

# SCHOTT PERFORM™ POLY

## Polycrystalline Solar Modules (Black Frame)



SCHOTT Solar has been a leading global developer and manufacturer of solar products for over 52 years. Engineered in Germany, 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 PERFORM™ POLY modules are among the industry leaders in lower 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 job site waste and disposal costs, we bulk pack our modules in a manner that significantly reduces cardboard waste.

SCHOTT PERFORM™ POLY  
220/225/230/235/240

### At a glance

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

SCHOTT Solar manufactures modules in Albuquerque, New Mexico, and other global production facilities.

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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solar

## Technical Data

### Electrical Data

		SCHOTT PERFORM™ POLY				
Module type		220	225	230	235	240
Nominal power [Wp] †	$P_{mpp}$	≥ 220	≥ 225	≥ 230	≥ 235	≥ 240
Voltage at nominal power [V]	$V_{mpp}$	29.7	29.8	30.0	30.2	30.4
Current at nominal power [A]	$I_{mpp}$	7.41	7.55	7.66	7.78	7.90
Open-circuit voltage [V]	$V_{oc}$	36.5	36.7	36.9	37.1	37.3
Short-circuit current [A]	$I_{sc}$	8.15	8.24	8.33	8.42	8.52

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

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

### Data at Normal Operating Cell Temperature (NOCT)

Nominal power [Wp]	$P_{mpp}$	158	161	165	169	172
Voltage at nominal power [V]	$V_{mpp}$	26.7	26.9	27.1	27.2	27.4
Open-circuit voltage [V]	$V_{oc}$	33.3	33.5	33.7	33.9	34.1
Current at nominal power [A]	$I_{mpp}$	6.53	6.60	6.67	6.75	6.83
Temperature [°C]	$T_{NOCT}$	45.5	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)

### 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
Frame material	Anodized aluminum
Connection	Junction box with 3 bypass diodes PV WIRE, 43.3" (1,100 mm) x 4 mm <sup>2</sup> TYCO SolarLok connectors

### Dimensions and Weight

Dimensions	66.34" (1,685 mm) x 39.09" (993 mm) tolerance ± 0.118" (3 mm)
Thickness	1.97" (50 mm) tolerance ± 0.04" (1 mm)
Weight	Approx. 41.5 lbs (18.8 kg)

### Limits

System voltage [ $V_{DC}$ ]	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

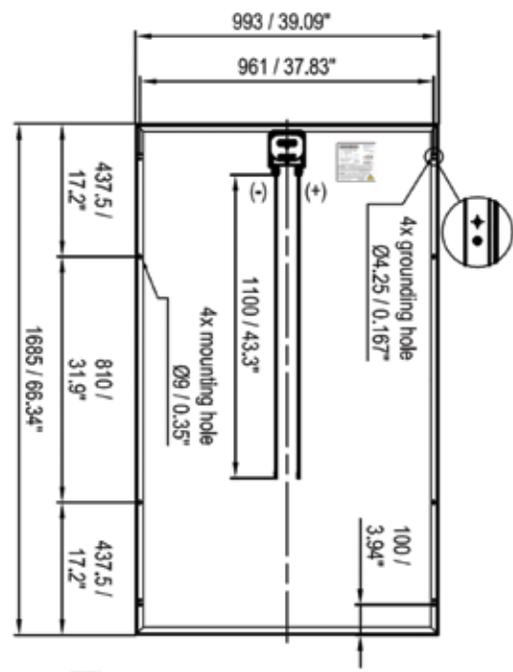
The SCHOTT PERFORM™ POLY 220/225/230/235/240 Watt modules are certified to and meet the requirements of UL 1703.

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.

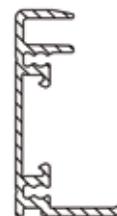
† Nominal value at STC conditions, ± 4% measurement tolerance

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frame profile



All dimensions in mm/inches



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