

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.

**MONO 60CELL PERC**



**Higher Conversion Efficiency**

With new generation of PERC technology, the average conversion efficiency of the cells could reach 21.2%



**Outstanding mechanical load resistance**

2400 Pa wind load, 5400 Pa snow load



**High performance under low light**

Works at cloudy, rainy days



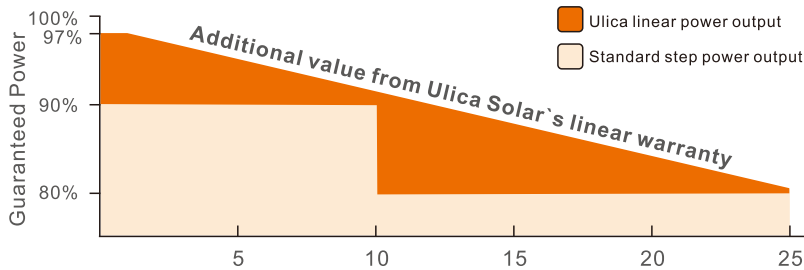
**Double electroluminescence (EL) tests**

Carefully inspected before and after lamination to guarantee fault-free modules



**World famous insurance**

Solar Insurance&Finance(Netherlands), AON(Japan)



**12-year product warranty**

**25-year linear power warranty**



# MONO 295W/300W/305W/310W

## ELECTRICAL PERFORMANCE

Electrical Parameters Standard Test Conditions

Module Type		UL-295M-60	UL-300M-60	UL-305M-60	UL-310M-60
Power Output	P <sub>max</sub> W	295	300	305	310
Power Tolerance	ΔP <sub>max</sub> W	±3%			
Module Efficiency	η <sub>m</sub> %	18.17	18.33	18.63	18.94
Voltage at P <sub>max</sub>	V <sub>m</sub> V	31.6	31.7	31.8	31.9
Current at P <sub>max</sub>	I <sub>m</sub> A	9.34	9.47	9.59	9.72
Open-Circuit Voltage	V <sub>oc</sub> V	38.8	38.9	39.1	39.3
Short-Circuit Current	I <sub>sc</sub> A	9.75	9.87	9.91	9.98

STC: 1000w/m<sup>2</sup> irradiance, 25°C module temperature, AM1.

## THERMAL CHARACTERISTICS

Nominal Operating Cell Temperature	NOCT	°C	45±2
Temperature Coefficient of P <sub>max</sub>	γ	%/°C	-0.395
Temperature Coefficient of V <sub>oc</sub>	β <sub>voc</sub>	%/°C	-0.320
Temperature Coefficient of I <sub>sc</sub>	α <sub>isc</sub>	%/°C	+0.045

## OPERATING CONDITIONS

Max. System Voltage	1000V
Max. Series Fuse Rating	15A
Operating Temperature Range	-40°C~85°C
Max static snow load	5400Pa
Max static wind load	2400Pa
Safety Class	II

## CONSTRUCTION MATERIALS

Front Cover(material/type/thickness)	low-iron tempered glass/3.2mm
Cell(quantity/material/type/dimension)	60/monocrystalline/156.75x156.75mm
Encapsulant(material)	ethylene vinyl acetate(EVA)
Frame(material/anodization color)	anodized aluminum alloy/silver
Junction Box(Protection degree)	IP67
Cable(length/cross-sectional area)	900mm/4mm <sup>2</sup>
Plug Connector	DC1000,PV-ZH202/PV-JM601A/PV-JM601, Made in China

## GENERAL CHARACTERISTICS

Dimension(L/W/H)	1650/992/35mm, 40mm
Weight	18.5kg/19.0kg

## PACKING CONFIGURATION

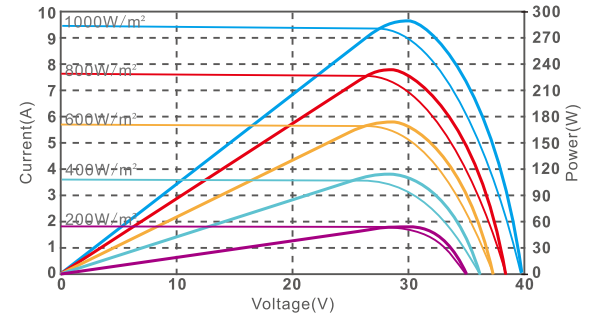
Pallet Size(L/W/H)	1690/1100/2440mm
Pallet Weight	1260kg
Pieces per Pallet	64pcs
Pieces per Container	896pcs

## INTERNATIONAL CERTIFICATES

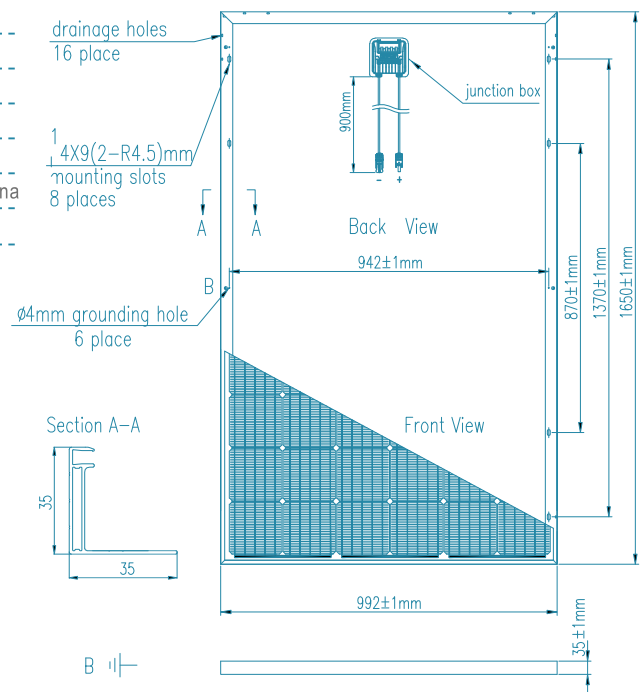
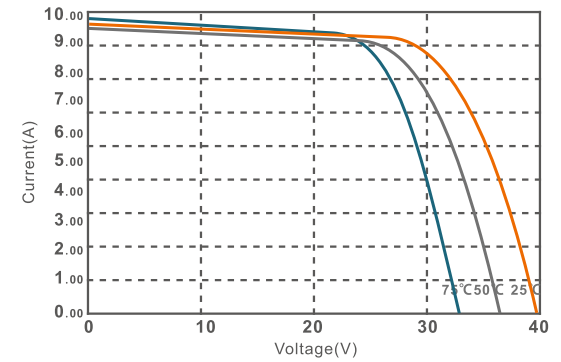
- TÜV SÜD, TÜV NORD, UL, CE, JET  
MCS, CQC, IMERTRO
- ISO9001:2008
- ISO14001:2004
- BS OHSAS 18001:2007

## I-V CURVE

I-V characteristics at different irradiances



I-V characteristics at different temperature



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

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