

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 12BB



12 Busbar (MBB) Module
Main busbar redesigned, more cell area, reduced power loss



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



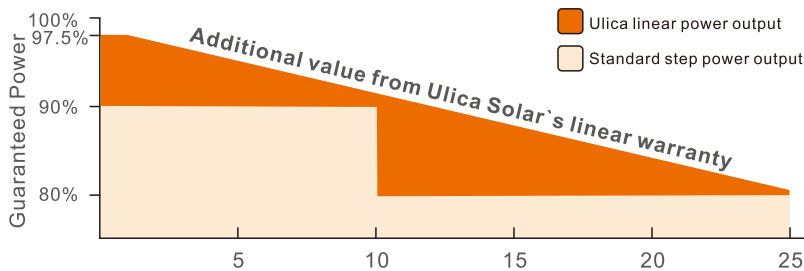
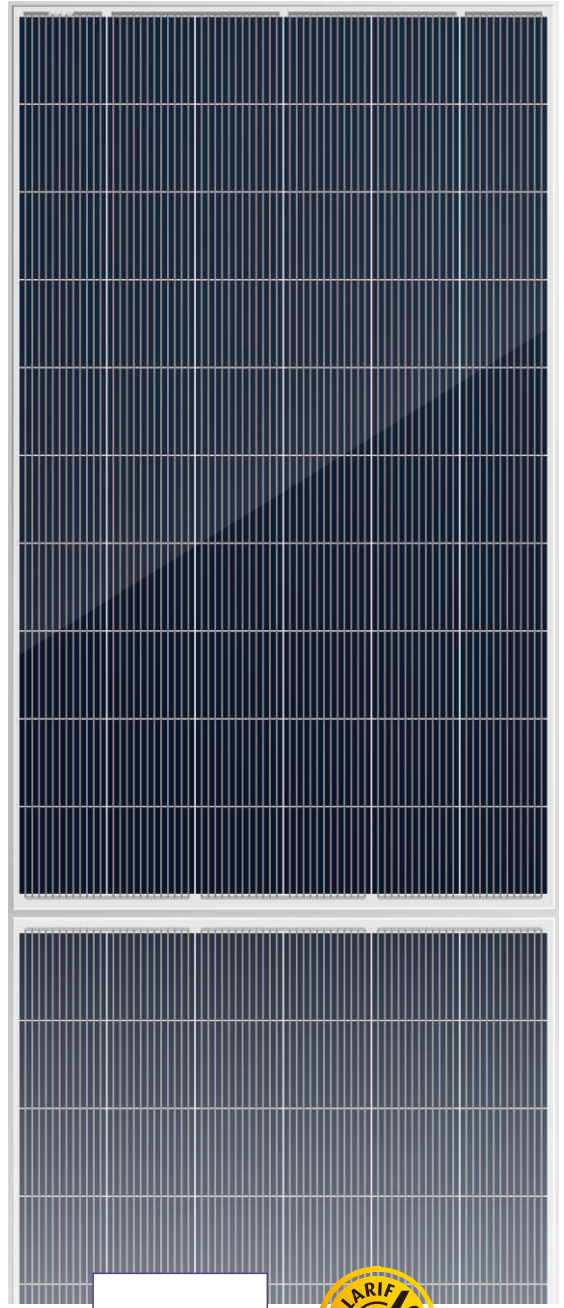
Great Durability against extreme conditions
Passed salt mist corrosion test, ammonia corrosion test, dust & sand test, fire test, all certified by TÜV



Double electroluminescence (EL) tests
Carefully inspected before and after lamination to guarantee fault-free modules



World famous insurance
CHUBB(USA), Solar Insurance&Finance(Netherlands)



12-year product warranty
25-year linear power warranty



ELECTRICAL PERFORMANCE

Electrical Parameters Standard Test Conditions

Module Type			UL-280P-60MBB	UL-285P-60MBB	UL-290P-60MBB	UL-295P-60MBB
Power Output	P _{max}	W	280	285	290	295
Power Tolerance	ΔP _{max}	W	0/+5W			
Module Efficiency	η _m	%	17.11	17.41	17.72	18.02
Voltage at P _{max}	V _m	V	31.3	31.5	31.7	31.9
Current at P _{max}	I _m	A	8.95	9.05	9.15	9.25
Open-Circuit Voltage	V _{oc}	V	38.5	38.7	38.9	39.2
Short-Circuit Current	I _{sc}	A	9.35	9.45	9.55	9.65

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	-0.390
Temperature Coefficient of V _{oc}	β _{voc}	%/°C	-0.290
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	18kg

PACKING CONFIGURATION

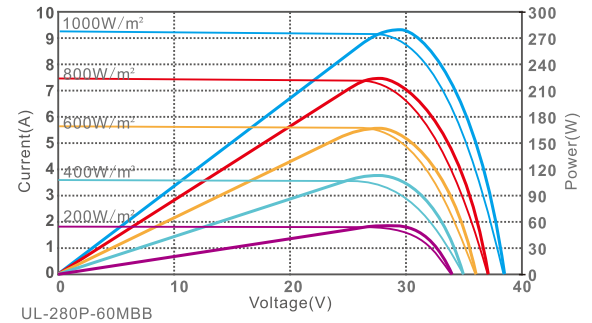
Pallet Size(L/W/H)	1690/1100/2426mm
Pallet Weight	1230kg
Pieces per Pallet	64pcs
Pieces per Container	896pcs

INTERNATIONAL CERTIFICATES

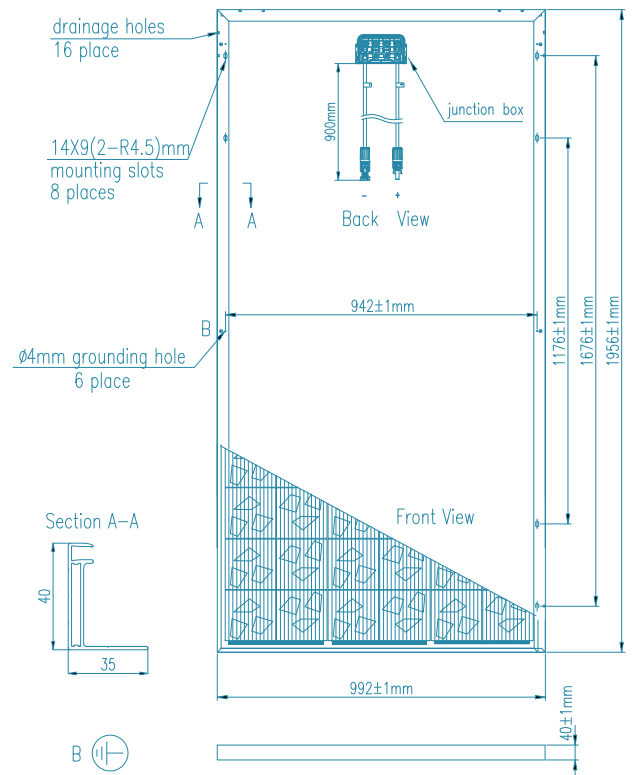
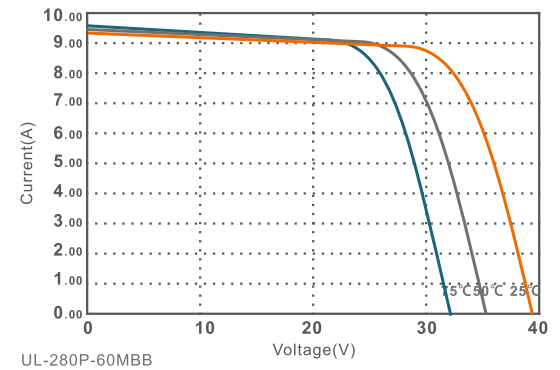
- TÜV SÜD, TÜV NORD, UL, CE, JET, CEC, MCS, CQC, IMERTRO, NRE, KS
- ISO9001:2015
- ISO14001:2015
- BS OHSAS 18001:2007

I-V CURVE

I-V characteristics at different irradiances



I-V characteristics at different temperature



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.