MODERNITE
BY CARBONFUTUREX GROUP

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By CarbonFutureX® Group

SolarInn® Glazing façade



SolarInn Glazing Façade transforms building façades into energy-generating surfaces — combining photovoltaic glass, high-performance insulation, shading, and architectural clarity.
Designed to dramatically reduce summer overheating,

SolarInn minimises solar heat gain and cuts building cooling demand, while maintaining daylight, comfort, and design freedom.

Engineered for real-world, low-light conditions.



Dissatisfaction and anxiety often begin with windows and doors— but so does true comfort.

The heating doesn’t work, yet energy bills keep climbing.
Homes overheat in summer and feel freezing in winter.
Every morning, windows drip with condensation.
Earthquakes, typhoons, outside noise, noisy neighbors—
daily worries that create frustration indoors.

But how can we truly solve these problems?

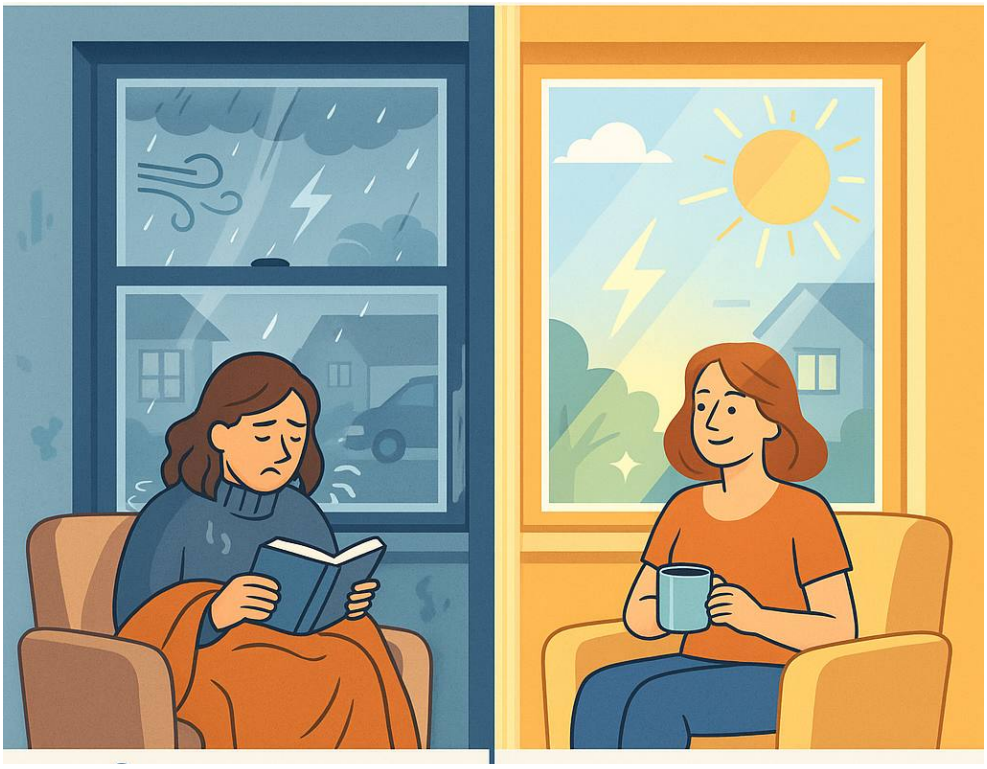
The answer often lies in one place:
your windows and doors.

FROM PROBLEMS TO SOLUTIONS - THE SOLARINN ANSWER

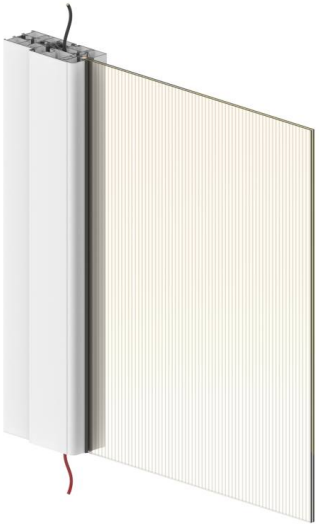
Traditional glazing façade are not just energy “leak points” — they are systemic weak spots that compromise health, comfort, and safety.
They cause:

- Energy waste through **heat loss** and **poor insulation**
- Humidity and mould that harm **air quality** and **wellbeing**
- Noise intrusion disrupting **sleep** and **concentration**
- Dependence on **unstable power** systems
- Decline in **living quality** and **hidden health risks**

By integrating photovoltaic power generation, superior insulation,shading, acoustic control, and safety glass technology, SolarInn redefines the glass facade as both a **comfort barrier** and a **clean energy source**.



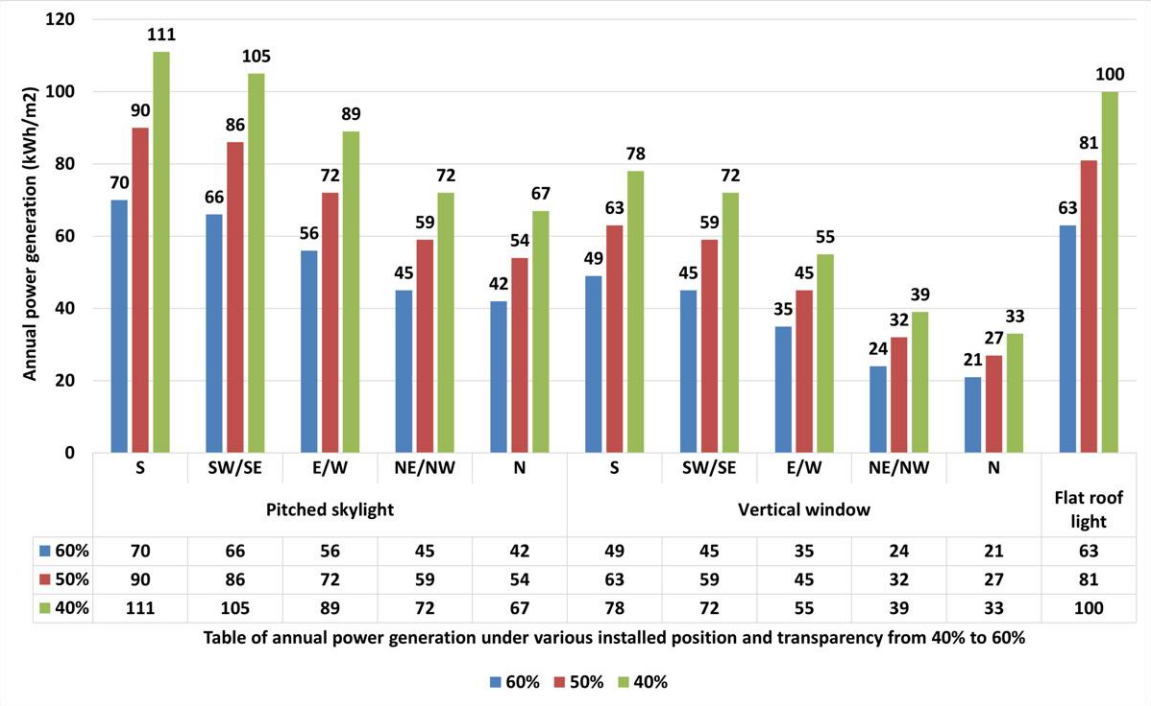
SolarInn glazing facade
Product Catalogue



Specifications

	SolarInn Standard Glass	SolarInn Plus Glass	SolarInn Edge Glass
Structure (mm)	3.2CdTe + 0.76PVB + 3.2 + 18Ar + 4T(T70)	3.2CdTe + 0.76PVB + 3.2 + 12Ar + 4T(S1.16) + 12Ar + 4T(S1.16)	3.2CdTe + 0.76PVB + 3T(S1.16) + 0.2V + 3T
Thickness (mm)	29.16	39.36	10.16
Standard Dimensions	1200mm height × 1610mm width		
Nominal Peak Power Output (Wp/㎡)	63 Wp/㎡ (60% transparency) 80 Wp/㎡ (50% transparency) 97 Wp/㎡ (40% transparency)		
Weight (kg/㎡)	32 kg/㎡	46 kg/㎡	24 kg/㎡
Conversion efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	6.3% (60% transparency) 8.0% (50% transparency) 9.7% (40% transparency)		
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	6.6% (60% transparency) 8.4% (50% transparency) 10.2% (40% transparency)		
U-value (W/㎡K)	1.14	0.80	0.60
g-value	0.304	0.236	0.210
Visible light transmittance	38%	34%	30%
UV light block rate	83.0%	88.7%	99.5%
Acoustic Reduction (dB)	42	44	45
Glass Type	Toughened Glass + Laminated Glass		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	25-30 years		

UK Average Power Generation



	Pitched skylight					Vertical window					Flat roof light
	S	SW/SE	E/W	NE/NW	N	S	SW/SE	E/W	NE/NW	N	
60%	70	66	56	45	42	49	45	35	24	21	63
50%	90	86	72	59	54	63	59	45	32	27	81
40%	111	105	89	72	67	78	72	55	39	33	100

Note: S - South; SW - Southwest; SE - Southeast; E - East; W - West; NE - Northeast; NW - Northwest; N - North;

Transparency



Without glazing



With double glazing



With triple glazing



60% transparency SolarInn Glazing



50% transparency SolarInn Glazing



30% transparency SolarInn Glazing

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® Standard/Plus/Edge		
Standard Size (mm)	1200✕1610		
Standard transparency	40%	50%	60%
Maximum Power Pm(W)	187	154	121
Open Circuit Voltage Vdc(V)	183	183	183
Short Circuit Current Isc(A)	1.41	1.17	0.92
Peak Power Voltage Vmp(V)	146.3	146.3	146.3
Peak Power Current Imp(A)	1.28	1.05	0.83
Maximum Series Fuse Rating Icf(A)	2.11	1.75	1.38
Maximum System Voltage Vsys(V)	1000	1000	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

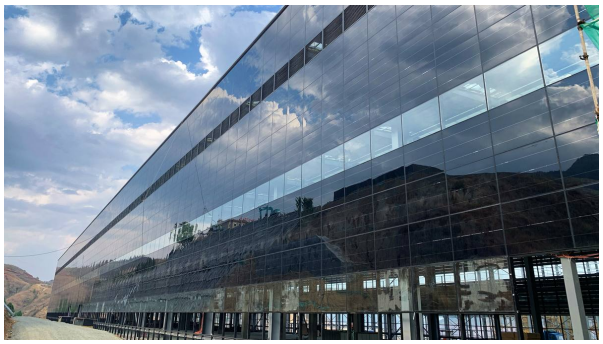
- **Outstanding Hail Impact Resistance**

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

- Excellent wind load resistance

Fully compliant with IEC 2400 Pa wind load

Portfolio



Location: Panzhihua Graphite Carbon Industrial Park
Installed capacity：1.25MW
Application: Glass Curtain Wall



Location: Hunan Construction Engineering Sunshine Corridor
Installed capacity：2.38kW
Application: Fixed Window



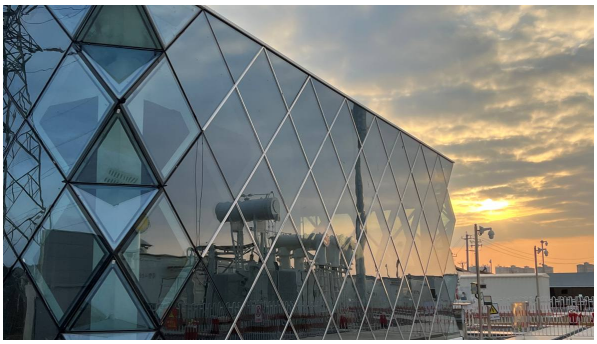
Location: Ruichang building materials sun room
Installed capacity：7kW
Application: Skylight



Location: Wuliangye High-tech Zone Headquarters Project
Installed capacity：346.5kW
Application: Floor-to-ceiling glass



Location: BIPV Project for People's Hospital in Xiong'an New Area
Installed capacity：563kW
Application: Casement window



Location: State Grid Demonstration Project of New Power System
Installed capacity：99kW
Application: Glass curtain wall

Portfolio



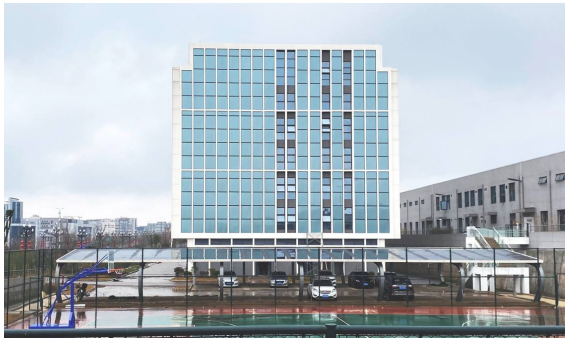
Location: BIPV Project for Western China Science And Technology Innovation Harbour
Installed capacity：226kW
Application: Fixed window



Location: Laboratory Building of Agricultural Biological Sciences, Academy of Agricultural Sciences
Installed capacity：78.82kW
Application: Tilt & Down Window



Location: Yancheng Comprehensive Energy Service Center
Installed capacity：10.44kW
Application: Glass curtain wall



Location: CdTe Power Glass of Shudao Group Smart Track in Yibin
Installed capacity：136kW
Application: Glass curtain wall

WHERE THERE IS LIGHT, THERE IS POWER

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