigid panels with glass top layer

- Monocrystalline or polycrystalline technology
- For fixed mounting in a frame
- 80, 130 and 285 Wp models
- Rear ventilation required
- Cannot be walked on



Solar charge controller (page 84)

- To position between panel and battery
- SunTrack regulators with and without MPPT technology
- MPPT= Maximum Power Point Tracking converting extra voltage in to charge current. Increases system efficiency by approximately 30%
- Three step charge process from 15 Amps so suitable for AGM and GEL batteries
- SunTrack 65 and 80 Amp models also suitable for Lithium-ion batteries

Mounting Assistance

- Cable sets from battery to panel
- Mounting kit
- Fixing brackets for mounting on roof



Semi-Flexible Panel

WhisperSolar Flex 50 & 100 Watt

Monocrystalline modules with thin, light weight and compact cells. Panel can be bent with a maximum radius of 10 cm. These panels are designed for marine applications and are therefore, wind, water and corrosion resistant. Ideal for charging an onboard 12 or 24 V battery. The cells are made by Bosch (Germany). Both panels are supplied with a single-stage regulator. When used for charging AGM or GEL batteries, we recommend installing a multi-stage regulator. The WhisperSolar Flex panels are fitted with fixing eyes for attachment to rails, stays etc.

Whisper Solar panels for fixed mounting

The non-flexible panels for permanent installation are extensively used in homes and buildings. The price per watt / peak is much more favourable than the specialist "walk on" panels such as the Flex 50 and 100 watts. The range is made in collaboration with a Dutch wholesaler and the product range is of very high-quality and meets the highest standards.

General features solar panels

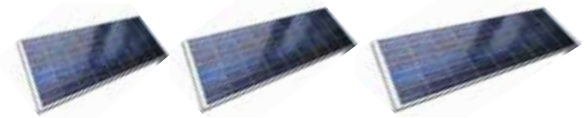
- Quality panels from European, Chinese or Taiwanese manufacturers
- Power ranges: 80, 130 Wp, 285 WP
- Available in: All Black monocrystalline or blue polycrystalline panels
- The panels conform to important standards such as VDE and MCS, and can withstand salt air

Technical specifications Whisper Solar panels



	50 WATT PANEL	100 WATT PANEL
Article Nr.	60110403	60110407
TECHNICAL SPECIFICATIONS		
Model name	WhisperSolar Flex 50	WhisperSolar Flex 100
Power rating	50 Wp, 2.8A	100 Wp, 5.6A
Nominal voltage	12 VDC	12 VDC
Cell Type	Monocrystalline	Monocrystalline
Maximum voltage	17.8 VDC	17.8 VDC
Temperature range	from -20 to 80 °C	from -20 to 80 °C
Dimensions l x w	76 x 53 cm	109 x 57 cm
Weight		
Maximum bend radius	10 cm	10 cm
Cable length		
Module thickness	1.7 cm	1.7 cm
Life span	> 10 years	> 10 years
Warranty	2 years	2 years
Voltage regulator	1 step regulator (as standard), 3 steps available (optional)	

Datasheets available



	80 WATT PANEL	130 WATT PANEL	285 WATT PANEL
Article Nr.	60110400	60110401	60110408
TECHNICAL SPECIFICATIONS			
Model name	Whisper Solar 80	Whisper Solar 130	JA Solar
Power rating	80 WP	130 WP	285 WP
Voltage	12 VDC	12 VDC	24 VDC
Maximum voltage	22 - 32 VDC	21.5 VDC	39.07 VDC
Cell Type	Monocrystalline	Monocrystalline	Monocrystalline
Short circuit current	4.44 A	7.75 A	9.39 A
Temperature range	from -40 to 85 °C	from -40 to 85 °C	from -40 to 85 °C
Dimensions l x w	1000 x 510 mm	1264 x 664 mm	1650 x 991 mm
Weight	8 kg	11,1 kg	18.2 kg
Panel thickness	35 mm	35 mm	40 mm
Connection	Box on panel	Box on panel	Box on panel
Cable Ø	3 mm	3 mm	4 mm
Life span	> 20 years	> 20 years	> 20 years
Voltage regulator (optional)	Suntrack PWM	Suntrack PWM	Suntrack MPPT



WhisperPower charge regulators

SunTrack, the WhisperPower Solar Charge Controller, forms an important link between the solar panel(s) and the battery(s). The SunTrack controllers ensure maximum efficiency and a safe charge voltage for the battery. There is a choice of a number of power outputs and two types of technology:

SunTrack PWM

The SunTrack PWM controller is the “cost effective”, entry level controller with 1 or 3 stage charge characteristics. The controller

ensures that the irregular voltage from the panel is converted into a stable charge voltage. In general, this is used for systems with 1 panel.



► PWM Suntrack20

	PWM SUNTRACK 10	PWM SUNTRACK 20
Article Nr.	60110409	60110411
DC INPUT		
Max. PV Voltage	26 V	26 V
Max. PV Current	10 A	20 A
Voltage across PV & Battery	<0.15 V	
DC OUTPUT BATTERY		
Battery Rating	12 V	
Battery Type	Sealed/Flooded	
Max. Charge Current	10 A	20 A
Charge Voltage Range	14.2 - 14.6 V	
Float Voltage Range	13.4 - 13.8 V	
Parasitic Current	<10 mA	<15 mA
DC OUTPUT (LOAD)		
Load Current (continuous)	10 A	20 A
PROTECTION		
PV Reverse Polarity	Protected	
Battery Overcharge	Yes	
Load Over-Discharge Voltage	<11.5 V	
Load Reconnected Voltage	12.6 V	
Built-in Temperature Sensor	Yes, temperature compensation on charging voltage	
INDICATOR		
Indicators	Charging/Load Disconnect LED Indicator	
ENCLOSURE		
Input/Output Connection	Heavy duty terminals	
Weight	0.2 kg	0.2 kg
Dimensions	100mm x 100mm x 33mm	

SunTrack PWM controllers

- Suitable for every type of battery: GEL, AGM or open lead
- Plug and play connectors for panel, battery and 12 V load
- Automatic shut down if battery voltage (too) low
- Can feed up to 20 amps/ 450 Watts solar power to the batteries
- Temperature compensation as standard
- LEDs battery indicator and load status

SunTrack MPPT controllers

- Professional controller based on advanced MPPT technology
- Suitable for systems from 16 to 600 Volts DC, depending on type
- For charging 12,24 or 48 VDC
- 3.5kW to 7kW capacity, can be increased when used in parallel
- 98% efficiency with very low zero load (from 1 Watt)
- Controller can be connected to the WhisperPower central control panel: WhisperPower PSCP, combined with generator, RCC or WhisperTouch 5 or 7 inch panel



▲ WP Suntrack 50

Suntrack MPPT

The SunTrack MPPT controller (MPP stands for Maximum Power Point Tracker) works to get the most out of the sun panels by converting the majority of the yield in to battery power. Several high frequency panels (up to

600 VDC) can be connected to these controllers creating a powerful generator with maximum efficiency. In general, this is used for systems with several panels, for example, on a catamaran.



◀ WP Suntrack 80



	WP SUNTRACK 50*			WP SUNTRACK 65			WP SUNTRACK 80**		
Article Nr.	60110413			60110420			60110421		
ELECTRICAL CHARACTERISTICS PV ARRAY SIDE									
Nominal battery voltage	12 V	24 V	48 V	12 V	24 V	48 V	12 V	24 V	48 V
Maximum Solar power (recommended)	720 W	1440 W	3200 W	1000 W	2000 W	4000 W	1250 W	2500 W	5000 W
Maximum Solar Open Circuit Voltage	140 VDC	140 VDC	140 VDC	80 VDC	150 VDC		80 VDC	150 VDC	
Maximum Solar operating voltage	120 VDC			75 VDC	145 VDC		75 VDC	145 VDC	
Minimum Solar operating circuit Voltage	above battery voltage								
ELECTRICAL CHARACTERISTICS BATTERY SIDE									
Maximum Output Current	50 A			65 A			80 A		
Nominal Battery Voltage	automatic / manual set to 12, 24 or 48 VDC								
Operating voltage range	above battery voltage, minimum 7 V								
PERFORMANCE OF THE DEVICE									
Power Conversion efficiency (in a 48 V typical-system)	>97.5%			>99%			>99%		
Maximum Stand-By Self-Consumption (48 V)				25 mA > 1.2 W					
Maximum Stand-By Self-Consumption (24 V)				30 mA > 0.8 W					
Maximum Stand-By Self-Consumption (12 V)				35 mA > 0.5 W					
Charging stages	6 stages: Bulk, Absorption, Float, Equalization								
Battery temperature compensation	-3mV / °C / cell (25°C ref) default value adjustable -8 to 0 mV / °C								
ELECTRONIC PROTECTIONS									
PV reverse polarity	Yes						up to -150 VDC		
Battery reverse polarity	Yes						up to -150 VDC		
Battery overvoltage	Yes						up to -150 VDC		
Over temperature	Yes						Protected		
Reverse current at night	Yes						Prevented by relays		
ENVIRONMENT									
Operating Ambient Temperature Range	-20 to 45°C						-20 to 55°C		
Humidity	tot 96%						100%		
Ingress Protection of enclosures	IP20						IP54, IEC/EN 60529:2001		
Mounting location	interior						interior		
GENERAL DATA									
Warranty	2 years			5 years			5 years		
Weight	2.3 kg			5.2 kg			5.5 kg		
Dimensions h x w x l (mm)	210x203x70mm			120x220x310mm			120x220x350mm		
Parallel operation (separated PV arrays)	nee						up to 15 devices		
Max wire size	25 mm ²						35 mm ²		
Glands	-						M20 x 1,5		
COMMUNICATIONS									
Network Cabling	RS485						Stude communication bus		
Remote Display and Controller	-						RCC-02 or WP-Touch		
Menu languages	English						English/French/German/Spanish		
Data Logging	-						With RCC-02/03 and SD card		
CONFORMITY									
CE compliant	EMC 2004/108/CE LV 2006/95/CE RoHS 2002/95/CE								
Safety	IEC/EN 62109-1:2010								
EMC (Electro Magnetic Compatibility)	IEC/EN 61000-6-3:2011 IEC/EN 61000-6-1:2005								

* available mid 2016 ** also available as WPSuntrack,600 VDC, 3.5kW or 600 VDC, 7kW