MODERNITE
BY CARBONFUTUREX GROUP

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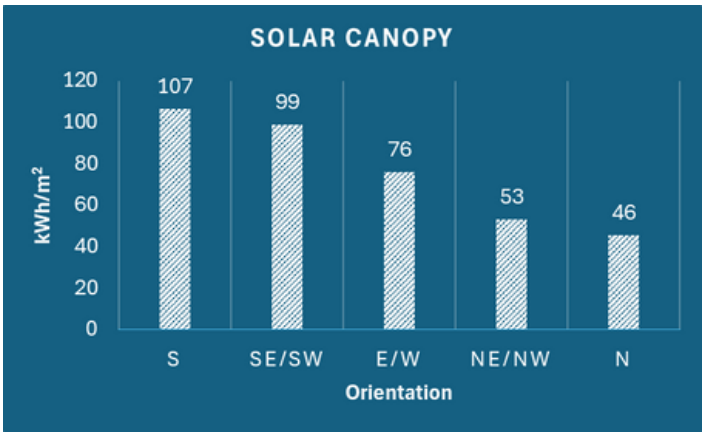
SolarInn® Canopy Glass

Our Transparent Photovoltaic Canopy integrates high-efficiency thin-film solar technology with modern architectural aesthetics, delivering a multifunctional solution that provides shading, rain protection, and clean energy generation. Designed for both residential and commercial applications, this semi-transparent canopy allows natural light to pass through while continuously generating electricity — even under cloudy skies or diffused lighting conditions.

Ideal for garden patios, terraces, walkways, bus shelters, carports, and public spaces — the Transparent Photovoltaic Canopy redefines sustainable outdoor living.

Products

Annual Power Generation - UK Average (under 30% transparency)



Specifications

Structure (mm)	6T+1.52PVB+3.2CdTe+1.52PVB+6T	**Thickness (mm)**	18.24
Standard Dimensions	1600mm length × 1200mm width		
Weight (kg)	74.40	**Nominal Peak Power Output (Wp)**	205
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	11.2%	**Conversion efficiency under 1000W/m2 solar radiation (25°C, AM1.5)**	10.7%
Visible light transmittance	30%	**g-value**	0.180
IR light block rate	84.7%	**UV light block rate**	95.3%
Glass Type	Toughened Glass + Laminated Glass	**Acoustic Reduction (dB)**	41
Power generation performance guarantee	85% performance remaining after 25 years	**Lifespan**	25-30 years

Transparency and vision comparison

Electrical Specifications
Standard test conditions (STC): 1000W/m², 25°C, AM1.5

Model Types (Specifications Standard test conditions(STC):1000W/m², 25°C, AM1.5)	SolarInn® Ultra slim
Standard Size (mm)	1200✕1600
Standard transparency	30%
Maximum Power Pm(W)	205
Open Circuit Voltage Vdc(V)	183
Short Circuit Current Isc(A)	1.44
Peak Power Voltage Vmp(V)	143
Peak Power Current Imp(A)	1.43
Maximum Series Fuse Rating Icf(A)	2.16
Maximum System Voltage Vsys(V)	1000
Temperature Coefficients of Isc Tkα(%/°C)	+0.061
Temperature Coefficients of Voc Tkβ(%/°C)	-0.396
Temperature Coefficients of Pm Tkγ(%/°C)	-0.189
Operating Temperature Range(°C)	-40 to +85

Regulations compliance

IEC 61215-1 / -1-2 / -2:2021
IEC 61730-1 / -2:2018
EN 12600:2002
ISO 12543-3 / -4 / -5 / -6 :2021
EN 410:2011
IEC 61730-1 / -2:2016
EN 14449:2005
EN 12150-1:2015+A1:2019
ISO 14067:2018
PAS 2050:2011

Other Features

- **Ultra-low Carbon Footprint (Embodied Carbon Intensity)**

Producing 1W of CdTe solar glass generates only 0.29 kg CO_2e – an ultra-low carbon footprint.

- **Ultra-low Carbon Intensity of Power Generation (Emission Factor)**

Generating 1 kWh of electricity with CdTe solar releases just 0.011 kg CO_2e – far cleaner than average UK power station (0.280kg CO_2e) and silicon PV(0.067kg CO_2e)

- **Thermal Durability**

Thermal cycling (-40°C to +85°C, 200 cycles, ≤5% power degradation)

- **Fire Safety**

Passed the A-level fire test, the highest fire rating in Europe and the USA

- **Outstanding Hail Impact Resistance**

Tested under 25 mm ice ball at 23 m/s, IEC 61215 compliant

- Excellent wind and snow load resistance

1）1200×1600 mm, four-edge supported: withstands 5.5–6.5 kPa uniform load
2）1200×1200 mm, four-edge supported: withstands 6.5–7.5 kPa uniform load
Fully compliant with IEC 2400 Pa wind load and 5400 Pa snow load standards

Portfolio

Location: Boao Near Zero Carbon Demonstration Zone
Installed capacity：162.65kW
Application: Sunlight Corridor

Location: Chengdu Jingyuan West Road
Installed capacity：32kW
Application: Outdoor garage canopy

Location: Yijiashan Square Smart Community
Installed capacity：6.24kW
Application: Corridor roof light

Location: Huati intelligent transportation energy storage station project
Installed capacity：0.75kW
Application: Bus station Canopy

WHERE THERE IS LIGHT, THERE IS POWER

Contact

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