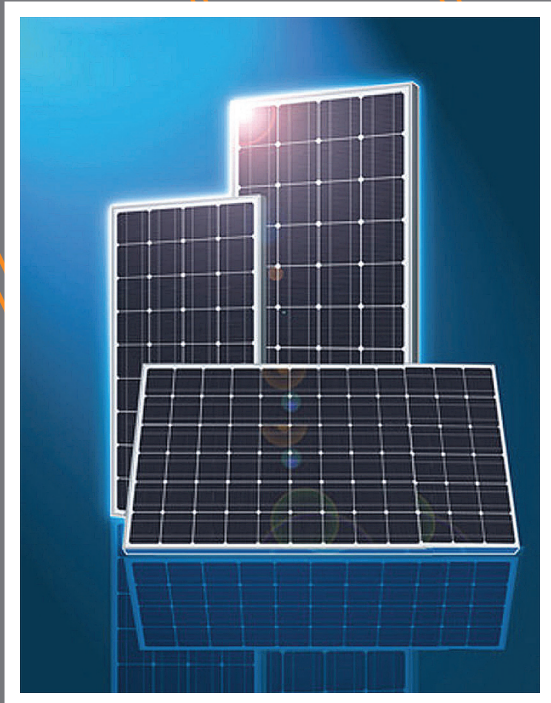


ERA SOLAR



Monocrystalline Solar Module ESPSA

High-Quality Solar Modules

Within 72 cells and 3 bypass diodes in powerclasses of 160 to 180 Wp for grid connected systems.

Reliable

The high quality level of ERA Solar guarantees a long life-time and high earnings.

Solid

Aluminium hollow-chamber frame on each side combined with low-iron, tempered solar-glass ensures a very high mechanical capacitance.

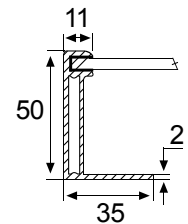
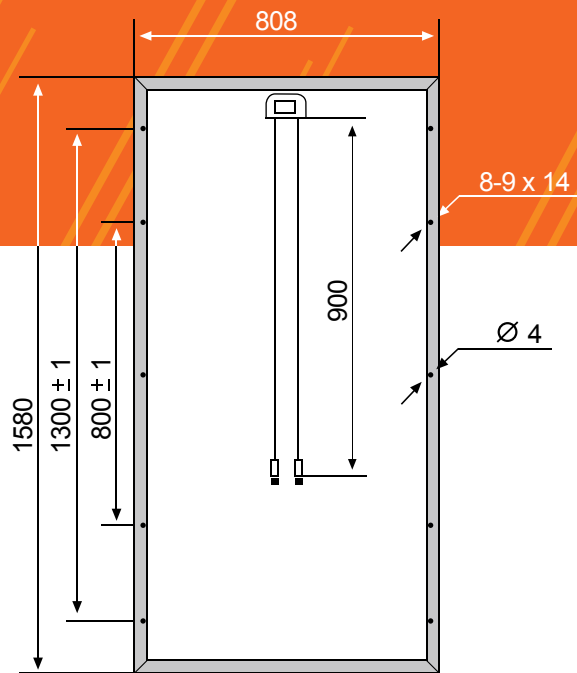
Performance Guarantee

ERA SOLAR give a power guarantee of 90% of nominal power output for 10 years and 80% for 25 years

Certificates

IEC 61215 edition 2 (TÜV Rheinland)
Safety Class II
LEAD testing and certification (UK)





Specifications

Dimensions	1580 x 808 mm x 50 mm
Weight	15.5kg
Frame	Aluminium hollow-chamber frame on each side
Glass	Pilkington, Australia
Cells	72 pcs monocrystalline Si-cells (125 x 125 mm)
Cell Embedding	EVA
Back-Foil	Tedlar TPT
Junction Box	Cixi Renhe PV-RH0502 FPE 001 Aluminium 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%, 25 years 80%

Electrical Characteristics

Typ	ESPSA 160	ESPSA 165	ESPSA 170	ESPSA 175	ESPSA 180
Power-Class +/- 5%	160 W	165 W	170 W	175 W	180 W
Max. Power Voltage (U_{mpp})*at STC**	35.6 V	35.8 V	36.1 V	36.5 V	36.7 V
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	42.7 V	43.0 V	43.3 V	43.7 V	44.3 V
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}	1.9 mA/K
Temperature-Coefficient U_{oc}	-165 mV/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**

ERA SOLAR

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