

Modernité
By CarbonFutureX® Group

SOLARINN WINDOWS / PHOTOVOLTAIC GLAZING

A clearer view of solar.

Energy-generating glazing for windows and doors.
Daylight, comfort and power in one refined surface.

One surface.
Three architectural functions.

SolarInn brings photovoltaic generation into the glass itself, combining a considered architectural finish with natural light, solar control and insulation.



01

A window

Preserve daylight and views with a uniform, semi-transparent surface for windows, doors and glazed elevations.

02

A climate surface

Limit solar heat gain and winter heat loss through a glazing configuration selected for the building.

03

A power generator

Produce electricity from light reaching the glass, including the diffuse daylight familiar to the UK.

Architecture, with energy within.

Comfort through the day.

Light changes. SolarInn brings generation and glazing performance together as the day unfolds.



WELCOME THE LIGHT

Morning

Soft natural daylight and a garden view, with generation beginning as daylight reaches the glass.



MANAGE SOLAR GAIN

Midday

Solar-control glazing helps limit intense heat gain and glare, supporting more comfortable interiors.



KEEP COMFORT WITHIN

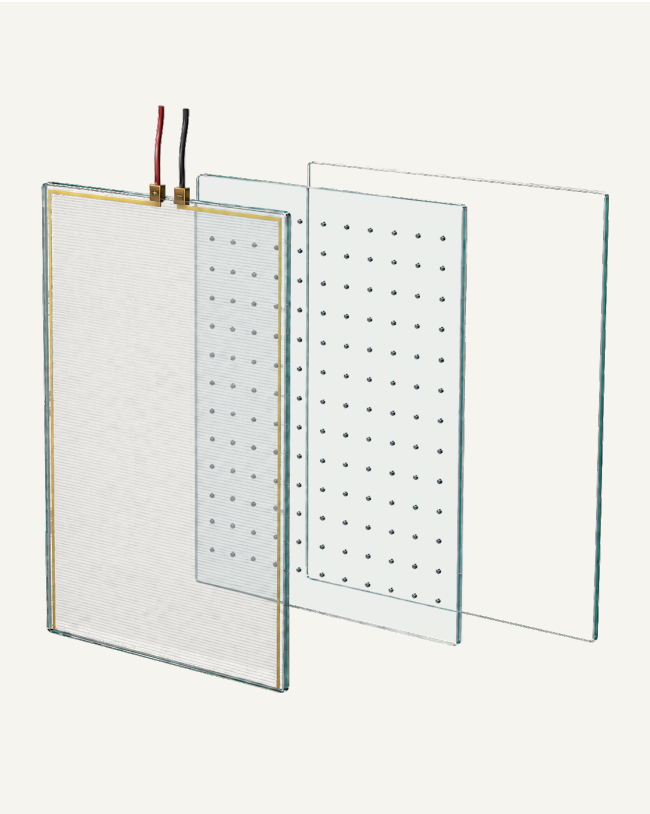
Evening

Insulating glazing helps retain indoor warmth as daylight fades, with a refined architectural appearance.

Appearance illustrations. Actual daylight, glare and thermal comfort depend on the selected glazing and building design.

Two ways to integrate solar.

Choose an ultra-slim vacuum build-up or a conventional argon-filled insulating glass unit.



ULTRA-SLIM VACUUM GLAZING

SolarInn Edge

For slim window frames, retrofit projects and premium glazed elevations.

12.16

mm

Published total thickness

0.2 mm vacuum cavity



ARGON-FILLED INSULATING GLAZING

SolarInn Standard

For new windows, doors and conventional insulated glazing systems.

28.16

mm

Published total thickness

16 mm argon-filled cavity

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The glazing, in detail.

Published reference configurations for SolarInn Edge and SolarInn Standard.

PARAMETER	SOLARINN EDGE	SOLARINN STANDARD
Glazing structure (mm)	3.2CdTe + 0.76PVB + 4TL + 0.2V + 4T	3.2CdTe + 0.76PVB + 3.2 + 16Ar + 5TL
Total thickness	12.16 mm	28.16 mm
Weight	28.8 kg/m²	29.3 kg/m²
Insulating cavity	0.2 mm vacuum	16 mm argon-filled
Photovoltaic technology	Semi-transparent CdTe thin-film	Semi-transparent CdTe thin-film
PV power density	100 W/m²	100 W/m²
Glazing U-value	0.4 W/m²K	1.2 W/m²K
Solar heat gain coefficient (g)	0.12	0.25
Visible light transmittance	30%	40%
Low-E pane	4 mm toughened	5 mm toughened
Published acoustic performance	42 dB	38 dB
Standard maximum size	1200 × 1600 mm	1200 × 1600 mm
Safety configuration	Laminated PV glass + toughened glass	Laminated PV glass + toughened glass
Power performance warranty	85% output remaining after 25 years	85% output remaining after 25 years
Expected service life	25-30 years	25-30 years

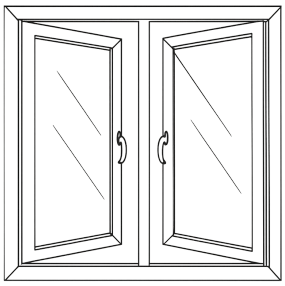
CdTe: cadmium telluride PV layer. PVB: laminated-glass interlayer. T: toughened glass. TL: toughened Low-E glass. V: vacuum cavity. Ar: argon cavity.

Reference values are configuration-specific. Whole-window performance also depends on the frame and edge details. Confirm final dimensions, electrical ratings, test reports and warranty terms in the project specification.

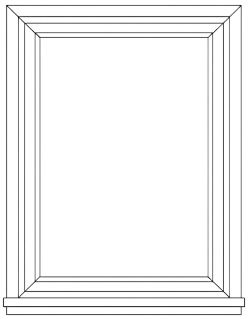
Windows. Doors. Possibilities.

A consistent glazing language across everyday openings and expansive architectural views.

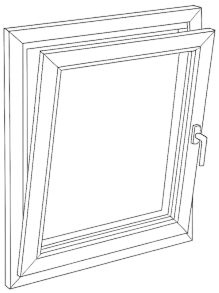
WINDOW TYPES



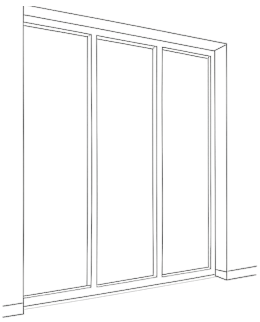
Casement



Fixed

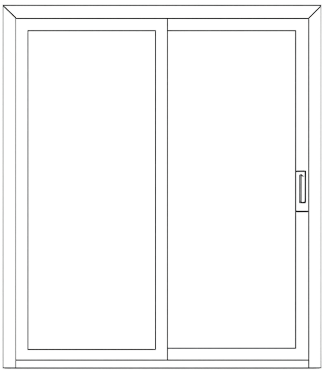


Tilt-opening

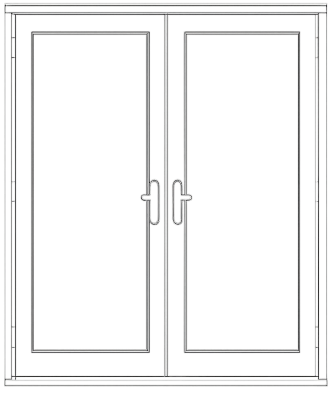


Floor-to-ceiling

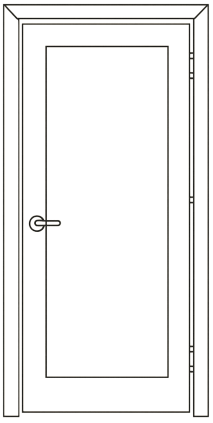
DOOR TYPES



Sliding



French



Hinged

Opening style, frame compatibility, hardware, cable routing and glazing size are coordinated for each project.

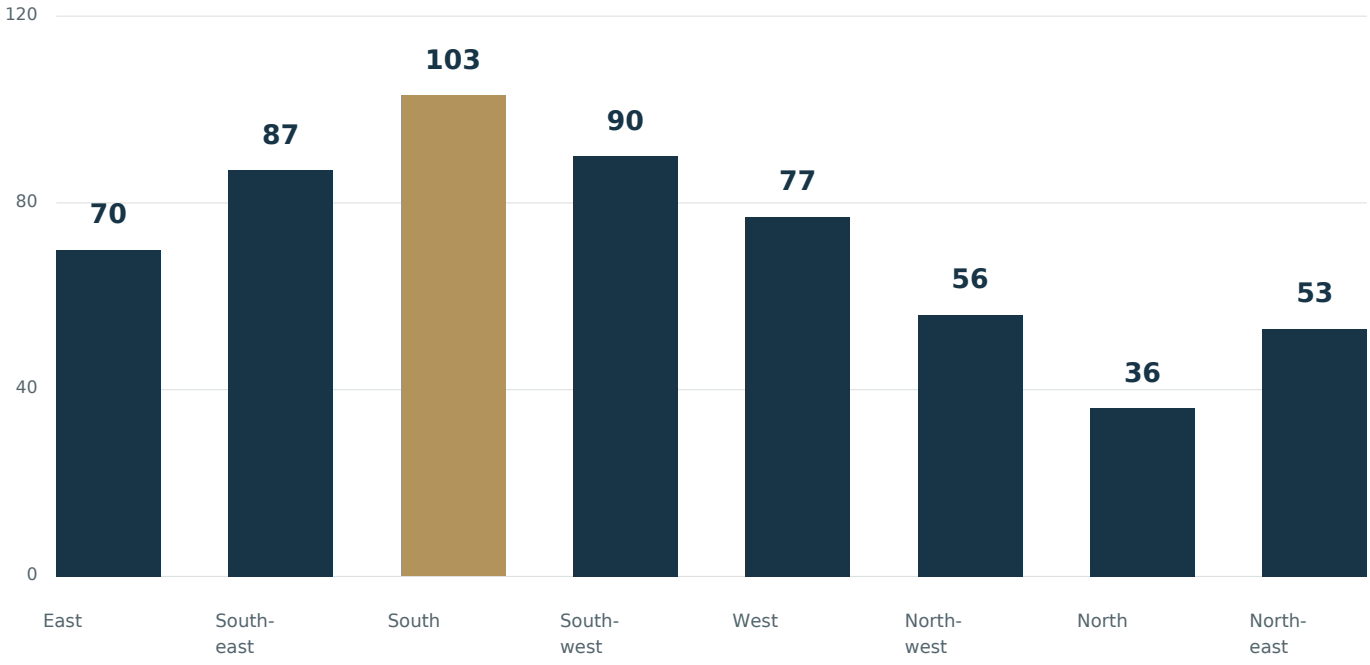
Make more of every elevation.

CdTe thin-film glazing generates in direct sunshine and diffuse daylight. Orientation still matters.



ANNUAL WINDOW GLAZING GENERATION

kWh/m²/year

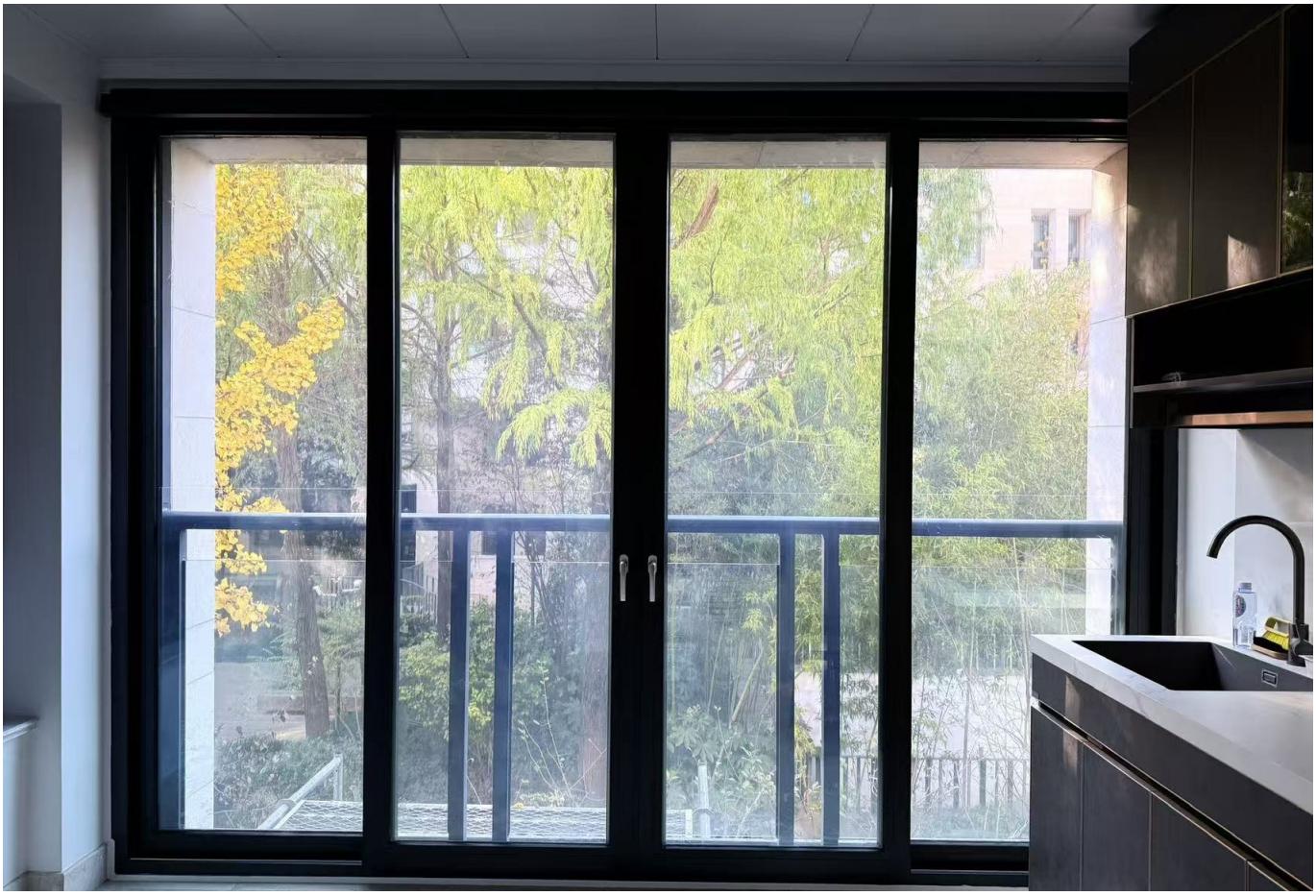


Website reference values for comparing orientations. Location, tilt, shading, glazing specification and electrical system design affect actual yield; a project-specific assessment is required.

The Manchester installation on the next page is a separate project reference with its own published annual generation.

A Manchester home.

A south-facing installation designed to limit summer solar gain while keeping the kitchen connected to the garden.



PRIVATE RESIDENCE / SOLARINN EDGE

7.68	800	422
m²	W	kWh/year
Glazing area	Installed capacity	Published annual generation

Ultra-slim vacuum PV laminated glass

Glazing performance: U-value 0.4 W/m²K
Solar heat gain coefficient: g = 0.12

Annual generation is a published project reference and varies with local conditions, shading and system design.

Modernité
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Across British architecture.

Explore solar glazing in homes, workplaces and learning spaces.



RESIDENTIAL

Homes and renovations

Glazing for garden-facing kitchens, extensions and everyday living spaces.



WORKPLACES

Contemporary offices

Refined glazed elevations that bring daylight, solar control and generation into the workplace.



EDUCATION

Spaces for learning

Considered window design for classrooms and shared learning spaces, with views to the outdoors.

Illustrative UK-style application concepts, including AI-generated imagery. These scenes are not completed-project references.

Performance beyond the view.

Insulation, solar control and generation are considered together within the architectural glass specification.



85%

Published power output remaining after 25 years

25-30

Years of expected service life

Integrated protection

A laminated photovoltaic layer and toughened glass form the published safety configuration for both glazing series.

A lasting specification

Select the glazing, framing and electrical components as one coordinated building system, with access for maintenance.

ACCREDITATIONS & CONFORMITY

Quality-management and PV-module marks. Product scope follows the applicable certification documents.

Power performance warranty is subject to the applicable product terms. Expected service life is an indicative product value, not a whole-window warranty.

Start with your building.

Share the essentials so the Modernité team can develop a suitable glazing proposal for your project.

1

Your building

Project location, photographs or elevations, opening sizes and the orientation of each glazed surface.

2

Your priorities

Daylight and view, summer comfort, winter insulation, appearance and preferred window or door styles.

3

Your glazing and frames

Choose Edge or Standard, then confirm glass size, frame compatibility, opening hardware and structural requirements.

4

Your energy system

Confirm shading, cable routes, electrical connections and compatibility with the proposed power-conversion equipment.

Technical information and installation

Request the current product datasheet, electrical voltage and current ratings, relevant certificates and test reports, installation manual and warranty terms with your proposal.

Illustrations show design possibilities. Final glass build-up, framing, connections and installation details follow the agreed project specification.



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Bring solar into your architecture.

Discuss your building, your priorities and the possibilities with the Modernité team.

+44 (0)161 841 5628

info@carbonfuturex.group

modernite.co.uk/photovoltaic-window

EXPLORE ONLINE

Modernité by CarbonFutureX Group Ltd
Registered office and HQ: Unit 5.04a, Boat Shed, Exchange Quay,
Salford, Manchester, M5 3EQ, United Kingdom