SAPPHIRE SOLAR
Power Yourself

285W MONOCRYSTALLINE MODULES

SS285M/60 **DOUBLE BLACK** SAPPHIRE

Designed for harsh and rugged climates, the **NEW Double Black** Sapphire 285W monocrystalline modules deliver high-quality powerful performance.

Like the strength of a precious sapphire, these Tier 1 rated modules are durable and built to last, and with their sleek black design offer a premium point of difference.

ANTI-REFLECTIVE NANOTECHNOLOGY

Specialised tempered glass coating maximises light penetration and reduces dust contamination

PREMIUM PID-FREE SOLAR CELLS

Industry-leading solar cells are designed to minimise performance loss so that modules and systems generate reliably high yields

ANTI-PID TECHNOLOGY

Protection against potential induced degradation (PID) eliminates leakage currents and optimises cell performance

UV-RESISTANT BACKSHEET

Provides critical, long-life protection from harsh climates, conferring durability and long-term PV system returns

THE A-GRADE ASSURANCE

A-Grade quality is like a rare gem, not often found in many panel products.

Sapphire Solar understands that building a high-quality solar module is about being at the heart of the production process and getting it right from the start.

Only our stringent quality assurance process delivers the Sapphire Solar A-Grade Assurance.

1. **A-Grade Components** - careful procurement of trusted and compliant components such as industry-leading solar cells, backsheets and encapsulants to suit high UV conditions.

2. **A-Grade Procedures** – daily raw material checks, production inspections and procedure checks to ensure our strict manufacturing parameters are maintained.

3. **A-Grade Testing** – stringent testing to ensure that every Sapphire Solar panel satisfies our strict performance and safety criteria.

A-GRADE FEATURES

- Anti UV backsheet provides superior weather resistance and long-term durability
- PID-resistant encapsulants protect against UV discolouration and optimise light capture
- Anti-reflective tempered glass coating maximises penetration of light to solar cells
- Premium anti-PID cell technology produces a high module efficiency of up to 17.7%
- IP67 rated, fully sealed German Leoni junction box
- Genuine MC4 connectors

A-GRADE WARRANTIES

Sapphire Solar 12/12/25 Warranty

- 12 year Product Warranty
- 12 year Performance Warranty at 90% power output
- 25 year Performance Warranty at 80% power output
- Premium Linear Performance Warranty

As Sapphire Solar is a 100% Australian owned manufacturer, all warranty claims are handled locally and efficiently through our UK Sales Manager with direct support from our Melbourne head office.

SAPPHIRE SOLAR

MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline 156mm x 156mm (60 cells)
Dimensions	1640 x 992 x 35mm
Weight	19.0kg
Front Glass	3.2mm tempered, low iron glass
Frame	Anodized/electrophoretic aluminium alloy
Cables	4.0mm2, symmetrical lengths 1.2m
Connector	Genuine MC4
Junction Box	IP67 rated fully sealed German

TEMPERATURE CHARACTERISTICS

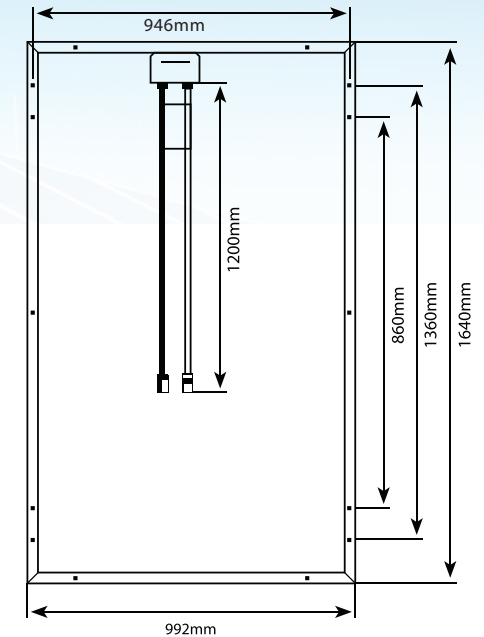| Temperature Coefficient Pmax	-0.42%/°C
Temperature Coefficient Voc	-0.32%/°C
Temperature Coefficient Isc	+0.04%/°C
Operating temperature	-40°C ~ +85°C
NOCT (Nominal Operation Cell Temperature)	45°C ± 2°C

ELECTRICAL CHARACTERISTICS

Rated Power at STC (Pmpp)	W	285
Power Tolerance	%	0-3
Maximum Power at STC	W	288
Cell Efficiency	%	21.0 - 21.2
Minimum Module Efficiency (%)	%	17.5 - 17.7
Maximum Rated Power Voltage (Vmpp)	V	31.85
Maximum Rated Power Current (Impp)	A	8.95
Open Circuit Voltage (Voc)	V	39.18
Short Circuit Current (Isc)	A	9.46
Maximum System Voltage	V	1000
Maximum Series Fuse Rating	A	15A
Fire Rating		Class A

PACKAGING CONFIGURATION

Container	40" GP
Pieces per Pallet	28
Pallets per Container	28
Pieces per Container	784

LINEAR PERFORMANCE WARRANTY