

High-efficiency photovoltaic module using silicon nitride multicrystalline silicon cells.

Performance

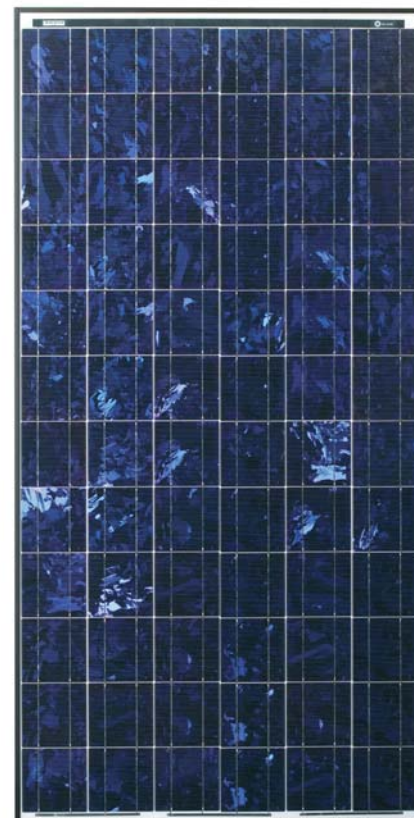
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|-------------------------------|-----------|
| Rated power (P_{max}) | 170W |
| Power tolerance | $\pm 9\%$ |
| Nominal voltage | 24V |
| Limited Warranty ₁ | 25 years |

Configuration

| | |
|---------|--|
| SX 170B | Bronze frame with output cables and polarized Multicontact (MC) connectors |
| SX 160B | Bronze frame with output cables and polarized Multicontact (MC) connectors |

Electrical Characteristics²

| | SX170B | SX 160B |
|---|------------------------------------|---------|
| Maximum power (P_{max}) ³ | 170W | 160W |
| Voltage at Pmax (V_{mp}) | 35.4V | 35.0V |
| Current at Pmax (I_{mp}) | 4.8A | 4.6A |
| Warranted minimum P_{max} | 155W | 145W |
| Short-circuit current (I_{sc}) | 5.0A | 4.8A |
| Open-circuit voltage (V_{oc}) | 44.2V | 43.8V |
| Temperature coefficient of I_{sc} | (0.065 \pm 0.015)%/ °C | |
| Temperature coefficient of V_{oc} | -(160 \pm 20)mV/°C | |
| Temperature coefficient of power | -(0.5 \pm 0.05)%/ °C | |
| NOCT (Air 20°C; Sun 0.8kW/m ² ; wind 1m/s) | 47 \pm 2°C | |
| Maximum series fuse rating | 15A | |
| Maximum system voltage | 600V (U.S. NEC & IEC 61215 rating) | |



Mechanical Characteristics

| | |
|---------------|---|
| Dimensions | Length: 1593mm (62.8") Width: 790mm (31.1") Depth: 50mm (1.97") |
| Weight | 15.0 kg (33.1 pounds) |
| Solar Cells | 72 cells (125mm x 125mm) in a 6x12 matrix connected in series |
| Output Cables | RHW AWG# 12 (4mm ²) cable with polarized weatherproof DC rated Multicontact connectors; asymmetrical lengths - 1250mm (-) and 800mm (+) |
| Diodes | IntegraBus™ technology includes Schottky by-pass diodes integrated into the printed circuit board bus |
| Construction | Front: High-transmission 3mm (1/8 th inch) tempered glass; White back; Encapsulant: EVA |
| Frame | Anodized aluminum alloy type 6063T6 Universal frame; Color: bronze |

1. Warranty: Power output for 25 years. Freedom from defects in materials and workmanship for 5 years. See our website or your local representative for full terms of these warranties.
2. These data represent the performance of typical SX 170/160 products, and are based on measurements made in accordance with ASTM E1036 corrected to SRC (STC.)
3. During the stabilization process that occurs during the first few months of deployment, module power may decrease by up to 3% from typical P_{max} .



Quality and Safety

ESTI

Module power measurements calibrated to World Radiometric Reference through ESTI (European Solar Test Installation at Ispra, Italy); Certified to IEC 61215

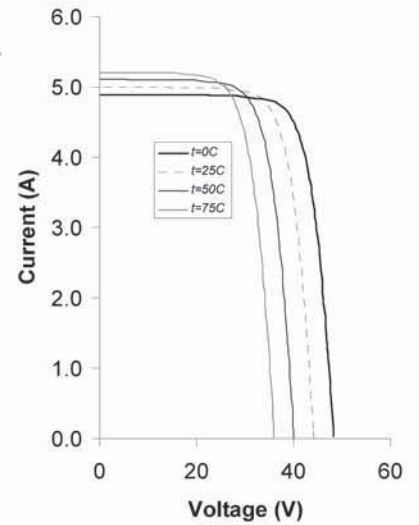


Listed by Underwriter's Laboratories for electrical and fire safety (Class C fire rating)

Qualification Test Parameters

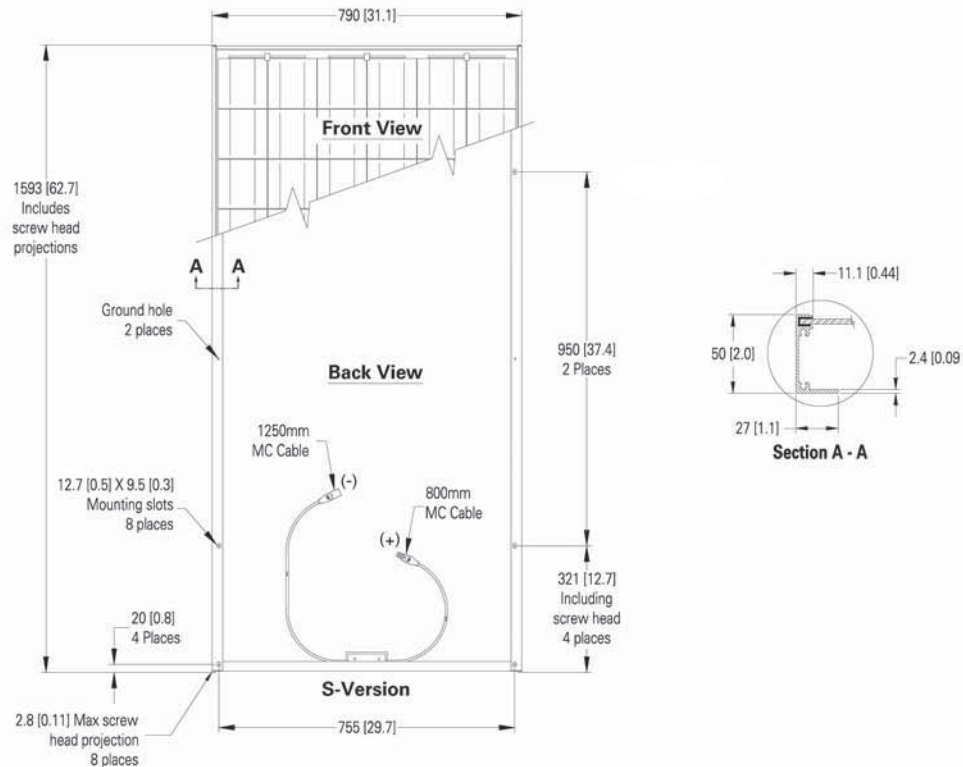
| | |
|--|---------------------------------|
| Temperature cycling range | -40°C to +85°C (-40°F to 185°F) |
| Humidity freeze, damp heat | 85% RH |
| Static load front and back (e.g. wind) | 50psf (2400 pascals) |
| Front loading (e.g. snow) | 113psf (5400 pascals) |
| Hailstone impact | 25mm (1 inch) at 23 m/s (52mph) |

SX 170B I-V Curves



Module Diagram

Dimensions in brackets are in inches. Unbracketed dimensions are in millimeters. Overall tolerances $\pm 3\text{mm}$ (1/8")



Included with each module: self-tapping grounding screws, instruction sheet, and warranty document.

Note: This publication summarizes product warranty and specifications, which are subject to change without notice.

