

Ulica Solar is a subsidiary of Shanshan Co.,Ltd(SH.600884), Top 500 Enterprise in China. Ulica designs and manufactures high-quality solar cells and panels starting from August 2005. Its product line covers both mono and poly crystalline models, suitable for full range of projects from off-grid to on-grid, from residential to commercial.

POLY 60CELL 5BB



5 Bus bar cell design

More evenly distributed mechanical stress
Less micro cracks and resistance losses
Higher fill factor and higher performance



Positive power tolerance (0~+5W)



Outstanding mechanical load resistance

3800 Pa wind load, 5400 Pa snow load



High performance under low light

Works at cloudy, rainy days



Anti-PID(potential induced degradation)

Passed anti-PID test under 85% damp heat,
85% relative humidity for 96 hours



Great Durability against extreme conditions

Passed salt mist corrosion test, ammonia corrosion test,
dust & sand test, fire test, all certified by TUV



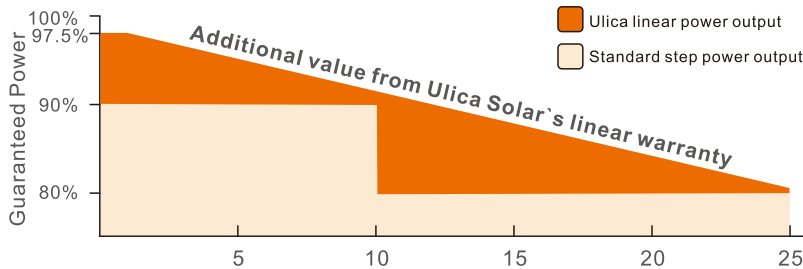
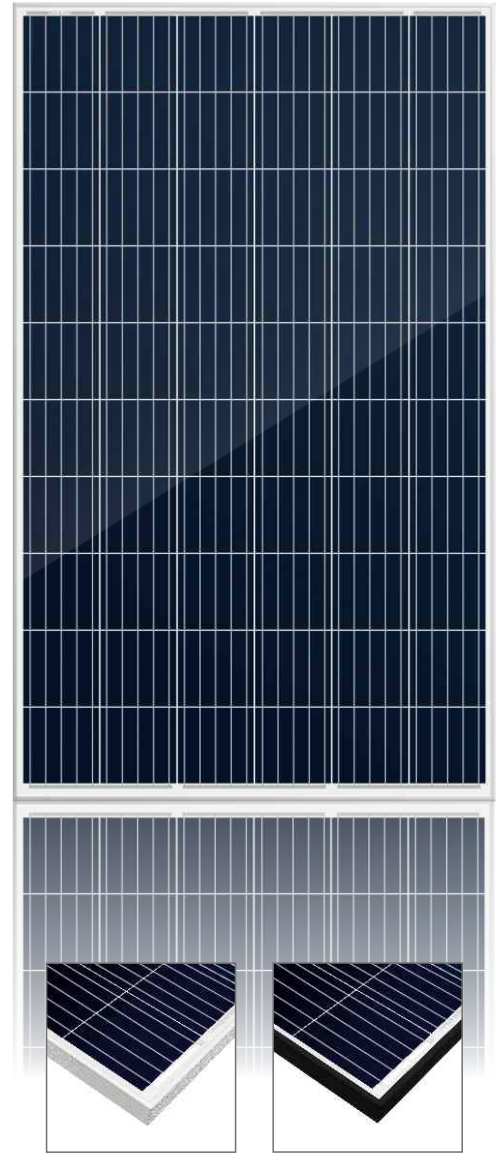
Double electroluminescence (EL) tests

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



World famous insurance

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



12-year product warranty

25-year linear power warranty



ELECTRICAL PERFORMANCE

Electrical Parameters Standard Test Conditions

Module Type	UL-280P-60		
Power Output	P _{max}	W	280
Power Tolerance	ΔP _{max}	W	0/+5W
Module Efficiency	η _m	%	17.11
Voltage at P _{max}	V _m	V	31.3
Current at P _{max}	I _m	A	8.95
Open-Circuit Voltage	V _{oc}	V	38.5
Short-Circuit Current	I _{sc}	A	9.35

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	1000V
Max. Series Fuse Rating	15A
Operating Temperature Range	-40°C~85°C
Max static snow load	5400Pa
Max static wind load	3800Pa
Application Class	A

CONSTRUCTION MATERIALS

Front Cover(material/type/thickness)	low-iron tempered glass/3.2mm
Cell(quantity/material/type/dimension)	60/polycrystalline/156.75x156.75mm
Encapsulant(material)	ethylene vinyl acetate(EVA)
Frame(material/anodization color)	anodized aluminum alloy/silver or black
Junction Box(Protection degree)	IP67
Cable(length/cross-sectional area)	900mm/4mm ²
Plug Connector	MC4 compatible

GENERAL CHARACTERISTICS

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

PACKING CONFIGURATION

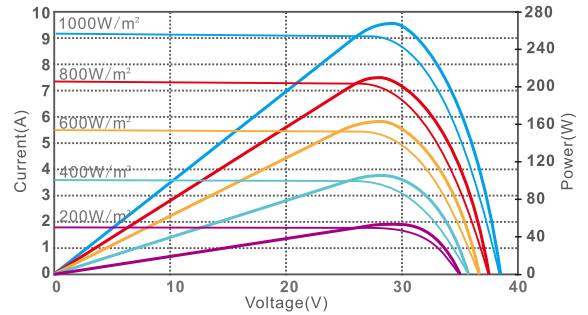
Pallet Size(L/W/H)	1690/1100/2440mm
Pallet Weight	1260kg
Pieces per Pallet	64pcs
Pieces per Container	896pcs

INTERNATIONAL CERTIFICATES

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

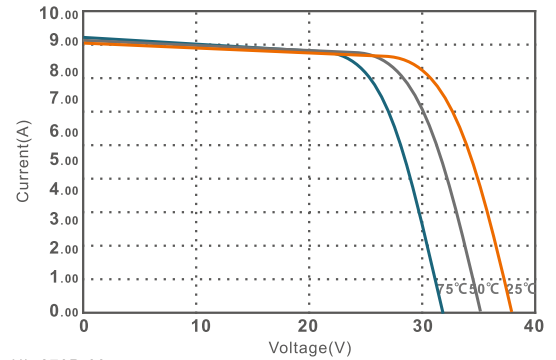
I-V CURVE

I-V characteristics at different irradiances

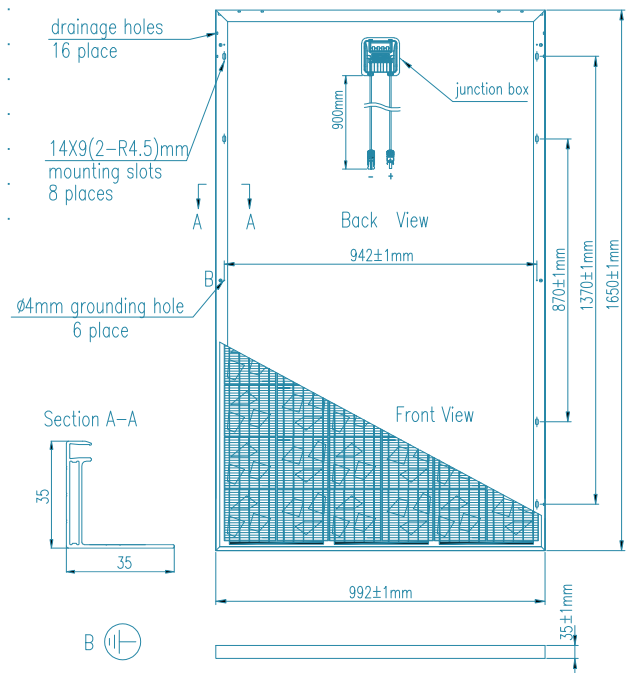


UL-270P-60

I-V characteristics at different temperature



UL-270P-60



Please read the instruction entirely before handling, installing and operating Ulica Solar modules.

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