

U Solar New Energy Co., Ltd.



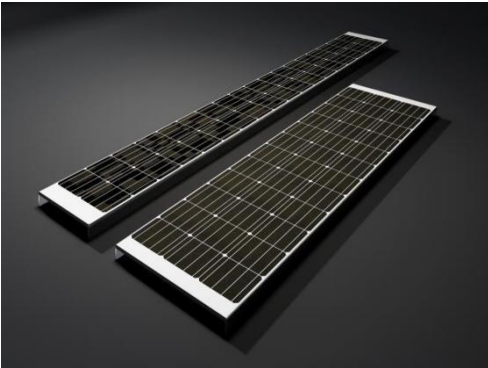
U-BIPV

An innovation of building grade glass integrated photovoltaic

Power up your glass architecture

www.u-solar.cn

Product features



1. U shape glass physical feature :

- ❖ Mechanical Strength: 700-900N/mm²; Toughened >1800N/mm²
- ❖ Mohs Hardness: 6-7
- ❖ Modulus of elasticity: 6000-7000N/mm²
- ❖ Coefficient of linear expansion(Temperature increase of 1°C): 75-85×10⁻⁷
- ❖ Chemical stability: 0.18mg
- ❖ Transmittance: ordinary fine lines, single wing: 91%; double wing: 80%
- ❖ Heat transfer coefficient: single wing <4.90W/m²k; double wing <2.35W/m²k; double wing with glue <2W/m²k
- ❖ Sound insulation capacity: single wing: reduce 27db; double wing: reduce 38db; double wing after glue: reduce 40db or above
- ❖ Fire resistance: 0.75 hour

2. Solar module:

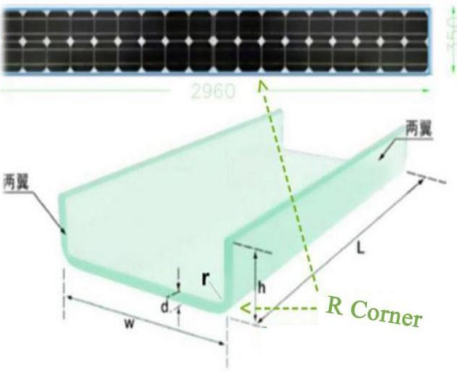
All types of silicon & film material are applicable, size can be customized.

Product specification

Model	U35-110W	U35-135W	U35-165W	U50-162W
Peak power(W)	110+3%	135+3%	165+3%	162+3%
Open circuit voltage(V)	14.4	18	21.6	21.6
Max. power voltage(V)	12	15	18	18
Max. power current(A)	9.17	9	9.17	9
Short circuit current(A)	9.99	9.8	9.99	9.8
Solar cells Efficiency	20%	20%	20%	20%
Dimensions(L*W*T) / Weight(kgs)	1980*348*50mm / 12kgs	2440*348*50mm / 12kgs	2950*348*50mm / 18kgs	2000*510*50mm / 17kgs
Solar cell / No. and connections	24 series	30 series	36 series	36 series
	Mono crystalline silicon, 156*156*0.19mm			
Front cover	5mm Pattern U-glass	4mm Clear U-glass	5mm Pattern U-glass	5mm Clear U-glass
Encapsulant material	EVA	EVA	EVA	EVA
Water proof	Junction box ≥IP65			
Cable & connector	PV1-F 1×4.0 mm2×600mm / MC4			
STC	Irradiance:1000W/m ² , Cell temperature:25℃, AM:1.5			
Max. static load	Front wind > 5400Pa ; Back wind > 2400Pa			
Static Load	>1100N			
Max. hailstone impact	50mm / 23m/s ; Steel ball free fall 1040g/1.5m (weight/height)			
Max. over-current (A)	15A			
Max. system voltage (V)	1000V DC (1500V Double U glass)			
Application Class	Class A			
NOCT	48±2℃			
Temperature limits	-40℃ - +85℃			
Coefficient TK	current : 0.1%/℃ ; voltage : -0.37%/℃ ; power : -0.45%/℃			
Product Life	≥25 years			
Warranty	5 years for system, 10 years for solar module. Pm ≥90% in 10 years, Pm ≥80% in 25 years			
Approval	CQC,TUV, CE, ROHS, FCC, PSE / (IEC61215&IEC61730)			

Product advantage:

- 1. Strong structure. U power generation product bears 100KG/M² or above, non-deformable, snow & hail & wind resistance. Prevent solar cells from cracking.



- 2. No frame, no PID defects. The angle of R corner on the glass helps to reflect more sunlight to the solar modules, drive inverter to keep working and generating more electric power.

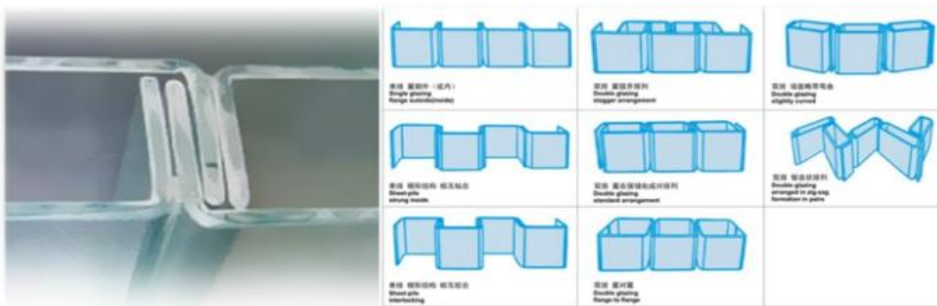
- 3. Step-able, free of maintenance access, easy to maintain. Besides, at the same base area, U-generation roof could install 50% more solar modules than the traditional solar systems.



Layout of traditional solar system

Layout of U-generation roof

4. **Competitive price.** Integration of U glass building material and solar system, 2-in-1 installation. Moreover, U glass is self reinforcing structure, no need steel frame support. The final cost not higher than traditional glass wall, but provide free solar modules.

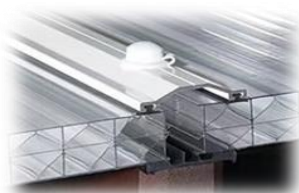
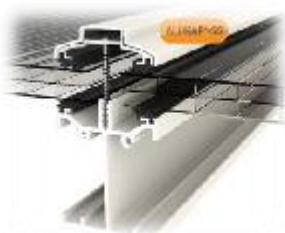


U-power generation wall

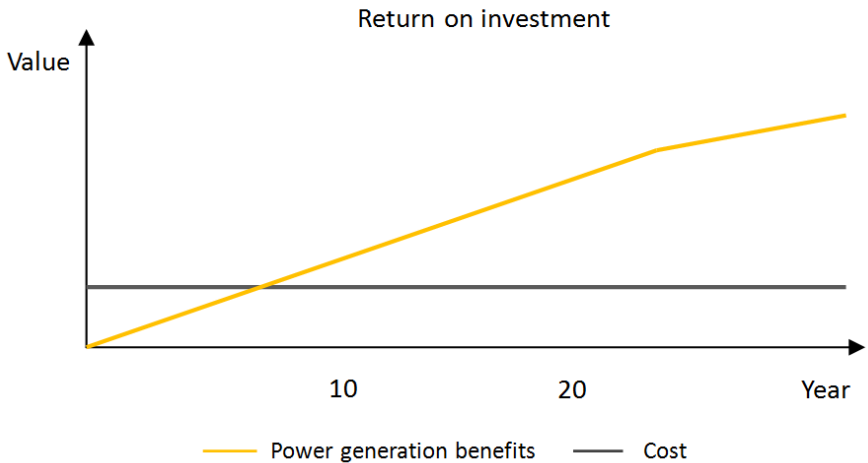


Traditional glass wall, steel frame is must

5. **Structural water proof.** Simple installation, less accessories required. Not necessary to disassemble substantial glasses/solar modules to replace the defective units.



6. **High return rate.** One time investment, more than twenty five years income. Supposed to have 6 peak hours (average in East Africa, Ethiopia), one square meter of U-power generation roof could generate 280Kwh in a year. We guarantee the solar system rating power \geq 90% in 10 years, and rating power \geq 80% in 25 years. Which means, one square meter of U-power generation roof could generate at least 6000Kwh in 25 years. The saving electricity cost is revenues.



7. Self cleaning. With exclusive nanometer self-cleaning technology, auto dedusting for max 10 years, easy for daily maintenance.
8. Stable quality. 5 years guarantee for system and 10 years guarantee for solar modules are provided.
9. Remote monitoring. Monitor the actual working status of solar system in distance at anytime and anyplace.
10. High production efficiency with our own lamination tool.



Contact us

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