

# Photovoltaic Module DE-48 PREMIUM



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## High tech from Germany

The PREMIUM photovoltaic modules are assembled in our manufacturing plant in Osgood Indiana. All the know-how of Solarzentrum Allgäu together with the best components are used to create this premium product.

## Long lifecycle and top yields

High performance BOSCH solar cells guarantee the best yields and a long lifecycle for the PREMIUM module series. The components used provide better output even in high ambient temperature regions.

## Positive-only tolerance

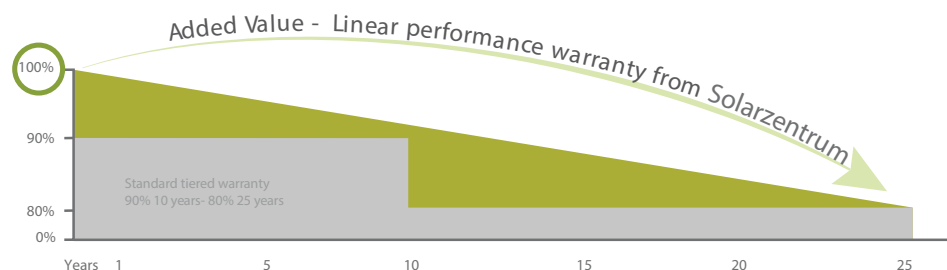
The modules are delivered with positive tolerance up to +4.99 Wp.

## Suitable for all snow load regions

The newly developed and strengthened 35 millimeter hollow chamber frame gives the modules maximum load capability of 5400 Pa/m<sup>2</sup>.

## 10 year warranty on our products

With the 10 year product warranty on the Solarzentrum module series, as well as a 25 year performance guarantee, Solarzentrum photovoltaic modules are among the most reliable and efficient photovoltaic products available today.

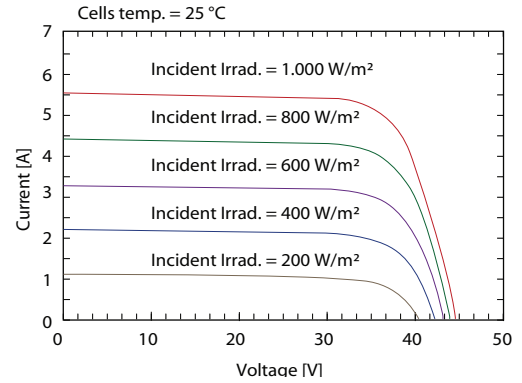


# DE-48 PREMIUM

General			
Cells	48 (8 x 6) monocrystalline cells	Cellsize	156 x 156 mm    6.14 in x 6.14 in
Frame	Anodized aluminium	Front glass	3.2 mm (0.13 in) Solarglass
Connection	Junction box with 3 bypass-diodes	Wire length	4 mm <sup>2</sup> Solar cable, 1000 mm / .157 in <sup>2</sup> 39.37 in
Connector	MC4 compatible	Power tolerance	0 to +4.99 Wp

Electrical Data (STC)			
Moduletype			DE-A200M-P
Nominal power	P <sub>MPP</sub>	Wp	200
Max. power voltage	U <sub>MPP</sub>	V	24.8
Max. power current	I <sub>MPP</sub>	A	8.3
Open-circuit voltage	U <sub>OC</sub>	V	30.4
Short-circuit current	I <sub>SC</sub>	A	8.8
Module efficiency	h %		16.36

Electrical Data (NOCT)			
Nominal power	P <sub>MPP</sub>	Wp	174.09
Max. power voltage	U <sub>MPP</sub>	V	21.8
Open-circuit voltage	U <sub>OC</sub>	V	27.3
Short-circuit current	I <sub>SC</sub>	A	7.2



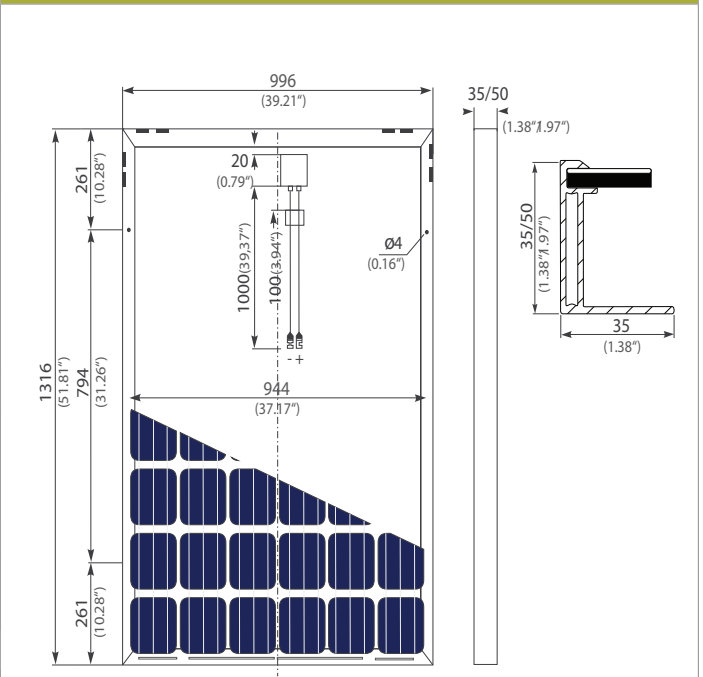
At a low irradiation intensity of 200 Wm<sup>2</sup>, (AM 1.5 cell temperature 25°C) 96% of the STC module efficiency will be archived.

STC = Standard Test Conditions (1000 W/m<sup>2</sup>, AM 1.5, cell temperature 25 °C)

NOCT = Normal Operating Cell Temperature (800 W/m<sup>2</sup>, AM 1.5, windspeed 1 m/s, ambient temperature 20 °C)

## Temperature coefficients      Technical drawing

Temperature coefficients	I <sub>SC</sub>	+0.031 % / K
Temperature coefficients	U <sub>OC</sub>	-0.31 % / K
Temperature coefficients	P <sub>MPP</sub>	-0.44 % / K
NOCT		48 °C ± 2 °C    118.4°F ± 35.6°F



Limits	
Maximum system voltage	600 V / 1000 V
Maximum reverse current	25 A
Operating temperature	-40 °C - 90 °C    -40°F - 194 °F
Maximum load	5400 Pa/m <sup>2</sup> = 550 kg/m <sup>2</sup> (75 lbs/ft <sup>2</sup> )
Safety class	II

Certifications and warranty	
TÜV	IEC 61215 / IEC 61730 / 1703 i.V.
Product warranty	10 years
Performance guarantee	linear 25 years

Mechanic Data	
Dimensions (± 1 mm / 0.03 inch)	1.316 x 996 x 35 (51.8 in x 39.21 in x 1.38 in)
Weight	15 kg   33.07 lbs

Packing configuration	
Modules/Cardboard	30
Cardboard/Container	33
Modules/Container	990

Manufacturer/Distributor/Logistics/Academy	
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All figures are according to DIN EN 50380.  
Tolerance at rated power 0 to +4.99 Wp. All other specifications ± 3%.



Your Solarzentrum North America Dealer: