



## Anti-reflective glass

Reduces loss of light, which means you get a greater return on your output, even at low light.



## Power Tolerance

Industry leading 0 to plus 5%, ensuring a greater return on your investment



## Long Service Life

23 year old modules still operating at 90% of installed capacity.



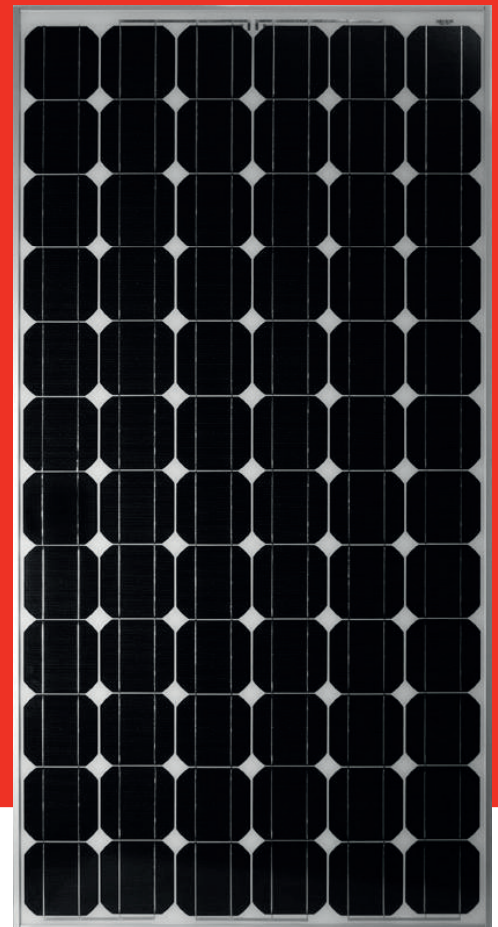
## 3 Bypass Diodes

Increase tolerance to shade. Maximising output



## Dual Wall Frame

Designed with 45 years experience, Sun-Earth's framing increase's strength against wind and hail.



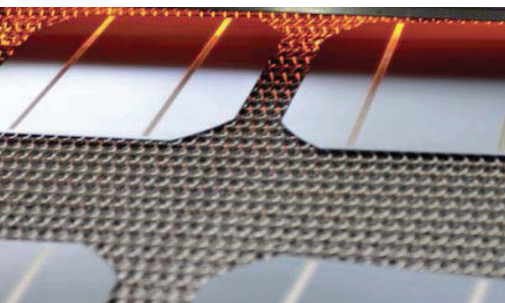
## WARRANTY

- 10 Years For Product Defects In Materials & Workmanship
- 10 Years @ 90% Of Warranted Minimum Power
- 25 Years @ 80% Of Warranted Minimum Power

MONO-CRYSTALLINE

# 190W

TDB125×125-72-P



ELECTRICAL CHARACTERISTICS

	190Wp
Maximum Power ( Pmax)	190W
Power Tolerance (%)	0/+5
Maximum Power Voltage (Vmp)	36.6
Maximum Power Current (Imp)	5.20
Open circuit Voltage (Voc)	45.0
Short circuit Current (Isc)	5.42
Module Efficiency	14.9
Maximum System Voltage (VDC)	1000
Temp coefficient Voc	-0.35% / 0°C
Temp coefficient Isc	+0.05% / 0°C
Temp coefficient Power	-0.45% / 0°C
Nominal Operating Cell Temp. (NOCT)	45.5°C

MECHANICAL CHARACTERISTICS

Weight(kg)	16 kg
Frame structure (Material, Corners)	Anodised Aluminium
Front side	Glass
Front glass thickness	3.2mm
Encapsulant	EVA
Back side	TPT
Junction Box / Connector Type	Sun-Earth Ip65 / MC-4

CELLS

Brand Name of Solar Cells	Sun-Earth
Cell Type	Mono Crystalline Cell
Cell Size	125 x 125 mm
Cell Shape	Quasi Square
Number Cells	72 in series

ABSOLUTE MAXIMUM RATINGS

Operating Temperature	-40°C~+85°C
Storage Temperature	-40°C~+85°C
Maximum Load Capacity	200 Kg/m2
Maximum Hail Diameter @ 80Km/h	25mm

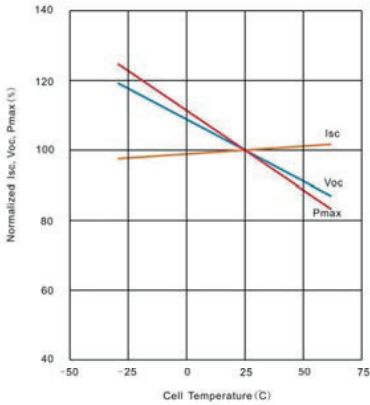
STANDARD TEST CONDITIONS

AM	1.5
Irradiation	1000 W/m2
Tc	25°C

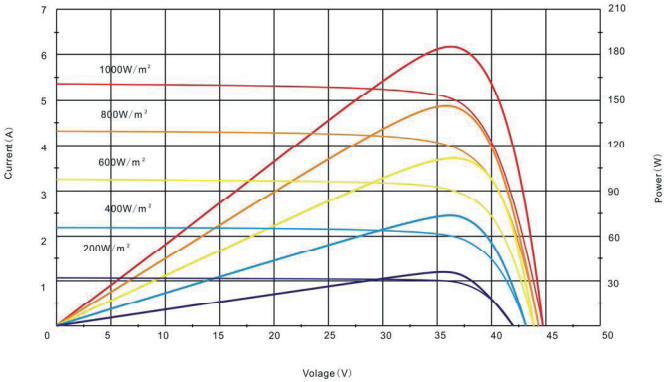
ORDERING

Quantity	Pallet or Container
Pallet	20 pieces per box/1 box
Container	29 Pallets / 580 Pieces

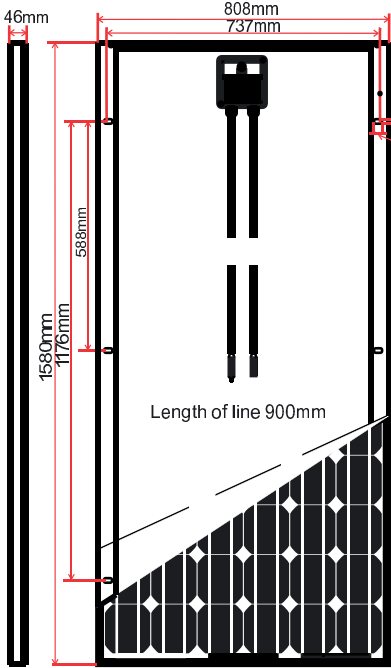
Temperature Dependence of Isc, Voc, Pmax



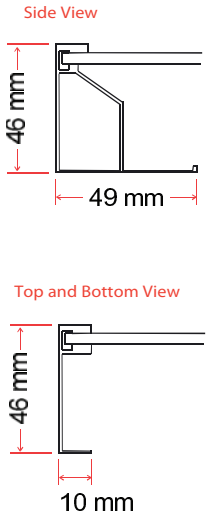
I-V Curves (190W)



Dimensions (tolerance±2mm)



Module Frame Design (190W)



WARRANTY

Manufacturing	10 Years
Performance 90%	10 Years
Performance 80%	25 Years

