



INSTALLATION, OPERATION AND MAINTENANCE MANUAL OF PHOTOVOLTAIC GLASS. CRYSTALLINE TECHNOLOGY.

ONYX G/GM02844

IMPORTANT SAFETY INSTRUCTIONS

This manual contains important safety instructions for the PV module that must be followed during the installation and the maintenance of PV Glass.

PLEASE READ THIS MANUAL CAREFULLY BEFORE
INSTALLING OR USING THE MODULES.

PLEASE PASS ALONG THIS MANUAL TO YOUR
CUSTOMER.



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SPAIN (Avila)
Main office: C/ Rio Cea 1-46 • 05004
Phone: +34 920 21 00 50
• info@onyxsolar.com

SPAIN (Avila)
Factory: C/ Palma de Mallorca 8 • 05194
Phone: +34 920 25 98 83
• www.onyxsolar.es

UNITED STATES (New York)
79 Madison Avenue Suite 231 • NY 10016
Phone: +1 917 261 4783
usa@onyxsolar.com • www.onyxsolar.com



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1. INTRODUCTION.

This manual contains information for the correct installation, operation and maintenance of photovoltaic glass (henceforth PV glass) manufactured by ONYX SOLAR ENERGY S.L. (henceforth ONYX) for its building integration.

FAMILY ONYX G/G
MODEL ONYX G/GM02844
NOTE: G: GLASS. G: GLASS M: MONO-CRYSTALLINE 028: N° CELLS 44: THICKNESS 4mm+4mm

See drawing in annex.

It is necessary to read and understand all the instructions, which is detailed below, before any installation or maintenance operations. For any doubt consult our Technical department.

2. DISCLAIMER.

All installation, setting up, maintenance and repair work must be done only by qualified and authorized technicians.

ONYX does not assume any responsibility in case of personal or material damage as a consequence for non-compliance with the following conditions.

3. PRODUCT QUALIFICATIONS.

PV glass manufactured by ONYX complies with the international standards:

- **IEC 61215-1:2021** Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1: Test requirements.
- **IEC 61215-1-1:2021** Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 1-1: Special requirements for testing of crystalline silicon photovoltaic (PV) modules.

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Main office: C/ Rio Cea 1-46 • 05004
Phone: +34 920 21 00 50
• info@onyxsolar.com

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Factory: C/ Palma de Mallorca 8 • 05194
Phone: +34 920 25 98 83
• www.onyxsolar.es

UNITED STATES (New York)
79 Madison Avenue Suite 231 • NY 10016
Phone: +1 917 261 4783
usa@onyxsolar.com • www.onyxsolar.com



- **IEC 61215-2:2021** . Terrestrial photovoltaic (PV) modules - Design qualification and type approval - Part 2: Test procedures.
- **IEC 61730-1: 2023**. Photovoltaic module safety qualification. Requirements for construction.
- **IEC 61730-2:2023**. Photovoltaic module safety qualification. Requirements for testing.

The PV glass belongs to **Class II for protection against electric shock**, in accordance with **IEC 61730-1:2023**

4. BEFORE STARTING THE INSTALLATION.

-  Local and national regulations for building and electrical installation will be taken into consideration.
-  All safety **measures** for accident **prevention** will be implemented.
-  **Safety instructions** must be **followed** for all system **components** (regulators, inverter...).
-  Only appropriate **protective equipment** will be employed (insulated tools, safety footwear and clothing), which meet the necessary requirements to operate in electrical installation.
-  **Do not install** under **adverse weather conditions**, avoiding wind, rain or snow in order **to avoid electric shocks**.
-  **PV module generates direct current** from the first moment they are exposed to a light source. The short circuits on the DC may cause electric arcs which can caused fires and burns.
-  Keep PV glass away from children.

5. FIRE SAFETY.

- The PV glass has successfully completed fire safety testing in accordance with IEC 61730-2:2023, test sequence MST 23, and complies with the performance requirements for Fire Class C as defined by UL 790.

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• info@onyxsolar.com

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Factory: C/ Palma de Mallorca 8 • 05194
Phone: +34 920 25 98 83
• www.onyxsolar.es

UNITED STATES (New York)
79 Madison Avenue Suite 231 • NY 10016
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usa@onyxsolar.com • www.onyxsolar.com



- Refer to your local authority for guidelines and requirements for buildings or structural fire safety.
- For installation on rooftops, the PV glass must be installed over a **fire-resistant roof**, covering rated for the application. Our PV glass is electrical generating devices that may affect the fire safety of a building.
- In order to mitigate the **risk of fire**, **do not install** PV module in any **location where** flammable **liquids, gases** may be generated or **accumulated**.

NOTE: The fire rating of this PV glass is valid only when mounted in the manner specified in the mechanical mounting instructions.

6. ENVIRONMENTAL CONDITIONS.

PV glass is designed for use in outdoor climates.

It is recommended to install PV glass in an environment with an **ambient temperature** ranging between **-40°C (-40°F) to 40°C (104°F)** and up to 100% relative humidity as well as rain.

In accordance with **IEC 61730:2023**, the **98th percentile temperature** represents the maximum temperature that the PV glass, is expected to reach under normal operating conditions, excluding rare or extreme environmental events.

For this photovoltaic glass, the 98th percentile operating temperature has been determined as **70 °C (158 F)**.

$$[T_{98}]_{\text{máx.}}=70^{\circ}\text{C}$$

This means that under real-world conditions, the module temperature is not expected to exceed 70 °C in more than 2% of the time during its operational life.

PV glass can be installed worldwide when mounted with adequate, unrestricted airflow.

However, in systems where airflow around the PV glass is limited, use in certain hot climates may not be permitted, depending on specific system design factors.

Installers must evaluate whether the design and location of the system could cause the PV glass to exceed a **98th percentile operating temperature of 70 °C**. This evaluation must be considered during the system design phase. For more information, refer to **IEC TS 63126**.

Key factors to assess include:

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• info@onyxsolar.com

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- Environmental conditions specific to the installation site: solar irradiance, ambient temperature, and wind speed.
- System design characteristics: mounting height, module array size and spacing, and design features that may restrict airflow (e.g., anti-nesting elements).

NOTE 1: Certain geographic regions may impose specific installation restrictions. Reference maps are available in IEC TS 63126.

NOTE 2: A supporting IEC document, currently under development, will provide standardized methods to estimate the 98th percentile module operating temperature across different mounting configurations and climates.

The rated operating **altitude is not above 2000m.**

7. HANDLING.

- The PV glass is shipped in special cardboard and/or wood packaging.
- Inside of the boxes, the PV glass is packed in **vertical position** with optimum distribution **separated** by **foams** which protect them from **vibrations and shocks**.
- It is important to be careful when unpacking, transporting and storing the PV glass.
- Until the PV glass moving takes place, it is recommended to storage the PV glass in **indoor and dry areas** with its original packaging.
- At the moment of unpacking, it is recommended to **open the top and the side** of the box.
- **Do not hit** the PV glass on either side. Particular care must be taken with **corners and PV glass edge**.
- Ensure that the PV glass **cannot overturn**.
- **Do not stack** anything on top of the final PV glass packaging.
- **Do not place objects over the glass**.

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- **Do not** handle the PV glass with **sharp object**.

8. MECHANICAL INSTALLATION.

- Each project **shall be designed** considering geographical location, orientation, shading, and other relevant factors to ensure optimal performance. In the **northern hemisphere**, PV glass **shall be installed**, where possible, on south-facing structures. In the **southern hemisphere**, the module **shall be oriented facing north**.
- There must be proper **air flow** between the **rear side** and the structure (ventilated façade and skin) to ensure the correct operation and avoid condensation and humidity problems. The recommended minimum distance should be **10 centimeters**.
- It should be placed in an accessible place for future operations.
- The PV glass must be well anchored to the support structure, in order to **resist any mechanical load** (snow, wind...).
- Structural systems to integrate the BIPV into facades, canopies and skylights: for this type of installation, it is required fixing structures in **stainless steel, galvanized iron or anodized aluminum** adapted to allow an easy fixing and maintenance over any main structure being wooden, tiled or made of steel.
Avoid contact between the glass and the metal part of the structure. The glass could break. Use EPDM junction or equivalent systems (silicon, adhesive tape...) to ensure their protection.
- The minimum distance between the PV glass and the mounting surface will be 20 mm (0.8 in).
- For calculating the equivalent **maximum design loads**, a safety factor of 1.5 needs to be considered in compliance with the requirements of the local laws and regulations.

$$\text{Mechanical load} = 1,5 \text{ security coefficient} \times \text{Design load}$$

In our case, the load design values are:

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Design load: +3600 Pa (Mechanical load +5400 Pa)

Design load: -1600 Pa (Mechanical load -2400 Pa)

The mounting/framing design and procedures must comply with local codes and requirements from all relevant authorities. The mounting/framing design must be certified by a registered professional engineer. System designer and mechanical installer are responsible for load calculations and for proper design of support structure and its installation.

For the Australian Market, Building Integrated PV Module installations must comply with the requirements of the National Construction Code and AS/NZS 5033.

IMPORTANT NOTE: All structural mounting system used must avoid permanent shadows on the active cells of the photovoltaic glass.

General assembly. Systems for curtain wall and skylights:

The recommended steps to install ONYX glass are detailed in [layout 09 \(see annex\)](#).

- **Mounting steps:**

1. **Fix main structure** to the wall or skylight.



2. **Install the transom and the EPDM junction** over the aluminum profile.



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• info@onyxsolar.com

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3. Set two **aluminum shims** in the bottom part of the structure to support the glass.



4. **Place** the **glass** over the structure.



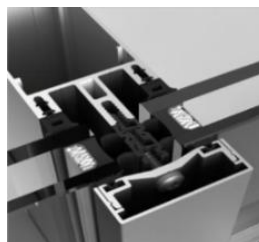
5. Put the upper profile with EPDM rubber over the glass and tighten the screws.



6. Install the **profile cover** for closing.



7. Final result.



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ONYX recommends a tightening torque of 8 N m to avoid breakages. Use upper tightening torques will be under the installer responsibility.

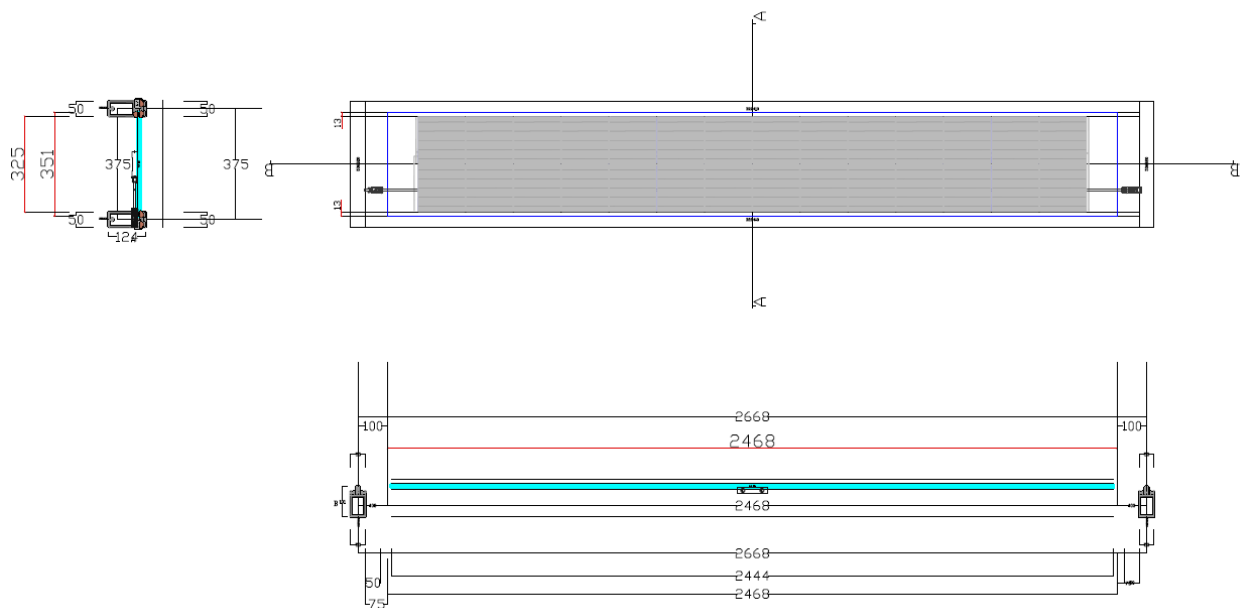
NOTE: Please for more detailed information about other constructive solutions, contact with the structure supplier.

➤ Other assembly

The structural system applied in the current case study is defined, as illustrated in the corresponding diagrams, by a continuous fixation system along the full length of the long sides of the PV glass. The short sides of the PV glass remain free of mechanical fixation.

We are attaching the final design of the structural system and PV glass.

Type 1:



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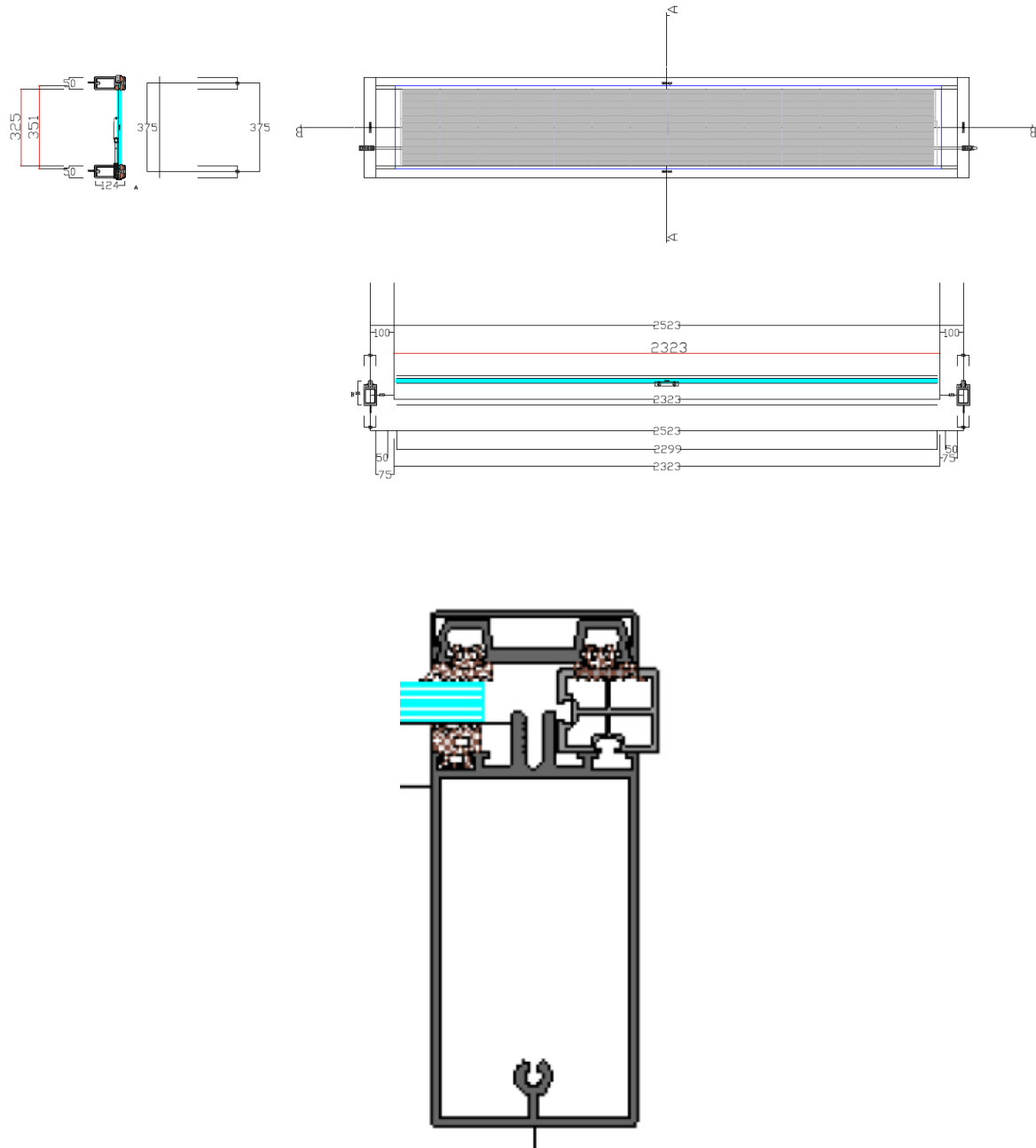
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• info@onyxsolar.com

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Type 2:



Detail of PV Glass and Structural System

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• info@onyxsolar.com

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Factory: C/ Palma de Mallorca 8 • 05194
Phone: +34 920 25 98 83
• www.onyxsolar.es

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9. ELECTRICAL INSTALLATION

9.1. Safety warning and electrical hazards.

-  Every electrical system must be **carried out** only by **qualified and authorized technicians**.
-  All **equipment**, junction boxes, wiring, etc. must be suitable for **photovoltaic installation**.
Use only weather and UV radiation resistant elements.
-  Regardless PV glass interconnection, **do not touch the electrically charged parts**. (ej. terminals).
-  **Respect** the **polarity** of the connectors in the interconnection from PV glass to PV module or another electrical element.
-  While the circuit **is charging**, **do not open** the **junction boxes** nor unplug the connectors.
-  During the installation, **cover** the PV glass completely with an **opaque material** to avoid generates electricity.
-  **Artificially concentrated sunlight** shall **not** be **directed** on the PV glass.
-  All material connectors and tools must be **clean and dry** before proceeding with the assembled.
-  **Avoid** the direct **sun-light exposure** of the wires. In this way damage will be prevented.
-  **Do not manipulate** the glass if they are **wet**.
-  **Never remove** the **tension** of the PV glass **by short circuit**.

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-  The PV glass must be fully disconnected from its next PV modules before any replacement.
-  The values of the electrical characteristic have been calculated under standard test conditions (STC) (1000W/m^2 , $25\pm 2^\circ\text{C}$, AM 1.5 according to IEC 60904-3 and IEC TS 61836).

Under normal operating conditions, **ONYX PV glass** may generate **higher current and voltage levels** than those specified under Standard Test Conditions (STC).

This is mainly affected by PV glass temperature and front side irradiance.

To ensure safe system design, the values of **I_{sc}** (short-circuit current) and **V_{oc}** (open-circuit voltage) indicated on the module must be **multiplied by a safety factor of 1.25** when determining the voltage and current ratings of components connected to the PV output (e.g., cables, connectors, inverters, protection devices).

- The **voltage safety factor** of 1.25 may be adjusted based on the **minimum ambient temperature** at the installation site and the **temperature coefficient of V_{oc}**.
- Similarly, the **current safety factor** of 1.25 may be revised depending on the **maximum expected front-side irradiance**. This requires a detailed **simulation specific to the installation location and module orientation**.

For guidance on applying a safety factor different from 1.25, refer to **IEC 62548**, which provides recommendations for adapting these values based on environmental and system-specific conditions.

-  The maximum over-current protection rating of a PV glass can be interpreted as the PV glass series fuse rating.

The amperage of the **fuses** to be placed in series with the glasses to protect the system in case of over-current is **17A**.

-  Note for electrical installation:
 - It is considered that a glass with exposed conductive parts is considered to be in compliance with UL 61730 only when it is electrically grounded in accordance with these instructions manual and the requirements of the National Electrical Code (NEC).
 - Details for wiring in accordance with the NEC, and that the grounding method of the frame of arrays shall comply with the NEC, article 250.

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Phone: +34 920 21 00 50
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usa@onyxsolar.com • www.onyxsolar.com



- Installations shall be in accordance with CSA C22.1, Safety Standard for electrical Installations, Canadian Electrical Code, Part 1.
- For the Australian market, Building-Integrated Photovoltaic (BIPV) glass must be electrically grounded in compliance with AS/NZS 3000 and AS/NZS 5033, or in accordance with the applicable local electrical connection standards.

One photovoltaic glass by itself produce low current intensity.

To **increase** the delivered **energy**, it is necessary to increase the number of interconnected PV glass, according to the installation need.

9.2. Series-connections.

Photovoltaic glass can be connected in series to increase the system voltage. In this configuration, the positive terminal of one PV glass is connected to the negative terminal of the next PV glass.

The total system voltage (V) is the sum of the individual PV glass voltages. The current (I) remains constant and equal to that of a single PV glass.

- $V_{total} = V_1 + V_2 + V_3 + \dots + V_n$
- $I_{total} = I_1 = I_2 = \dots = I_n$

In order to **guarantee the isolation**, the number of PV glass installed in series must **not exceed the maximum voltage** under any circumstances.

- **Maximum system voltage V_{sys} 1000 V (IEC)**

All PV **glass** connected in **series** must have the **same technology**, dimensions and **electrical characteristics**.

9.3. Parallel connections.

Photovoltaic glass can be connected in parallel to **increase** the system **current**. In this configuration, all positive terminals are connected together, and all negative terminals are connected together.

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Main office: C/ Rio Cea 1-46 • 05004
Phone: +34 920 21 00 50
• info@onyxsolar.com

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79 Madison Avenue Suite 231 • NY 10016
Phone: +1 917 261 4783
usa@onyxsolar.com • www.onyxsolar.com



The total current (I) is the sum of the currents of each PV glass. The voltage (V) remains constant and equal to that of a single PV glass.

- $I_{\text{total}} = I_1 + I_2 + I_3 + \dots + I_n$
- $V_{\text{total}} = V_1 = V_2 = \dots = V_n$

The **total current** corresponds to the **sum** of individual string **currents**, which must be taken into account when selecting appropriate connectors and sizing conductor cross-sections.

As many glass in parallel can be connected as the device instructions accept (ej: inverter, regulator or any other suitable equipment).

9.4. Ground connection.

 In order to avoid risk during the system assembly, either isolated or connected, the first thing to do is **to ground the support structure** where the module is placed. Frameless modules require using a grounding lug required every rail.

This connection will be carried out according to the local regulations.

9.5. Wiring.

Using suitable wiring, because the very high voltage can be shorted, as with high current intensities, wiring can be overheated.

For the calculation of the conductor's section must be taken into account the Applicable Low Voltage Code.

Technical characteristics of the wiring:

- The minimum wiring **cross recommended** is of **4 mm² (AMG 12) and Ø 2.05mm.**
- **Rated voltage: 1500 V DC.**
- **Rated current: 41A (35A UL)**
- **Temperature rating: -40 °C +90 °C**
- **Material: Tinned copper wire insulated, halogen free.**
- **The cables used need to comply with IEC 62930 type 131.**

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The wiring must be protected against damage, for example: using cable clamps.

9.6. Junction boxes and diodes.



Do not open or manipulate the **junction boxes**, removing, for instance, the diodes placed by the manufacturer.

- The junction box, the wiring and connectors must **not** be **cleaned** or covered with substances which contain **oil, fat** or **alcohol**.
- To avoid the wiring and connectors overheating, a wire cross-section and a connector capacity adapted to the maximum current must be chosen (the **minimum recommended** wire **cross-section** is **4 mm² (AMG 12)** for a single-glass or connectors **rated current of 41A (35A UL)** .
- The protection degree of the **junction box** is **IP67**.
- The PV glass wiring has a minimum **length** of **100 cm**.
- The PV glass wiring allows to work in a **temperature range** between: **-40 °C +90 °C**

The junction box is designed to accommodate multiple connector systems only when explicitly certified by the manufacturer and listed in the applicable TÜV certification. Interconnection with non-approved connector systems is not permitted.

9.7. Connector:

The PV glass connectors must only be mated with **compatible** connectors of the same **model QC4.10** system or with equivalent connectors certified by the **manufacturer(QC Solar)**.

Interconnection with connectors from incompatible manufacturers is not permitted, as it may lead to:

- Overheating at the connection point
 - Loss of IP sealing
 - Risk of DC electric arc
 - Void of product warranty
- Each terminal is **tagged** with its corresponding **polarity**.

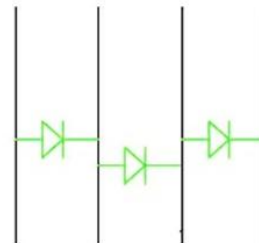
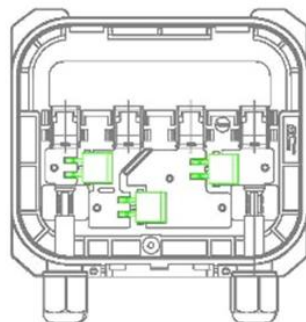
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Phone: +34 920 21 00 50
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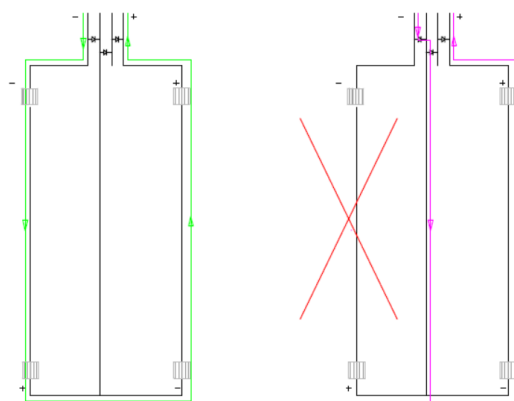
- There is a cable (positive) and a cable (negative) on the rear side of each solar module connected to the waterproof connectors, "cable +" with "connector +" and "cable -" with "connector -". Be sure to always push the connectors all the way in and in right direction when you are connecting two glasses.
- It should be noted the polarity when PV glass are connected. In the same way it is necessary to pay attention connecting the PV glass to the current inverter. An incorrect polarity can make unusable the important technical components, like the inverter, protective diodes, etc.
- To **protect the glass** against the inverse current flow, the junction box includes protective **diodes** type **by-pass** (Schottky) of **30A**. (See below disposition of diode in the junction box).



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See below an operating scheme of the diodes, in case of failure of any of the module series.



The green scheme shows the normal operating conditions. The remaining ones represent other examples of operating in case someone of the series fails. It is possible to see also the disposition of the diodes in the junction box. The union between series and disposition of the diodes is such, that in case of a cell fails (shadow, micro-cracks ...), it will continue working in the module the maximum possible series.

- Once the glass has been placed, they may be interconnected. The **system connection** is really **simple**, thanks to the fast plug connectors. Ensure all connectors are securely and fully engaged. Incomplete connections can result in electrical resistance, overheating, and potential damage to the system. **PV glass** will be **installed** placing the junction box in the **highest position** in order to **reduce the entry of water**.

10. PRODUCT IDENTIFICATION.

ONYX SOLAR PV glass is identified by a **label** placed in the **rear part** (next to the junction box) where the electrical characteristics with a tolerance of $\pm 5\%$ for **Model ONYX G/GM02844**, measures in **Standard Test Conditions (1000W/m², 25 $\pm$ 2°C, AM 1.5 according to IEC 60904-3 and IEC TS 61836)** and maximum system voltage.

GLASS SPECIFICATION:

MODEL	Power (Wp)	Voc (V)	Isc (A)	Vmp (V)	Imp (A)
ONYX G/GM02844	135 $\pm$ 5%	19 $\pm$ 5%	9.24 $\pm$ 5%	15	8.94

STC: 1000 W/m² 25°C AM 1,5

β : Temperature coefficient for voltage at open-circuit (%/°C)	-0.28
α : Temperature coefficient for short-circuit current (%/°C)	0.07
γ : Temperature coefficient for maximum power (%/°C)	-0.32

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Performance at low irradiance:

MODEL	Power (Wp)	Voc (V)	Isc (A)	Vmp (V)	Imp (A)
ONYX G/GM02844	26.4 ± 2.1%	17.9 ± 0.5%	1.83 ± 1.7 %	15.3 ± 1.3%	1.7 ± 1.8%

Electrical characteristics label



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Model	ONYX G/GM02844
Pmax / Tolerance Binning tolerance ± 5W	135 W / ± 5%
Isc / Tolerance	9.24 A / ± 5%
Voc / Tolerance	19 V / ± 5%
Imp	8.94 A
Vmp	15 V
Dimension	2468x351x9.8 mm
Weight	17 Kg
Serial N°	Inside PV Glass

* STC 1000 W/m² 25°C AM 1.5

  PV MODULES ARB/000019	 PROTECTION AGAINST ELECTRIC SHOCK CLASS II	CONFORMS TO IEC Std 61215:2021 Std 61730:2023
		1000 V Maximum System Voltage

www.onyxsolar.com Product made in Spain



ONYX SOLAR ENERGY

C/Palma de Mallorca Pcia 8 Polígono Industrial Vicolozano 05194 Ávila Spain

Model	ONYX G/GM02844
Pmax / Tolerance Binning tolerance ± 5W	135 W / ± 5%
Isc / Tolerance	9.24 A / ± 5%
Voc / Tolerance	19 V / ± 5%
Imp	8.94 A
Vmp	15 V
Dimension	2323x351x9.8 mm
Weight	16 Kg
Serial N°	Inside PV Glass

* STC 1000 W/m² 25°C AM 1.5

  PV MODULES ARB/000019	 PROTECTION AGAINST ELECTRIC SHOCK CLASS II	CONFORMS TO IEC Std 61215:2021 Std 61730:2023
		1000 V Maximum System Voltage

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photovoltaic building materials

SPAIN (Avila)
 Main office: C/ Rio Cea 1-46 • 05004
 Phone: +34 920 21 00 50
 • info@onyxsolar.com

SPAIN (Avila)
 Factory: C/ Palma de Mallorca 8 • 05194
 Phone: +34 920 25 98 83
 • www.onyxsolar.es

UNITED STATES (New York)
 79 Madison Avenue Suite 231 • NY 10016
 Phone: +1 917 261 4783
 usa@onyxsolar.com • www.onyxsolar.com



Furthermore, in all modules, is placed, **electrical hazard label**.

**ELECTRICAL HAZARD**

Read, understand and follow all safety precautions ~~detail~~^{described} in the instruction manual. This PV glass produces electricity (DC) when exposed to sunlight. Electrical work should be performed by a qualified electrician. Use insulating material coated tools. Do not handle the glass when they are wet. Do not try modify the configuration of junction box. Do not expose PV glass to concentrated sunlight with mirrors lenses or similar means. Remove the voltage of the PV module with an opaque material covering. Never remove the tension of the glass by short circuit. Keep module away from children.

If you have any questions, please contact our Technical Department.

[www.onyxsolar.com](mailto:info@onyxsolar.com)

	CERTIFIED IEC Std.61215:2021 IEC Std.61730:2023		Maximum System Voltage 1000V
	PROTECTION AGAINST ELECTRIC SHOCK CLASS II 		
 PV MODULES A98/000019	Series fuse rating 17A	Design load: +3600 Pa -1600 Pa	FIRE RATING CLASS C (IEC 61730-2 MST 23 MST 24)
	Module T _a [98] 70°C	Use copper wire only.	
	For field connections use 12 AWG wires insulated for a minimum of 90°C	Connector manufacturer and model: QC-SOLAR QC 4.10	

Product made in Spain

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11. MAINTENANCE AND CLEANING.

ONYX recommends to perform the following maintenance process, **every 6 months**, to ensure the proper functioning of the PV glass:

- Review the **electrical** and mechanical **connection** systems and verify that they are clean and intact.
- Check the junction boxes **sealing**. They must remain watertight and no corrosive because of water.
- Check the **structure** parts which support the PV glass, just in case any piece could be loose.
- Check that any **modules are fractured**. Broken glass will be replaced, previously notifying to the supply company.
- Do **not** rest or **walk** over the **glass** surface. And do not drop any object over the modules surface.
- **Follow** the maintenance **instructions** for the **rest** of system **components** (charge controllers, inverters, batteries, etc...).
- In case of dirt accumulation, it is recommended to **clean** the module surface with soft **cloth and water**.
- Must **not** use **aggressive** cleaning **agents** or **pressurized water**.
- Can be used soft cleaning agents, neutral and non-abrasive, in order to eliminate the stubborn dirt.
- **Do not** use **scraper** or sharp objects **to eliminate ice** or **snow** over the module surface.

12. RECYCLING.

Defective PV glass or PV glass out of service must be managed by the authorized waste management agency.

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13. EDITION LIST.

EDITION NUMBER	EDITION DATE	COMMENTARY
0	07/25	Initial Draft
1	05/26	Modifications for the CEC

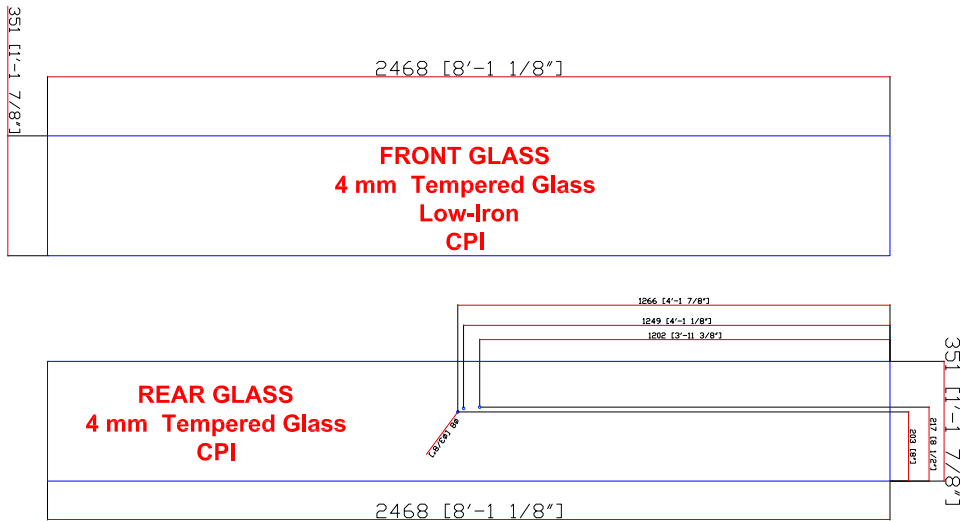
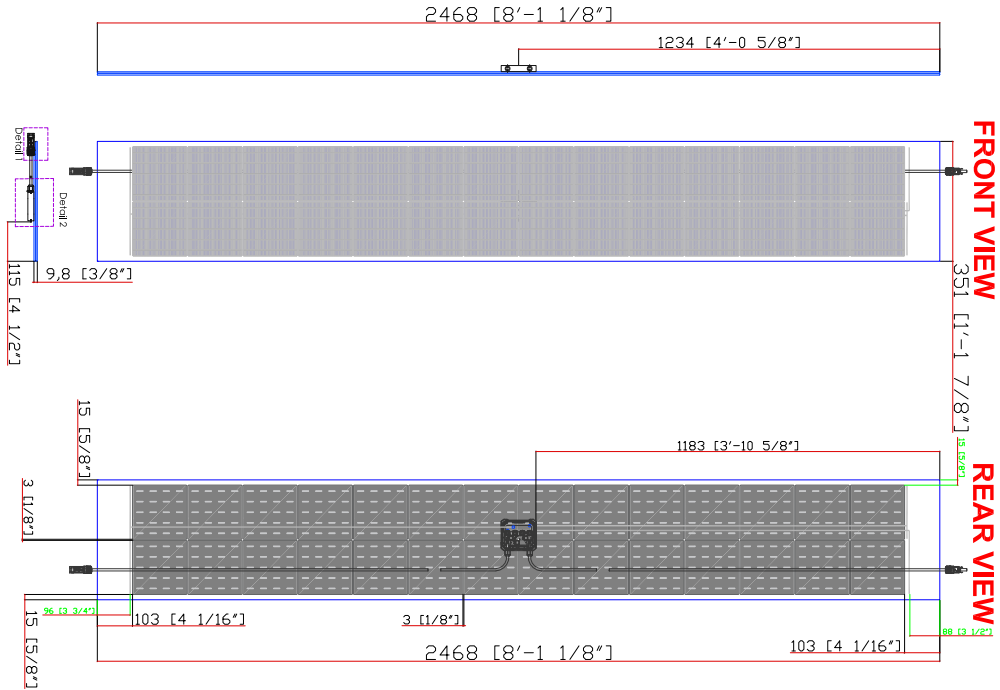
ANNEX.

photovoltaic building materials

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Phone: +34 920 21 00 50
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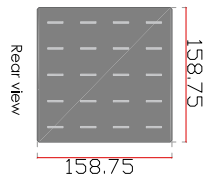
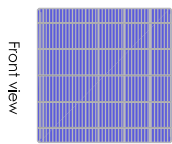


Photovoltaic Glass specifications ONYX G/GM02844 :

Module Glass-Glass:
Glass dimension (mm):
Cell Technology:
Cell dimension (mm):
Number of cells:
Encapsulant:
Junction box:
Length cables:
Bus bar:

2468 x 351 x 9.8mm
2468 x 351 x 4mm
Mono-Crystalline silicon(5 Bus bar)
158.75 x 158.75 mm (6" x 6")
28 (2 strings / 14 cells per string)
EVA
QC(REF.-102043 (4 spring clamps)
1500 mm
4 x 0.3 mm

Cell Type/Dimensions:
"Mono-Crystalline 6" "

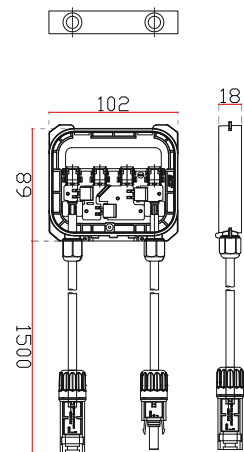


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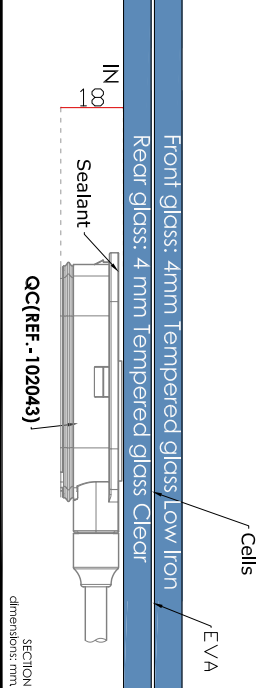
SECTION
dimensions: mm

DETAIL : Junction Box



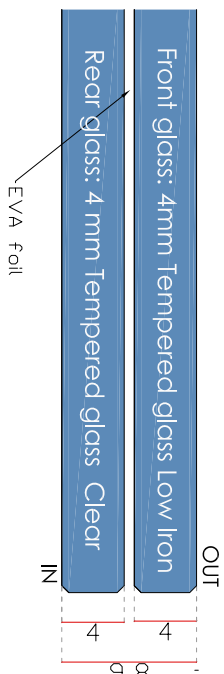
SECTION
dimensions: mm

DETAIL 2: Junction box location



SECTION
dimensions: mm

DETAIL 1: Glass configuration



SECTION
dimensions: mm

PROJECT:

Tower_PV Facada Integration

LOCATION:

AUSTRALIA

CUSTOMER:

FACORY:

ONYX SOLAR ENERGY S.L.SPAIN

QUANTITY:

Unit

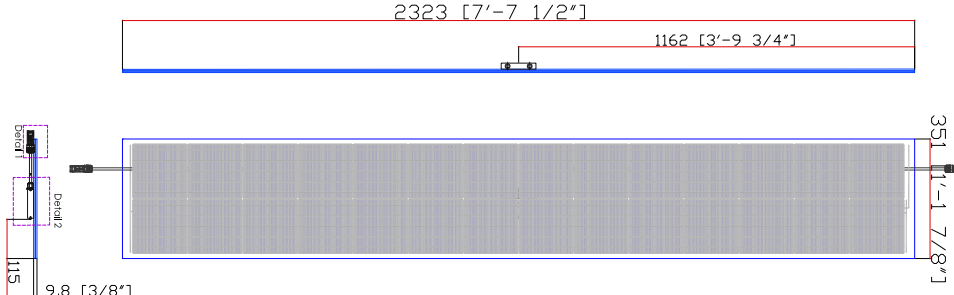
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18/05/2026

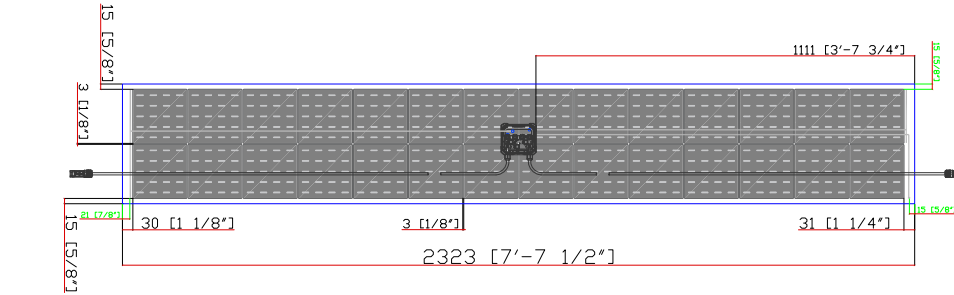


Reference
ONYX G/G
M02844-GI.01

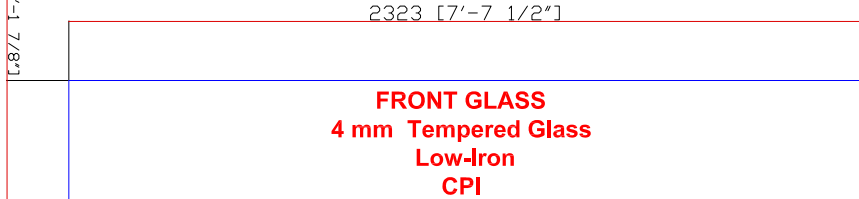
FRONT VIEW



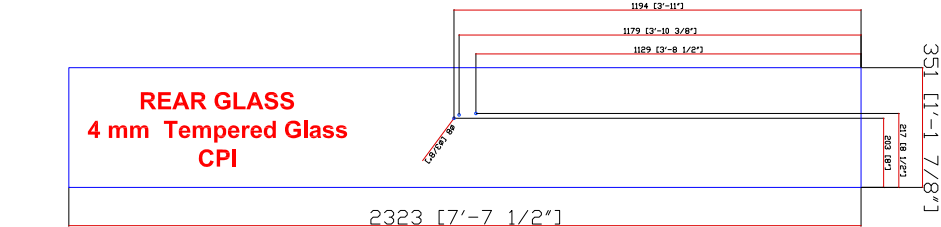
REAR VIEW



FRONT GLASS
4 mm Tempered Glass
Low-Iron
CPI

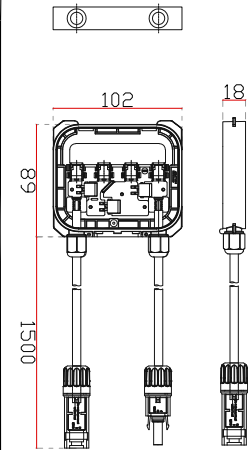


REAR GLASS
4 mm Tempered Glass
CPI

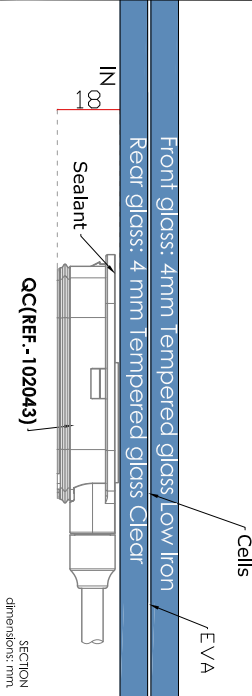


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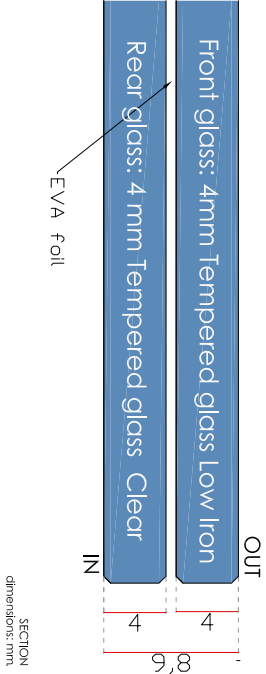
DETAIL : Junction Box



DETAIL 2: Junction box location



DETAIL 1: Glass configuration

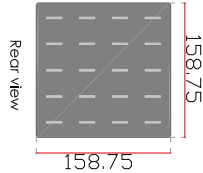
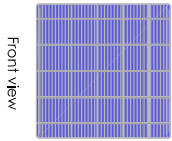


Photovoltaic Glass specifications ONYX G/G M02844 :

Module Glass-Glass:
Glass dimension (mm):
Cell Technology:
Cell dimension (mm):
Number of cells:
Encapsulant:
Junction box:
Length cables:
Bus Bar:

2323 x 351x 8 mm
2323 x 351x 4mm
Mono-Crystalline silicon(5 Bus bar)
158.75 x 158.75 mm (6''x 6'')
28 (2 strings / 14 cells per string)
EVA
QC(REF.-102043 (4 spring clamps)
1500 mm
4 x 0,3 mm

Cell Type/Dimensions:
"Mono-Crystalline 6''"



SECTION
dimensions: mm

PROJECT:

Tower_PV Facada Integration

LOCATION:

AUSTRALIA

CUSTOMER:

FACORY:

ONYX SOLAR ENERGY S.L.SPAIN

QUANTITY:

1 unit

DATE:

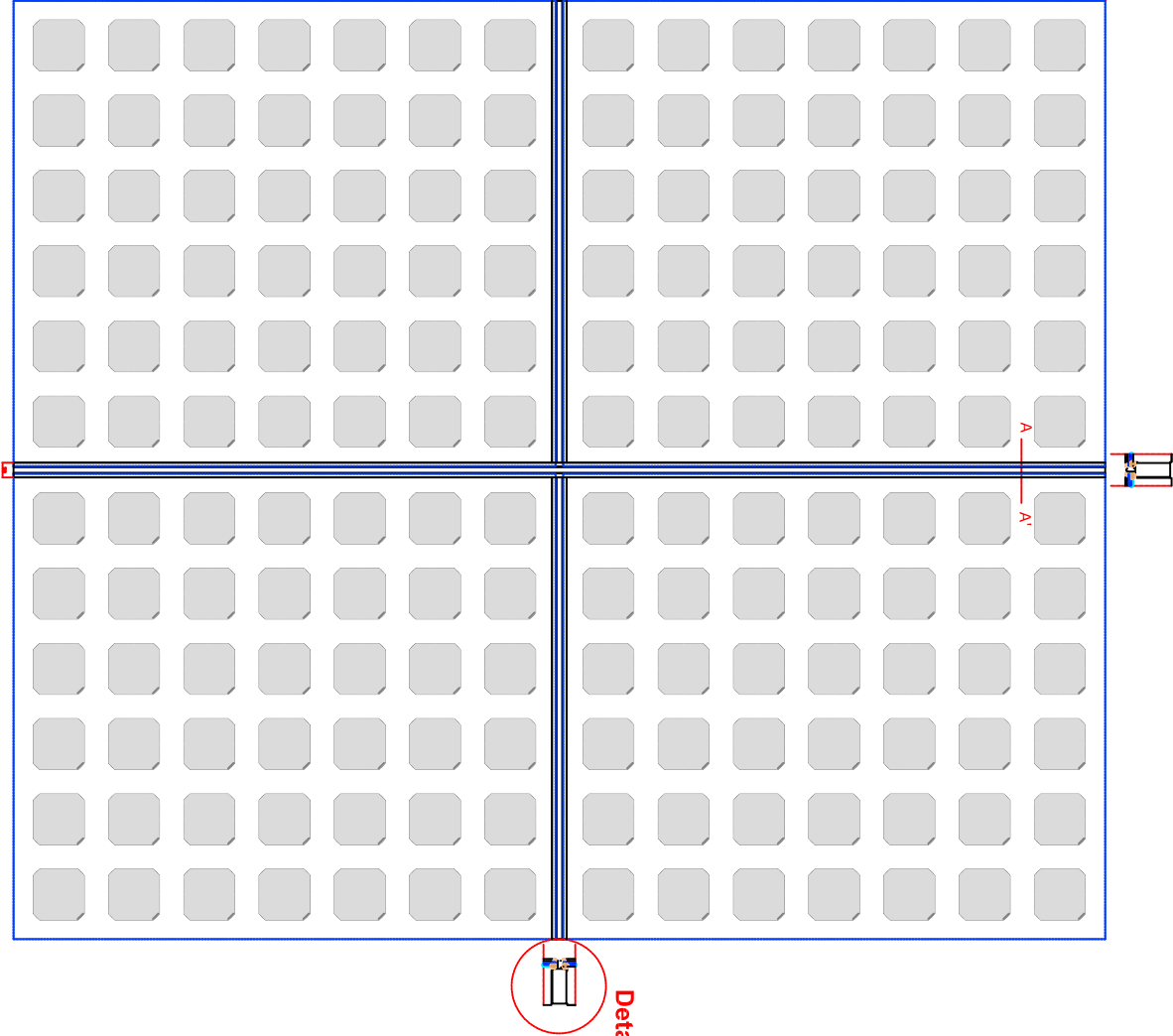
18/05/2026

Reference ONYX G/G

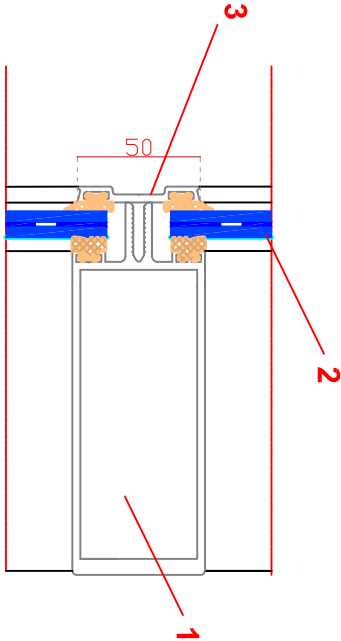
M02844-GI.02



Section A-A'



Detail 1: Section A-A'



Including transom and top cover. Pressure cap details.
How to proceed (Detail 1):

1. Installation of the structural support system.
2. Installation of the module with the necessary mechanical equipment on the base once fixed to the final structure.
3. Installation of the upper closing structure.

Technical data (SCHÜCO system or similar) :

- Face width: 50 or 60 mm
- Basic depth of load-bearing profile: 85 - 250 mm
- Glazing thickness: 6 - 50 mm
- Maximum glass weight: 900 kg approx
- Thermal insulation: $U_f=1,60 - 0,70 \text{ W/(m}^2\text{K)}$

PROJECT:

MOUNTING SYSTEMS

LOCATION:

CUSTOMER:

ONXX DEPARTMENT:
MANUFACTURE_ONXX SOLAR

QUANTITY:

n/a

DATE:

31/05/2023