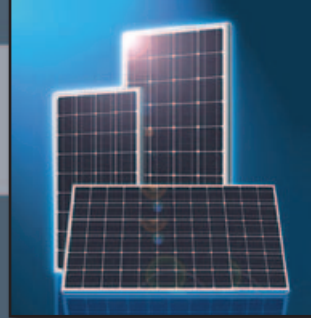


ECOQUES Data Sheet

Monocrystalline Solar Module



+5

WATTS POSITIVE TOLERANCES

10

YEAR PRODUCT GUARANTEE

30

YEAR POWER GUARANTEE

ECOQUES Triple Plus Advantage

ECOQUES modules use a Monocrystalline cell technology with an electrical efficiency of up to 17.5%. The ECOQUES Panel has positive tolerance of up to +5 W guaranteed maximum power, so the nominal power is always obtained or even exceeded.

The 10 year product guarantee far surpasses government requirements and the 30 year power guarantee means that after 30 years, the modules will still produce 80% of their nominal power.

The glass component of the ECOQUES PV Module is supplied by Pilkington Glass Australia. Due to their engineered hollow section 50mm frame the extremely robust modules can resist a maximum pressure of 5400 Pa.

Guarantees & Certifications:

Product Guarantee	10 years
Power Guarantee 90%	10 years
Power Guarantee 80%	30 years



ISO 9001, IEC 61215,
IEC 61730, UL 1703

ECO KES Data Sheet



Technical Specifications

High Quality Solar Modules

With 72 cells and 3 bypass diodes in power classes of 160-180 Wp.

Reliable

The high quality level guarantees a long life-time and high return on investment.

Solid

Aluminium hollow-chamber frame combined with low-iron tempered solar-glass ensures a very high mechanical strength.

Performance Guarantee

Performance guarantee on nominal power output at 90% for 10 years and 80% for 30 years.

Certificates

IEC 61215 edition 2 & IEC61730 (TÜV Rheinland); Safety Class II.

Electrical Characteristics

Type	ECO KES 160M	ECO KES 165M	ECO KES 170M	ECO KES 175M	ECO KES 180M
Power-Class +/- 5 W	160W	165W	170W	175W	180W
Max. Power Voltage (U_{mpp}) * at STC **	35.6V	35.8V	36.1V	36.5V	36.7V
Max. Power Current (I_{mpp}) at STC	4.50 A	4.60 A	4.70 A	4.80 A	4.90 A
Open Circuit Voltage (U_{oc}) at STC	42.7V	43.0V	43.3V	43.7V	44.3V
Short Circuit Current (I_{sc}) at STC	4.80 A	4.90 A	5.00 A	5.10 A	5.20 A
Efficiency	12.5%	12.9%	13.3%	13.7%	14.1%

Max. System Voltage	1000 V
Temperature-Coefficient I_{sc}	1.9mA/K
Temperature-Coefficient U_{oc}	-165mV/K
Temperature-Coefficient P_{mpp}	-0.43%/K
NOCT ***	48°C +/-2°C

* MPP: Maximum Power Point ** STC (Standard Test Conditions): 1000 W/m², 25°C, AM 1.5 *** Normal Operating Cell Temperature

Specifications

Dimensions	1580 x 808 mm x 50 mm
Weight	15.5 kg
Frame	Aluminium hollow-chamber frame
Glass	Pilkington, Australia
Cells	72 5" monocrystalline Si-cells
Cell Embedding	EVA
Back-Foil	Tedlar TPT
Junction Box	Cixi Renhe PV-RH0502 Junction Box
Cable	4 mm ² solar-cable 2 x 900 mm
Temperature-Range	-40°C / +85°C
Certificates	IEC 61215 edition 2, Safety-Class II
Power-Guarantee	10 years 90%, 30 years 80%

