



SilexSolar
Australian Clean Energy

SilexSolar 180/185/190 Watt Photovoltaic Panels



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SLX Series Panels

The SilexSolar SLX Series is a high power monocrystalline solar panel range that incorporates anti-reflective coated cells and glass to generate more energy (kWh per kW) in your installation.

The panels have undergone the most rigorous testing to ensure reliable long term performance and are certified to comply with stringent safety and performance standards IEC61730 and IEC61215 respectively as certified by TÜV Rheinland. Three bypass diodes, one per 24 cells, are incorporated in the junction box to provide protection for the cells when the panel is shaded to ensure long term reliability.

Quality and Safety



Conforms to European directives TÜV certified according to the extended version of the IEC61215:2005 (Crystalline silicon terrestrial photovoltaic panels design qualification and type approval) TÜV certified according to IEC61730-1 and IEC61730-2 (Photovoltaic panels safety qualification, requirements for construction and testing). Panel electrical measurements are calibrated.

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SLX Performance	SLX180	SLX185	SLX190
Rated Power	180W	185W	190W
Tolerance	± 3%	± 3%	± 3%
Panel Efficiency (1000W/m ² 25°C)	14-15%	14-15%	15%
Nominal Voltage	24V	24V	24V
Maximum System Voltage	1000V DC	1000V DC	1000V DC
Protection Classification	II	II	II
Limiting Reverse Current, IR	5.51A	5.56A	5.61A
Maximum series fuse rating	10A	10A	10A
Warranty*	90% power output over 12 years 80% power output over 25 years Free from defects in materials and workmanship for 10 years. *Refer to SilexSolar's Warranty document for terms & conditions		

Electrical Data	1000W/m ² @ STC	SLX180	SLX185	SLX190
Maximum Power	(Pmax)	180W	185W	190W
Voltage at Pmax	(Vmp)	35.78V	36.45V	36.69V
Current at Pmax	(Imp)	5.03A	5.08A	5.18A
Short Circuit Current	(Isc)	5.51A	5.56A	5.61A
Open Circuit Voltage	(Voc)	44.10V	44.73V	45.36V
Temperature coefficient of Isc	(0.065±0.015)%/°C			
Temperature coefficient of Voc	-(0.36±0.05)%/°C			
Temperature coefficient of P	-0.45%/°C @ NOCT			

Mechanical Data

Solar cells	72 mono-crystalline 125mm x 125mm connected in series
Front glass	High transmission 3.2mm tempered anti-reflective solar glass
Cell encapsulant	EVA
Back	White polyester
Frame	Clear anodised silver matt aluminium
Diodes	Low loss Schottky bypass diodes mounted in junction box one for every 24 cells
Junction box	Dimensions 129mm(l) x 94mm(w) x 16mm(h) potted (IP67)
Output cables	1000mm of RADOX® SOLAR 4mm ² black cable with RADOX® SOLAR Twist Lock IP67 rated connectors.
Dimensions	1593mm(l) x 798mm(w) x 48mm(h)

Qualification Test Parameters

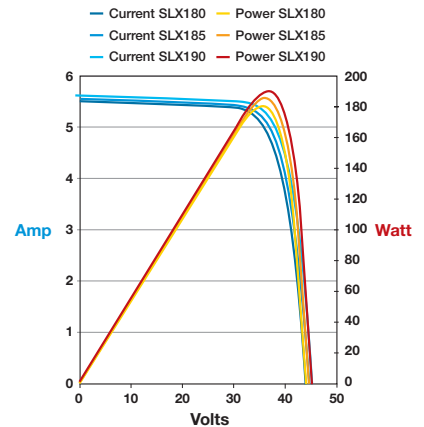
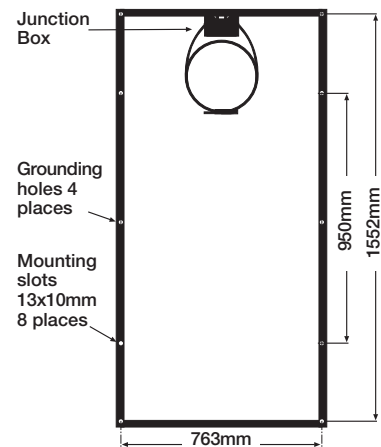
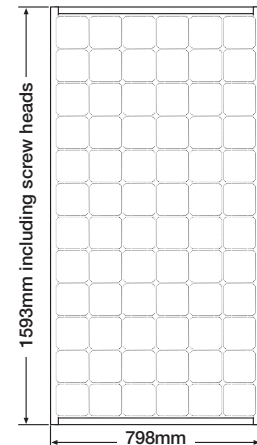
Thermal cycling test	-40°C to +85°C for 200 cycles
Damp heat test	+85°C at 85% relative humidity for 1000 hours
Front and rear static load test	2400Pa equivalent to a wind pressure of 130km/h
Hailstone impact test	25mm diameter hailstones at 23m/s from 1m
Bypass diode thermal test	One hour at Isc and 75°C One hour at 1.25 times Isc and 75°C



- Periodic inspection
- Qualified, IEC 61215
- Safety tested IEC 61730



2006/95/EC EN 61730-1:2007,
EN 61730-2:2007 and EN 61215:2005



Note 1 - STC (Standard Test Conditions): 1000W/m² irradiance in plane of panel, panel temperature 25°C and a spectral distribution of irradiance according to air mass 1.5



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Your local distributor: