

# SCHOTT Solar POLY™ Polycrystalline Solar Modules

SCHOTT POLY™ 220/225/230/235



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SCHOTT Solar has been a leading global developer and manufacturer of solar products for over 52 years. Engineered in Germany and manufactured in America, the high quality SCHOTT Solar PV modules are extremely durable and reliable as demonstrated in several important ways:

**Industry leading warranty:** SCHOTT Solar offers an industry leading linear power output warranty for 25 years in addition to five years warranty for any defects in materials or workmanship. This enhancement provides 6% more guaranteed power over the 25 year period compared to standard step-down warranties common in the industry.

**Narrow output tolerance:** SCHOTT Solar POLY™ modules are among the industry leaders in power output tolerances. SCHOTT Solar sorts all modules to a positive tolerance (minus zero watts) which provides for a stable, high energy output you can feel secure in.

**Long-term reliability:** SCHOTT modules are environmentally tested to double the industry certification standards for thermal cycling and damp heat tests to ensure consistent and superior performance over the long term. In addition, SCHOTT has performance data from over 25 years of actual field testing that supports our high quality products.

**High resistance to mechanical loads:** SCHOTT Solar modules are tested to an extreme loading pressure of 5,400 Pa to ensure additional security for your investment.

**Up-to-date features:** SCHOTT Solar modules offer up-to-date electrical features such as double insulated PV cables for use with transformerless inverters and locking connectors.

**Environmentally friendly:** Due to our concern with jobsite waste and disposal costs, we bulk pack our modules in a manner that significantly reduces cardboard waste.

## At a glance

- Industry leading warranty
- Narrow output tolerance
- Long-term reliability
- High resistance to mechanical loads
- Up-to-date features
- Environmentally friendly

## Rely on SCHOTT Solar PV – Buy America with confidence

SCHOTT Solar POLY™ PV modules are manufactured with pride in Albuquerque, New Mexico from domestic and foreign components in an ISO 9001:2008 certified facility.

The modules from Albuquerque:

- Qualify as a domestic end product under the Buy American Act (BAA)
- Qualify as a U.S.-made end product under the Trade Agreement Act (TAA)
- Qualify as a domestic manufactured product under the American Recovery & Reinvestment Act (ARRA)

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# Technical Data

## Electrical data

Module type		SCHOTT POLY™ 220	SCHOTT POLY™ 225	SCHOTT POLY™ 230	SCHOTT POLY™ 235
Nominal power [Wp]	$P_{mpp}$	$\geq 220$	$\geq 225$	$\geq 230$	$\geq 235$
Voltage at nominal power [V]	$V_{mpp}$	29.7	29.8	30.0	30.2
Current at nominal power [A]	$I_{mpp}$	7.41	7.55	7.66	7.78
Open-circuit voltage [V]	$V_{oc}$	36.5	36.7	36.9	37.1
Short-circuit current [A]	$I_{sc}$	8.15	8.24	8.33	8.42

STC (1,000 W/m<sup>2</sup>, AM 1.5, cell temperature 25°C)

Power tolerance (as measured by flasher): -0 Watts / +4.99 Watts

Power measurement accuracy:  $\pm 4\%$

## Data at normal operating cell temperature (NOCT)

Nominal power [Wp]		158	161	165	169
Voltage at nominal power [V]	$V_{mpp}$	26.7	26.9	27.1	27.2
Open-circuit voltage [V]	$V_{oc}$	33.3	33.5	33.7	33.9
Short-circuit current [A]	$I_{sc}$	6.53	6.60	6.67	6.75
Temperature [°C]	$T_{NOCT}$	45.5	45.5	45.5	45.5

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

Power measurement accuracy:  $\pm 4\%$

## Data at Low Irradiation

At a low irradiation intensity of 200 W/m<sup>2</sup> (AM 1.5 and cell temperature 25°C) 97 % of the STC module efficiency (1000 W/m<sup>2</sup>) will be achieved.

## Temperature coefficients

Power [%/°C]	-0.44
Open-circuit voltage [%/°C]	-0.32
Short-circuit current [%/°C]	+0.04

## Characteristic data

Solar cells per module	60
Cell type	6" (156 mm x 156 mm), full square
Front panel	Low-iron solar glass, 4 mm thick
Frame material	Anodized aluminum
Connection	Junction box with 3 bypass diodes PV WIRE, 43.3" (1,100 mm) x 4mm <sup>2</sup> TYCO SolarLok connectors

## Dimensions and weight

Dimensions	66.34" (1,685 mm) x 39.09" (993 mm) tolerance $\pm 0.118"$ (3 mm)
Thickness	1.97" (50 mm) tolerance $\pm 0.04"$ (1 mm)
Weight	approx. 50.6 lbs (23.0 kg)

## Limits

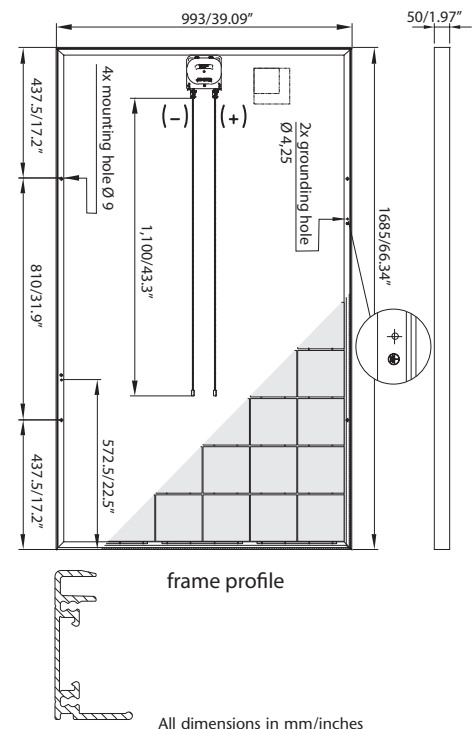
System voltage [V <sub>DC</sub> ]	600
Maximum reverse current [A]*	15
Operating module temperature [°C]	-40 to +85
Maximum load (lbs/ft <sup>2</sup> )	75
Fire classification	C

\* No external current greater than  $V_{oc}$  shall be applied to the module.

## Qualifications

The SCHOTT POLY™ 220/225/230/235 Watt modules are certified to and meet the requirements of UL 1703.

SCHOTT Solar reserves the rights to make specification changes without notice. For detailed product drawings and specifications, please contact SCHOTT Solar or an authorized reseller.



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