



SOLAR POWER WHERE I NEED IT



**KÖNIG
KUNDE**
AWARD 2019

1. PLATZ
IN DER
ZUBEHÖR-KATEGORIE
SOLARANLAGE

**REISE
MOBIL**
INTERNATIONAL
Europas kompetente
Fachzeitschrift

**KÖNIG
KUNDE**
AWARD 2021

2. PLATZ
IN DER
ZUBEHÖR-KATEGORIE
SOLARANLAGE

**REISE
MOBIL**
INTERNATIONAL
Europas kompetente
Fachzeitschrift

SOLARA – always the right choice!



SOLARA®

THE GREAT FREEDOM

The most beautiful spots on earth have no socket. With SOLARA you can still enjoy your vacation wherever you like it. Solar power gives you the freedom you dreamed of once you bought your camper or yacht.

FOR TECHNICAL EQUIPMENT WITHOUT POWER SUPPLY

Whether radio mast, navigation marks or a hospital at the end of the world. Electricity is needed everywhere. Professional solar systems from SOLARA can provide reliable energy.

PROVEN QUALITY SINCE 1996

Anyone who has successfully produced solar technology for so long has probably done everything right. Our customers are satisfied because we supply long-lasting and reliable solar systems. Only the latest technologies and materials being used to make our products more productive.

PREMIUM QUALITY - MADE IN GERMANY

All SOLARA solar panels are produced in Germany. Only then short and CO₂ reduced delivery are possible. Product innovations can be implemented easily and quickly. German engineering guarantees consistently high quality.

WE LOVE PHOTOVOLTAICS

SOLARA are Engineers with long experience and great passion for solar technology. Hamburg business people, whom have the pleasure to deliver solar systems reliably and safely anywhere in the world.



SOLAR TECHNOLOGY IN TESTED QUALITY

More and more customers are demanding a priced alternative in classic quality. SOLARA has the DCsolar solar modules produced in Asia well and cheaply.

“EVEN IN THE ECONOMY CLASS YOU CAN HAVE A GOOD AND SAFE FLIGHT”

DCsolar solar modules are developed by SOLARA in Germany. Tested and certified manufacturing facilities in Asia produce DCsolar modules according to these specifications.

ATTRACTIVE ALL-IN-ONE KITS

DCsolar modules can be combined with all high-quality SOLARA mounting systems and charge controllers. The DCsolar all-in-one kits in SOLARA quality are very price attractive.

You have the choice: Premium quality Made in Germany or the classic stuff from Asia

PROVED

SOLARA®

QUALITY

PROVED

SOLARA®

SAFETY

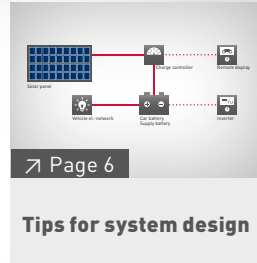
PROVED

DCsolar

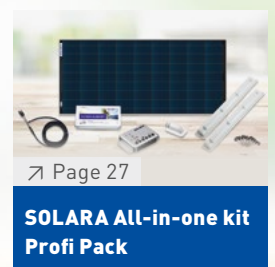
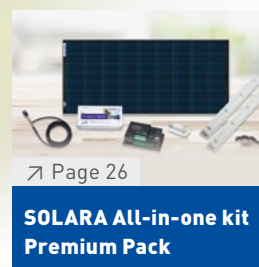
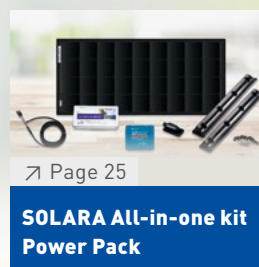
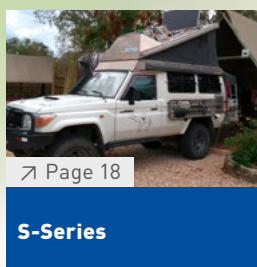
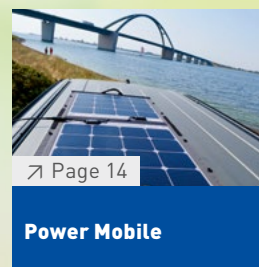
QUALITY

CONTENT

Solar systems tips



SOLARA solar panels & sets



Charge controllers & displays



Mounting systems & accessories



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**ABS-mounting
brackets**



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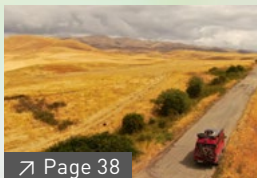
Roof grommets



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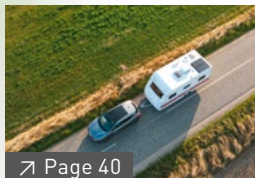
Accessories

DCsolar solar panels & sets



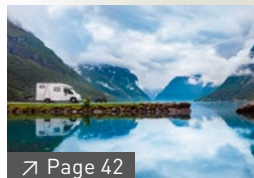
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**Strong energy
on the go**



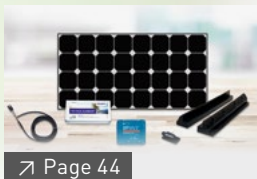
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Power E-Series



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EcoLux-Series



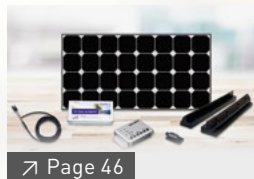
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**DCsolar All-in-one kit
Power MPPT**



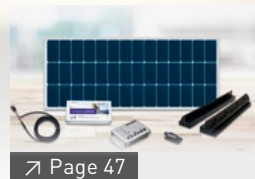
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**DCsolar All-in-one kit
Power EBL**



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**DCsolar All-in-one kit
Power PWM**



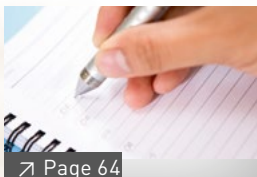
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**DCsolar All-in-one kit
EcoLux**



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Power Move



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My planning sheet

Independent power supply

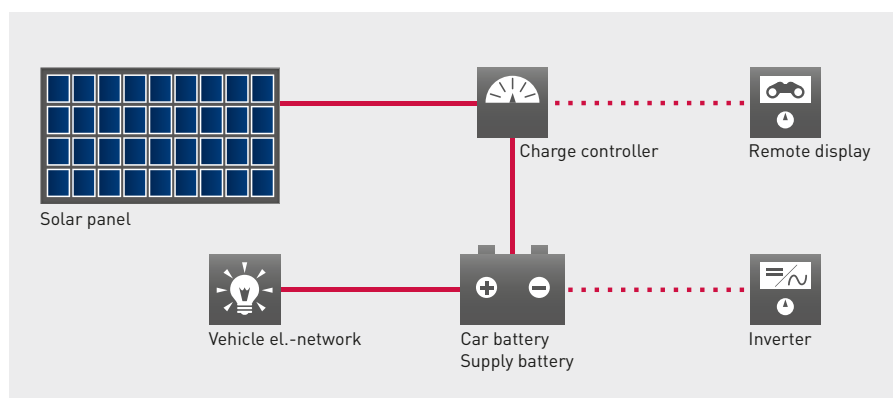
SOLAR PANELS FOR EVERY NEED

Reliability is also a decisive criterion in the small performance range. Whether camper or boat, mountain hut or measuring station, often even a small solar system is enough to ensure a power supply, even without complicated inverters.

On the following pages you will find a variety of complete solutions for almost every requirement. The advantage of solar systems by SOLARA are their quick setup, because all parts of the system are optimally adapted and plug & play.

MAXIMUM FLEXIBILITY

In addition, all components form a solid basis for extensions. The modular design ensures maximum flexibility, additional components can be integrated at any time, retroactively and step-by-step, in line with any growing energy demand.



CALCULATE YOUR ENERGY REQUIREMENTS

To find out how big your solar system should be, you need to take a closer look at your consumers and their energy requirements. Depending on the number of devices, the power consumption of each device and the daily run-time. Furthermore, the number of people and the period of use during the year affect energy demand.

Now just simply sum up your consumption according to the table below - the result is your daily energy need. Depending on your consumption behaviour and the time of use over the year, then this consumption will be, more or less, covered by the solar system.



Device	Power Rating	Operation Time	Consumption
Radio	15 W	4 hours	60 Wh/day
Colour-TV	40 W	3 hours	120 Wh/day
Sat-Receiver	40 W	3 hours	120 Wh/day
Lamp	10 W	5 hours	50 Wh/day
Compressor fridge	50 W	6 hours	300 Wh/day
Mobile phone	5 W	2 hours	10 Wh/day
Tablet/Laptop	15 W	2 hours	30 Wh/day
Map plotter	15 W	6 hours	90 Wh/day
Autopilot	40 W	6 hours	240 Wh/day
Water maker	110 W	4 hours	440 Wh/day
Instrument display	10 W	6 hours	60 Wh/day
E-Bike	150 W	3 hours	450 Wh/day

How to find the right system size

MODULE IS NOT EQUAL A MODULE

In order to find out which panel size is the right one, it is advisable to take a closer look at the general conditions such as travel time, travel behaviour and vehicle size.

- To extend the service life, it is not always necessary to cover the entire consumption. Often, it is sufficient enough to compensate a part by the solar system.
- In the case of a main use during the summer season, a solar system delivers very good yields and can be chosen smaller.
- With only a few people on board, the energy consumption is usually lower and the solar power plant can be chosen smaller.



Solar system up to 110 W

- Ideal for camper vans and small RV's
- Mostly weekend tours during summer time
- Consumers: light, pump, radio, small compressor fridge

Product recommendation: Modules from the S-Series or M-Series

Solar system with 110 Wp (440 Wh/day)

- Ideal for small to medium size RV's
- Period of use: April to September
- Consumer: light, pump, radio, TV/SAT

Product recommendation: SOLARA or DCsolar complete sets, S-Series modules, Power Mobile, Power Mobile Plus

Solar system with 110 - 220 Wp (440-880 Wh/day)

- Ideal for medium to large RV's
- Period of use: all year round
- Consumers: light, pump, radio, TV/SAT, small compressor fridge

Product recommendation: SOLARA or DCsolar complete sets, S-Series modules

Solar system with more than 220 Wp (→ 880 Wh/day)

- Ideal for medium to large RV's
- Period of use: all year round
- Consumers: light, pump, radio, TV/SAT, compressor fridge, E-Bike charger

Product recommendation: SOLARA or DCsolar complete sets, S-Series modules



Solar system smaller than 25 W

- All boat sizes and types
- Trickle charge for the battery system
- Period of use: all year round

Product recommendation: Solara M-Series

Solar system with 30 - 80 W

- Sailboat, charter boat
- High consumption coverage
- Compressor fridge, radio, navigation, light, communication, tablet/PC
- Summer time, long-distance voyage, short-haul cruises

Product recommendation: Solara M-Series, Power M-Series, Power Mobile

Solar system with 80-150 W

- Sailboat, charter boat
- High consumption coverage
- Compressor fridge, radio, navigation, light, communication, tablet/PC
- Summer time, long-distance voyage, short-haul cruises

Product recommendation: Solara M-Series, Power M-Series, Power Mobile

Solar systems with 150 W and more

- Large sailboat, catamaran, large charter boat
- Almost complete consumption compensation
- Compressor fridge, radio, navigation, light, communication, tablet/PC
- April-September period, long-distance voyage, cruises with little to no harbour time

Product recommendation: Solara M-Series, Power M-Series, S-Series





Satisfied since 2001 with SOLARA solar modules

THOMAS K., CAMPER

„Since the first days of my life, I do holidays with this solar-powered family-camper-van. The solar modules have been installed by my parents on this van in the year 2001.

They are running now since 20 years and 350000 km all across Europe, trouble and maintenance-free. Doesn't matter if North Cape or Sicily, the solar panels always provided us reliable with energy and power.

Last year I took over this van from my parents and will now increase the solar array, because I need more energy. For sure, I will go again with SOLARA.“

SOLARA K-Series

System size	100 W
Suitable for	sail boats, caravans, RV's
Products	2 x Solara K-Series S200K with 50 Watt each 1 x Charge controller Solara SR130TL

➔ **More details on SOLARA charge controllers can be found on page29**



Long durability even under harsh conditions.



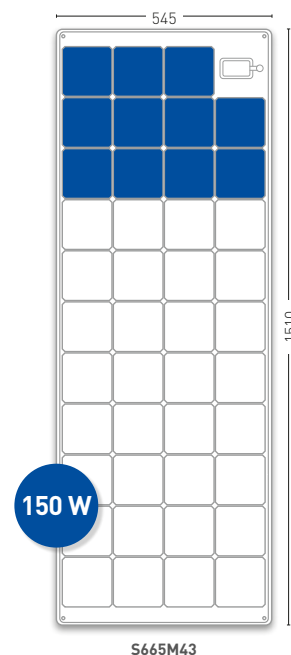
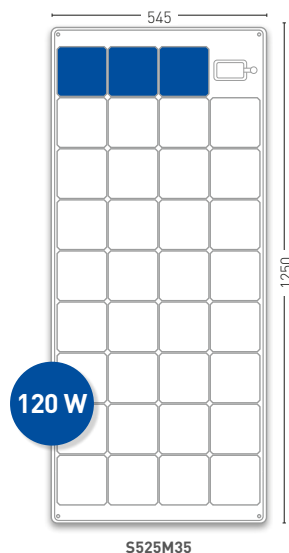
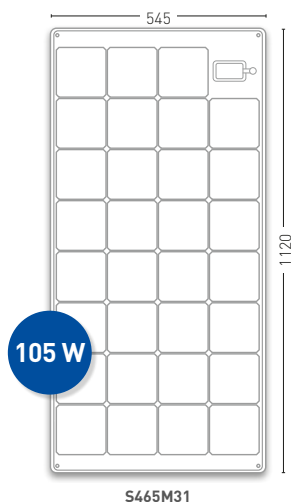
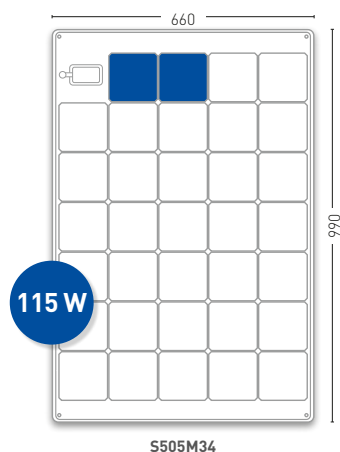
SOLARA Power M-Series

HIGHEST DAILY YIELDS BY SUNPOWER CELLS

- Solar cells with over 23 % efficiency
- Additional solar cells for efficient charging
- Highest yields in every season due to excellent low-light performance - even in diffused light
- Designed and manufactured for permanent use on water and on land
- All materials withstand extreme heat, high humidity, sea and salt water
- Cell protector with external protection diodes included
- Extremely flat module construction with aluminium sandwich support plate
- Flat, glued and screwed cable outlet with strain relief
- Fully walkable on firm ground
- Cable lead-through already prepared in the carrier plate
- Manufactured exclusively in Germany



SOLARA Power M-Serie



PERFORMANCE

Type	S505M34	S465M31	S525M35	S665M43
Daily output in summer in Germany (Ø) Wh/d	505	465	525	665
Rated output ¹ (P _{mpp}) Wp	115	105	120	150
Short-circuit current (I _{sc}) A	6.30	6.30	6.30	6,30
Open-circuit voltage (U _{oc}) V	24.22	21.69	24.73	31.06
Voltage(U _{mpp}) V	19.82	18.10	20.68	25.86
Current (I _{mp}) A	5.80	5.80	5.80	5.80
No. of cells	34	31	35	43

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions (L x W x H) mm	990 x 660 x 4	1120 x 545 x 4	1250 x 545 x 4	1510 x 545 x 4
Weight kg	4.2	3.6	4.4	5.2
Cell dimensions mm	125 x 125	125 x 125	125 x 125	125 x 125

Thermal properties

TK P _{mpp} %/K	-0.38
TK U _{oc} %/K	-0.28
TK I _{sc} %/K	0.057
NOCT °C	46 ± 2

Used materials

Cell technology	Sunpower, monocrystalline with back contact
Front/back	ETFE front and back side foil, welded at the edge
Cable outlet	Solid, flat, seawater tight, glued and screwed
Hotspot Protector (external)	Standard for all module types

More technical data

Reverse current IR loadability	12 A
Measuring accuracy P _{mpp} at STC	± 5 %
Operating temperature range	-40°C to +85°C



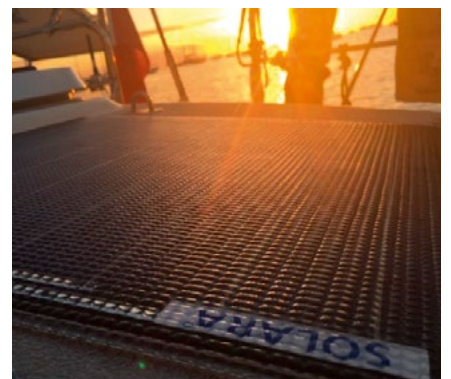


Extremely flat,
fully accessible
and semi-
flexible.

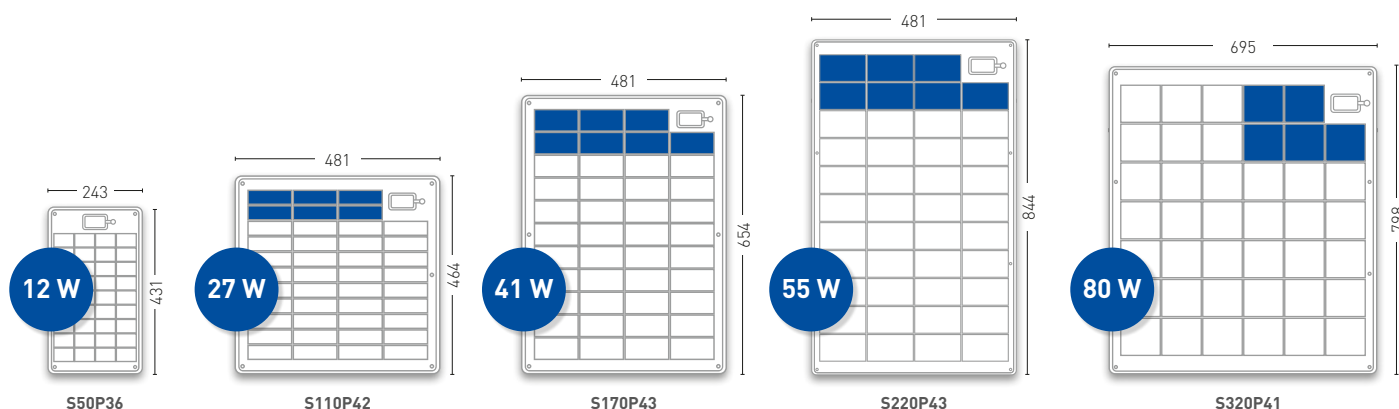
SOLARA M-Series

EXTREMELY FLAT, WALKABLE AND SEMI-FLEXIBLE

- Stability and maximum heat dissipation due to innovative aluminium-sandwich support plate
- Additional solar cells for efficient charging
- Maximum daily yield due to additional single cells
- All materials withstand extreme heat, high humidity, sea and salt water
- Teflon-type extremely resistant protective film on front and back
- Flat, glued and screwed cable outlet with strain relief
- Cell protector with external protection diodes included
- Cable lead-through already prepared in the carrier plate
- Manufactured exclusively in Germany



SOLARA M-Series



PERFORMANCE

Type	S50P36	S110P42	S170P43	S220P43	S320P41
Daily output in summer in Germany (Ø) Wh/d	50	110	170	220	320
Rated output ¹ (Pmpp) Wp	12	27	41	55	80
Short-circuit current (Isc) A	0.65	1.29	1.92	2.54	3.84
Open-circuit voltage (Uoc) V	22.72	26.50	27.13	27.13	25.87
Voltage (Ump) V	19.15	22.34	22.88	22.88	21.81
Current (Imp) A	0.61	1.22	1.81	2.40	3.62
No. of cells	36	42	43	43	41

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions (L x W x H) mm	431 x 243 x 4	464 x 481 x 4	654 x 481 x 4	844 x 481 x 4	798 x 695 x 4
Weight kg	0.9	1.7	2.2	2.8	3.7
Cell dimensions mm	52 x 35	104 x 35	104 x 52	104 x 69	104 x 104

Thermal properties

TK Pmpp %/K	-0.45
TK Uoc %/K	-0.36
TK Isc %/K	0.03
NOCT °C	46 ± 2

Used materials

Cell technology	Poly (multi) crystalline cells
Front/back	ETFE front and back side foil, welded at the edge
Cable outlet	Solid, small, flat, seawater-tight, glued and screwed
Hotspot protector (external)	Enclosed with S170P43, S220P43 and S320P41

More technical data

Reverse current IR loadability	12 A
Measuring accuracy Pmpp at STC	± 5 %
Operating temperature range	-40°C to +85°C





**Mobile and
flexible in every
situation!**

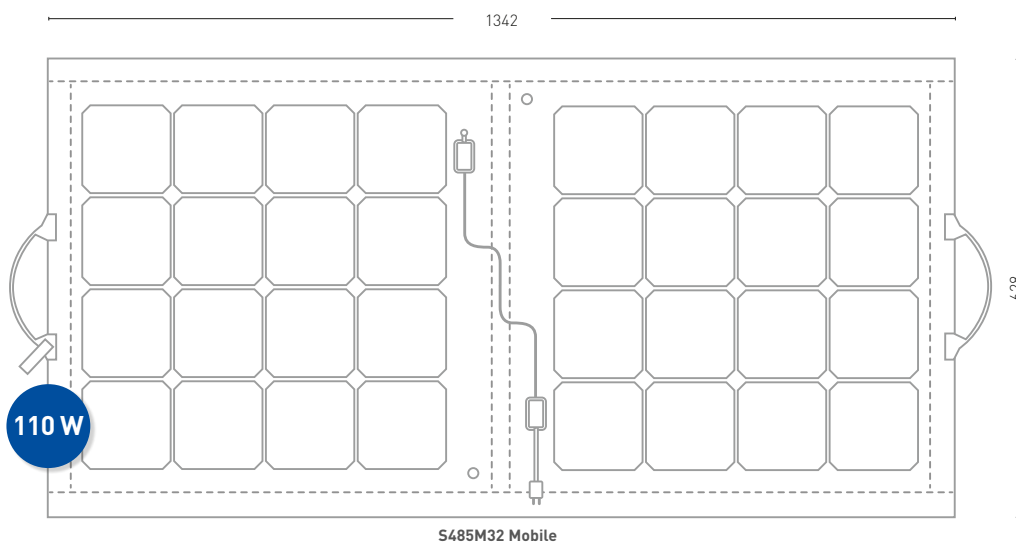
SOLARA Power Mobile

PLUG & PLAY WITH CABLE CHARGE CONTROLLER

- Flexible use thanks to innovative, fully encircling fabric bordure
- Eyelets, Loxx buttons, velcro or zipper can be retrofitted
- Space-saving stowage due to foldable module surface
- Effective battery charging even when the vehicle is in the shade
- Extremely high output by the use of Sunpower cells with 23 % efficiency
- All materials withstand extreme heat, high humidity, sea and salt water
- Manufactured exclusively in Germany



SOLARA Power Mobile



PERFORMANCE

Type	S485M32 Mobile
Daily output in summer in Germany (Ø) Wh/d	485
Rated output ¹ (Pmpp) Wp	110
Short-circuit current (Isc) A	6.30
Open-circuit voltage (Uoc) V	23.06
Voltage (Umpp) V	18.96
Current (Impp) A	5.80
No. of cells	32

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25 °C

Dimensions and weight

Dimensions opened (L x W x H) mm	1342 x 628 x 6
Dimensions folded (L x W x H) mm	685 x 628 x 25
Weight kg	4.9
Cell dimensions mm	125 x 125

Thermal properties

TK Pmpp %/K	-0.38
TK Uoc %/K	-0.28
TK Isc %/K	0.057
NOCT °C	46 ± 2

Used materials

Cell technology	Sunpower, monocrystalline with back contact
Front/back	ETFE front and back side foil, welded at the edge
Cable outlet	Solid, small, flat, seawater-tight, glued and screwed

More technical data

Reverse current IR loadability	12 A
Measuring accuracy Pmpp at STC	± 5 %
Operating temperature range	-40 °C to +85 °C

Scope of delivery: Cable charge controller Fox-062 6 A, Cable 5 m, SureSeal plugs pre-mounted (for connection to cable charge controller)

Options: Extension cable with SureSeal plugs 5 m, Eyelet set, Loxx buttons





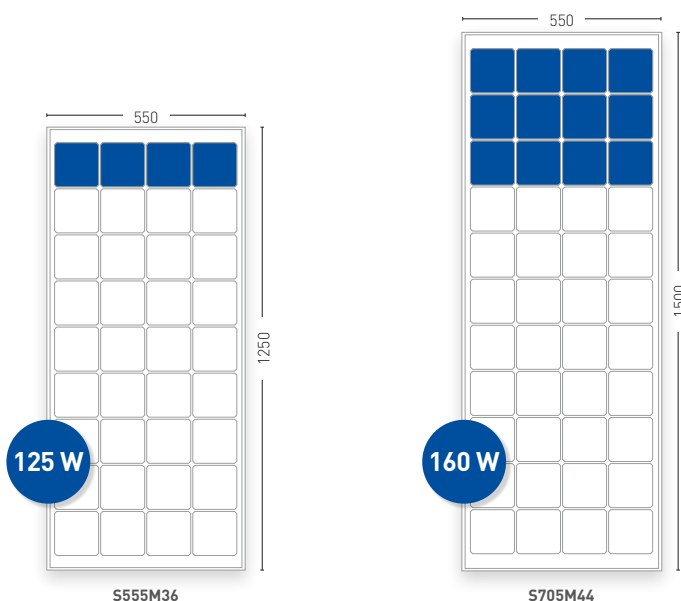
SOLARA Power S-Series

HIGHEST DAILY SUPPLY BY SUNPOWER CELL

- Increased number of cells for maximum daily yield
- Solar cells with over 23 % efficiency
- Additional solar cells for efficient charging
- Use of 2.0 mm thick, scratch-resistant, thermally tempered solar glass
- Excellent mechanical strength thanks to the torsion-resistant module frame
- Large, waterproof junction box with connection cable, MC4 compatible
- Specially designed for long-term use in extreme heat and high humidity
- Manufactured exclusively in Germany



SOLARA Power S-Series



PERFORMANCE

Type	S555M36	S705M44
Daily output in summer in Germany (Ø) Wh/d	555	705
Rated output ¹ (Pmpp) Wp	125	160
Short-circuit current (Isc) A	6.87	6.42
Open-circuit voltage (Uoc) V	24.68	31.05
Voltage (Umpp) V	19.08	26.65
Current (Impp) A	6.56	6.01
No. of cells	36	44

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions (L x W x H) mm	1250 x 550 x 35	1500 x 550 x 35
Weight kg	6.6	9.5
Cell dimensions mm	125 x 125	125 x 125

Thermal properties

TK Pmpp %/K	-0.38
TK Uoc %/K	-0.28
TK Isc %/K	0.057
NOCT °C	46 ± 2

Used materials

Cell technology	Sunpower, monocrystalline with back contact
Front/back	Tempered solar glass
Frame	Anodized aluminium hollow profile, silver
Junctionbox	IP67 with MC4 compatible connectors

More technical data

Reverse current IR loadability	12 A
Measuring accuracy Pmpp at STC	± 5 %
Operating temperature range	-40°C to +85°C
Glass thickness	2.0 mm





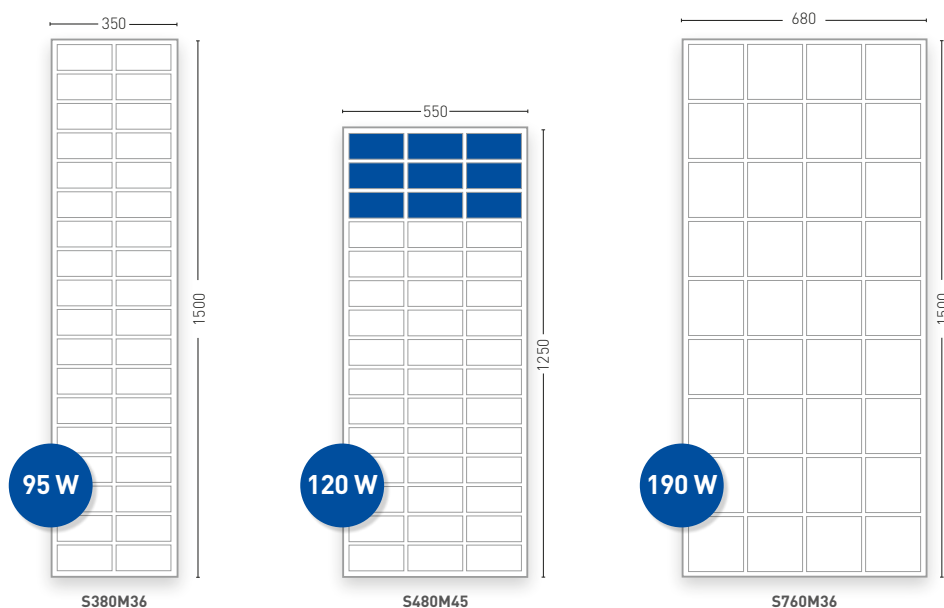
SOLARA S-Series

ROBUST AND RELIABLE DEVELOPED FOR MOBILE APPLICATIONS

- Solar modules with 36/45 high-performance solar cells
- Additional solar cells for efficient charging
- Designed and manufactured for permanent use on water and on land
- Robust, seawater-resistant, torsion-resistant aluminium profile frame
- Drainage holes to prevent frost damage
- Large, waterproof junction box with connection cable, MC4 compatible
- Manufactured exclusively in Germany



SOLARA S-Series



PERFORMANCE

Type	S380M36	S480M45	S760M36
Daily output in summer in Germany (Ø) Wh/d	380	480	760
Rated output ¹ (P _{mpp}) Wp	95	120	190
Short-circuit current (I _{sc}) A	4.84	4.89	10.09
Open-circuit voltage (U _{oc}) V	23.96	29.94	24.14
Voltage (U _{mpp}) V	20.50	25.65	20.13
Current (I _{mp}) A	4.63	4.68	9.44
No. of cells	36	45	36

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions (L x W x H) mm	1500 x 350 x 35	1250 x 550 x 35	1500 x 680 x 35
Weight kg	7.9	6.6	10.5
Cell dimensions mm	156 x 78	156 x 78	156 x 156

Thermal properties

TK P _{mp} %/K	-0.45
TK U _{oc} %/K	-0.36
TK I _{sc} %/K	0.03
NOCT °C	46 ± 2

Used materials

Cell technology	Mono crystalline cells
Front/back	Tempered solar glass
Frame	Anodized aluminium hollow profile, silver
Junctionbox	IP67 with MC4 compatible connectors

More technical data

Reverse current IR loadability	12 A
Measuring accuracy P _{mp} at STC	± 5 %
Operating temperature range	-40°C to +85°C
Glass thickness	3.2/2.0 mm





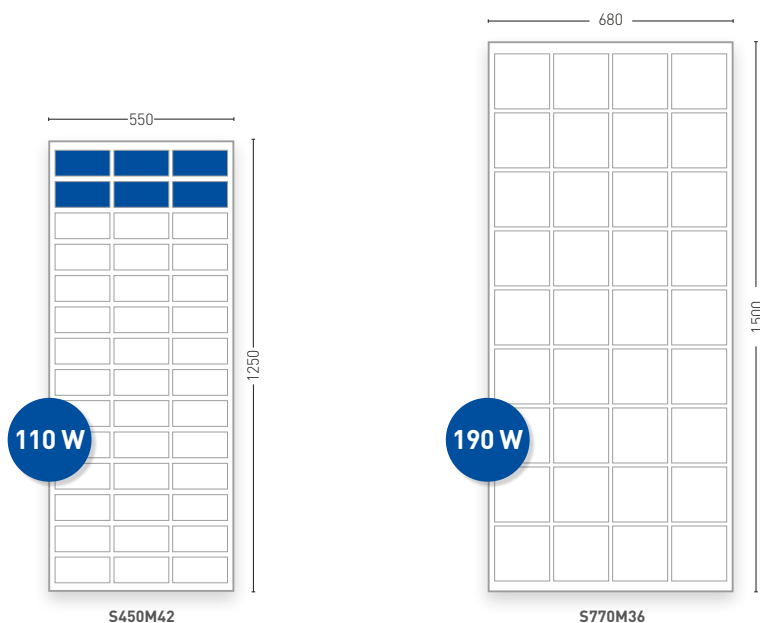
SOLARA S-Series Vision

INDESTRUCTIBLE DUE TO UNIQUE GLASS/GLASS TECHNOLOGY

- Fully walkable
- Robust, seawater-resistant aluminium profile frame
- Tropical roof capable and OFF-ROAD use suitable
- Large, waterproof junction box with connection cable, MC4 compatible
- Suitable for use even under extreme climatic conditions
- Designed and manufactured for permanent use on water and on land
- Manufactured exclusively in Germany



SOLARA S-Series Vision



PERFORMANCE

Type	S450M42	S770M36
Daily output in summer in Germany (Ø) Wh/d	440	760
Rated output ¹ (Pmpp) Wp	110	190
Short-circuit current (Isc) A	4.95	10.09
Open-circuit voltage (Uoc) V	27.62	24,14
Voltage (Umpp) V	23.50	20.13
Current (Impp) A	4.68	9.44
No. of cells	42	36

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions (L x W x H) mm	1250 x 550 x 35	1500 x 680 x 35
Weight kg	9.4	13.5
Cell dimensions mm	156 x 78	156 x 156

Thermal properties

TK Pmpp %/K	-0.45
TK Uoc %/K	-0.36
TK Isc %/K	0.03
NOCT °C	46 ± 2

Used materials

Cell technology	Mono crystalline cells
Front/back	Tempered solar glass
Frame	Anodized aluminium hollow profile, silver
Junctionbox	IP67 with MC4 compatible connectors

More technical data

Reverse current IR loadability	12 A
Measuring accuracy Pmpp at STC	± 5 %
Operating temperature range	-40°C to +85°C
Glass thickness	2 x 2 mm







With the sail boat Insieme and SOLARA solar modules around the world

JULIA L., CIRCUMNAVIGATOR

„Yesterday our new solar panels arrived. We decided for the Vision modules from SOLARA, because of the extreme robustness and so they are very applicable for the conditions at sea.

Two of these types we already have on board for a year and now we increased by another two pieces.
In total we run now 640 W solar and our Insieme becomes much more self-sustaining.“

SOLARA S-Series Vision

System size	640 W
Suitable for	sail boats, off-road trucks, RV's and commercial applications
Products	4 x Solara Vision S650P36 with 160 W each 2 x Charge controller Victron MPPT 100/30

➔ [More details on Victron MPPT charge controllers can be found on page 31](#)



**Ultra-fast
Maximum Power Point
Tracking (MPPT).**

Everything I need!





For those
who need a lot
of power.



SOLARA Power Pack

MAXIMUM PERFORMANCE ON SMALLEST AREA

- SOLARA Power S series modules with black frame profile
- MPPT charge controller, Victron 15 A / 20 A / 30 A, incl. Bluetooth for remote access via Smartphone
- ABS spoiler, in black, specially coated, UV-resistant, incl. screws
- ABS roof grommet, in black, for watertight cable feedthrough
- Special adhesive set SOLARA FIX PACK for bonding the spoiler and roof grommet
- Module connection cable with UV-resistant sheath and MC4 plug-in system
- Substantial installation instruction

Quality
Made in
Germany

PROVED

SOLARA®

QUALITY

SOLARA POWER PACKS

Typ	POP01	POP02	POP03	POP04
Power (W)	125	160	250	320
Daily yield (Wh)	555	705	1110	1410
Solar panel (Type)	S555M36	S705M44	S555M36	S705M44
No. of solar panels (pc)	1	1	2	2
Solar panel size L x W x H (mm)	1250 x 550 x 35	1500 x 550 x 35	1250 x 550 x 35	1500 x 550 x 35
Total length incl. spoiler (mm)	1400	1650	2 x 1400	2 x 1650
Charger	Victron 15 A	Victron 15 A	Victron 20 A	Victron 30 A



Everything delivered in one box!

5 years
product
guarantee*



Charge of
starter and
consumption
battery at the
same time.

SOLARA Premium Pack

OPTIMALLY SUPPLIED, AS REQUIRED

- SOLARA S series modules with silver frame profile
- Votronic DuoDigital dual-circuit charge controller incl. all necessary adapter cables
- ABS spoiler, in white, special coated, UV-resistant, incl. screws
- ABS roof grommet, in white, for absolutely watertight cable feedthrough
- Special adhesive set SOLARA FIX PACK for bonding the spoiler and roof grommet
- Module connection cable with UV-resistant sheath and MC4 plug-in system
- Substantial installation instruction

Quality
Made in
Germany

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QUALITY

SOLARA PREMIUM PACKS

Type	PRP01	PRP02	PRP03	PRP04
Power (W)	120	190	240	380
Daily yield (Wh)	440	760	880	1520
Solar panel (Type)	S480M45	S760M36	S480M45	S760M36
No. of solar panels (pc)	1	1	2	2
Solar panel size L x W x H (mm)	1250 x 550 x 35	1500 x 680 x 35	1250 x 550 x 35	1500 x 680 x 35
Total length incl. spoiler (mm)	1400	1650	2 x 1400	2 x 1650
Charger	DuoDigital 330	DuoDigital 330	DuoDigital 330	DuoDigital 530



Everything delivered in one box!

5 years
product
guarantee*



**Price/
performance
winner!**



SOLARA Profi Pack

POWERFUL SET WITH 20 A CHARGE CONTROLLER

- SOLARA S series module(s) with silver frame profile
- SOLARA charge controller, 20 A, with LED indicator to indicate battery charge level
- ABS spoiler, in white, special coated, UV-stable, incl. screws
- ABS roof grommet, in white, for absolutely watertight cable feedthrough
- Special adhesive set SOLARA FIX PACK for bonding the spoiler and roof grommet
- Module connection cable with UV-resistant sheath and MC4 plug-in system
- Substantial installation instruction

Quality
Made in
Germany

PROVED

SOLARA®

QUALITY

SOLARA PROFI PACKS

Type	PP01	PP02	PP03
Power (W)	120	190	240
Daily yield (Wh)	480	760	960
Solar panel (Type)	S480M45	S760M36	S480M45
No. of solar panels (pc)	1	1	2
Solar panel size L x W x H (mm)	1250 x 550 x 35	1500 x 680 x 35	1250 x 550 x 35
Total length incl. spoiler (mm)	1400	1650	2 x 1400
Charger	Solara SR 340 E	Solara SR 340 E	Solara SR 340 E



Everything delivered in one box!

**5 years
product
guarantee***

With SOLARA
simply enjoy
the sun!





SR280E



SR180 - 350LCD



SR85TL - SR175TL

Suitable
for all battery
types.

SOLARA charge controllers

Your control center

We guarantee high reliability, the latest technology and easy installation at low costs. The regulated PWM characteristic guarantees optimized charging. All Solara controllers are so-called series regulators (no shunt) and thus very efficient. The load output protects your battery from deep discharge. A large and informative LCD display shows the current system status. The SR 350 DUO also offers the possibility to charge two independent battery circuits.

The features

- Automatic detection of battery voltage
- Solar power < 90 - 350 watts
- Electronically protected against overcharging, reverse polarity, overvoltage
- Battery deep discharge protection in each regulator 5 to 20 A
- Battery type selector (except SR 340 E)
- LED indicator for battery status
- Metal housing IP65 (at SR 340 E)
- Charges two parallel battery circuits (SR 350 DUO)
- USB port for charging (at SR 180/350 LCD)
- Lithium-ready (SR XXX LCD/DUO)
- Low self-consumption < 4 mA

Type	Solar panel power (W)	Current (A)	Voltage (V)	Meter
SR 60 UL	60	4	12	LED
SR 85 TL	90/180	5	12/24	LED
SR 175 TL	180/360	10	12/24	LED
SR 340 E	340	20	12	LED
SR 180 LCD	180/360	10	12/24	LCD
SR 350 LCD	350/700	20	12/24	LCD
SR 350 DUO	350/700	20	12/24	LCD





SR and MPP DuoDigital



Votronic Solar Computer S



Smartphone App

EBL
compatible.

Votronic charge controllers

Simultaneous charging

The VOTRONIC charge controllers are characterized by a high compatibility with many electrical systems in campers. Leading manufacturers install Votronic components and there the solar charge controllers can be perfectly integrated. Two microprocessor-controlled device series are available, the SR and the highly efficient MPP series. Both series are additionally equipped with a charging output for the vehicle starter battery. The spectrum of devices is completed with an energy and power meter for the solar array.

The features

- Recharge and charge retention of vehicle starter battery
- 2 different control methods available, SR and MPP
- High operational safety through microcontroller
- Charging programs for lead-acid, gel, AGM and LiFePO4 batteries adjustable
- Continuous control, immediate recharging
- Temperature compensation
- 5 LED status indicators on the device
- For all standard solar module
- Optional: Plug and Play power meters LCD Solar Computer S or VPC

Type	Solar panel power (W)	Current (A)	Voltage (V)	Meter
SR 140 DuoDigital	140	9	12	LED
SR 220 DuoDigital	220	14	12	LED
SR 330 DuoDigital	330	21	12	LED
SR 530 DuoDigital	530	33	12	LED
MPP 165 DuoDigital	165	10	12	LED
MPP 250 DuoDigital	250	15	12	LED
MPP 350 DuoDigital	350	21	12	LED
MPP 430 DuoDigital	430	26	12	LED

Solar-Computer S for solar power and current, battery voltage, charged Ah and Wh, compatible with SR- and MPP series

EBL connection cable

BT Connector S-BCBluetooth Connector, inkl. Energy Monitor App





MPPT 75/15



BMV702



Smartphone App

Bluetooth
smart
integrated.

Victron MPPT charge controllers

Ultra-fast maximum power point tracking (MPPT)

In particular, when the sky is overcast, when the light intensity changes constantly, an extremely fast MPPT controller improves the energy yield by up to 30% compared to PWM charge controllers.

You can remotely control and monitor the extensive features of your SmartSolar MMPT charger by connecting it via Bluetooth with your smartphone or other device via the VictronConnect app.

The features

- Ultrafast Maximum Power Point Tracking (MPPT)
- Advanced maximum power point detection for partial shading
- BatteryLife: intelligent battery management through load shedding
- Load output on the small models
- Automatic battery voltage detection
- Flexible charging algorithms
- Overheating protection and load reduction at high temperatures

Typ	Solar panel power (W)	Current (A)	Voltage (V)	Meter
MPPT 75/10 *	145/290	10	12/24	LED
MPPT 75/15 *	220/440	15	12/24	LED
MPPT 100/15 *	220/440	15	12/24	LED
MPPT 100/20 *	290/580/870	20	12/24/48	LED
MPPT 100/30 *	440/880	30	12/24	LED
MPPT 100/50 *	700/1400	50	12/24	LED
MPPT 150/35 *	500/1000/2000	35	12/24/48	LED
MPPT 150/45 *	650/1300/2600	45	12/24/48	LED
MPPT 150/60 *	860/1720/3440	60	12/24/48	LED
Remote meter BMV700	for all Victron MPPT controller, incl. 500A Shunt			
Remote meter BMV702	for all Victron MPPT controller, incl. 500A Shunt,shows additional battery voltage			
Remote meter BMV712	for all Victron MPPT controller, incl. 500A Shunt and Bluetooth			
Bluetooth Dongle	for connecting MPPT controller or remote meter with Smartphone via App			
more Victron items on request				

* Bluetooth integrated

PROVED

SOLARA®

QUALITY



SunSaver 6-20



SunSaver Duo



EcoPulse with Display

Top-quality.

Morningstar charge controllers

Professional battery charging

A broad performance spectrum, innovative functions, robust design and high efficiency characterize the MorningStar solar charge controllers. ISO9001 manufacturing, quality control with 100% functional testing ensure quality, reliability and longevity in the application. Over 2 million devices are installed in over 112 countries until today.

The features

- Epoxy resin-moulded board
- For gel-type and AGM batteries
- With temperature sensor and deep discharge protection
- Built-in or remote display available
- PWM charging characteristic, Series design
- Automatic 12/24 V detection
- All fuses electronically
- Low self-consumption < 8 mA
- Top quality with 5 years guarantee, EcoPulse 2 years

Type	Solat panel power (W)	Current (A)	Voltage (V)	Meter
SunSaver 6L	110	6	12	LED
SunSaver 10L	170	10	12	LED
SunSaver 20L	340	20	12	LED
SunSaver Duo Basic	425	25	12	LED
SunSaver Duo	425	25	12	LCD
EcoPulse 10	170/340	10	12/24	LED
EcoPulse 10M	170/340	10	12/24	LCD
EcoPulse 20	340/680	20	12/24	LED
EcoPulse 20M	340/680	20	12/24	LCD
EcoPulse 30	510/1020	30	12/24	LED
EcoPulse 30M	510/1020	30	12/24	LCD

Accessories

Type	Function	Compatible with
RM-1	Remote LCD display for several system parameters, incl. 10 m connection wire	SunSaver Duo
RTS	Temperature sensor with 10 m connection wire	EcoPulse
DIN-1	DIN-rail holder	SunSaver

MorningStar MPPT charge controller and further accessories on page 52 & 53





SunGuard



ProStar with Display



TriStar 45/60

Lithium-ready.

Charge controller for professional use

In case of high solar power and currents, battery voltages up to 48V, needed communication and data transfer, the professional ProStar and TriStar controllers are being used. Basically, all MorningStar controllers are designed without fans or moving parts.

The features

- For all battery types, lithium-ready
- For large systems with up to 60 A solar current
- With temperature sensor and deep discharge protection
- PWM charging characteristic, Series design
- Automatic voltage detection
- Several network and communication options
- All fuses electronically
- Low self-consumption < 20 mA
- Top quality with 5 years guarantee

Type	Solat panel power (W)	Current (A)	Voltage (V)	Meter
SunGuard	80	4,5	12	LED
ProStar 15	250/500	15	12/24	LED
ProStar 15M	250/500	15	12/24	LCD
ProStar 30	500/1000	30	12/24	LED
ProStar 30M	500/000	30	12/24	LCD
TriStar 45	750/1500/3200	45	12/24/48	LED
TriStar 60	1000/2000/4000	60	12/24/48	LED

Accessories

Type	Function	Compatible with
RM-1	Remote LCD display for several system parameters, incl. 10 m connection wire	ProStar
TS-M-2	Buildt-in meter for system parameter	TriStar
TS-RM-2	Remote LCD display for system parameters, incl. 30m connection wire	TriStar
RTS	Temperature sensor with 10 m connection wire	ProStar, TriStar
EMC-1	Ethernet Meterbus converter	ProStar, TriStar
HUB-1	Enables multiple controllers to share one display or relay driver	ProStar, TriStar
MSC-1	Converter for RJ-11 to RS232 communication	ProStar, TriStar
RD-1	Logic module for system controll functions	ProStar, TriStar
UMC-1	Converter for RJ-11 to USB 2.0 communication	ProStar

MorningStar MPPT charge controller and further accessories on page 52 & 53



SOLARA – a good connection





HSXX/W



HSV/W



HSE/W

Tested,
lightweight and
colour-stable.

SOLARA ABS-mounting spoiler

The optimal fastening

ABS holding spoilers are the optimal fastening for solar modules. They are available in white colour and are perfect for RV's, camper or caravans. Simply glue instead of screw.

Due to their aerodynamic shape, they are at the same time a mounting system and wind deflector, so that no disturbing noise can occur. We only use high quality, specially coated, UV-resistant ABS plastic so that our mounting spoilers remain permanently dimensionally stable and colour-stable.

The ABS spoilers are matched to different solar module widths and can be used across different manufacturers.

Additionally there are mounting corners and connector profiles available, that can be used universally. The spoilers are glued with the SOLARA FIX PACK adhesive to the vehicles roof and the module itself is connected to the spoilers with the help of screws [included].

The features

- The optimum combination of functionality and appearance
- About 50 % lighter than other conventional spoilers
- The aerodynamic shape does not produce any disturbing wind noise
- Also suitable for self-assembling
- Special coated ABS plastic
- UV-stable
- 100 % recyclable
- All necessary screws included

Type	Art.-No.	Max. solar panel width	Pc/set
Mounting spoilers set	HS35/W	350 mm	2
Mounting spoilers set	HS45/W	450 mm	2
Mounting spoilers set	HS55/W	550 mm	2
Mounting spoilers set	HS68/W	680 mm	2
Edge spoilers set	HSE/W	all type of solar panels	4
Universal mounting spoilers set	HSV/W	all type of solar panels	2

Caution:

Installation only with certified special adhesive for ABS plastics, for example, the SOLARA FIX PACK





SOLARA ABS-roof grommet & adhesive set

Professional aerodynamic roof grommet

The optimum combination of functionality and appearance for the cable entry into the vehicle. A wide adhesive seam and a waterproof PG screw connection facilitate secure installation. Suitable for cable diameters from 4 mm to 13.5 mm. Simply fixed with the ABS special adhesive from our SOLARA FIX PACK and a secure and permanently watertight cable entry to the interior is guaranteed.

The features

- Lightweight
- Aerodynamic shape, there are no disturbing wind noises
- Also suitable for self-assembly
- Special coated ABS plastic
- UV-stable
- 100 % recyclable

**5 years
product
guarantee***

Type	Art.-No.	No. of inlets
Roof grommet	DD1/W	1 x PG13.5 for 1 cable
Roof grommet	DD1/S	1 x PG13.5 for 1 cable
Roof grommet	DD2/W	2 x PG13.5 for 2 cables
Roof grommet	DD2/S	2 x PG13.5 for 2 cables

SOLARA adhesive kit Fix Pack

The ABS special adhesive set is specially developed for the SOLARA ABS-mounting spoilers and roof grommets, aluminium brackets, as well as for bonding the SOLARA M and Power M-series. The single-component MS polymer adhesive is completely non-toxic, can be stored for 1 year and is suitable for self-assembly.



**Tested,
secured
bonding.**

Type	Description
SOLARA adhesive set Fix Pack	Cartridge 290 ml, primer (Dekavator) cleaning cloth, sanding pad, colour: white
SOLARA adhesive set Fix Pack	Cartridge 290 ml, primer (Dekavator) cleaning cloth, sanding pad, colour: black





SOLARA accessories

Easy to handle

With the SOLARA accessories, the installation becomes a breeze. High-quality connectors, rugged cables, pre-assembled connection cables, EBL charge controllers - all professional components for quick and easy installation. Our cables are suitable for outdoor use.

Type	Description
Dc-Connect-C, 4 mm ²	Connection cable module - controller with MC4 connectors, length 5 m, size 2x 4mm ² , fits to all Solara and DcSolar modules
Dc-Connect-C, 2.5 mm ²	Connection cable module - controller with MC4 connectors, length 5 m, size 2x 2.5 mm ² , fits to all Solara and DcSolar modules
Dc-Connect-M	Connection cable for modules with MC4 connectors, length 2 m, size 2x 4 mm ²
Dc-Connect-B	Connection cable charge controller - battery, assembled with fuse and cable lugs, length 1 m, size 2x 6 mm ²
MC4 Y-Set	Y-adapter set for parallel connection of two modules, set with plus and minus
MC4 PV Stick	MC4 connectors, DIY, tool-free, set with plus and minus
Cable 2x 2.5	Installation cable for outside use, size 2x 2.5 mm ² , by meter
Cable 1x 4	Installation cable for outside use, size 2x 4 mm ² , by meter
Cable 1x 6	Installation cable for outside use, size 2x 6 mm ² , by meter
Schaudt LR1218	Charge controller 12 V, 18 A
EBL connection cable	Connection wire for any solar controller with Schaudt EBL
Mounting spoiler 52	Black ABS mounting spoiler, length 52 cm, fits perfectly to DCSolar modules
Mounting spoiler HS55/black	Black ABS mounting spoiler, length 55 cm, fits perfectly to SOLARA Module
Roof grommet Heavy Duty	Black Roof grommet made of ABS
HSP	Aluminium bracket for module mounting, max. module size 1300 x 560 mm, set with 4 brackets, incl. screws
HSP400	Aluminium bracket for module mounting, max. module size 1500 x 700 mm, set with 6 brackets, incl. screws
Fox-062	Cable charge controller, max. solar current 8A, system voltage 12V, adjustable to different battery types
Cellprotector	Hotspot protector for SOLARA M-Series Modules
Edge protector	Plug-on edge protector for Solara M-Series Modules, yard ware
Deck seal	Scanstrut DS H-6, cable diameter 2-6 mm, incl. several sealings
Deck seal	Scanstrut DS H-10, cable diameter 6-10 mm, incl. several sealings
Deck seal	Scanstrut DS Multi, several cables, cable diameter up to 15 mm



DCsolar – strong power on the move!

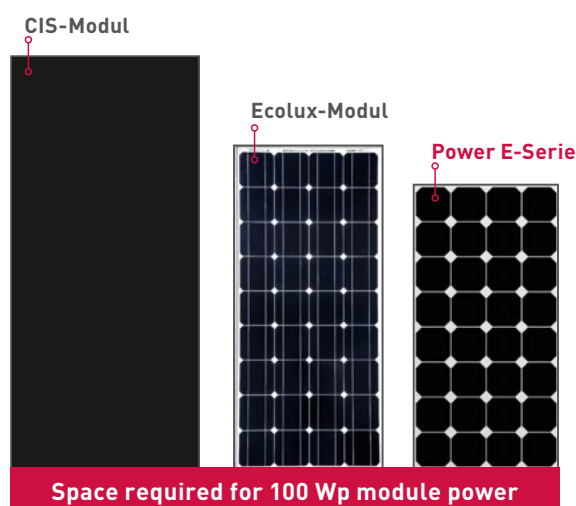


DCsolar MODULES FOR ANY EVENTUALITY

The Power E series, with its state-of-the-art, back-contact solar cells, are specially developed for mobile use, has not only a natural, higher cell voltage, but also excellent low-light and high-temperature behaviour, so that a sufficiently high voltage is built up even at low levels of radiation to charge the on-board batteries.

If only little space is available, the Power E-Series is the perfect solution, because it requires up to 21 % less space than a standard crystalline module and even more than 45 % less than a conventional thin-film module (e.g., CIS), and at a weight of only about 8.0 kg compared to the 16.0 kg of a comparable 100 Watt CIS module.

The EcoLux series represents solar modules on a high technical level. We achieve it through the use of state-of-the-art materials and manufacturing processes as well as the continuous development and testing of our products. Whether on your camper, sailing ship or holiday home, an EcoLux module is a versatile module that can supply you with power wherever you want it, and that is completely environmentally friendly.



DCsolar ALL-IN-ONE SOLUTIONS

Are you looking for a high-quality solar complete set for a fair price? Then DCsolar products are exactly the right choice!

SOLARA offers with the brand DCsolar optimally assembled complete sets. All necessary components are delivered in a box together with detailed installation instructions, everything plug and play!

CERTIFICATIONS AND TESTS

- Mechanical stress tests
- Climate test of the entire module
- Degradation test
- Check for micro cracks on the cells

PROVED
DCsolar
QUALITY



Maximum
performance
on the smallest
areas.

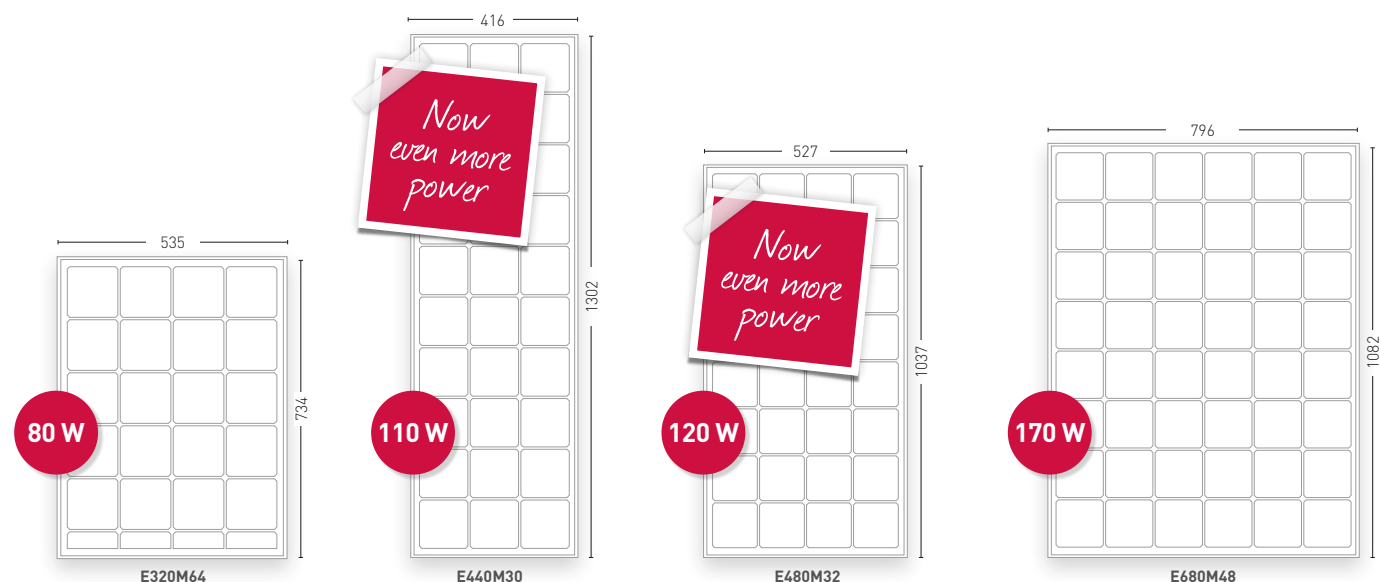
DCsolar Power E-Series

TOP PERFORMANCE - DEVELOPED FOR HIGH DEMANDS

- SunPower cells with up to 23 % efficiency
- Highest daily yields on a very small area
- Best low-light performance
- Temperature-stable voltage
- Stable hollow profile frame
- MC4-compatible connector



DCsolar Power E-Series



PERFORMANCE

Type	E320M64	E440M30	E480M32	E680M48
Daily output in summer in Germany (Ø) Wh/d	350	480	525	750
Rated output ¹ (P _{mpp}) Wp	80	110	120	170
Short-circuit current (I _{sc}) A	5.00	6.99	6.35	9.15
Open-circuit voltage (U _{oc}) V	21.3	21.1	21.8	24.1
Voltage (U _{mpp}) V	17.5	17.5	19.2	19.8
Current (I _{mp}) A	4.55	6.28	6.25	8.3
No. of cells	64	30	32	48

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions L x W x H (mm)	734 x 535 x 35	1302 x 416 x 35	1037 x 527 x 35	1082 x 796 x 35
Weight kg	5.8	7.0	7.4	11.0
Frame color	black	silver or black	silver or black	black

Thermal properties

TK P _{mpp} %/K	-0.32
TK U _{oc} %/K	-0.28
TK I _{sc} %/K	0.057
NOCT °C	46 ± 2

Used materials

Cell technology	Sunpower, monocrystalline with back contact
Junctionbox	IP65 with MC4 compatible connectors

More technical data

Reverse current I _R	12 A
Measuring accuracy P _{mpp} at STC	± 10 %
Operating temperature range	-40°C to +85°C





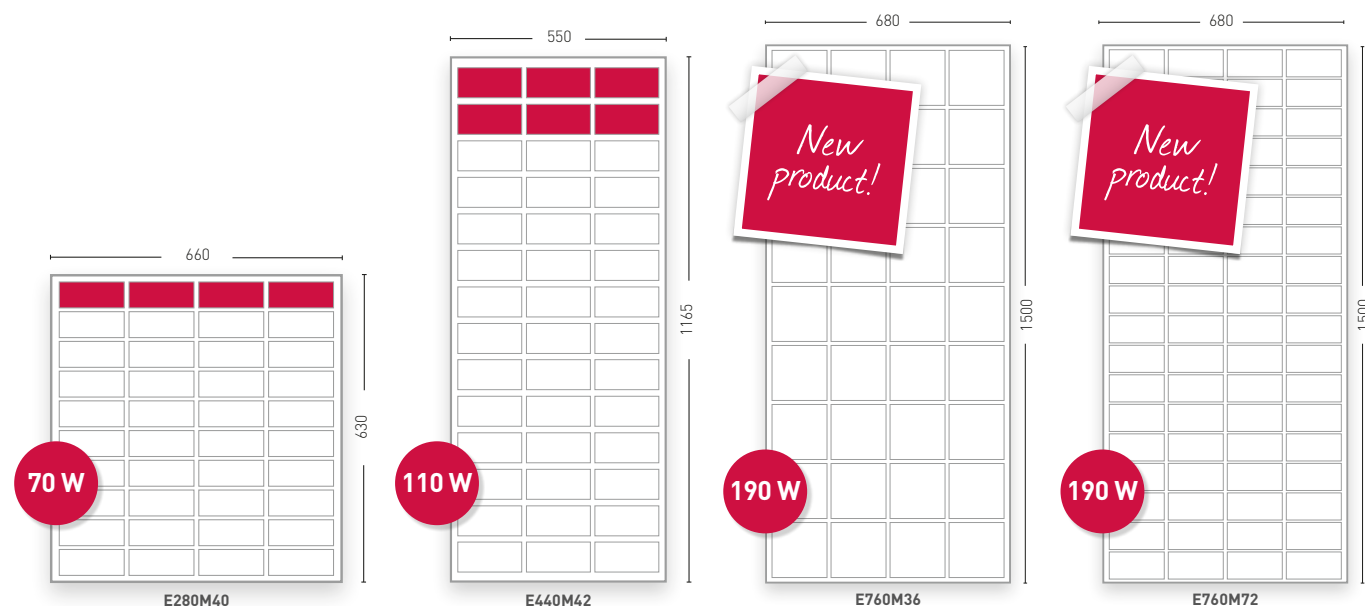
DCsolar Ecolux-Series

SUPERIOR MODULAR TECHNOLOGY - VERSATILE APPLICABLE

- 40/42 monocrystalline high-yield solar cells
- Sturdy silver hollow profile frame
- MC4 compatible connector
- Translucent solar glass
- Hail resistant



DCsolar Ecolux-Series



PERFORMANCE

Type	E280M40	E440M42	E760M36	E760M72
Daily output in summer in Germany (Ø) Wh/d	280	440	760	760
Rated output ¹ (Pmpp) Wp	70	110	190	190
Short-circuit current (Isc) A	3,24	4.88	9.74	4.87
Open-circuit voltage (Uoc) V	26.92	27.97	24.88	49.75
Voltage (Umpp) V	21.78	23.75	20.82	41.63
Strom (Impp) A	3.22	4.63	9.17	4.59
No. of cells	40	42	36	72

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25 °C

Dimensions and weight

Dimensions L x W x H (mm)	630 x 660 x 35	1165 x 550 x 35	1500 x 680 x 35	1500 x 680 x 35
Weight kg	5	7.4	10.5	10.5
Frame color	silber	silber	silber	silber

Thermal properties

TK Pmpp %/K	-0.44
TK Uoc %/K	-0.36
TK Isc %/K	0.03
NOCT °C	46 ± 2

Used materials

Cell technology	Monocrystalline
Junctionbox	IP65 with MC4 compatible connectors

More technical data

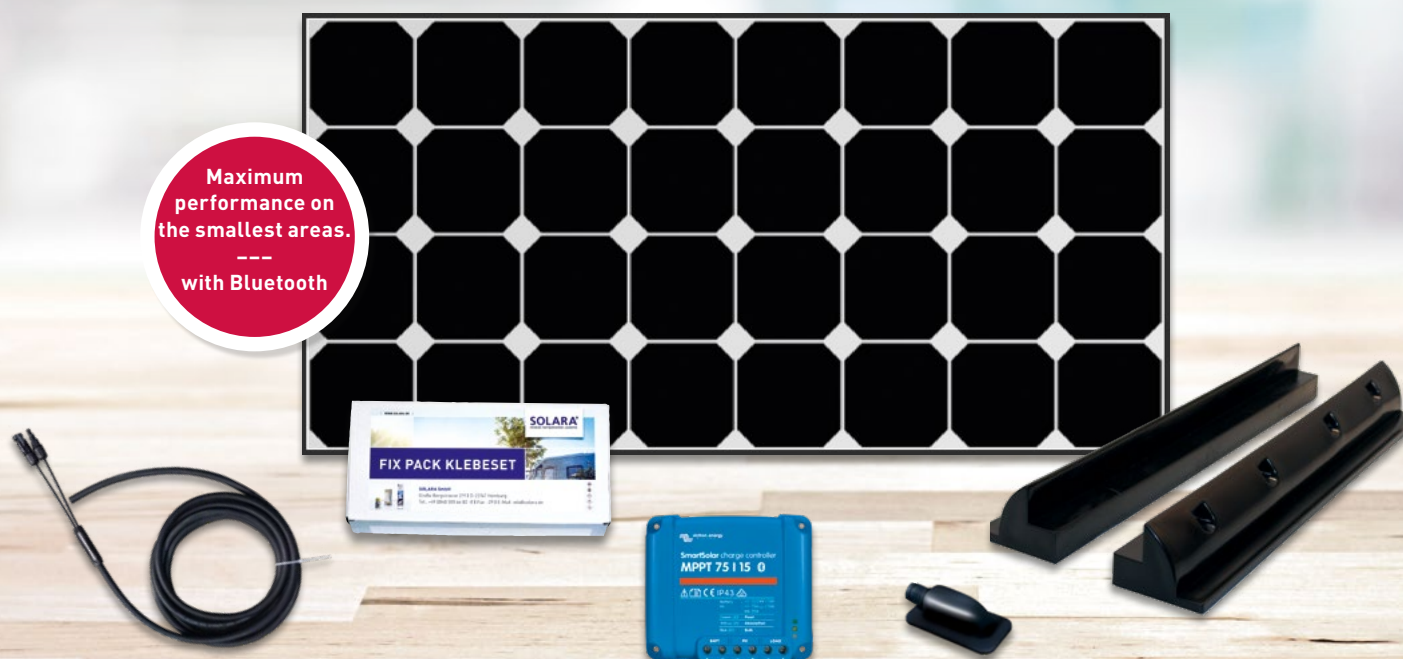
Reverse current IR	12 A
Measuring accuracy Pmpp at STC	-5 / +10 %
Operating temperature range	-40°C to +85°C





Maximum
performance on
the smallest areas.

with Bluetooth



DCsolar Power Set MPPT

HIGH DAILY YIELDS WITH MPPT TECHNOLOGY

- Power E Series modules
- Victron MPPT 100/20 charge controller
- Mounting spoiler set(s) made of UV-stable ABS plastic
- Roof grommet, UV-stable with one cable entry
- Fix Pack adhesive kit
- Connection cable for module to charge controller incl. 2 x MC4 connectors
- MultiContact Y-connector
- Detailed mounting instructions

DCsolar POWER SETS MPPT

Type	Power Set 3/120 W	Power Set 3/240 W
Power (W)	120	240
Daily yield (Wh)	525	1050
Solar panel (Type)	E480M32	E480M32
No. of solar panels (pc)	1	2
Solar panel size L x W x H (mm)	1037 x 527 x 35	1037 x 527 x 35
Charger	Victron MPPT 100/20	Victron MPPT 100/20
No. of cells	32	32



Everything delivered in one box!

PROVED

DCsolar

QUALITY



Charge of
starter and
load battery
at the same
time.



DCsolar Power Set EBL

SPECIALLY FOR VEHICLES WITH EBL-BLOCK

- Power E Series modules
- Votronic charge controller DuoDigital 330
incl. all necessary adapter cables
- Mounting spoiler set(s) made of UV-stable ABS plastic
- Roof grommet, UV-stable with one cable entry
- Fix Pack adhesive kit
- Connection cable for module to charge controller
incl. 2 x MC4 connectors
- MultiContact Y-connector
- Detailed mounting instructions

DCsolar POWER SETS MPPT

Type	Power Set 2/120 W	Power Set 2/240 W
Power (W)	120	240
Daily yield (Wh)	525	1050
Solar panel (Type)	E480M32	E480M32
No. of solar panels (pc)	1	2
Solar panel size L x W x H (mm)	1037 x 527 x 35	1037 x 527 x 35
Charger	Votronic DuoDigital 330	Votronic DuoDigital 330
No. of cells	32	32



Everything delivered in one box!

PROVED

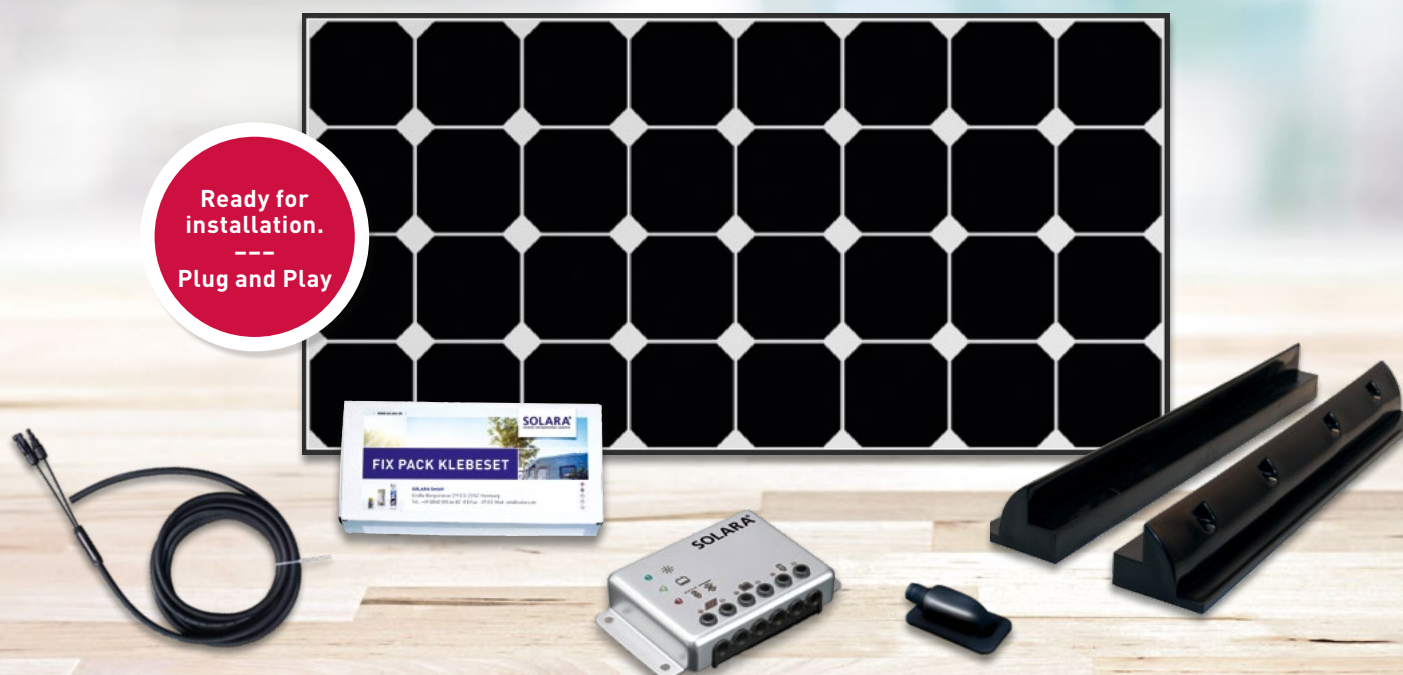
DCsolar

QUALITY



Ready for
installation.

Plug and Play



DCsolar Power Set PWM

OPTIMAL BATTERY CHARGING

- Power E Series modules
- Solara Charge Controller SR 340 E
- Mounting spoiler set(s) made of UV-stable ABS plastic
- Roof grommet, UV-stable with one cable entry
- Fix Pack adhesive kit
- Connection cable for module to charge controller incl. 2 x MC4 connectors
- MultiContact Y-connector
- Detailed installation instructions

DCsolar POWER SETS MPPT

Type	Power Set 1/120 W	Power Set 1/240 W
Power (W)	120	240
Daily yield (Wh)	525	1050
Solar panel (Typ)	E480M32	E480M32
No. of solar panels (Stk)	1	2
Solar panel size L x W x H (mm)	1037 x 527 x 35	1037 x 527 x 35
Charger	Solara SR 340 E	Solara SR 340 E
No. of cells	32	32



Everything delivered in one box!

PROVED

DCsolar

QUALITY



DCsolar Ecolux Set

BESTSELLER IN PROOFED QUALITY

- Ecolux Series modules
- Solara Charge Controller SR 340 E
- Mounting spoiler set(s) made of UV-stable ABS plastic
- Roof grommet, UV-stable with one cable entry
- Fix Pack adhesive kit
- Connection cable for module to charge controller incl. 2 x MC4 connectors
- MultiContact Y-connector
- Detailed mounting instructions

DCsolar ECO SETS

Type	Ecolux 110 W	Ecolux 220 W
Power (W)	110	220
Daily yield (Wh)	440	880
Solar panel (Typ)	E440M42	E440M42
No. of solar panels (Stk)	1	2
Solar panel size L x W x H (mm)	1165 x 550 x 35	1165 x 550 x 35
Charger	Solara SR 340 E	Solara SR 340 E
No. of cells	42	42

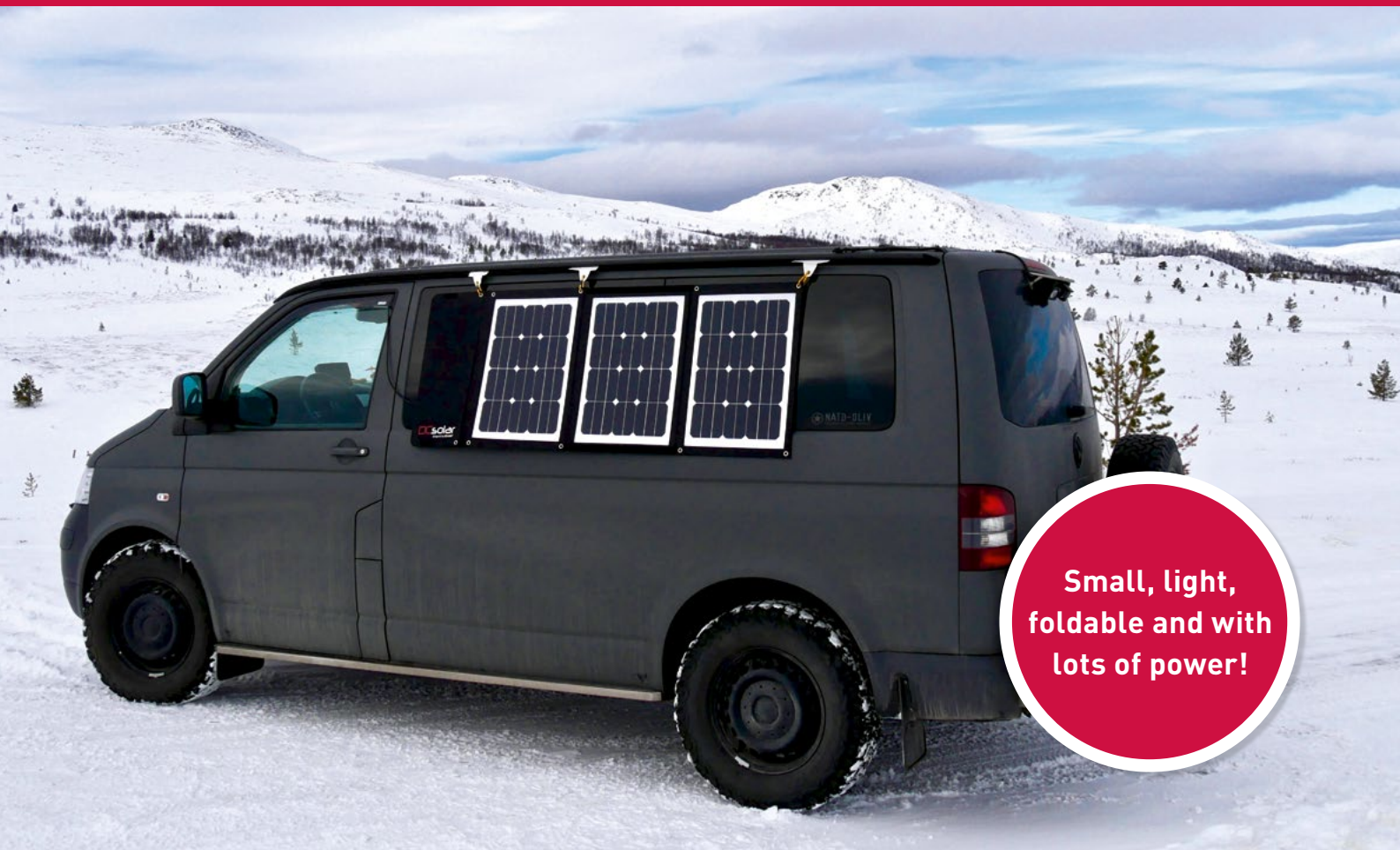


Everything delivered in one box!

PROVED

DCsolar

QUALITY



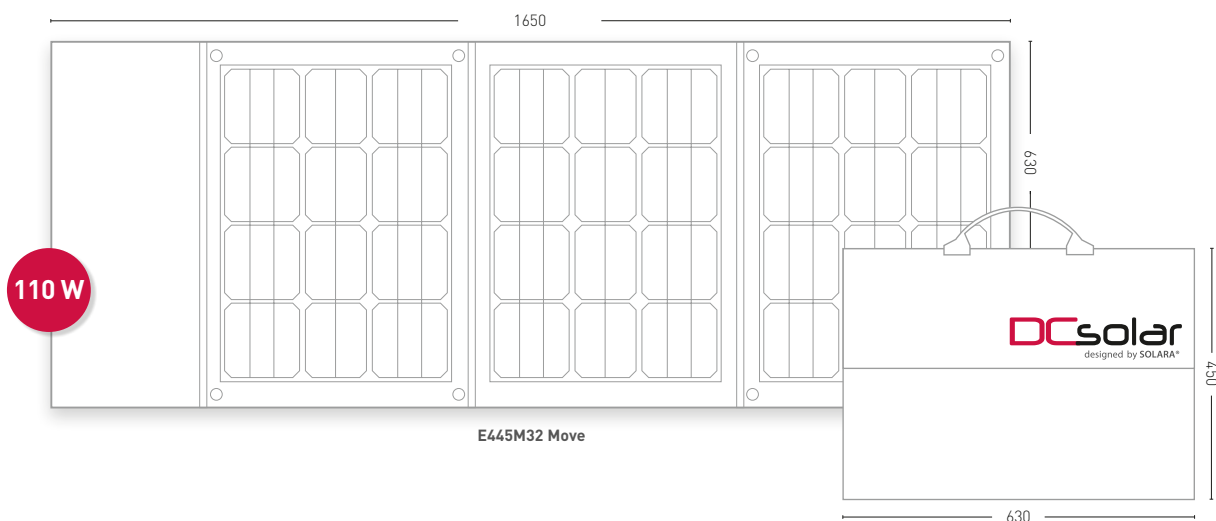
DCsolar Power Move

MAXIMUM PERFORMANCE AT THE HIGHEST QUALITY

- Highest daily yields by using Sunpower cells with up to 23 % efficiency
- High yield in every season due to the best low-light behaviour, even in diffused light
- Three modules in one - each with 32 cells per module field - connected in parallel - thus shadow resistant
- Low weight
- 5 m cable with mobile cable solar charging controller (gel, AGM, liquid acid adjustable) with 12 V car standard plug
- Elegant distinctive design
- Sewn in sturdy textile fabric
- Large energy output in the smallest space
- Foldable and portable, small convenient size



DCsolar Power Move



PERFORMANCE

Type	E445M32 Move
Daily output in summer in Germany (Ø) Wh/d	440
Rated output ¹ (Pmpp) Wp	110
Short-circuit current (Isc) A	6.32
Open-circuit voltage (Uoc) V	21.90
Voltage (Umpp) V	18.56
Current (Impp) A	5.97
No. of cells	96 (3 x 32)

¹ Performance at STC, Standard Testing Conditions: 1000 W/m², AM 1.5, cell temperature 25° C

Dimensions and weight

Dimensions L x W x H (mm)	1650 x 630 x 35
Weight kg	3.8

Thermal properties

TK Pmpp %/K	-0,38
TK Uoc %/K	-0,28
TK Isc %/K	0,057
NOCT °C	46 ± 2

Used materials

Cell technology	Sunpower, monocrystalline with back contact
Connection cable	5 m, 2 x 1.5 mm ²

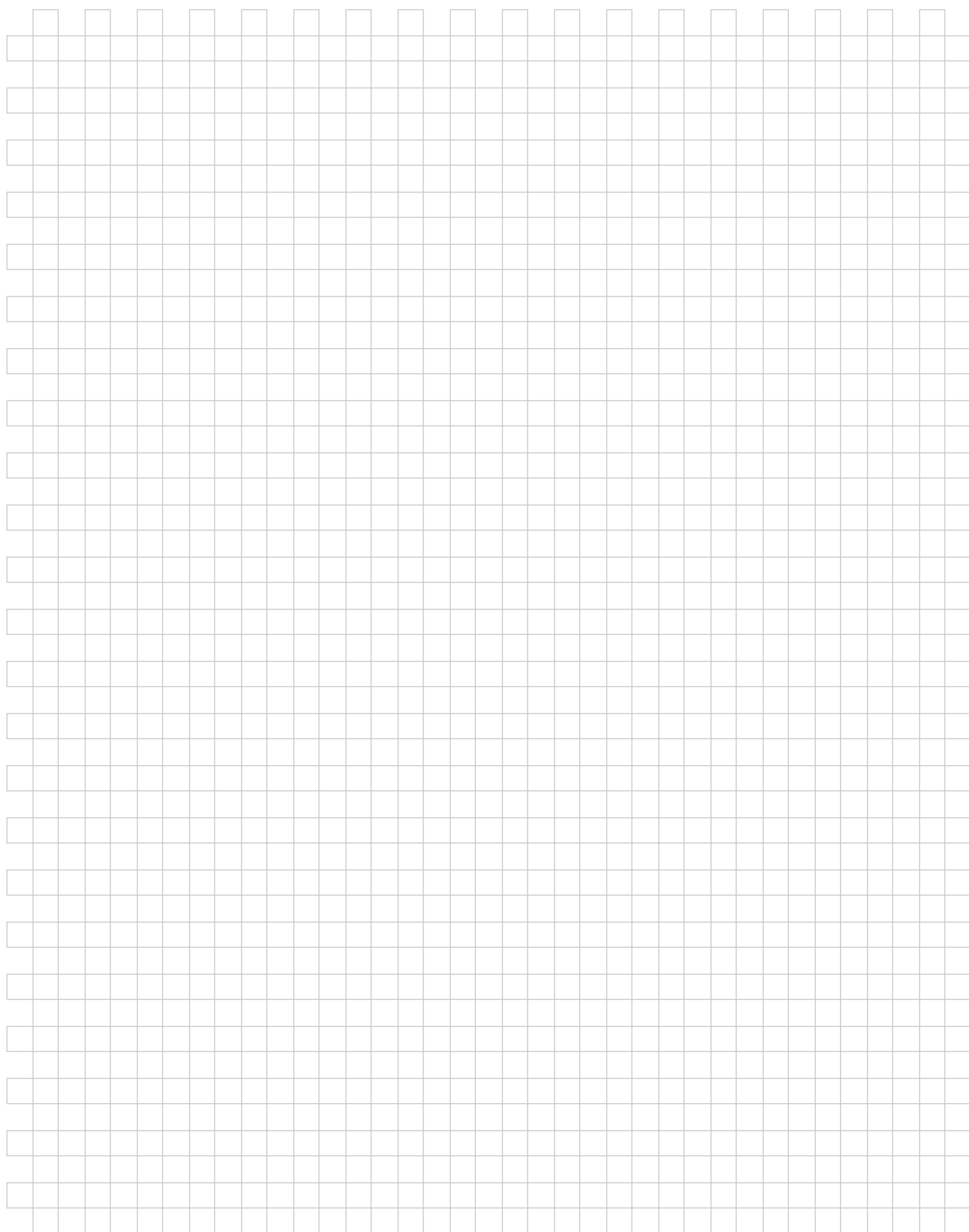
Scope of delivery: Cable charge controller Fox-062, 6 A

More technical data

Reverse current IR	12 A
Measuring accuracy Pmpp at STC	-5 %/+10 %
Operating temperature range	-40°C to +85°C



ING SHEET



Your specialized dealer



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