

PHOTOVOLTAIC CURTAIN WALL



Nowadays architecture and photovoltaic solar energy can be combined to create a new form of construction.

Curtain walls offer architects a multitude of possibilities for the **integration of photovoltaic solar energy into buildings** in an efficient and ecological manner.

Photovoltaic curtain wall provides a multifunctional solution where not only clean and free energy is being generated in-situ, but also natural illumination is being provided implementing solar control by

filtering effect, **avoiding infrared and UV irradiation to the interior** (enhancing thermal comfort and avoiding interior aging).

The large variety in form, structure and colour of transparent photovoltaic glass, combined with the aluminum frames, provides a free reign of creativity for architects so they can create designs which unite elegance, efficiency and energy saving.

Onyx Solar can customize the photovoltaic glass to supply it in different sizes, colours and degrees of transparency. These characteristics mean that it is the ideal material for installation as a **photovoltaic curtain wall**.

PHOTOVOLTAIC DOUBLE GLAZED INSULATING UNITS

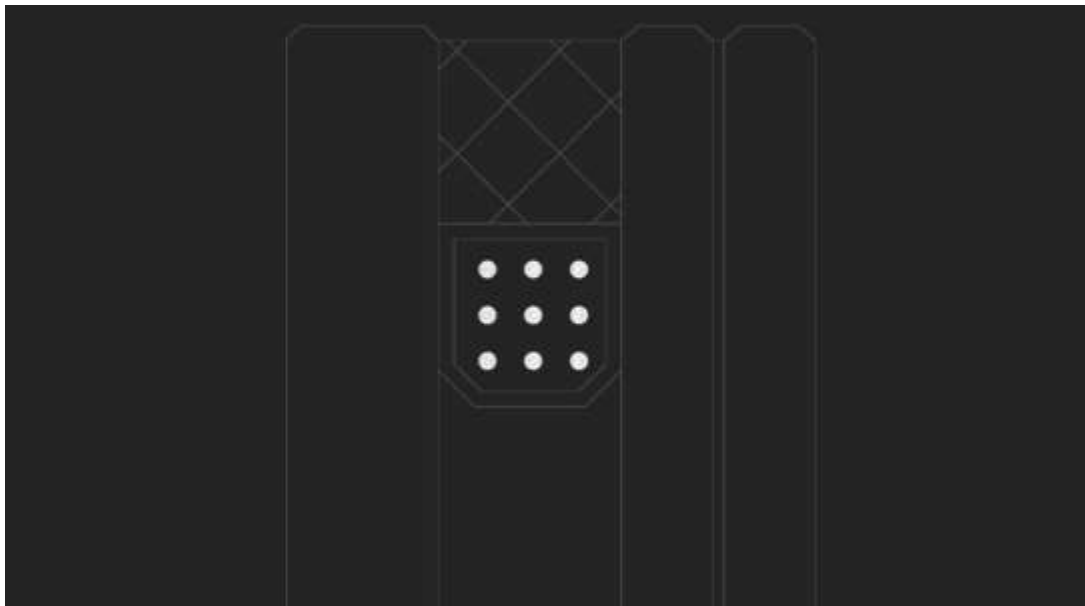


Semi-transparent double glazed photovoltaic insulating glass units can be incorporated into the project providing better thermal insulation properties.

Normally they consist of an external photovoltaic laminated glass of 0.24, 0.32, 0.40, 0.47, 0.59, 0.75 in (6, 8, 10, 12, 15 or 19 mm) thick, an air chamber of 16 mm for a greater thermal insulation performance, and an inner pane of 6 mm thick glass.



Additionally, Argon filling can be used with the chamber for a better thermal performance.



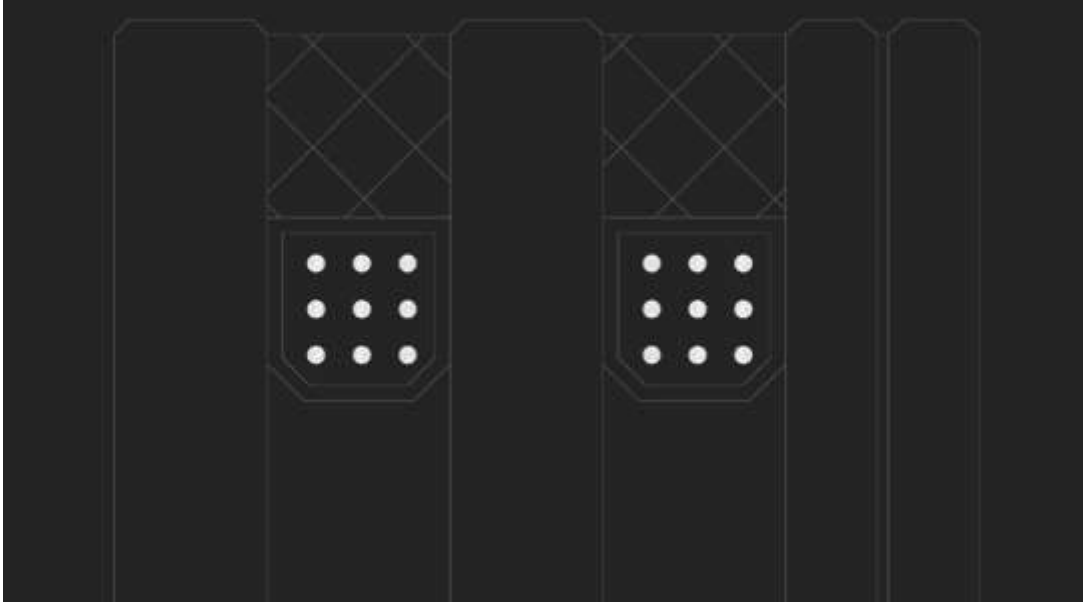
PHOTOVOLTAIC TRIPLE GLAZED INSULATING UNITS



In order to achieve even better thermal insulation, semi-transparent triple glazed insulating photovoltaic glass units could be considered as a possible solution. Generally they consist of an additional inner pane of 0.24 in (6 mm) thick glass which is incorporated into the double glazed unit.



Argon filling can be used with the chamber for a better thermal performance in the same way that the previous case.



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