



NEW! 25-YEAR LINEAR
PERFORMANCE GUARANTEE
AND 5-YEAR EXTENDED
PRODUCT WARRANTY*

Length 65.94 in (1675 mm)
Width 39.41 in (1001 mm)
Height 1.22 in (31 mm)
Weight 46.7 lbs (21.2 kg)
Frame Aluminum

Sunmodule⁺

SW 250 MONO



World-class quality

SolarWorld products are manufactured in state-of-the-art factories according to strict German and US quality, labor and environmental standards.

Award-winning products

SolarWorld modules were ranked number one in two consecutive tests carried out by the Photon trade magazine in 2008 and 2009 with up to 12% more yield.

SolarWorld Plus-Sorting

Plus-Sorting guarantees the highest efficiency of the installation. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

25-year Linear Performance Guarantee*

SolarWorld guarantees, over 25 years, that the modules' performance will not decrease by more than 0.7% per year – a distinct added value compared to the two-tiered guarantees usual in the industry.

*according to the SolarWorld service certificate valid at the time of purchase
www.solarworld-global.com/service-certificate



We turn sunlight into power.

Sunmodule⁺

SW 250 MONO

PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC*)

		SW 250
Maximum power	P_{max}	250 Wp
Open circuit voltage	V_{oc}	37.8 V
Maximum power point voltage	V_{mpp}	31.1 V
Short-circuit current	I_{sc}	8.28 A
Maximum power point current	I_{mpp}	8.05 A

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/M², NOCT, AM 1.5

		SW 250
Maximum power	P_{max}	183.3 Wp
Open circuit voltage	V_{oc}	34.6 V
Maximum power point voltage	V_{mpp}	28.5 V
Short-circuit current	I_{sc}	6.68 A
Maximum power point current	I_{mpp}	6.44 A

Minor reduction in efficiency under partial load conditions at 25°C: at 220 W/m², 95% (+/- 3%) of the STC efficiency (1000 W/m²) is achieved.

COMPONENT MATERIALS

Cells per module	60
Cell type	Monocrystalline Silicon
Cell dimensions	156 mm x 156 mm
Front	tempered glass (EN12150)

SYSTEM INTEGRATION PARAMETERS

Maximum system voltage SC II	1000 V
Maximum system voltage USA NEC	600 V
Maximum reverse current	16 A
Increased snowload acc. to IEC 61215	5.4 kN/m ²

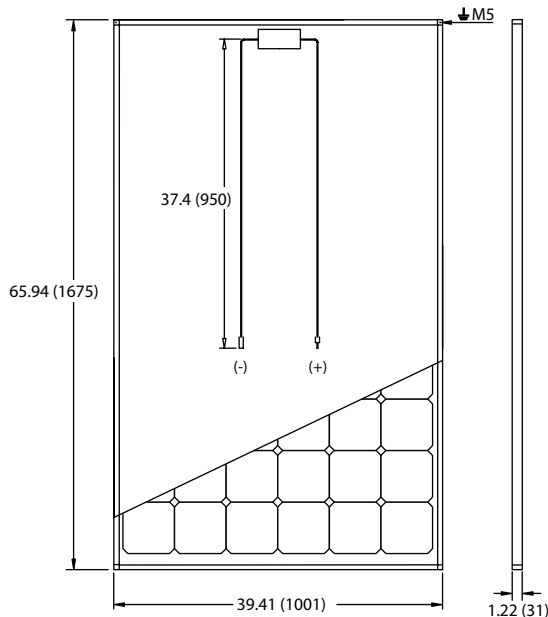
THERMAL CHARACTERISTICS

NOCT	47 °C
TC I_{sc}	0.042 %/°C
TC V_{oc}	-0.33 %/°C
TC P_{mpp}	-0.45 %/°C

ADDITIONAL DATA

Power tolerance ¹ - Warranty	+/- 3 %
SolarWorld Plus-Sorting ¹	$P_{Flash} \geq P_{max}$
Junction box	IP65
Connector	MC4
PTC Rating	TBD
Module Efficiency	14.9%

Weight 46.7 lbs (21.2 kg)



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



CORROSIVE GAS (NH₃) RESISTANT

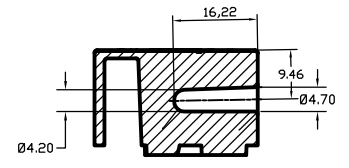
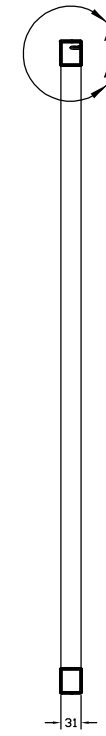
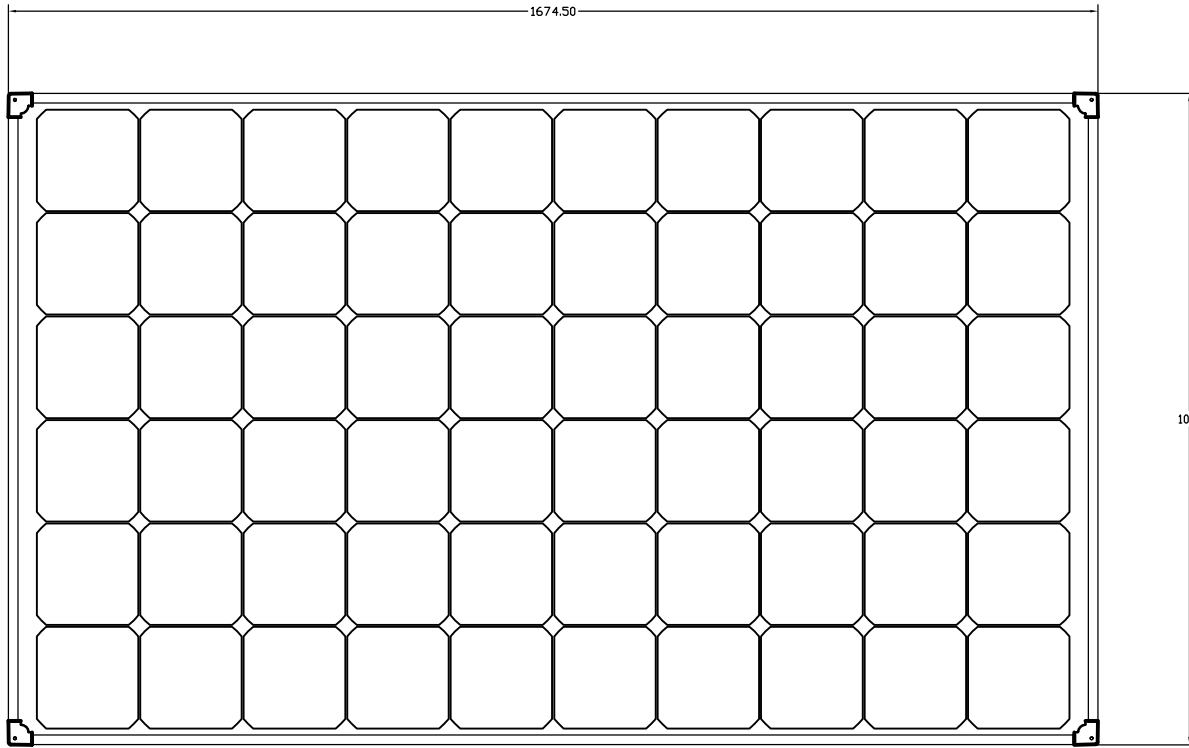


1) The output identified by SolarWorld (P_{Flash}) is always higher than the nominal output (P_{max}) of the module.

SolarWorld AG reserves the right to make specification changes without notice. This data sheet complies with the requirements of EN 50380. Sunmodule panels are manufactured in ISO 9001:2000 certified facilities

The information depicted on this document is proprietary and the sole property of SolarWorld Industries America. Any use or disclosure of this information is expressly prohibited without the written consent of SolarWorld Industries America.

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
1	Preliminary Release	5/19/10	D. K.
2	Added Ground Hole Detail	5/21/10	D. K.



SECTION A-A
GROUNDING DETAIL (4x)

1. Solar cells not to scale
NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MM
TOLERANCES ARE: ±
DECIMALS ANGLES
.X = X XX =
.XX =

BREAK ALL SHARP EDGES 0.25
REMOVE ALL BURRS
DIMENSIONS PER ASME Y14.5M

FINISH

DO NOT SCALE DRAWING

APPROVALS		DATE
DRAFTSMAN	D. King	5/19/10
DESIGNER	D. King	5/19/10
ENGINEER	D. King	5/19/10
APPROVED	J. S.	5/19/10

SolarWorld Industries America				
P.O. BOX 6032 Camarillo, CA 93011				
60 CELL MODULE				
SIZE	FSCM NO.	CODE	DRAWING NO.	REV.
B			SKDK-1010	2
SCALE:	WEIGHT	SHEET 1 OF 1		

Quick Guide for Users

SolarWorld® solar modules

Last revised: June 2010

Carefully read through these installation instructions before installing, operating or servicing the photovoltaic (PV) system. Failure to follow these instructions may result in bodily injury or damage to property. Keep these instructions! Working on a PV system requires specialized knowledge and must therefore be carried out only by appropriately qualified and authorized personnel. Keep children away!

Warning notices



Danger of death from electric shock!

Solar modules generate electricity as soon as they are exposed to light. The voltage of a single module is less than 50VDC. When several modules are connected in series, the summed voltage can be dangerously high. When the modules are connected in parallel the currents are summed together. Although touch protection is provided in the form of the fully insulated plug contacts, the following points must be observed when handling the solar modules to avoid the risk of fire, arcing and fatal electric shock:

- The installation of higher voltage systems should be done by qualified, licensed professionals.
- Do not insert electrically conducting parts into the plugs or sockets!
- Do not wear metallic jewelry while performing mechanical or electrical installation.
- Do not fit solar modules and wiring with wet plugs and sockets! Tools and working conditions must be dry.
- Exercise extreme caution when carrying out work on wiring and use the appropriate safety equipment (insulated tools, insulated gloves, etc.)!
- Do not use damaged modules! Do not dismantle modules! Do not remove any part or label fitted by the manufacturer! Do not treat the rear of the laminate with paint, adhesives or mark it using sharp objects!



Danger of death from electric shock!

The inverter can produce dangerous, high voltages, even when not connected:

- Exercise extreme caution when working on wiring and the inverter.
- After switching off the inverter, it is essential to wait for the time interval specified by the manufacturer before beginning any further work. This allows the high voltage components time to discharge.
- Be sure carefully to follow the inverter manufacturer's installation instructions.



Danger of death from arcing!

Modules generate direct current (DC) when any amount of light shines on them. When breaking a connected string of modules (e.g. when disconnecting the DC line from the inverter under load), a lethally strong arc can occur:

- Never remove the solar generator from the inverter while it is still connected to the main grid!
- Ensure that the cable connections are in perfect condition (no cracking, soiling or other contamination)!

Unpacking the modules and storage

Observe the warnings on the packaging!
The utmost care is required when handling the modules. Take care when unpacking, transporting, and storing them. Leave modules in packaging until they are to be installed. Carry modules with both hands. Do not use the connection socket as a handle. Do not stand modules on hard or rough ground. Do not stand modules on their corners. Ensure modules do not bow. Do not place modules on top of each other. Do not subject to load, do not stand on them, do not drop. Keep all electrical contacts clean and dry. In order to keep a record of your system, we recommend that you make a note of the serial numbers. If it is necessary to store the modules temporarily, a dry, ventilated room should be used.

General safety information

Ensure that the module is used for its intended purpose only. Pay attention to the local ordinances, building standards and accident-prevention regulations during installation. The safety information for other system components must also be followed.

Installation

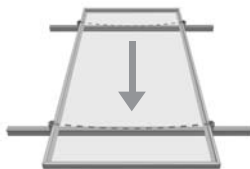
When installing the modules, please pay attention to:

• Safety during installation

Do not carry out installation work when there are strong winds. Secure yourself and other workers to avoid falling. Secure work materials to prevent articles from falling. Create a work zone to avoid accidents with other people.

• Keeping within the maximum permitted load

Make sure the support structure adheres to maximum permissible load requirements as prescribed by local ordinances, particularly in regions of high snow accumulations and high wind velocities. Take notice to possible bowing of the modules under high loads. Avoid installing fasteners, cable ties, etc. between the module backside and support structure (i.e. on mounting rails) as any sharp edges can damage module.



Drawing:

Bowing of the module under high mechanical front loads.

• Grounding of the module and frame

The company installing the PV module frame is also responsible for properly grounding. If the building is already equipped with an exterior lightning protection system the PV-installation must be integrated in the protection system against direct effects of lightning. Country specific standards must be adhered to.

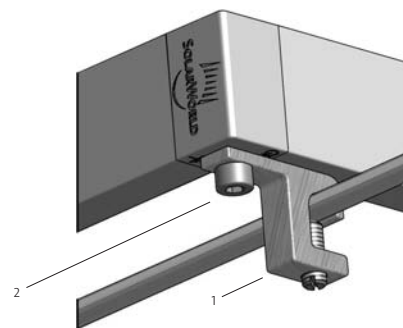
A grounding method authorized by UL is mandatory in the US and Canada.

Example UL:

The modules can be connected to the grounding holes using a lay-in lug and a recessed hex head machine screw.

Drawing:

Ground connection using a cable lug and a recessed hex head machine screw.



- 1) Lay-in lug
- 2) Recessed hex head machine screw

We recommend using the components as listed below. Any UL approved PV grounding method and components are also acceptable in the US and Canada.

Table: Recommended components

Item	Manufacturer/ Description	Tightening torque
Lay-in lug	IlscO GBL-4DB (E34440)	35 lbf-in, 4-6 AWG str 25 lbf-in, 8 AWG str 20 lbf-in, 10-14 AWG sol/str
Recessed hex head machine screw	M5 x 12 18-85S (DIN912-A2)	44 lbf-in (5.0 Nm)

See: www.ilscO.com

• Fire safety

The roof construction and installation may affect the fire safety of a building; improper installation may contribute to hazards in the event of fire. For roof application, the modules should be mounted over a fire resistant covering rated for the application. The module is "non-explosion-protected equipment". Hence it must not be installed in the proximity of highly flammable gases and vapors (e.g. filling stations, gas containers, paint spraying equipment). The module must not be installed near open flames or flammable materials.

• Suitable environmental conditions

The module is intended for use in temperate climatic conditions. The module must not be subjected to concentrated light. It must not be immersed in water or constantly exposed to water spray (e.g. from fountains). There is risk of corrosion with exposure to salt (it is recommended that modules are installed at least 500 m or 1700 ft from the sea) and sulfur (sulfur sources, volcanoes). The module may not be exposed to extremely corrosive chemicals (e.g. emissions from manufacturing plants).

• Suitable installation

Make sure the module meets the technical requirements of the system as a whole. Ensure that other system components do not exert damaging mechanical or electrical influences on the modules. When connected in series, modules must all have the same amperage. When connected in parallel, the modules must all have the same voltage. The modules must not be connected together to create a voltage higher than the permitted system voltage. Modules must not be fitted as overhead glazing or vertical glazing (façade). Ensure that the mounting system can also withstand the anticipated wind and snow loads. There are openings at the corner of the module frame to allow water from precipitation to drain. Ensure that these openings are not blocked nor partially blocked by the module installation method.

• Optimum orientation and tilt

To obtain maximum yield from the system, we recommend that you determine the best direction and tilt angle for the modules. Conditions for generating electricity are considered ideal when the sun's rays strike the module perpendicular to its surface. To avoid performance drops in series circuits, ensure that all modules have the same orientation and tilt.

• Avoidance of shading

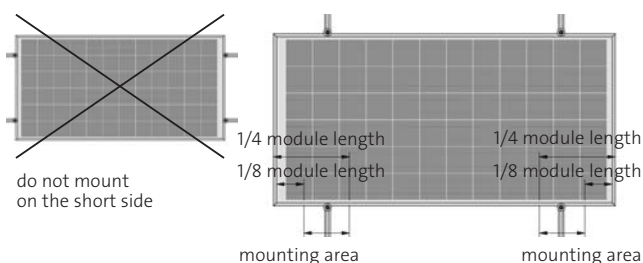
Even partial shading will cause a yield reduction. A module is "shade free" when the entire surface is shade free all year round and, even on the most unfavorable days of the year, receives unobstructed sunlight.

• Adequate ventilation

Ventilation of the module backside is necessary to avoid the build-up of heat that can reduce performance.

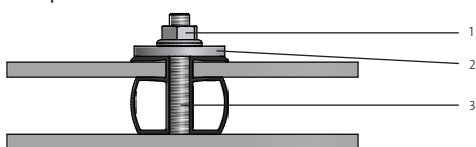
Mounting

Each module must be securely fastened at a minimum of 4 points. The frame has been stress tested for mounting by the long sides. The module should not be secured by its short sides.



PV modules can be mounted to the substructure by clamping on at the front side.

Example:



- 1) Stainless steel serrated lock nut
- 2) Stainless steel washer
- 3) Stainless steel M8 (5/16 inch) T-head bolt

The clamping area of the washer must cover at least 135 mm² or 0.21 in². A torque wrench must be used for assembly. In the examples shown, the tightening torque (using stainless steel M8 or 5/16 inch bolts) must be 20 Nm or 11.8 ft-lbf. Do not drill any holes (doing so would void the warranty). Use appropriate corrosion-proof fastening materials.

Wiring

The module is provided from the factory with pre-connected cables. Under no circumstances should the junction box be opened.

For the wiring, pay attention to:

• Correct wiring scheme

In order to decrease voltage caused by indirect lightning strikes, all connecting cables should be as short as possible. Check that the wiring is correct before commissioning the system. If the measured open circuit voltage differs from the specifications, then there is a wiring fault. Ensure that the polarity is correct.

• Correct plug connections

Make connections only in dry conditions. Ensure that connections are secure and tight.

• Use of suitable materials

Use special solar cable and suitable connectors only. Ensure that they are in perfect electrical and mechanical condition. Use only single wire cables. Select a suitable conductor diameter to minimize voltage drop.

• Cable protection

We recommend securing the cables to the mounting system using UV-resistant cable ties. Protect exposed cables from damage using suitable precautions (e.g. laying them in plastic pipes). Avoid direct exposure to sunlight.

Underwriters Laboratories Information (U.S. and Canada)

- The solar module electrical characteristics are within +/-10% of the module label indicated values of I_{sc}, V_{oc}, and P_{mp} under Standard Test Conditions (irradiance of 100 mW/cm², AM 1.5 spectrum, and a cell temperature of 25°C/77°F)
- Under normal conditions, a photovoltaic module is likely to experience conditions that produce more current and/or voltage than reported at standard test conditions. Accordingly, the values of I_{sc} and V_{oc} marked on this module should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor capacities, fuse sizes, and size of controls connected to the PV output.
- Refer to section 690-8 of the National Electric Code (NEC) for an additional multiplying factor of 125% (80% de-rating) which may be applicable
- Over-current protection shall be in accordance with the requirements of Article 240 of the NEC
- Conductor recommendations: 8-14 AWG (1.5-10 mm²) USE-2 (nonconduit)/ THWN-2 (conduit), 90°C wet rated
- Cable conduits should be used in locations where the wiring is accessible to children or small animals
- Modification or tampering of diodes by unqualified personnel is not permitted. Please consult a SolarWorld Service Center for additional information regarding diode replacement/repair.

Maintenance and cleaning

Given a sufficient tilt (at least 15°), it is generally not necessary to clean the modules (rainfall will have a self-cleaning effect). In case of heavy soiling, we recommend cleaning the modules using plenty of water (from a hose) without any cleaning agents and using a gentle cleaning implement (a sponge). Dirt must never be scraped or rubbed away when dry, as this may cause micro-scratches.

We recommend that the system be inspected at regular intervals to ensure:

1. All mounting points are tight and secure and free of corrosion.
2. All cable connections are secure, tight, clean and free of corrosion.
3. Cables are not damaged in any way.
4. The conductivity of module frame to earth ground.

Disclaimer of liability

Since compliance with this guide and the conditions and methods of installation, operation, use and maintenance of the modules are not checked or monitored by SolarWorld AG, SolarWorld AG accepts no liability for damage arising through improper use or incorrect installation, operation, use or maintenance.

Furthermore, liability for infringements of patent law or of other third party rights arising from the use of the modules is excluded unless we are automatically liable by law.

SolarWorld is:

SolarWorld AG
Martin-Luther-King-Str. 24
53175 Bonn
Germany
Telefon: +49 - 228 - 55920 - 0
Telefax: +49 - 228 - 55920 - 99
service@solarworld.de
www.solarworld.de

SolarWorld Ibérica, S.L.
C/La Granja 15, Bloque B-1ªB
28108 Alcobendas, Madrid
Spain
Tel.: +34 - 91 - 4905999
Fax: +34 - 91 - 6574967
service@solarworld.es
www.solarworld.es

SolarWorld California Inc.
4650 Adohr Lane
Camarillo, CA 93012
USA
Tel.: +1 - 800 - 947 - 6527
Fax: +1 - 805 - 388 - 6395
service@solarworld-usa.com
www.solarworld-usa.com

SolarWorld Korea Ltd.
Gangnam Finance Center, 737
Yeoksam-dong, Gangnam-gu,
Seoul, Korea, 135-984
Tel.: +82-2-2112-1871
Fax: +82-2-2112-1849
service@solarworld-korea.com
www.solarworld-korea.com

SolarWorld Asia Pacific Pte. Ltd.
72 Bendemeer Road
#07-01, Luzerne
Singapore 339941
Singapore
Tel.: +65 - 6842 - 3886
Fax: +65 - 6842 - 3887
service@solarworld.sg
www.solarworld.sg

SolarWorld Africa Pty. Ltd.
20th Floor
1 Thibault Square
Cape Town, 8001
South Africa
Tel.: +27 - 21 - 421 - 8001
Fax: +27 - 21 - 421 - 8002
service@solarworld-africa.co.za
www.solarworld-africa.co.za





SolarWorld Shipping Data

Rev. 08-25-10

Sunmodule Model Number	Description	Modules per Pallet	Pallet Dimensions L x W x H	Approx. Pallet Gross Weight (lbs)	Modules per 53' Truck Load
SW245/250 Plus mono	24 VDC Nominal	30	67 x 40 x 50	1580	540

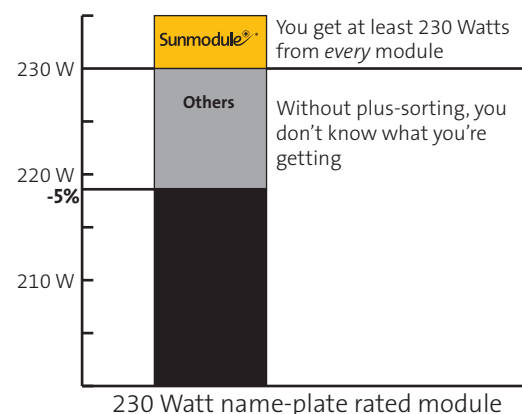
Customer bulletin: New module rating and warranty

• SolarWorld introduces plus-sorting to the Sunmodule® product line.

SolarWorld's unique plus-sorting method ensures that our customers receive the watts they pay for. Every module is factory flash tested (at standard test conditions) to determine the peak rated power output, then sorted in 5 watt bin increments. SolarWorld's power rating accounts for initial light-induced degradation (LID) so there are no surprises after installation.

With plus-sorting, SolarWorld only delivers modules that have greater than or equal to the nameplate rated power. These power ratings are backed up with the factory flash report.

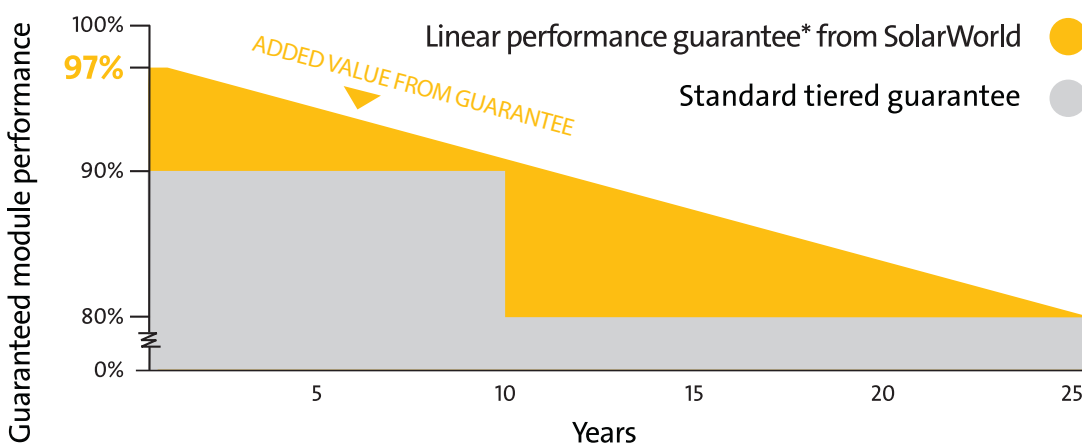
By delivering actual power, plus-sorting ensures that systems operate at top efficiency which results in maximum energy yield year after year. Plus-sorting eliminates nameplate uncertainty and our 5 W bin size makes mismatch losses negligible. This means that the associated de-rate factors in system modeling programs, like PVWatts, PVsyst, and OnGrid can be minimized, predicting up to 5% greater annual yield.



• SolarWorld introduces new linear performance guarantee

Because SolarWorld produces the highest quality, we can guarantee the best performance. That's why SolarWorld is the first solar company to offer a 25-year linear performance guarantee* for all modules installed as of January 1, 2010.

According to our guarantee, the actual power of a new module cannot deviate from the specified rated power by more than 3% during the first year; and afterward, the power will not decrease by more than 0.7 percent of the rated power per year. So at year 3, the Sunmodule's capacity is guaranteed to be at least 95.6% of the nameplate as opposed to the industry standard guarantee of 90%. And at year 20, it's still at least 83% as opposed to the industry standard 80%. SolarWorld's linear performance guarantee provides clear added value that you can take to the bank.



Clear added value compared to standard tiered guarantees.

• SolarWorld extends workmanship warranty to 5 years

As a further expression of SolarWorld's industry-leading quality, we have extended the Sunmodule® product workmanship warranty to 5 years*.



* See limited warranty statement on reverse

Limited Warranty (valid from 01.01.2010)

By purchasing the Solar modules from SolarWorld California Inc. ("SolarWorld") (hereinafter referred to as: products), you have chosen a level of quality, which meets the highest requirements. SolarWorld assumes that use in accordance with this Limited Warranty will reliably maintain the function of the products to produce electricity (hereinafter referred to as: functional capability) as well as reliably maintaining the performance of the products. As a sign of our confidence in this quality, SolarWorld is happy to grant you as the end-user of the products (i.e. the person who put the products into operation correctly for the first time or the person who has legitimately purchased the products from such an end-customer without any modifications) a Five Year Limited Product Warranty and Twenty-Five Year Limited Service Warranty as presented below:

A Five Year Limited Product Warranty:

- SolarWorld guarantees the functional capability of the products for five years beyond the purchase of the product and that the product
 - will not suffer from any mechanical adverse effects, which limit the stability of the solar module. A condition for this is correct installation and use in accordance with regulations, as described in the installation instructions enclosed with the product.
 - will not be subject to any clouding or discolouration of the glass.
 - with its cable and connector plug will remain safe and operational, if they are installed professionally and are not permanently positioned in water (puddle). However, damage to the cable, which is caused by abrasion on a rough lower surface owing to insufficient fixing or owing to unprotected running of the cable over sharp edges, is excluded. Any damage caused by animals (e.g. rodent bites, birds, insects) is also exempted.
 - with its aluminium frames will not freeze up when it is frosty if it is installed correctly.

The appearance of the product as well as any scratches, stains, mechanical wear, rust, mould, optical deterioration, discoloration and other changes, which occurred after delivery by SolarWorld, do not represent defects, insofar as the change in appearance does not lead to a deterioration in the functional capability of the product. A claim in the event of glass breakage arises only to the extent that there was no external influence.

- If the products exhibit one of the above-mentioned defects during this period and this has an effect on the functional capability of the product, SolarWorld will repair the defective products, supply replacement products or provide the customer with an appropriate residual value of the products as compensation at its discretion.

B Twenty-Five Year Limited Service Warranty:

- The products which you have purchased have a performance specification within a certain tolerance range of 3% with regard to the power output (the so-called effective output). The relevant effective output can be found on the nameplate on the reverse of the product. SolarWorld assumes that the actual output of the products will decline only slightly over a period of 25 years as of the purchase of the product.
- SolarWorld guarantees that the actual output of the product will amount to at least 97% of effective output during the first year of operation of the product and as of the second year of the operation of the product, the effective output will decline annually by no more than 0.7% for a period of 24 years, so that by the end of the 25th year of operation an actual output of at least 80.2% of effective output will be achieved. In the event of a negative deviation of actual product performance from the so-called threshold values, SolarWorld will either supply you with replacement products, which make it possible to maintain actual performance, take other measures, which make it possible to achieve actual performance or reimburse you with the time value percentage of your product exclusively at its discretion.

- When replacement products are supplied, there is no entitlement for the use of new products or those which are as good as new. On the contrary, SolarWorld is authorised to also supply used and/or repaired products as replacements.

C Further conditions of entitlement

- The period of the Limited Service Warranty under B) is restricted to a period of 25 years as of the purchase of the product and will not be extended even in the event of a repair or exchange of a product.
- The effective output and the actual output of the products are to be determined for the verification of any guarantee case using standard test conditions, as described under IEC 60904. The decisive measurement of performance is carried out by a recognised measuring institute or through SolarWorld's own measurements (the assessment of measurement tolerances is undertaken in accordance with EN 50380). The guarantee does not cover transport costs to return the products or for a new delivery of repaired or replacement products. It also does not cover the costs of the installation or re-installation of products, as well as other expenditure by the end-customer or seller.
- All products which have been replaced pass to the ownership of SolarWorld.

- The term of the rights granted to you in this Limited Warranty in paragraphs A) and B) starts with the original purchase of the products, insofar as they were purchased by the original end-customer after 01.01.2010. SolarWorld retains the right to adjust voluntary special services in accordance with this document at any time. However, any product purchases, which have already been concluded, remain unaffected by this – including the voluntary special services in accordance with this document. You can find out about the current status of this document at any time at www.solarworld-usa.com.

D Assertion of claims

The assertion of the services specified under A) and B) requires you (i) to inform the authorized seller/dealer of the product of the alleged defect in writing, or (ii) to send this written notification directly to the address mentioned in G), if the seller/dealer who should be informed no longer exists (e.g. owing to business closure or insolvency). Any notification of defects is to be added to the original sales receipt as evidence of the purchase and the time of the purchase of the SolarWorld products. The assertion should take place within 14 days of the occurrence of the defect. The return of products is permitted only after the written consent of SolarWorld has been obtained.

E Use in accordance with this Limited Warranty

- The services described above can additionally be ensured only if the product is used and/or operated in accordance with this Limited Warranty as well as not having been dismantled and re-assembled in the meantime. Services provided by SolarWorld must therefore be with-

drawn if the defects to the product are not exclusively based on the products themselves. This is e.g. the case if:

- Delays on your part or on the part of the fitter in observing the assembly, operational and maintenance instructions or information.
- Exchange, repair or modification of the products by persons who were not authorised by SolarWorld.
- Incorrect use of the products..
- Vandalism, destruction through external influences and/or persons/animals.
- Incorrect storage or inappropriate transport before installation..
- Damage to the customer system or incompatibility of the customer's system equipment with the products.
- Use of products on mobile units such as vehicles or ships.
- Influences such as dirt or contamination on the face-plate; contamination or damage by e.g. smoke, extraordinary salt contamination, or other chemicals.
- Force majeure such as flooding, fire, explosions, rock-falls, direct or indirect lightning strikes, or other extreme weather conditions such as hail, hurricanes, whirlwinds, sandstorms or other circumstances outside the control of SolarWorld.

- The entitlements referred to under A) and B) will not be granted if and as soon as the manufacturer's labels or serial numbers on the PV modules have been changed, deleted, peeled off or made unrecognizable.

F Exclusion of liability

The remedies set forth in this Limited Warranty are the exclusive remedies available to you as a product purchaser. SolarWorld shall not be liable for damage, injury or loss arising out of or related to a product except as set forth in this Limited Warranty. In particular, under no circumstances shall SolarWorld be liable for incidental, consequential, special or other indirect damages in any way connected with a product. SolarWorld's aggregate liability, if any, shall be limited to a product's purchase price or any service furnished in connection with a product, as the case may be.

G Your contacts

To receive service under this Limited Warranty, please contact the authorized seller/dealer of your product or SolarWorld at the following address: Customer Service, SolarWorld California Inc., 4650 Adohr Lane, Camarillo, CA 93012, USA.

H Choice of law

The rights and responsibilities granted under this Limited Warranty shall be governed and construed in accordance with the laws of the State of California, without regard to its conflict of law principles.

I Validity

The following table contains all the current products to which this Limited Warranty is to be applied. Products, which do not appear in this list, are not subject to this Limited Warranty.

Sunmodule/Sunmodule Plus/laminate/black

SW 135 mono	SW 195 mono	SW 170 poly	SW 120 Compact poly
SW 140 mono	SW 200 mono	SW 175 poly	SW 125 Compact poly
SW 145 mono	SW 205 mono	SW 180 poly	SW 130 Compact poly
SW 150 mono	SW 210 mono	SW 185 poly	SW 135 Compact poly
SW 155 mono	SW 214 mono	SW 190 poly	SW 140 Compact poly
SW 160 mono	SW 215 mono	SW 195 poly	SW 145 Compact poly
SW 165 mono	SW 220 mono	SW 200 poly	SW 150 Compact poly
SW 170 mono	SW 225 mono	SW 205 poly	
SW 175 mono	SW 230 mono	SW 210 poly	
SW 180 mono	SW 235 mono	SW 214 poly	SW 130 Compact mono
SW 185 mono	SW 240 mono	SW 215 poly	SW 135 Compact mono
SW 190 mono	SW 245 mono	SW 220 poly	SW 140 Compact mono
	SW 250 mono	SW 225 poly	SW 145 Compact mono
		SW 230 poly	SW 150 Compact mono
		SW 235 poly	SW 155 Compact mono
		SW 240 poly	SW 160 Compact mono

J State Law

This Limited Warranty is expressly intended to exclude all other express or implied warranties, including without limitation the warranties of merchantability and fitness for a particular purpose, to the periods set forth herein. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties or the exclusion or limitation of damages, so some of the above limitations may not apply to you.

Revised January 2010



Kevin Kilkelly
President
SolarWorld California, LLC



Raju Yenamandra
Vice President, Sales and Marketing
SolarWorld California, LLC





www.solarworldusa.com
4650 Adohr Lane
Camarillo, CA 93012
Tel: (805) 482-6800
Fax: (805) 388-6395

Manufacturer's Certification

SolarWorld Photovoltaic Modules Sunmodule SW175 – SW250

August 25, 2010

This certification applies to SolarWorld Sunmodules, SW175/220/225/230/235/240/250 mono, that have been manufactured in the United States.

It is hereby certified that the referenced modules:

1. Qualify as photovoltaic devices which use solar energy to generate electricity and qualify as solar electric property.
2. Meet or exceed the Federal Trade Commission (FTC) requirements to apply the **"Made in USA"** label to all advertising materials.
3. Meet or exceed the provisions of the **Buy American Act**.
4. Meet or exceed the provisions of the **American Recovery and Reinvestment Act**.
5. Have been manufactured in a SolarWorld ISO 9001:2008 certified factory.
6. Meet or exceed the UL 1703 requirements and are listed with the Underwriters Laboratories.
7. Have been certified to the "Crystalline silicon terrestrial photovoltaic (PV) modules-Design qualification and type approval", IEC 61215 2005-04.
8. SolarWorld will accept these modules for recycling at their end of life.

Under penalties of perjury, I declare that I have examined this certification statement, and to the best of my knowledge and belief, the facts presented are true, correct and complete.

Jamie Skenderian

Product Manager Modules