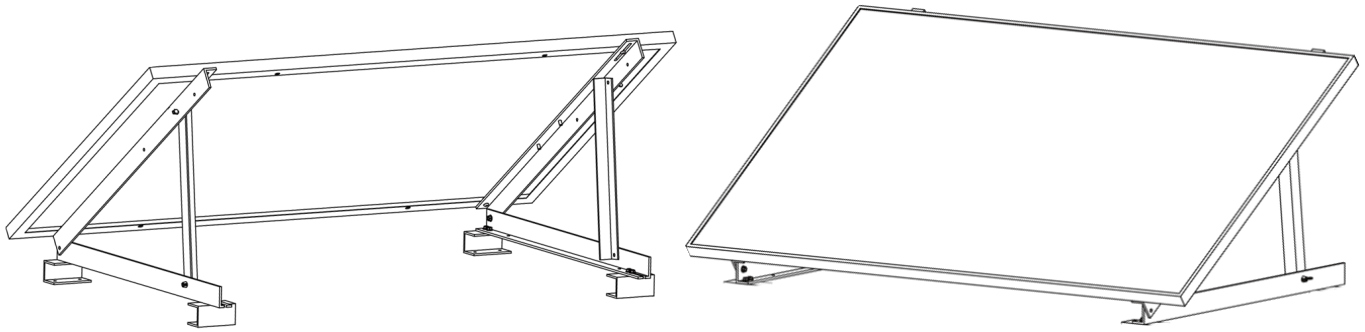


Technaxx® * User Manual

Balcony power station mount 300W TX-227

Balcony power station mount 600W TX-230

Before using the appliance for the first time, please read the instructions for use and safety information carefully.



This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, or by persons lacking in experience or knowledge, unless they are supervised or instructed on the use of this device by a person responsible for their safety. Children should be supervised to ensure they do not play with this device.

Keep this user manual for future reference or product sharing carefully. Do the same with the original accessories for this product. In case of warranty, please contact the dealer or the store where you bought this product.

Enjoy your product. * Share your experience and opinion on one of the well-known internet portals.

Specifications are subject to change without notice - please be sure to use the latest manual available on the manufacturer's website.

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Important notes at the start

Safety instructions

- This product is not a toy. Keep it out of the reach of children.
- These operating instructions are intended to familiarize you with the operation of this product. Therefore, keep these instructions in a safe place so that you can access them at any time. Pass them on to subsequent users.
- Observe the safety instructions during use.
- Conversion or modification of the product will impair product safety. Attention Risk of injury! Attention loss of warranty!
- The product is statically tested for loads of wind load zone 2 and snow load zone 2. Wind or/and snow loads exceeding the values of these zones have not been tested and may cause damage to the product or/and the mounting location.
- Check in advance whether the static conditions of your balcony railing/roof/wall/floor are sufficient to support additional loads. Check your state building code (LBO) for requirements for the erection of plants and systems.
- Make sure all screws and fasteners are properly fastened before mounting/hanging the solar module. If screws are loose, there is a risk that the solar module may fall down and create a dangerous situation under the balcony. Use a torque wrench or socket wrench to make sure it is tight.
- Do not exceed these values for the screws: M8 screws: $11 \pm 1 \text{ N*m}$
- Use at least 2 people to lift and install the solar modules.
- Make sure that the bracket is fixed on the top as well as on the bottom of the balcony, so that it can withstand stormy weather.
- Make sure that the mounting surface is strong enough to support the weight and load of the mount including solar module.
- Handle the product with care. It can be damaged by shocks, impacts or falling from

even a low height.

- Mounting the bracket on a vehicle roof is prohibited for safety and structural reasons.
- Technical changes and errors excepted.

Optical conspicuities / scratches in the materials

- Visual conspicuities or scratches on the fixture due to industrial production or/and transport are not defects and will not be recognized as such.
- Possible conspicuities in the surface finish do not affect the safety or functionality of the overall system.

Disclaimer

- In no event shall Technaxx Deutschland be liable/responsible for any direct, indirect punitive, incidental, special consequential danger, to property or life, improper storage, whatsoever arising out of or connected with the use or misuse of their products.
- Technaxx Germany assumes no liability for material damage caused by improper installation or non-observance of the installation instructions.

Features

- Easy assembly
- Made in Germany
- DGS certified
- Static tested bracket
- 3 mounting options (balcony (round+4Kant), free-standing, wall-mounting)
- 3 adjustable mounting angle (30°, 35°, 40°)
- High quality 6mm aluminum profile

Scope of delivery

TX-227

- 2x Alu-profile (long, 105cm)
- 2x Alu-profile (short, 95cm)
- 2x Alu-profile (angle, 51cm)
- 4x Alu-U-profile
- 22x Hex nut M8
- 4x Rubber strip (2mm 120x140mm)
- 4x Plastic shim plate (5mm 120x56mm)
- 4x Hexagon head screw M8 x20
- 8x Star screw M8x30

Additionally needed:

- Solar module

Optional accessory for:

- TX-212
- TX-213

TX-230

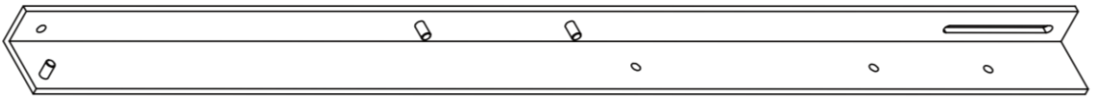
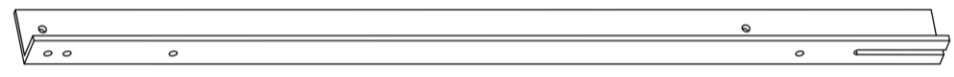
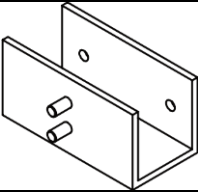
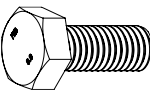
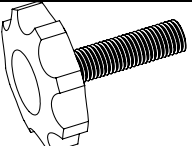
- 4x Alu-profile (long, 105cm)
- 4x Alu-profile (short, 95cm)
- 4x Alu-profile (angle, 51cm)
- 8x Alu-U-profile
- 44x Hex nut M8
- 8x Rubber strip (2mm 120x140mm)
- 8x Plastic shim plate (5mm 120x56mm)
- 8x Hexagon head screw M8 x20
- 16x Star screw M8x30

Additionally needed:

- Solar module

Optional accessory for:

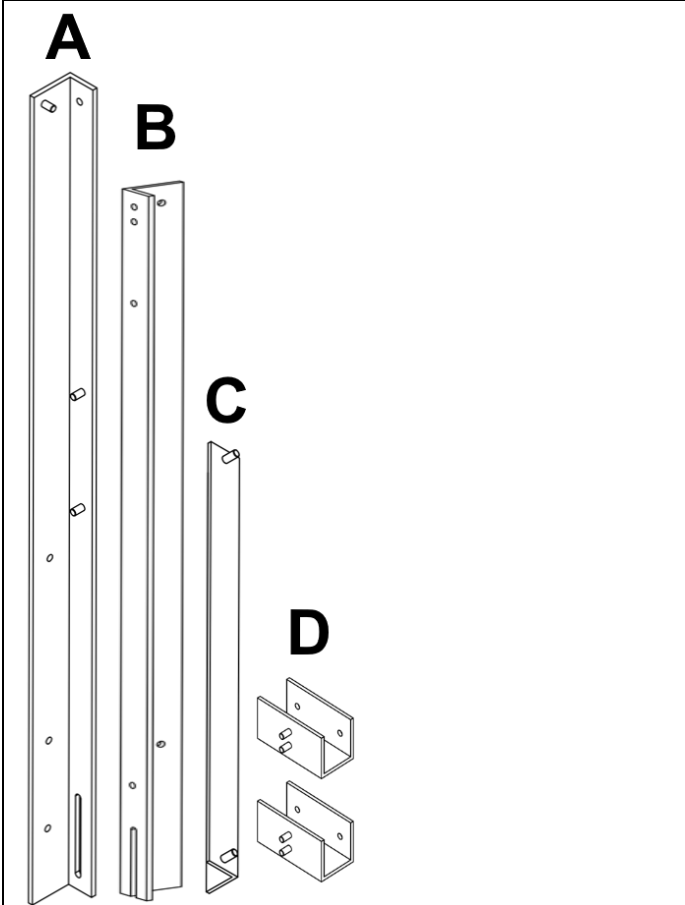
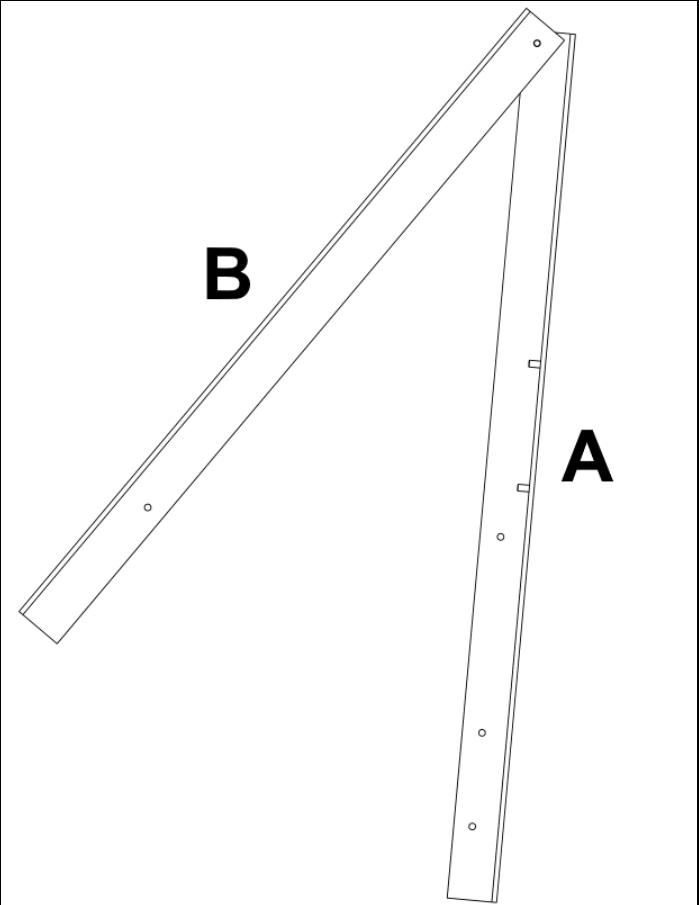
- TX-220
- TX-228

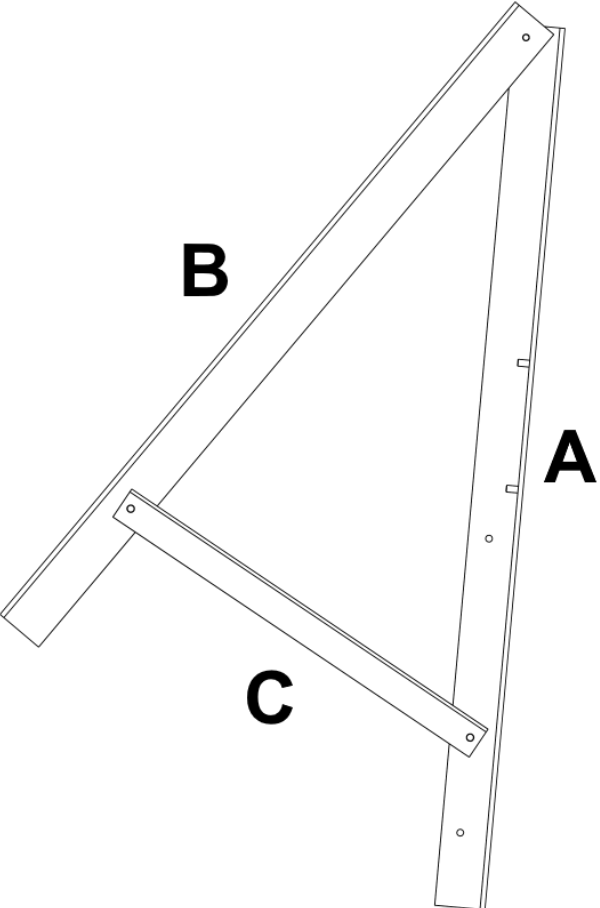
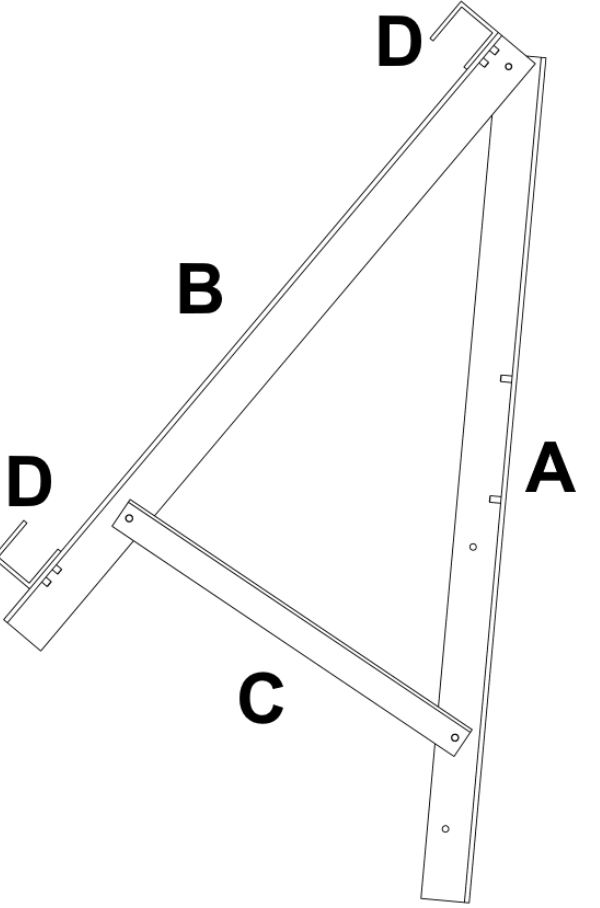
Alu-profile (long)	A	
Alu-profile (short)	B	
Alu-profile (angle)	C	
Alu-U-profile	D	
Hex nut M8	E	
Hexagon head screw M8 x20	F	
Star screw M8x30	G	

Installation

Assembly (35°)

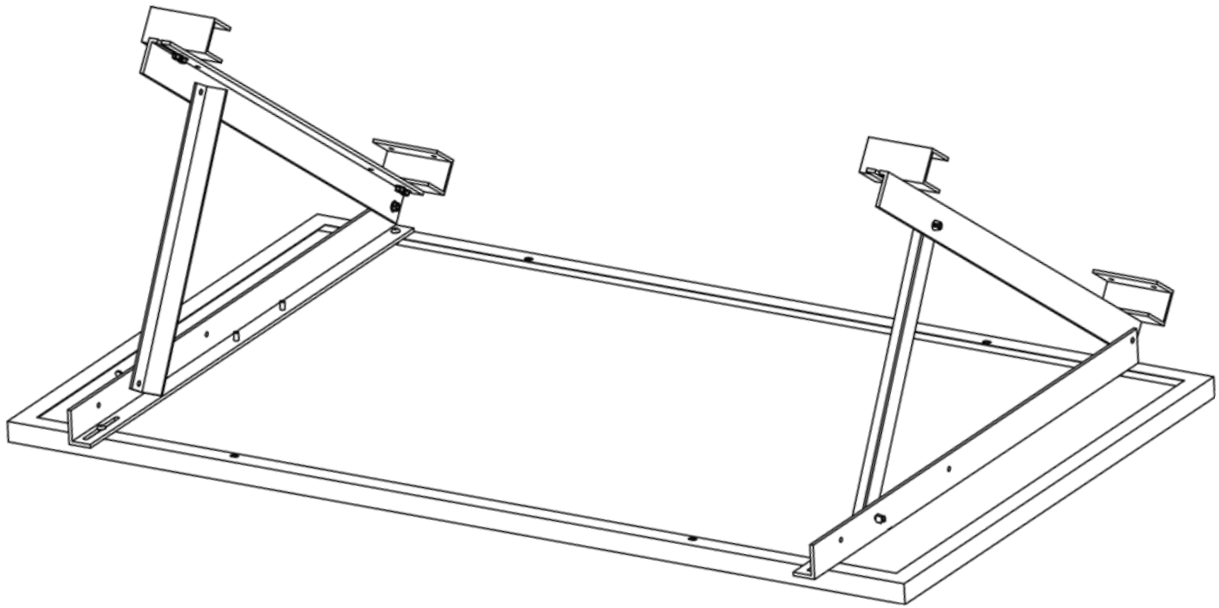
Note: For the assembly is a 13mm wrench needed.

Material overview	Step 1
	
The illustration shows the parts needed for one leg of the bracket. You need to perform Steps 1-3 two times to build the TX-227 and four times for TX-230.	Put parts A and B together at the upper screw. Use an M8 hex nut to secure them. Do not tighten them yet.

Step 2	Step 3 (only for balcony railing)
	
Use part C and insert it into the hole of B and the middle hole of A to mount the bracket for the 35° angle. Secure part C with two M8 hex nuts. Tighten the nuts with a 13 mm wrench. Tighten the M8 hex nut from Step 1 now as well.	Attach part D to the top of part B. Secure part D with two M8 hex nuts. Tighten the nuts with a 13 mm wrench. The lower part D can be attached to part B, but must be detached again when the mount is hung on the balcony railing.

Fixing solar module to mount

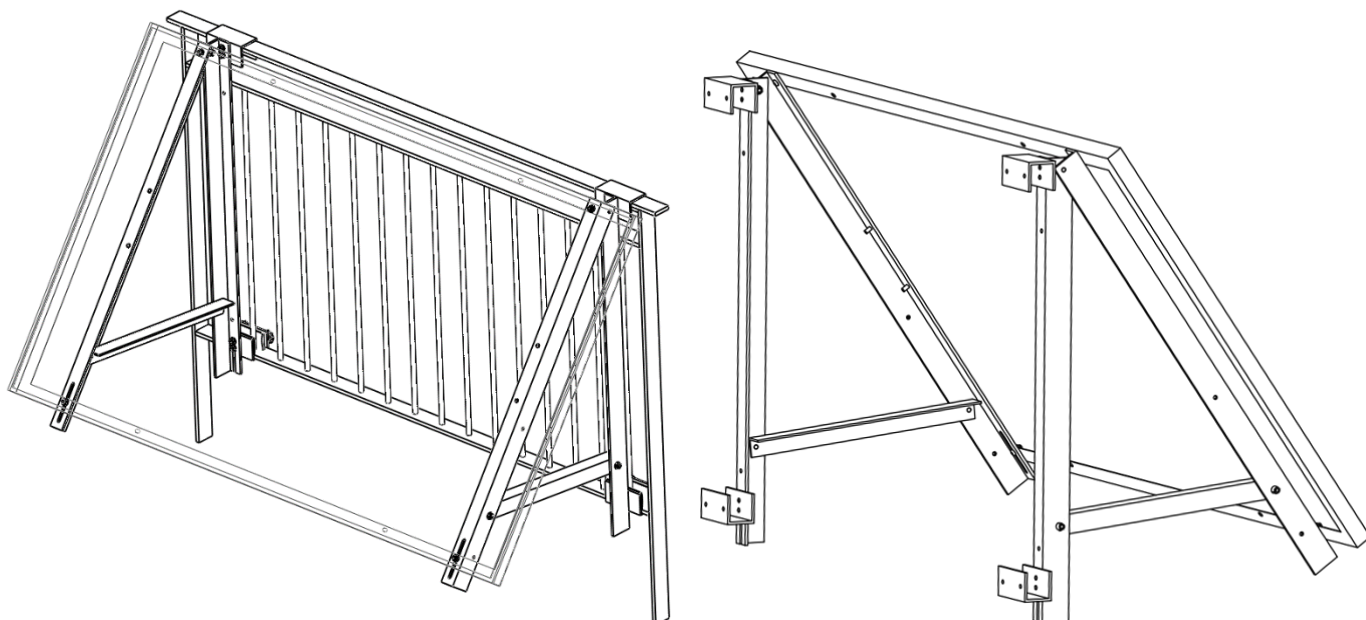
- These installation instructions are only intended to describe the installation.
- Be at least 2 people to lift and mount the solar modules.



- Use 4x hexagon head screw M8x20 to mount the solar module to the mount as shown above.
- Do not stand on the module or the module frame.
- To prevent grease stains on the module, avoid contact with your hands on the glass surface and ideally wear work gloves.
- Lay the solar module flat on clean surface. Best is to use some protection like a blanket or cardboard in the size of the module underneath. Be careful not to damage the glass front.
- Lay the mount on the holes of the solar module you want the mount to be attached to. First fix the single hole and tighten the hexagon head screw M8x20 with an M8 hex nut.
- After that fix the hexagon head screw M8x20 to the slotted hole and tighten the M8 hex nut.

Mount to balcony railing

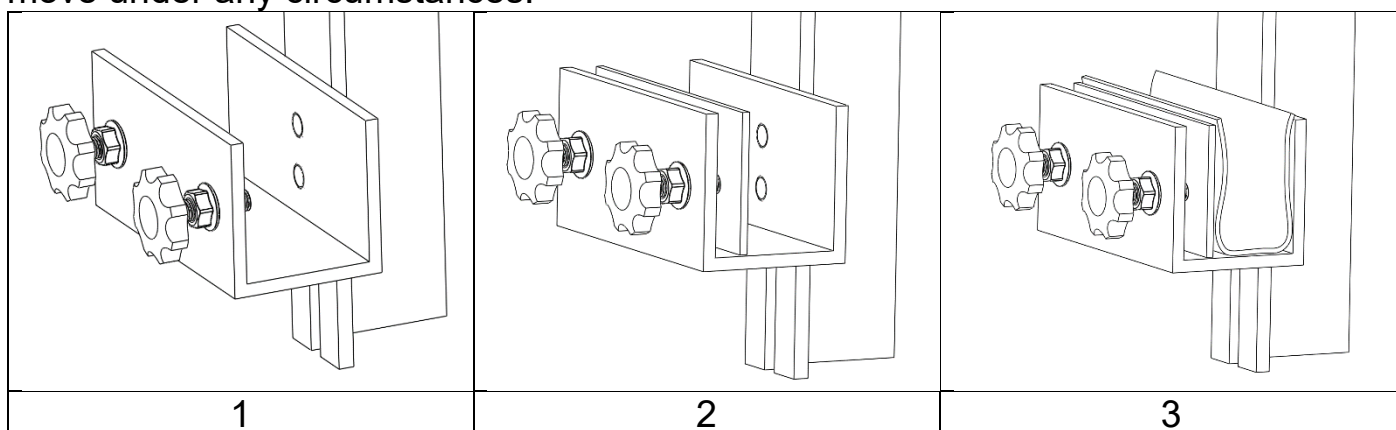
- The solar module is only suitable for installation up to a height of 4m (upper edge of the module), provided that there is also no public traffic below the module.
- The mounting angle (30°, 35°, 40°), the orientation (west, south, east) as well as the geographical location influence the yield of the balcony power plant.
- Refer to the technical specifications for maximum wind and snow loads.
- Choose a suitable location for the installation of the solar system, free from obstacles and with enough space to allow you to adjust the tilt angle (if necessary).
- Be at least 2 people to lift and mount the solar modules.



Mount U-profile to balcony railing

- Lay the rubber strip onto the place of the balcony railing where the holder will be placed. The Rubber strip is to protect the railing.
- Hang the whole solar module onto the balcony railing by help from a second person.
- Now screw in the star screw with an attached Hex nut M8 into the both holes of the U-profile. The Hex but M8 is for counter.
- Place the plastic shim plate between the star screws and the rubber strip on the railing.
- Fix the plastic shim plate by gently tightening the star screws.
- Now repeat the procedure for the lower U-profiles.
- Check the pictures below for correct mounting.
- Tighten all star screws and lock them with the M8 hex nut.

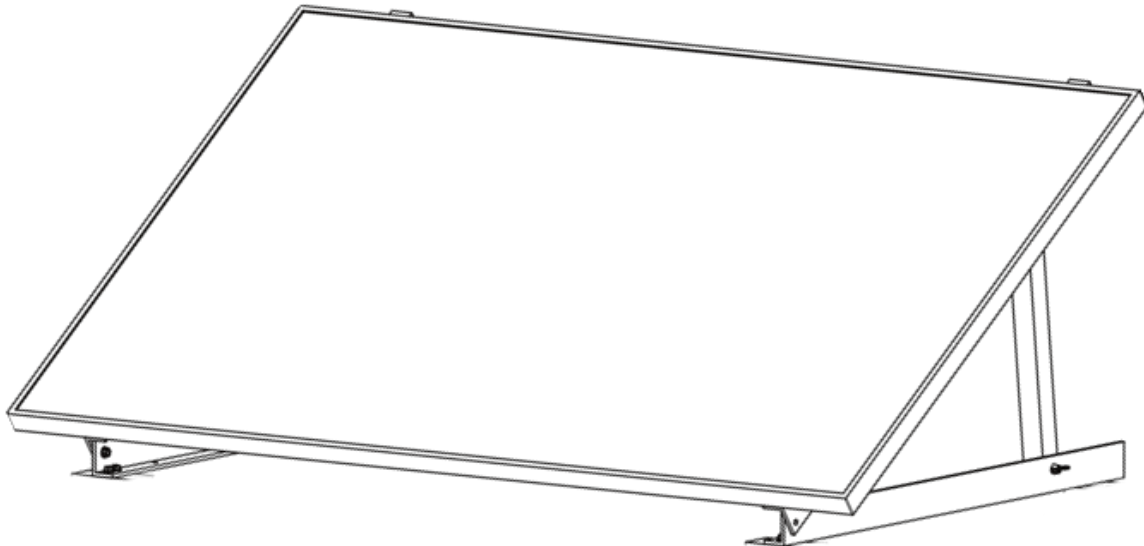
Note: Make sure that the bracket at the bottom of the balcony is also mounted and secured to avoid problems in stormy weather and to ensure that the module cannot move under any circumstances.



Flat roof (bitumen roof), terrace (free standing)

- Choose a suitable location for the installation of the solar system, free from obstacles and with enough space to allow you to adjust the tilt angle (if necessary).
- Be at least 2 people to lift and mount the solar modules.
- The mounting angle (30° , 35° , 40°), the orientation (west, south, east) as well as the geographical location influence the yield of the balcony power plant.
- The statics of the roof for the photovoltaic system must be checked by the customer. The photovoltaic system can be installed up to a roof height of 9m, a sea level of max. 350 m and a roof pitch of 45° .
- We recommend a distance of 1.25 m to fire walls of adjacent buildings (e.g. row houses). For more detailed requirements for your federal state, refer to your state building code (LBO).
- Make sure that national and site-specific building regulations, occupational safety and accident prevention regulations, standards and environmental protection regulations are observed.

Note: In the case of a flat or bitumen roof fastening, the use of screws is not recommended. The screws would damage the seal of the roof and the roof could leak.

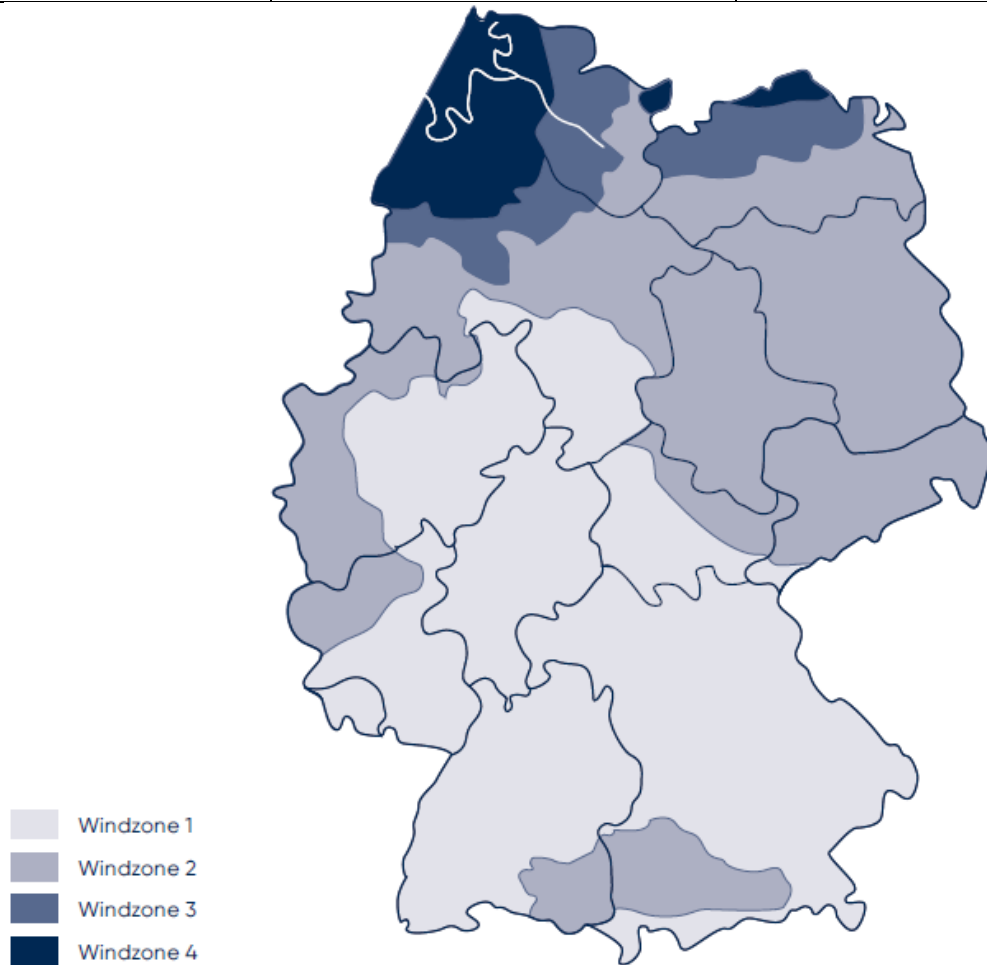


Weighing down the module support

- The solar module (up to 19kg) should be positioned at ground level or centered on a flat roof.
- Suitable is a bracket for mounting on bitumen, concrete, in the garden on the lawn or terrace.
- The weighting is calculated according to the terrain IV (urban area), where at least 15% of the area is covered with buildings, the average height of which exceeds 15m, and may differ for other heights or terrain structures.
- In case of installation on a flat roof, the top edge of the building should be lower than 15m and the photovoltaic system should be at least 1.25m away from the neighbor's roof surface. The maximum slope of the ground may be 5° .
- One concrete slab should weigh 9kg.
- Check whether the statics of the installation site are suitable for the photovoltaic system. Technaxx Germany does not assume any liability for the suitability of your installation site.

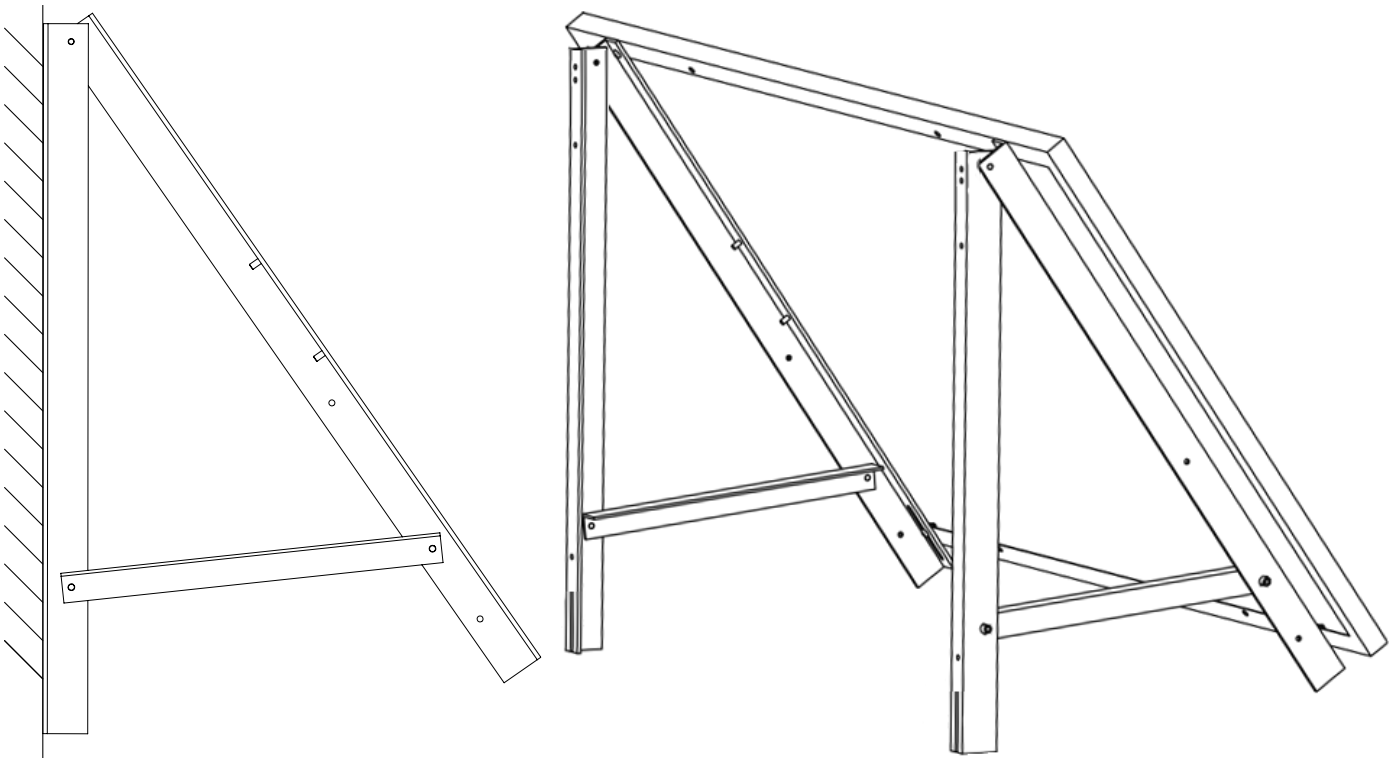
Weighting the bracket taking into account the following specifications

Wind zone	Number of concrete slabs	
	Front	Rear
1	5	6
2	5	7

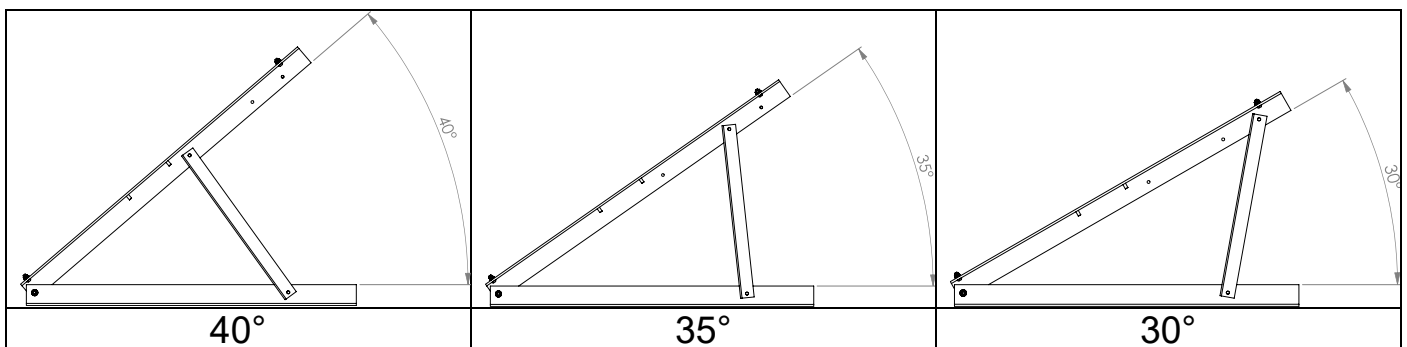


Wall mounting

- Choose a suitable location for the installation of the solar system, free from obstacles and with enough space to allow you to adjust the tilt angle (if necessary).
- Be at least 2 people to lift and mount the solar modules.
- The mounting angle (30° , 35° , 40°), the orientation (west, south, east) as well as the geographical location influence the yield of the balcony power plant.
- For the mounting on the facade/wall you need to ask a static engineer. Every wall is different and need to hold for one solar module with included mount up to 8.6kg plus the weight of the solar module.
- Up to a height (upper edge of the module) of 4m the glass-foil module can be used, as long as you cannot step directly under the module.



Angle adjustment



- By loosening and adjusting the screw inserted in the rail, you can change the angle of the bracket.

Technical specifications

Modell	TX-227	TX-230
Suitable for	TX-213, TX-212	TX-220, TX-228
	Module hole distance: 91.5-100cm	
Max. snow load	158kg/m² (snow zone 2, Germany)	
Max. wind force	25m/s (wind zone 2; Germany)	
Material	Aluminum (EN AW-6060)	
Dimensions		
Alu-profile (long) (LxWxH)	105 x 6 x 4cm (6mm)	
Alu-profile (short) (LxWxH)	95 x 6 x 4cm (6mm)	
Alu-profile (angle) (LxWxH)	51 x 4 x 4cm (4mm)	
Alu-U-profile (LxWxH)	12 x 6 x 6cm (5mm)	
Built up (LxWxH)	95 x 6 x 51cm	
Weight	8.6kg	17.2kg

Support

Service phone No. for technical support: **01805 012643** (14 cent/minute from German fixed-line and 42 cent/minute from mobile networks). Free Email: **support@technaxx.de**

The support hotline is available Mon-Fri from 9am to 1pm & 2pm to 5pm

Maintenance

1x per year check the screw connections and nuts for tightness.

1x annually check mechanical components (U-profiles, aluminum profiles) for tight fit and possible optical changes.

Disposal



Disposal of the packaging. Sort packaging materials by type upon disposal.

Dispose of cardboard and paperboard in the waste paper. Foils should be submitted for recyclables collection.

Distributed by:
Technaxx Deutschland GmbH & Co. KG
Konrad-Zuse-Ring 16-18,
61137 Schöneck, Germany

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