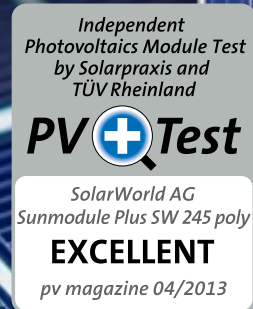


NEW PRODUCTS AT THE INTERSOLAR 2013

ALWAYS ON THE SAFE SIDE WITH SOLARWORLD



We turn sunlight into power.



SolarWorld Sunmodule Plus SW 245 poly – rated “excellent” in PV+Test

Top quality can be measured: SolarWorld proved this yet again in the latest module test carried out by Solarpraxis AG in cooperation with TÜV Rheinland. **Of the 21 modules tested, the Sunmodule Plus SW 245 poly from SolarWorld was the only module to receive the prestigious “excellent” classification in the new, more rigorous testing process.** The modules are purchased discretely through normal purchasing channels, then tests are carried out over a period of several months at TÜV Rheinland’s solar laboratory in Cologne. Several different factors are evaluated, such as **durability, electrical safety, workmanship, performance, documentation and guarantee.** The new PV+Test 2.0 test includes a comprehensive performance analysis at varying temperatures and degrees of irradiation, which is intended to replicate normal outdoor conditions.

The analysis also looks into the potential induced degradation (PID) – a reduction in performance that can result from several modules being connected in a string. In addition, the weighting of the individual testing categories has been changed to emphasize the importance of durability. This is a new feature of the test and an important step towards a comparable and independent evaluation of solar modules.

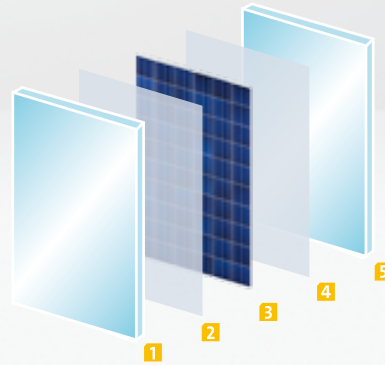
The SolarWorld module received **top ratings in the categories of electrical safety, documentation and guarantees**, as well as an **outstanding score of “excellent”** for workmanship. The examiner’s verdict said it all: **“absolutely flawless”**. The Sunmodule Plus also achieved **excellent ratings in the sub categories of thermal cycling test and damp heat test** – a clear indication of **outstanding module durability.**

OVERVIEW OF THE TEST RESULTS*

- » Good durability
- » Good performance
- » Good low-light performance
- » Excellent electrical safety
- » Excellent guarantees
- » Excellent documentation
- » No initial performance losses (light induced degradation = LID)
- » Perfect workmanship – seven times top ratings

*For details, please refer to our special PV+Test publication

AVAILABLE
SUMMER 2013



Sunmodule Protect

- 1 2-mm-thick solar glass with anti-reflection coating
- 2 Ethylene vinyl acetate (EVA)
- 3 Solar cell matrix
- 4 Ethylene vinyl acetate (EVA)
- 5 2-mm-thick solar glass with printed reflection grid

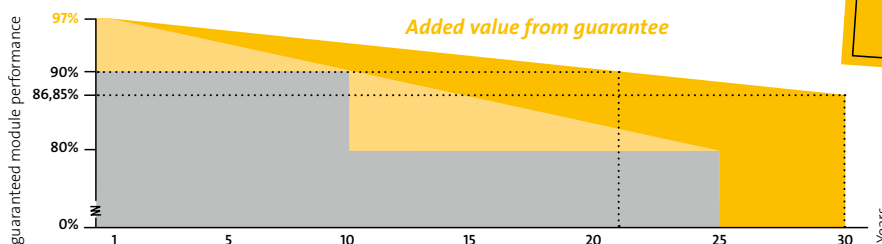
Sunmodule Protect SW 260 poly | Front and rear sides

Sunmodule Protect – the new quality standard for solar modules

The new Sunmodule Protect series is the latest addition to the SolarWorld AG range. It has set new **benchmarks when it comes to service life, mechanical durability, degradation behavior and its groundbreaking performance guarantee.** The Sunmodule Protect offers even better protection against environmental factors through the innovative use of the latest glass technology on the front and rear sides of the module – and without adding any extra weight! The benefit: **Even higher quality** with the same easy mounting and handling.

Linear performance guarantee*

- Linear performance guarantee from SolarWorld: Sunmodule Protect
- Linear performance guarantee* from SolarWorld: Sunmodule Plus
- Standard tiered guarantee



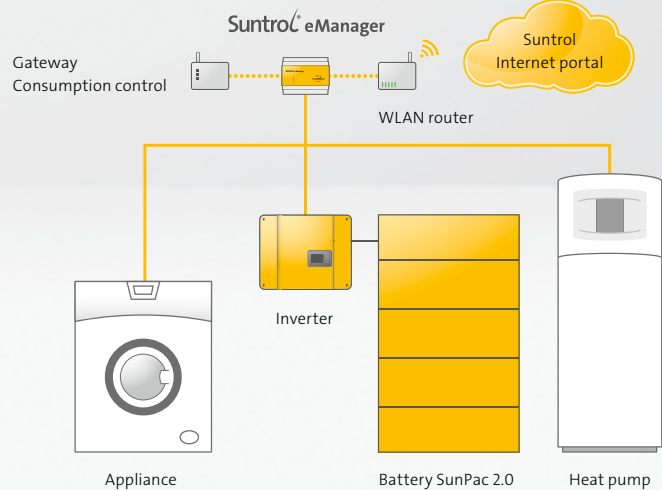
30-YEAR PERFORMANCE GUARANTEE FOR THE SUNMODULE PROTECT
 Yearly linear degradation in performance of only 0.35%
 Guaranteed module performance:
 90% after 21 years
 86.85% after 30 years

* in accordance with the applicable SolarWorld service certificate upon purchase
www.solarworld.com/service-certificate

PRODUCT BENEFITS SUNMODULE PROTECT

- >> 30-year linear performance guarantee
- >> Energy-yield-over-service-life ratio substantially exceeds that of conventional glass-film panels
- >> Embedding the cells in glass-glass ensures optimal protection against mechanical loads and environmental factors
- >> Same weight and dimensions as the Sunmodule Plus – compatible with all standard SolarWorld mounting systems
- >> Stable aluminum frame for easy mounting
- >> Reliable junction box attached at the rear

AVAILABLE
OCTOBER 2013



Suntrol eManager – the integrated energy management system

The Suntrol eManager is SolarWorld's system for **intelligent and intuitive home automation** – it can be controlled from within the home, via the Internet or using a smartphone when you're on the go.

The Suntrol eManager enables the user to check how much electricity their solar power system is generating at any given time, as well as the current energy demand. The eManager hardware is installed inconspicuously in the house's breaker box. The Suntrol eManager can be operated via an online portal using a computer, tablet PC or smartphone, or locally via an internal home network. This allows **additional elements to be added** at a later date and the eManager application section to be **expanded with various apps**.

Very clever: Connecting home appliances (such as hot-water heat pumps, infrared heating, clothes dryers, freezers etc.) to the Suntrol eManager allows electricity to be consumed **directly from the roof** as it is generated, thereby **increasing the self-consumption of electricity**. The result: **Increased independence and lower electricity costs**.

PRODUCT BENEFITS SUNTROL eMANAGER

- » Integrated energy management system for your home
- » Optimization of household energy consumption using your own solar power system
- » Complete, coordinated system from SolarWorld – software and hardware from one source
- » Clear display and analysis of all system parameters
- » Compatibility with various smart home systems
- » System can be expanded to include additional applications

AVAILABLE
AUGUST 2013
 PIKO battery inverter | SunPac 2.0

SunPac 2.0 – the battery system for more homemade power

For the first time ever, the **new SunPac 2.0** system integrates the charging and discharging functions in a **three-phase inverter**. This means an additional charge controller is no longer needed, which not only saves space but also results in greater efficiency. The three-phase connection enables the entire household, including major appliances such as a stove, to be powered using stored homemade electricity. If more energy is available than is currently required, the surplus power is stored in the battery. The battery is then discharged on all three phases in the evening and during the night, which results in a **high degree of self-sufficiency**.

The new PIKO battery inverter also features an **integrated data logger** which, in conjunction with Suntrol portal, displays the system yield, the consumption of homemade power and the battery charge level. The effort required to install the system is significantly reduced, as numerous functions are already directly built into the inverter. As an introductory offer, the system comes with a reliable **lead-acid battery (VRLA)**. So with SolarWorld, you can take advantage of the development potential in the battery segment today – flexible and future-proof.

PRODUCT BENEFITS BATTERY SYSTEM SUNPAC 2.0

- » Integrated homemade power control
- » Simple, inexpensive installation
- » Future-proof, as it has been constructed to adapt to new battery concepts
- » High-quality lead-acid battery (VRLA) with energy management system
- » 11.6 kWh of energy storage and 5.8 kWh of usable energy

SELF CONSUMPTION

ELECTROMOBILITY

SMART HOME

SUNTROL

SYSTEM

eMANAGER

CONSUMPTION CONTROL

SMART METERING

