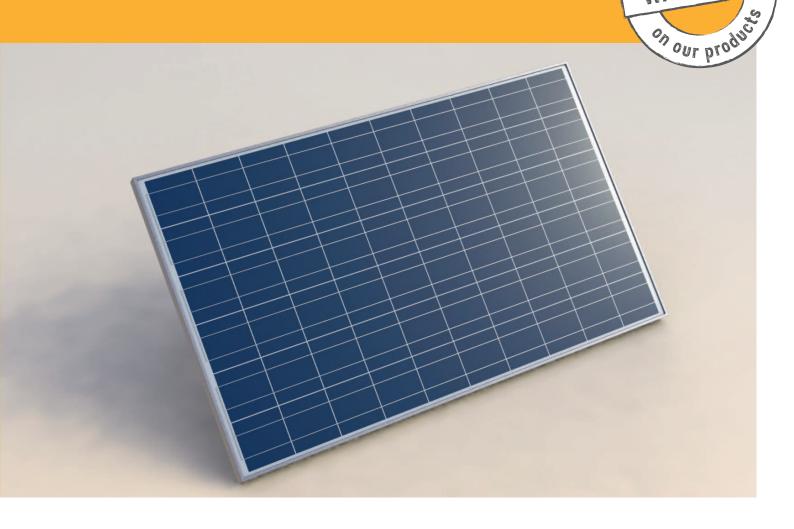


A 10-YEAR

WARRANTY

SOLAR PANEL GENIUS POLY

SHIMMERING ENERGY GIANT.



www.zentralsolar.de



SOLAR PANEL GENIUS POLY

The top performer.

Our high-performance solar cells guarantee to the operator a particularly high annual energy yield – and an efficiency level of up to 16 %. Additionally they are extremely weatherproof, thanks to the 4 mm thick solar glass and the sturdy but easy-to-install aluminium frames. Wind loading of up to 2400 and snow loading of up to 5400 Pascal are no problem to the polycrystalline solar panels – they last and last and last... even in regions with particularly severe weather conditions.









Awarded: RAL-certified all along the line We are one of the few companies in Germany, which are certified in all four categories of the photovoltaic area of RAL-GZ 966.



CE trademark Declaration of conformity Guarantee of adherence to all safety and health requirements under EU guidelines Art. 288, Paragraph 3 AEUV.



IEC 61215

Construction type certification of PV panels by TÜV Rhineland according to IEC 61215 Testing and certification of all PV components to international standards (IEC 61215) as regards thermal, mechanical and radiation-related loading.

Solar panel composition:

- 1 Anodised aluminium frame
- 2 3.2 mm toughened glass
- 3 EVA film
- 4 Monocrystalline cells
- 5 EVA film
- 6 PVF film, white
- 7 Junction box and identification plate



| Term | | | Genius ES-P 240 | Genius ES-P 245 | Genius ES-P 250 |
|--|--|-----------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Cell type | | | Polycrystalline | Polycrystalline | Polycrystalline |
| Number of cells | | piece | 60 | 60 | 60 |
| Number of bypass diodes | | piece | 3 | 3 | 3 |
| String switching in panel | | | 3 x 20 | 3 x 20 | 3 x 20 |
| Cell measurement, a x b mm | | mm | 156 x 156 | 156 x 156 | 156 x 156 |
| | | | | | |
| Nominal power (-0/+3%) | P _N | Wp | 240 | 245 | 250 |
| Nominal voltage | V _{MP} | V | 30,6 | 30,75 | 30,9 |
| Nominal current | I _{MP} | А | 7,85 | 7,97 | 8,1 |
| Open-circuit voltage | V _{oc} | V | 37,5 | 37,8 | 38,1 |
| Short-circuit current | I _{sc} | А | 8,4 | 8,52 | 8,65 |
| System tension, max. | V _{SYS-MAX} | V | 1000 | 1000 | 1000 |
| Insulation resistance | R _{ISO} | MΩ | >100 | >100 | >100 |
| Temp. coefficient Open-circuit voltage Temp. coefficient Short-circuit current Temperature range Panel efficiency level | TK (V _{oc}) TK (I _{sc}) ϑ η | %/K %/K °C % | -0,34 +0,028 -40/+85 14,75 | -0,34 +0,028 -40/+85 15,06 | -0,34 +0,028 -40/+85 15,36 |
| Length | L | mm | 1650 | 1650 | 1650 |
| Width | В | mm | 992 | 992 | 992 |
| Frame strength | Т | mm | 50 | 50 | 50 |
| Weight | m | kg | 20 | 20 | 20 |
| Glass strength | d | mm | 4 | 4 | 4 |
| Area loading | mL | kg/m² | 550 | 550 | 550 |
| Junction box Protection class | Material IP | | Plastic 65 | Plastic 65 | Plastic 65 |
| Connection | cable Ø | mm² | 4 | 4 | 4 |
| | cable L | m | 0,9 | 0,9 | 0,9 |
| Connector plug | | | MC4 | MC4 | MC4 |



IEC 61730

Safety qualification of PV panels IEC 61730 defines compulsory construction features of the panels, requirements for the materials used in the panel and regarding the documentation.



Protection Class II Reinforced or double insulation under VDE 0100 Part 410, 412.1. CdTe

Cadmium telluride free Guarantees that our solar cells are free from cadmium telluride.



Member of the Return and Recycling Programme

As a member of the voluntary Return and Recycling Programme for old models, we guarantee adherence to the promise of comprehensive sustainability.

WHEN IT COMES TO THE ENVIRONMENT, WE DO IN ROME WHAT THE ROMANS DO.

VfL Wolfsburg has won a large environmental partner. With zentralsolar deutschland, the Bundesliga competitor has entered into cooperation within the framework of its Corporate Social Responsibility Activities (CSR).



HIGHLY ADVANTAGEOUS.

Peak Performance.

We rely on mono and polycrystalline cells, which are further processed within their own production. Our technologically high processing level is a guarantee of the subsequent faultless operation of the photovoltaic system, which provides high energy yields at fair manufacturing costs.

Best Warranty.

For the worst-case scenario we guarantee an enhanced warranty on our solar panels: 12 years performance guarantee at 90% and 25 years performance guarantee at 80% of the stated minimum performance. There is also a 10 year product warranty.

You can rely on our qualified Service Partners:

Highest Performance Tolerance.

zentralsolar

UMWELTPARTNER

A particularly narrow selection of panel performance enables row switching with low switching losses.

Very simple and quick mounting.

The cables and plug connections (TÜV checked) pre-installed in the factory ensure simple and quick installation.

Extremely High Tension.

All our panels fall into protection category II and are designed for a maximum system tension of 1,000 V. They are suitable both for facilities connected to the grid and for isolated systems that are not connected to the public electricity supply.



ZSD GmbH zentralsolar deutschland Pliniusstraße 8 48488 Emsbüren Tel.: +49 5903 932 02-0 Fax: +49 5903 932 02-99 info@zentralsolar.de www.zentralsolar.de