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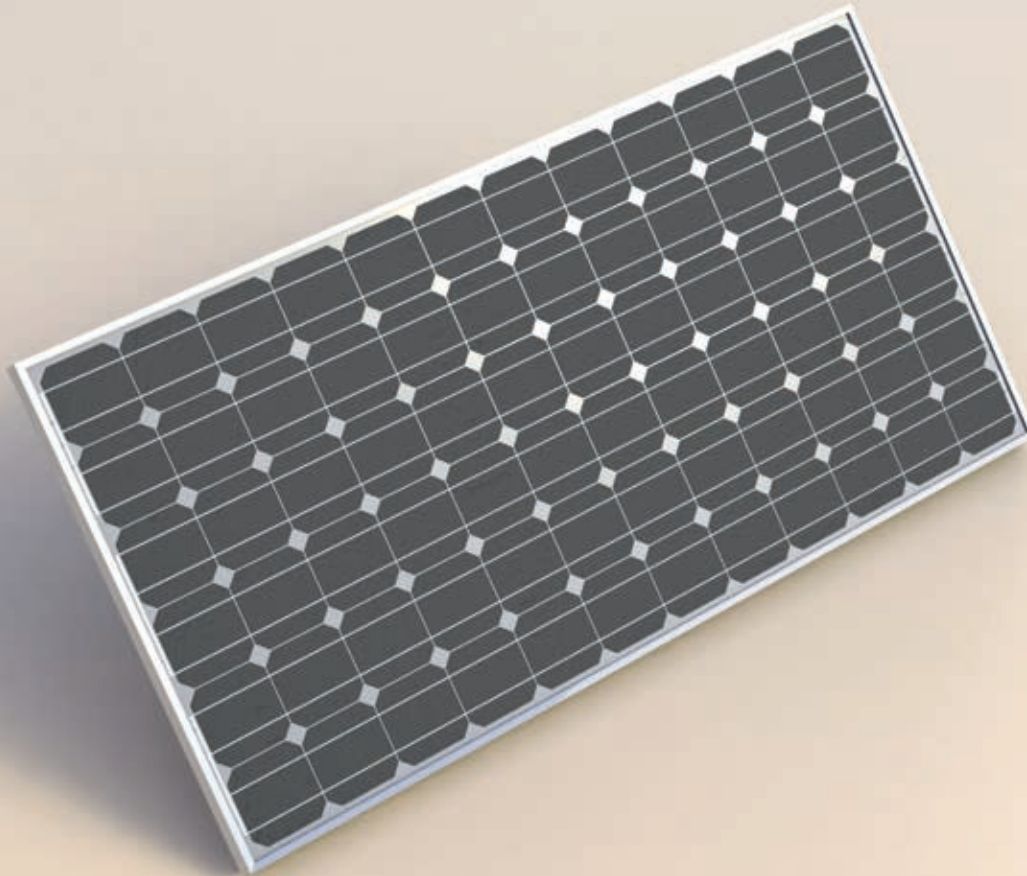
Solar Panel Guide Specification Data Sheet

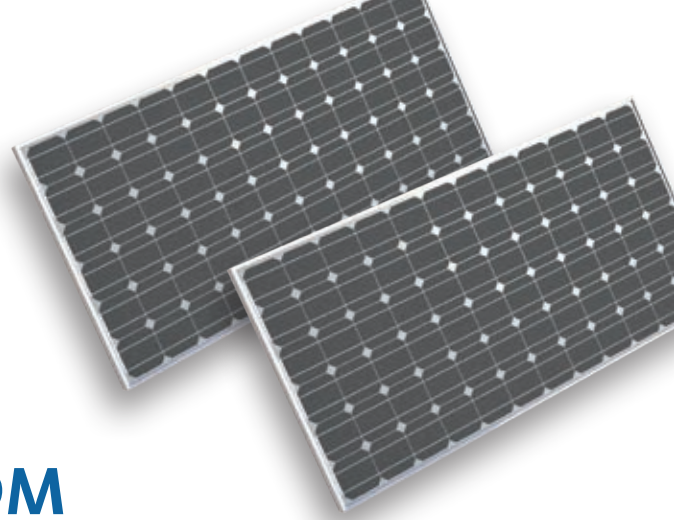
**ZSD GmbH – zentralsolar deutschland
Genius SDM
Genius SDM 200**

Also available on the web at
EnergyPal.com/zsd-gmbh-zentralsolar-deutschland-solar-panels/genius-sdm-200

SOLAR PANEL GENIUS SDM

SPLENDIDLY SIMPLE,
SIMPLY SPLENDID.





SOLAR PANEL GENIUS SDM

A classic that stands on the roof.

With an efficiency level average of over 15% and a positive performance tolerance between -0/+3 %, our SDM panels have for years been in the absolute peak category in the standard range – and with regard to quality. Thanks to a compact construction type and flexible roof allocation, our SDM panels have

become classics. Through sturdy, visually appealing aluminium frames, our SDM panels are seriously impressive. And best of all: they do what they say they will – in both a practical and a figurative sense. And on the subject of promise: we promise our customers a product guarantee of 10 years on all panels.



**Highest Standard in Quality-
Environment and Safety at work**
Certificated in
ISO 9001:2008, EN ISO 14001 and
OHSAS 18001:2007



**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.



PV-CYCLE
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.



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

Solar panel composition:

- 1 Anodised aluminium frames
- 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 SDM 190	Genius SDM 195	Genius SDM 200
Cell type			Monocrystalline	Monocrystalline	Monocrystalline
Number of cells	piece		72	72	72
Number of bypass diodes	piece		3	3	3
String switching in panel			3 x 24	3 x 24	3 x 24
Cell measurement, a x b mm	mm		125 x 125	125 x 125	125 x 125
Nominal power (-0/+3%)	P_N	Wp	190	195	200
Nominal voltage	V_{MP}	V	37,1	37,6	37,8
Nominal current	I_{MP}	A	5,15	5,2	5,3
Open-circuit voltage	V_{OC}	V	44,9	45,1	45,3
Short-circuit current	I_{SC}	A	5,55	6,0	6,15
System tension, max.	$V_{SYS-MAX}$	V	1000	1000	1000
Insulation resistance	R_{ISO}	MΩ	>100	>100	>100
Temp. coefficient					
Open-circuit voltage	TK (V_{OC})	%/K	-0,34	-0,34	-0,34
Short-circuit current	TK (I_{SC})	%/K	0,052	0,048	0,048
Temperature range	ϑ	°C	-40/+85	-40/+85	-40/+85
Panel efficiency level	η	%	14,97	15,32	15,69
Length	L	mm	1580	1580	1580
Width	B	mm	808	808	808
Frame strength	T	mm	50	50	50
Weight	m	kg	16	16	16
Glass strength	d	mm	3,2	3,2	3,2
Area loading	m_L	kg/m ²	550	550	550
Junction box	Material		Plastic	Plastic	Plastic
Protection class	IP		65	65	65
Connection	cable Ø	mm ²	4	4	4
	cable L	m	0,9	0,9	0,9
Connector plug			MC4	MC4	MC4



IEC 61215

Construction type certification of PV panels by TÜV Rheinland according to IEC 61215

Testing and certification of all PV components to international standards (IEC 61215) as regards thermal, mechanical and radiation-related loading.



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.



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.

Highest Performance Tolerance.

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.

You can rely on our qualified Service Partners: