

SOLON SOLkit stand-alone.

*Everything you need in one single
solution to install a mains- independent
photovoltaic system.*

- › SOLON high-efficiency mono- and poly-crystalline modules
- › Three different types of KIT: Island, Backup, Water Pump
- › Kit components are pre-sized and ready to install
- › Special sealed batteries for PV storage



The custom-made PV system

In one single solution the SOLON SOLkit stand-alone contains all the elements necessary to construct a mains-independent photovoltaic system: photovoltaic modules, pre-sized components, batteries and guarantees.

3 different types of kits are available: Island in 5 versions, Backup in 4 versions, Water Pump in 9 versions.

The modular design of the kit enables you to configure and build ad hoc photovoltaic installations to meet specific energy needs.

SOLON's direct experience in manufacturing high-efficiency photovoltaic modules and systems and the company's exclusive partnership with leading suppliers in the market makes SOLON SOLkit stand-alone a complete solution featuring top quality elements.

SOLON SOLkit stand-alone, your off-grid PV system in 4 simple steps:

- **Buy:** procuring a **SOLkit stand-alone** kit is not just simple but above all affordable. The kit is a palletised system comprising all the elements necessary for your PV installation.
- **Install:** for consultation and quality installation contact our highly experienced network of **SOLON PARTNER** installers who, working in synergy with SOLON, are qualified to guide you step by step to determine the perfect solution for your particular roof.
- **Produce:** once installed your PV system will begin to generate energy to meet your specific energy needs.
- **Save:** savings will be noticeable immediately. Using energy produced by **SOLON SOLkit stand-alone** enables you to have complete independence from the electrical grid to power household appliances and devices.

A SOLON SOLkit stand-alone photovoltaic kit guarantees free solar energy all year round.

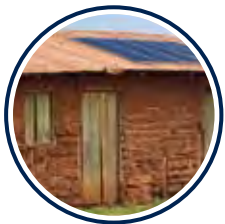
SOLON SOLkit stand-alone: Island, Backup, Water Pump. Complete solutions to meet all energy needs.

Capturing solar energy has never been so easy.

Whatever your energy needs may be, you will find the most suitable solution with one of the SOLON stand-alone kits. Off-grid systems, backup systems or water pumping systems: the SOLON PV modules and all the elements that comprise the kits guarantee the best performance and the highest efficiency in all situations.

SOLON technicians have used their vast experience to find the best materials available on the market and have pre-configured these stand-alone kits that will enable you to transform solar energy into clean energy for your particular energy needs. These are the three types of kits available:

Island Kit



- › Electrification of areas without electrical power grid
- › Replaces or can be used in combination with diesel generators to reduce management costs
- › Broad range of application: meets residential to small workshop needs

Backup Kit



- › Provides power supply in very unstable electrical grid situations
- › Fast switchover time ensures operational continuity
- › Over 2 hours autonomy, with expandable battery time

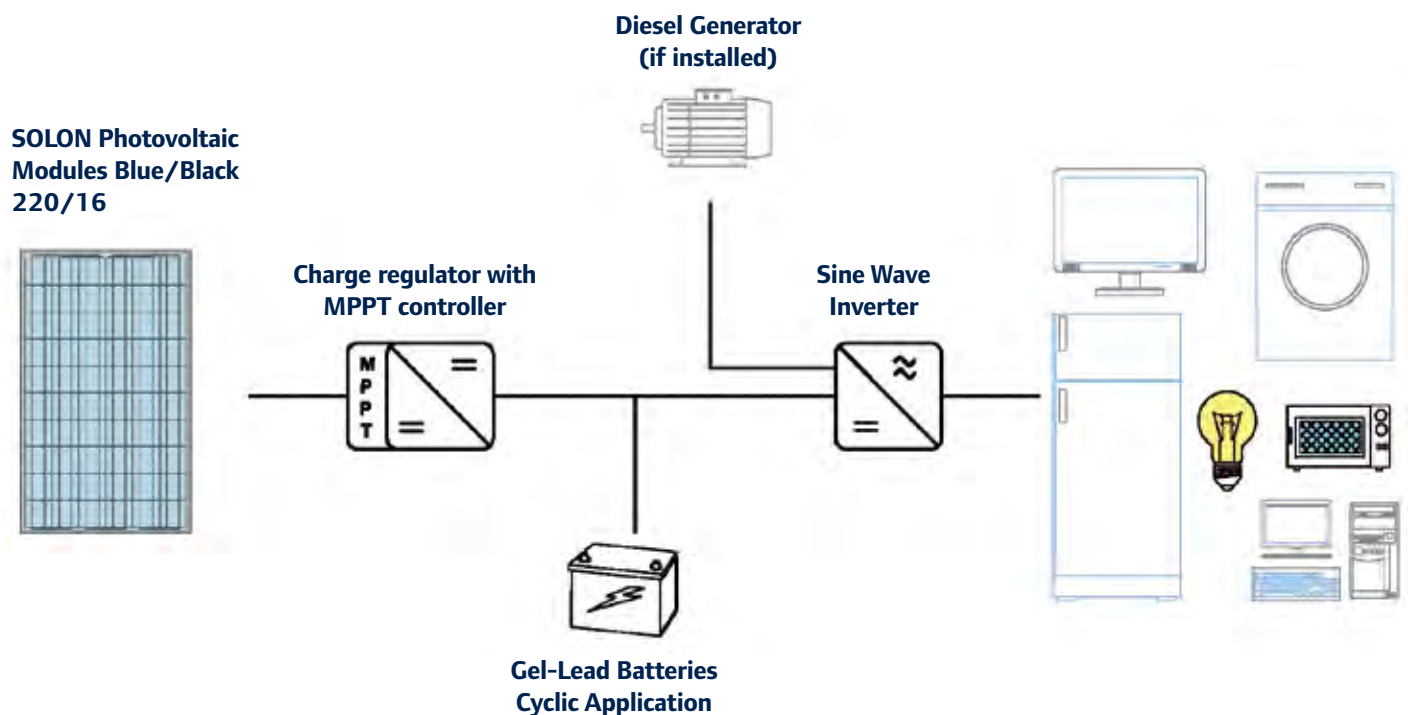
Water Pump Kit



- › Pumping of drinking water for domestic use, for breeding farms or for irrigation systems
- › Extraction of water from wells with head range of 40m to 140m
- › Capacity from 3m³ to 30m³ per day



SOLON SOLkit stand-alone: Island Kit



- Electrification of areas without electrical power grid
- Replaces or used in combination with diesel generators to reduce management costs
- Broad range of application: meets residential to small workshop needs

SOLON SOLkit stand-alone Island version: Easy-to-install, high performing, pre-sized kit. It is available in 5 different power sizes in order to meet all possible energy requirements. The kits are suitable for continuous loads of 500W to 6kW, with several days of autonomy even in the absence of sun. The charge regulators have MPPT technology for tracking the maximum power point. High utilization of the solar source, at all times of the year and in all temperature conditions, ensures the best, and very fast, charging of batteries.

Composition of the Island Kit

	KIT ISL 500	KIT ISL 1000	KIT ISL 2000	KIT ISL 3000	KIT ISL 6000
Inverter Continuous Power [W]	800	1000	2000	3000	6000
Total Photovoltaic Power Output [Wp]*	500	1000	2000	3000	6000
Energy storage capacity [kWh]**	1,2	2,4	4,8	7,2	14,4
Use examples	Small domestic Mobile home	Domestic	Large domestic	Large domestic Small commercial premises	Commercial premises Workshop
Hours of autonomy at a quarter of the continuous load	Over 4h	Over 6h	Over 6h	Over 6h	Over 6h

* calculated with 250Wp modules

** energy stored in the batteries in C100 (100 hours constant discharge cycle)

Photovoltaic modules

	KIT ISL 500	KIT ISL 1000	KIT ISL 2000	KIT ISL 3000	KIT ISL 6000
PV module type	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16
Module power	240-245-250	240-245-250	240-245-250	240-245-250	240-245-250
Number of modules	2	4	8	12	24

Charge regulator

	KIT ISL 500	KIT ISL 1000	KIT ISL 2000	KIT ISL 3000	KIT ISL 6000
Charge regulator type	Photovoltaic PWM	Photovoltaic MPPT	Photovoltaic MPPT	Photovoltaic MPPT	Photovoltaic MPPT
Maximum current [A]	50	30	30	30	30
Maximum voltage [V]	125	150	150	150	150
Working voltage [V]	12	24	24	24	48
N° of charge regulators	1 (inside the inverter)	1	2	3	4
Module configuration for each charge regulator	2 modules in parallel	2 modules in series for input	2 modules in series for input	2 modules in series for input	3 modules in series for input
Dimensions bxhxd [mm]	/	178x283x83	178x283x83	178x283x83	178x283x83
Weight [kg]	/	2	2	2	2
Mechanical impact protection	/	IP 20	IP 20	IP 20	IP 20

Inverter

	KIT ISL 500	KIT ISL 1000	KIT ISL 2000	KIT ISL 3000	KIT ISL 6000
Inverter Type	Pure Sine Wave with Charge	Photovoltaic PWM	Photovoltaic PWM	Photovoltaic PWM	Photovoltaic PWM
Rated power [VA]	1000	1000	2000	3000	6000
Continuous power [W]	800	1000	2000	3000	6000
Overload capacity (10s) [VA]	1600	3000	6000	9000	18000
Rated input voltage [Vdc]	12	24	24	24	48
Rated output voltage and frequency [Vac/Hz]*	230/50	230/50	230/50	230/50	230/50
Possibility of connecting a diesel generator	YES	YES	YES	YES	YES
Dimensions bxhxp [mm]	240x316x95	221x181x445	221x181x445	221x181x445	755x288x319
Weight [kg]	5	16	19	24	35
Mechanical impact protection	IP 20	IP 20	IP 20	IP 20	IP 20

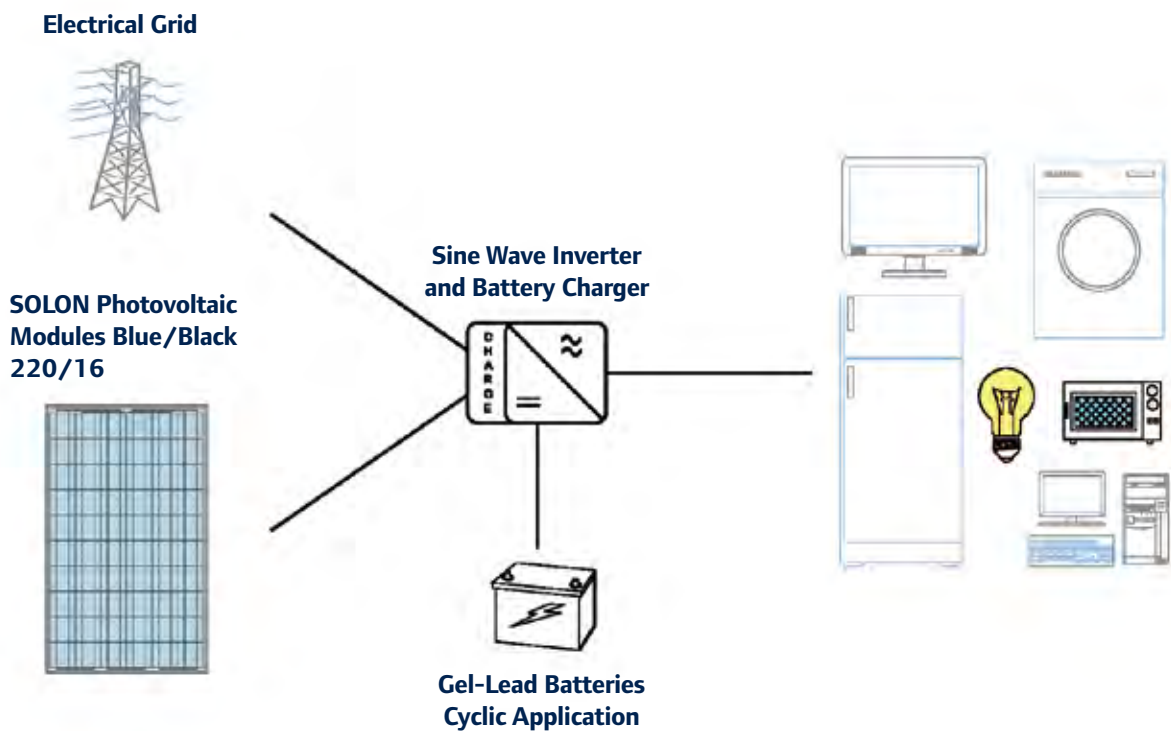
* on request in 110/60 Vac/Hz version

Batteries

	KIT ISL 500	KIT ISL 1000	KIT ISL 2000	KIT ISL 3000	KIT ISL 6000
Battery type	Gel - lead cyclic application	Gel - lead cyclic application	Gel - lead cyclic application	Gel - lead cyclic application	Gel - lead cyclic application
Rated voltage [Vdc]	12	12	12	12	12
Capacity C100 [Ah]	100	100	100	100	100
N° of batteries	1	2	4	6	12
Storage configuration	1 parallel	1 system in parallel of 2 batteries in series	2 system in parallel of 2 batteries in series	3 system in parallel of 2 batteries in series	3 system in parallel of 4 batteries in series
Dimensions bxhxp [mm]	513x223x223	513x223x223	513x223x223	513x223x223	513x223x223
Weight [kg]	36.5	36.5	36.5	36.5	36.5



SOLON SOLkit stand-alone: Backup Kit



- Provides power supply in very unstable electrical grid situations
- Fast switchover time ensures operational continuity
- Over 2 hours autonomy, with expandable battery time

SOLON SOLkit stand-alone Backup version: Easy-to-install, high performing, pre-sized kit. It is available in 4 different power sizes in order to meet all possible energy requirements.

The standard Kit can be expanded with additional photovoltaic modules and storage units.

The Kit can power sensitive loads such as servers or PCs and can consequently replace a UPS system.

Composition of the Backup Kit

	KIT BU 1000	KIT BU 2000	KIT BU 4000	KIT BU 5000
Inverter Continuous Power [W]	800	1600	3200	4000
Rated power [VA]	1000	2000	4000	5000
Total Photovoltaic Power Output [Wp]*	500	1000	1500	2000
Energy storage capacity [kWh]**	1,2	2,4	4,8	4,8
Use examples	Domestic	Large domestic	Small commercial premises and workshops	Large commercial premises and workshops
Hours of autonomy at half the continuous load	2h	2h	2h	1h and 30 min

* calculated with 250Wp modules

**energy stored in batteries in C100 (100 hours constant discharge cycle)

Photovoltaic modules

	KIT BU 1000	KITBU 2000	KIT BU 4000	KIT BU 5000
PV module type	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16
Module power	240-245-250	240-245-250	240-245-250	240-245-250
Number of modules	2	4	6	9

Inverter

	KIT BU 1000	KIT BU 2000	KIT BU 4000	KIT BU 5000
Inverter Type	Pure Sine Wave with Charge and Solar Charge	Pure Sine Wave with Charge and Solar Charge	Pure Sine Wave with Charge and Solar Charge	Pure Sine Wave with Charge and Solar Charge
Rated power [VA]	1000	2000	4000	5000
Continuous power [W]	800	1600	3200	4000
Overload capacity (10s) [VA]	1600	3200	6400	8000
Rated input voltage [Vdc]	12	24	48	48
Rated output voltage and frequency [Vac/Hz]*	230/50	230/50	230/50	230/50
Charge Regulator Type	Integrated PWM controller	Integrated PWM controller	Integrated PWM controller	Integrated PWM controller
Maximum current [A]	50	50	50	50
Maximum voltage [V]	125	125	125	125
Module configuration for each charge regulator	2 modules in parallel	2 systems in parallel of 2 modules in series	2 systems in parallel of 3 modules in series	3 systems in parallel of 3 modules in series
Dimensions bxhxd [mm]	250x330x95	272x367x100	300x455x110	300x455x110
Weight [kg]	4	4,5	7,5	8,5
Mechanical impact protection	IP 20	IP 20	IP 20	IP 20

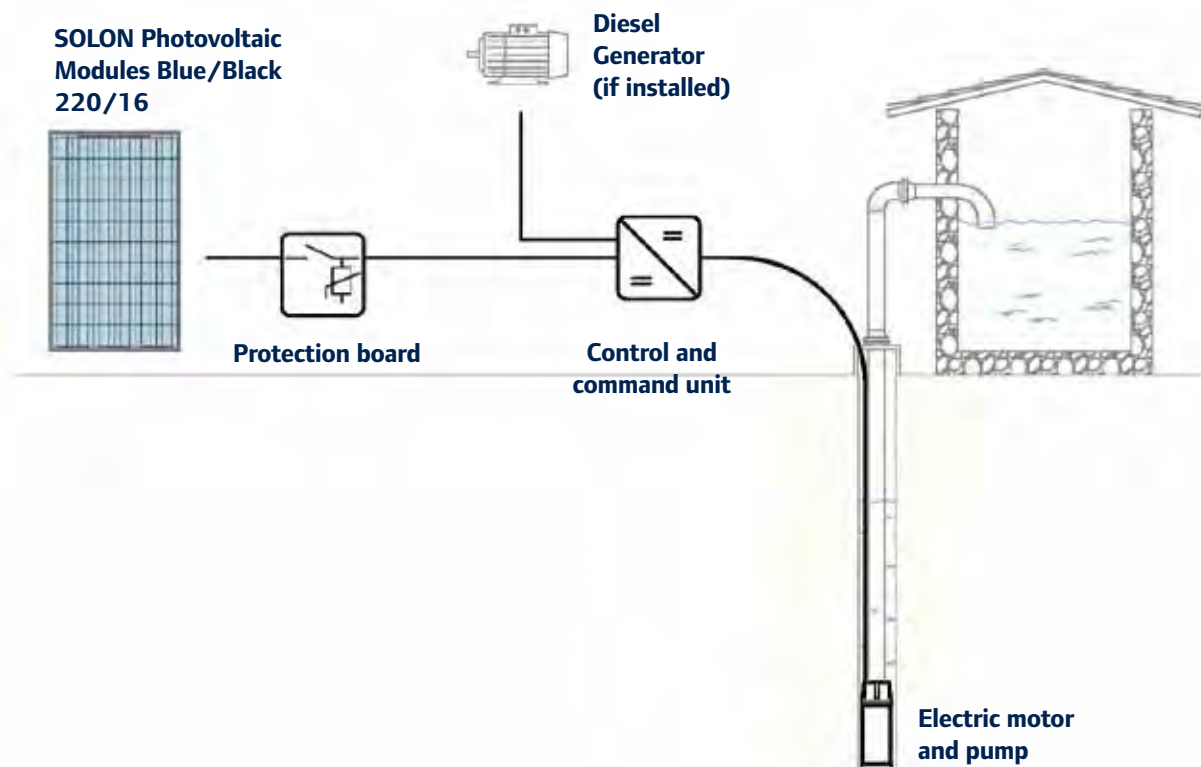
* on request in 110/60 Vac/Hz version

Batteries

	KIT BU 1000	KIT BU 2000	KIT BU 4000	KIT BU 5000
Battery type	Gel - lead cyclic application	Gel - lead cyclic application	Gel - lead cyclic application	Gel - lead cyclic application
Rated voltage [Vdc]	12	12	12	12
Capacity C100 [Ah]	100	100	100	100
N° of batteries	1	2	4	4
Storage configuration	1 parallel	1 system in parallel of 2 batteries in series	1 system in parallel of 4 batteries in series	1 system in parallel of 4 batteries in series
Dimensions bxhxd [mm]	513x223x223	513x223x223	513x223x223	513x223x223
Weight [kg]	36.5	36.5	36.5	36.5



SOLON SOLkit stand-alone: Water Pump Kit



- Ideal for potable water pumping or for watering stock or for small irrigation systems
- Extraction of water from wells with head range from 40m to 140m
- Capacity from 3m³ to 30m³ per day

SOLON SOLkit stand-alone Water Pump version: Easy-to-install, high performing, pre-sized kit.

Constructed from special steel to ensure long life in all conditions of use. The pump body, motor and control electronics can be removed separately for replacement or servicing purposes.

High technology to guarantee high efficiency: DC pumps with MPPT regulator for tracking the maximum power point of the photovoltaic modules and external interface board with display shows the machine's current status.

The kit Water Pump is equipped with water floating engine for the prevention of pollution of the ground water.

Composition of the Water Pump Kit

	WP 0,6 750	WP 0,6 1000	WP 0,6 1250	WP 2 2500	WP 2 4000	WP 4 3000	WP 4 4000	WP 6 2500	WP 6 4500
Capacity [m ³ /h]*	0,6	0,6	0,6	2	2	4	4	6	6
Head range [m]**	60	90	120	80	140	60	86	44	80
Daily capacity [m ³ /day] ***	3	3	3	10	10	20	20	30	30
Photovoltaic power output [Wp]****	750	1000	1250	2500	4000	3000	4000	2500	4500

* higher capacities on request **from pump suction point to discharge height ***estimated at 5 hours of work per day ****calculated with 250Wp modules

Photovoltaic modules

	WP 0,6 750	WP 0,6 1000	WP 0,6 1250	WP 2 2500	WP 2 4000	WP 4 3000	WP 4 4000	WP 6 2500	WP 6 4500
PV module type	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16	Solon Blue/Black 220/16
Module power	240 245 250	240 245 250	240 245 250	240 245 250	240 245 250	240 245 250	240 245 250	240 245 250	240 245 250
N° of modules	3	4	5	10	16	12	16	10	18
Module configuration	3 in series	4 in series	5 in series	2 systems in parallel of 5 modules	2 systems in parallel of 8 modules	2 systems in parallel of 6 modules	2 systems in parallel of 8 modules	2 systems in parallel of 5 modules	2 systems in parallel of 9 modules

Pump

	WP 0,6 750	WP 0,6 1000	WP 0,6 1250	WP 2 2500	WP 2 4000	WP 4 3000	WP 4 4000	WP 6 2500	WP 6 4500
Power	dc	dc	dc	ac	ac	ac	ac	ac	ac
Additional power supply	no	no	no	yes	yes	yes	yes	yes	yes
Pump model	SQFLEX SQF 1.2-2	SQFLEX SQF 1.2-2	SQFLEX SQF 1.2-2	4HS 02/04 MP	4HS 02/08 MP	4HS 04/03 MP	4HS 04/05 MP	4HS 06/02 MP	4HS 06/04 MP
Guarantee (years)	2	2	2	2	2	2	2	2	2

Accessories

Interface board	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.
Protection board	•	•	•	•	•	•	•	•	•
Overflow sensors	opt.	opt.	opt.	opt.	opt.	opt.	opt.	•	•
Power cable	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.
Communication cable	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.	opt.

SOLON 220/16

SOLON Black 220/16 and SOLON Blue 220/16

Mechanical specifications

Dimensions (H x W x D)	1,640 x 1,000 x 34 mm
Weight	18.2 kg
Junction box	1 junction box with 3 bypass diodes (IP65)
Cable	Solar cable, length 1,000 mm, 4 mm ² , prefabricated with MC4-combinable plug (IP67)
Application class	Application class A (according to IEC 61730)
Front glass	Transparent toughened safety glass, 3.2 mm
Solar cells	60 cells, monocrystalline or polycrystalline Si 6.2" (156 x 156mm)
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Back side	Composite film
Frame	Anodized aluminum frame with twin-wall profile and drainage holes

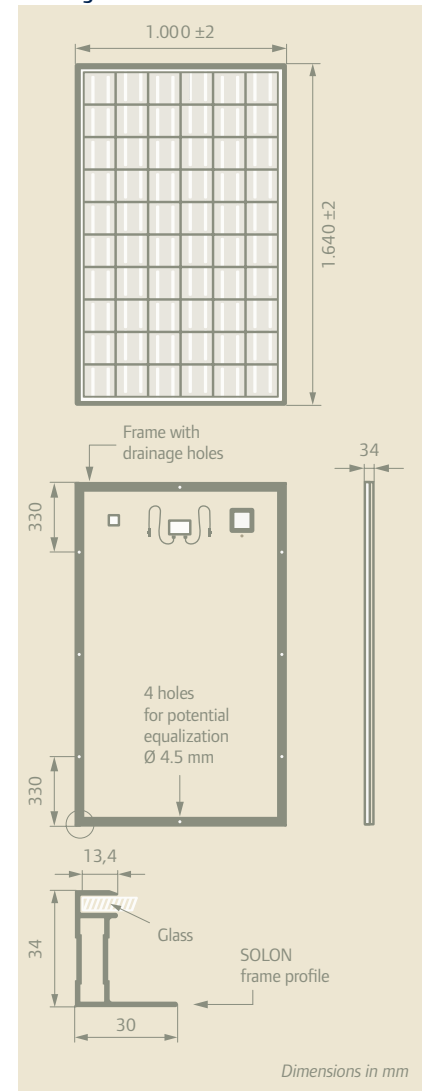
Permissible operating conditions

Temperature range	-40°C to +85°C
Maximum surface load capacity	Tested up to 5,400 Pa according to IEC 61215 (advanced test)
Resistance against hail	Maximum diameter of 25mm with impact speed of 83km/h

Guarantees and certifications

Product guarantee	10 years ¹⁾
Performance guarantee	Guaranteed output of 95% for 5 years, 90 % for 10 years, 87% for 15, 83% for 20 years and 80% for 25 years ¹⁾
Approvals and certificates	IEC 61215 Edition II, IEC 61730 (incl. Safety Class II), IEC 62716 (Ammonia resistance), IEC 68-2-52 (Salt mist resistance), MCS

Drawing



This datasheet complies with the requirements of EN 50380:2003. Subject to modifications. Electrical data without guarantee. SOLON is certified according to ISO 9001, ISO 14001 and OHSAS 18001.

¹⁾ According to SOLON Product and Performance Guarantee.

CEC Approved

