SCHOTT PERFORM™ POLY Polycrystalline Solar Modules



SCHOTT Solar has been a leading global developer and manufacturer of solar products for over 53 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 a ten year 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 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 235/240/245

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)



Technical Data

Data at Standard Test Conditions (STC)

| | | SCHOTT | SCHOTT | SCHOTT |
|------------------------------|------------------|---------------------------|---------------------------|---------------------------|
| | | PERFORM [™] POLY | PERFORM [™] POLY | PERFORM [™] POLY |
| Module type | | 235 | 240 | 245 |
| | P_{mpp} | ≥ 235 | ≥ 240 | ≥ 245 |
| Voltage at nominal power [V] | V_{mpp} | 30.2 | 30.4 | 30.6 |
| Current at nominal power [A] | I _{mpp} | 7.78 | 7.90 | 8.02 |
| Open-circuit voltage [V] | V_{oc} | 37.1 | 37.3 | 37.5 |
| Short-circuit current [A] | I_{sc} | 8.42 | 8.52 | 8.62 |
| Module Efficiency [%] | η | 14.0 | 14.3 | 14.6 |

STC (1,000 W/m², 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} | 169 | 172 | 177 |
|------------------------------|------------------|------|------|------|
| Voltage at nominal power [V] | V_{mpp} | 27.2 | 27.4 | 27.6 |
| Open-circuit voltage [V] | V_{oc} | 33.9 | 34.1 | 34.2 |
| Current at nominal power [A] | I _{mpp} | 6.75 | 6.83 | 6.96 |
| Temperature [°C] | T_{NOCT} | 45.5 | 45.5 | 45.5 |

NOCT (800 W/m², AM 1.5, windspeed 1 m/s, ambient temperature 20°C)

Data at Low Irradiation

At a low irradiation intensity of 200 W/m² (AM 1.5 and cell temperature 25°C) 97% of the STC module efficiency (1000 W/m²) 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 ² 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/ft²) | 75 | |
| Fire classification | С | |

^{*} No external voltage greater than $\ensuremath{V_{\text{oc}}}$ shall be applied to the module.

Qualifications

The SCHOTT PERFORM™ POLY 235/240/245 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

SCHOTT Solar PV, Inc.

U.S. Production Facility 5201 Hawking Drive, SE Albuquerque, NM 87106 Toll free: 888-457-6527 www.schottsolar.com







