MODERNITE
BY CARBONFUTUREX GROUP

Modernité
By CarbonFutureX® Group

SolarInn® Facade



SolarInn facade is a next-generation photovoltaic façade system specifically designed for vertical building applications.
It is optimised for real urban light environments, harnessing diffuse light, reflected radiation, and low-angle sunlight that dominate city conditions.
It represents a new paradigm in vertical energy generation, transforming building envelopes into reliable, year-round power-generating assets fully integrated with architectural design.

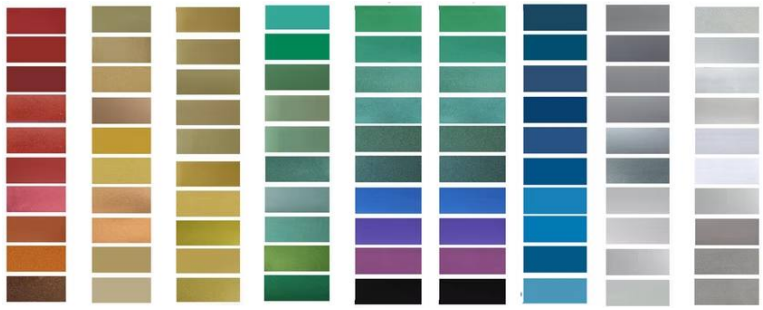
Products

Marble Black Photovoltaic Facade

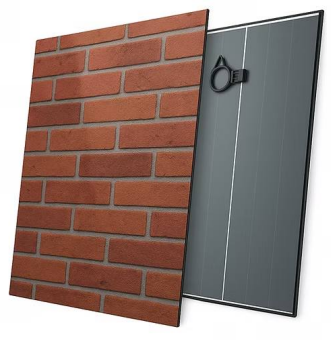


Monochrome Photovoltaic Facade





Decorative Photovoltaic Facade









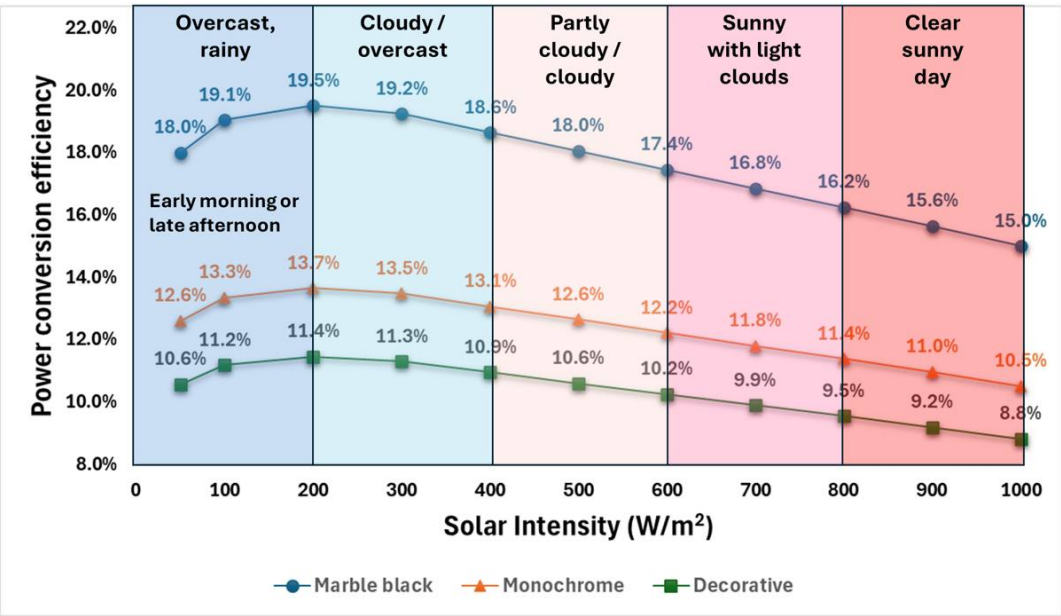




Specifications

	Marble Black	Monochrome	Decorative
Facade colour	Black Only	Monochrome appearance	Architectural material appearance
Structure (mm)	5T+0.76PVB+3.2CdTe+0.76PVB+5T		
Glass thickness (mm)	14.72		
Glass Dimensions (mm)	1200 × 1600		
Weight (kg)	65.75		
Nominal Peak Power Output (Wp)	288	202	170
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	19.5%	13.7%	11.5%
Conversion efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	15%	10.5%	8.8%
Glass Type	Safety Glass (Laminated and Toughened)		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	25-30 years		

Solar Conversion Efficiency Under Varying Solar Intensity



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)	Marble Black	Monochrome	Decorative
Standard Glass Size (mm)	1200*1600		
Maximum Power Pm(W)	288	202	170
Open Circuit Voltage Voc(V)	271.0	271.0	271.0
Short Circuit Current Isc(A)	1.56	1.56	1.56
Peak Power Voltage Vmpp(V)	223.0	223.0	223.0
Peak Power Current Imp(A)	1.29	1.02	0.77
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

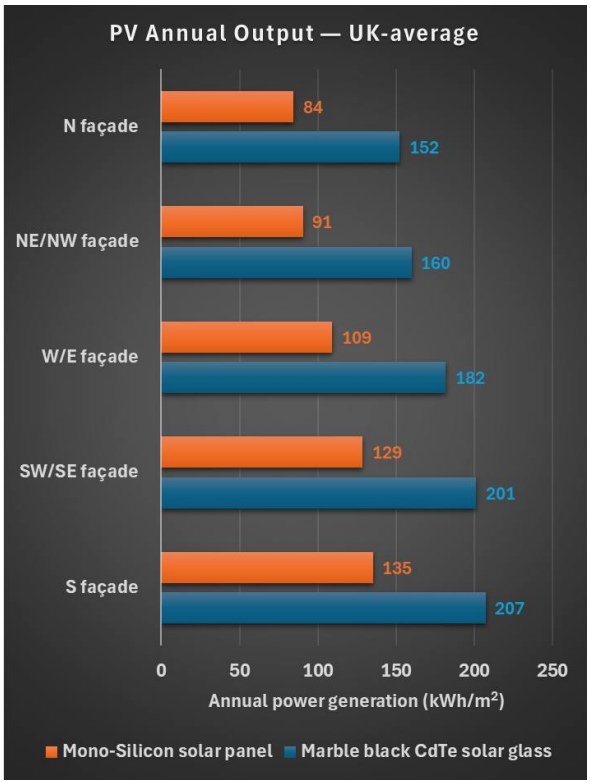
- **Outstanding Hail Impact Resistance**

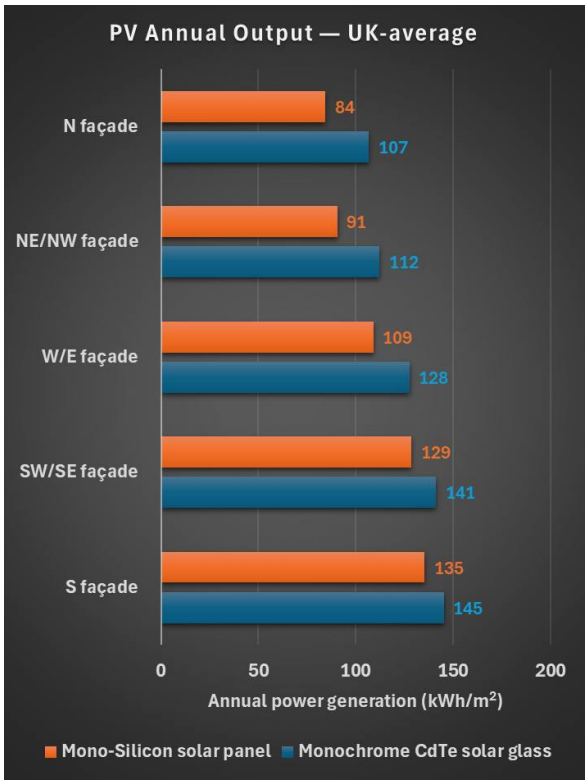
Tested under 25 mm ice ball at 23 m/s, IEC 61215 compliant

- Excellent wind and snow load resistance

Fully compliant with IEC 5400Pa wind and snow load standards

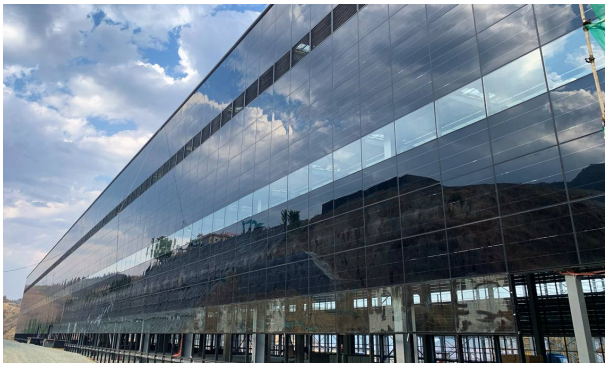
PV Annual Output - UK Average







Portfolio



Location: Panzhihua Graphite Carbon Industrial Park
Installed capacity：1.25MW
Application: Black solar facade



Location: Panzhihua Ganlanping Electronics Industrial Park
Installed capacity：0.9MW
Application: Black solar facade



Location: Lijiang Cement Plant Facade Reconstruction Project
Installed capacity：726kW
Application: Monochrome solar facade



Location: Muni Hydropower Station in Sichuan
Installed capacity：429kW
Application: Monochrome solar facade



Location: Eastern Warehouse of Wanhua Chemical
Installed capacity：754kW
Application: Monochrome solar facade



Location: Technology Innovation Application Transformation Space
Installed capacity：86kW
Application: Monochrome solar facade

Portfolio



Location: Glass Curtain of State Key Laboratory
Installed capacity：236kW
Application: Decorative solar facade



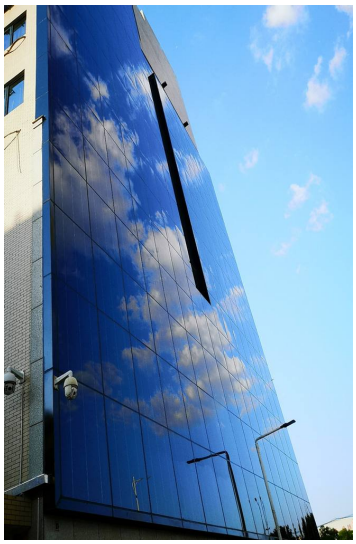
Location: Triumph Robotics Intelligent Equipment R&D Center
Installed capacity：339 kW
Application: Black solar facade



Location: Smart Energy E-commerce Building in Jiujiang
Installed capacity：534 kW
Application: Monochrome solar facade



Location: Geliping Industrial Park in Panzhihua - Imitation metal
Installed capacity：64 kW
Application: Decorative solar facade

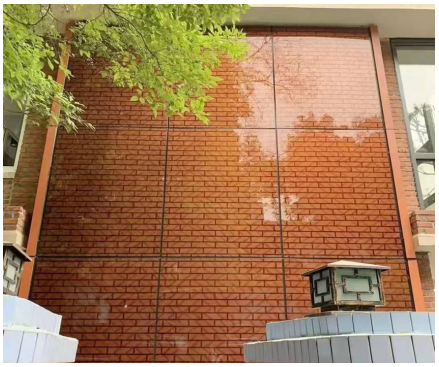


Location: Hunan Liling Economic Development Zone Building
Installed capacity：45 kW
Application: Black solar facade

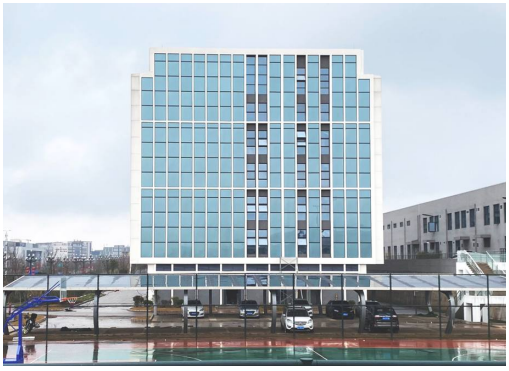


Location: Hubei Electric Power Co., Ltd. Building
Installed capacity：47 kW
Application: Black solar facade

Portfolio



Location: Brick External Wall on Gulangyu Island in Xiamen
Installed capacity：6.7kW
Application: Decorative solar facade



Location: Triumph Robotics Intelligent Equipment R&D Center
Installed capacity：339 kW
Application: Black solar facade



Location: World Energy Competition design winning villas
Installed capacity：3 kW
Application: Monochrome solar facade



Location: Chengdu Liulichang Cultural and Creative Center Project
Installed capacity：6.7 kW
Application: Decorative solar facade

WHERE THERE IS LIGHT,
THERE IS POWER

Contact

Headquarters (UK)

Email: info@carbonfuturex.group
Tel: +44 (0) 161 8415628
Website: https://www.modernite.co.uk/
Head Office Address: Unit 5.04a, Boat Shed, Exchange Quay, Salford, Manchester, M5 3EQ

Japan Partner

UNICE CO., LTD
2F 2-4-15 YOUKOUEN YAO-CITY,OSAKA,JAPAN 581-0086
TEL:(81)72-920-7809 FAX:(81)72-990-1303
Email: info@gdunice.com URL: http://www.gdunice.com