

UL-165M-36



NEW (4BB)

Under Shanshan Group, Top500 Enterprise in China, Ulica Solar produces our own high quality solar cells and modules starting from August 2005. Our product range covers all from off-grid panels to on-grid panels, both mono-crystalline and poly-crystalline, suitable for all types of installation from residential to commercial projects.



New 4 Busbar cell technology

Increasing the efficiency and output, and reducing the resistance and hot-spot risks.



Positive power output (0~+5W)



Outstanding mechanical load resistance

Snow load 5400Pa (Frontside), and Wind load 3800Pa (Backside)



High performance under low light conditions

Cloudy days, Rainy days



Anti-PID (potential induced degradation) Test

Passed anti-PID test under Damp Heat 85°C and 85% RH 96Hours



Durability against extreme environmental conditions

Salt mist corrosion test, Ammonia corrosion test, Dust & Sand test, Fire test, certified by TUV



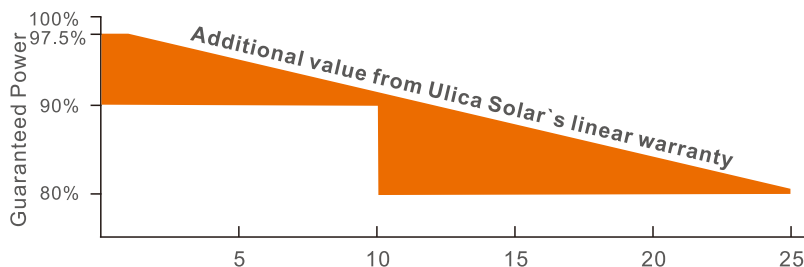
Double EL test before and after lamination

Highly control the micro cracks and invisible defects.



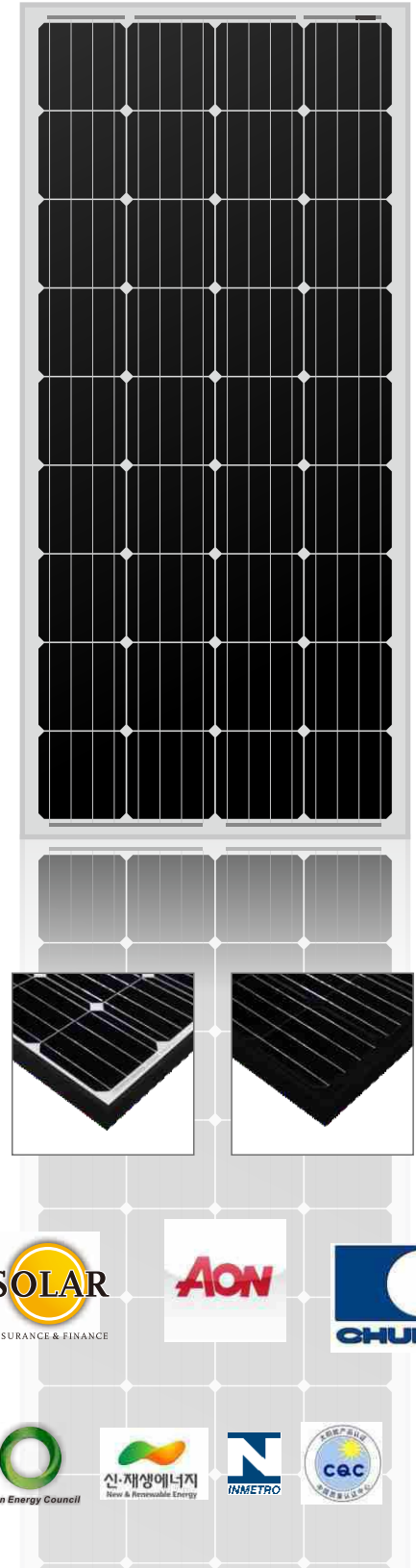
World famous insurance against our warranty

CHUBB Insurance from USA, Solar Insurance & Finance from Netherlands



12-year workmanship warranty

25-year linear performance warranty



ELECTRICAL PERFORMANCE

Electrical Parameters Standard Test Conditions

Module Type	UL-165 M-36		
Power Output	P _{max}	W	165
Power Tolerance	ΔP _{max}	W	0/+3
Module Efficiency	η _m	%	14.8
Voltage at P _{max}	V _m	V	18.7
Current at P _{max}	I _m	A	8.83
Open-Circuit Voltage	V _{oc}	V	23.1
Short-Circuit Current	I _{sc}	A	9.27

STC: 1000w/m² irradiance, 25°C module temperature, AM1.5 spectrum.

THERMAL CHARACTERISTICS

Nominal Operating Cell Temperature	NOCT	°C	45±2
Temperature Coefficient of P _{max}	γ	%/°C	-0.403
Temperature Coefficient of V _{oc}	β _{voc}	%/°C	-0.330
Temperature Coefficient of I _{sc}	α _{isc}	%/°C	+0.049

OPERATING CONDITIONS

Max. System Voltage	200V
Max. Series Fuse Rating	15A
Operating Temperature Range	-40°C ~ 85°C
Max. Static Load, Front (e.g., snow and wind)	5400Pa
Max. Static Load, Back (e.g., wind)	3800Pa
Application Class	A

CONSTRUCTION MATERIALS

Front Cover (material/type/thickness)	low-iron tempered glass/3.2mm
Cell (quantity/material/type/dimension)	36/monocrystalline/156x156mm
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material/anodization color)	anodized aluminum alloy/silver
Junction Box (protection degree)	IP65/IP67
Cable (length/cross-sectional area)	900mm/4mm ²
Plug Connector	MC4 compatible

GENERAL CHARACTERISTICS

Dimension (L/W/H)	1488/680/35mm
Weight	10kg

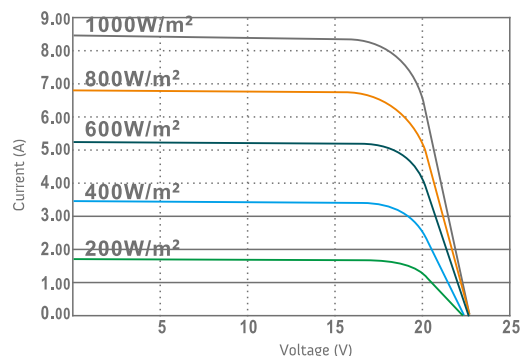
PACKING CONFIGURATION

Pieces per box	23pcs
Pieces per 20FT Container	322pcs

INTERNATIONAL CERTIFICATES

- TÜV SÜD, TÜV NORD, UL, CE, JET, MCS, CQC, IMERTRO, NRE
- ISO9001:2008
- ISO14001:2004
- BS OHSAS 18001:2007

I-V CURVE

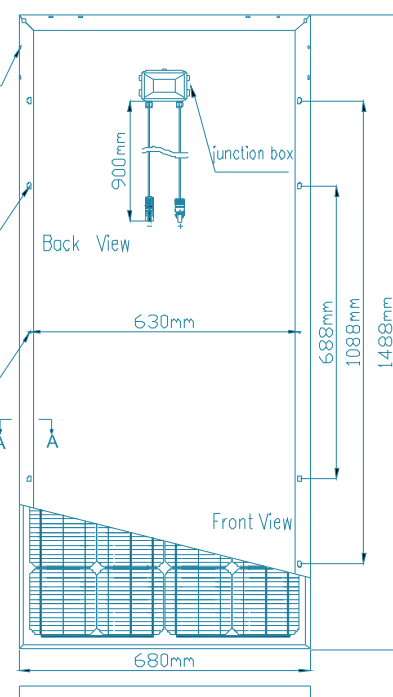
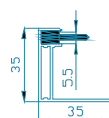


drainage holes
16 place

14X9(2-R4.5)mm
mounting slots
8 places

Ø 4.5mm grounding hole
2 place

Section A-A



Please read the instruction manual in this entirety before handing, installing, and operating Ulica Solar modules.

Our partner:

Due to continuous innovation, research and improvement, the specification is subject to change without prior notice.