



➤ **PV-ezRack Trapezoidal Installation Manual**

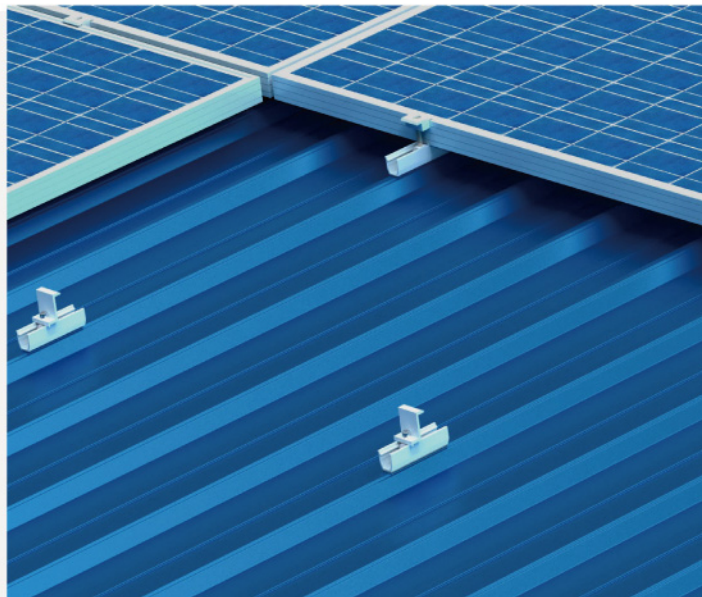
Roof mounting system for PV modules

For trapezoidal sheet roofs

» Table of Content

Chapter		Page
1.	Introduction	2
2.	System Overview	3
3.	Tools Required	4
4.	Installation	5
5.	Warranty	10

➤ 1. Introduction



The most simple and cost-effective industrial roof mounting system

Clenergy's PV-ezRack Trapezoidal is a roof mounting solution suitable for all trapezoid metal sheet roofing. The whole system contains only 4 components including our innovative z-modules as part of our module clamps for easy and very fast installation offering the most advantageous and cost-effective solution for trapezoidal sheet roofing.

Please review this installation and planning manual before installing your Trapezoidal system.

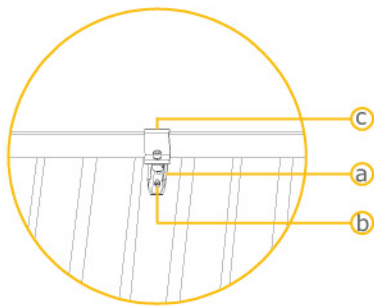
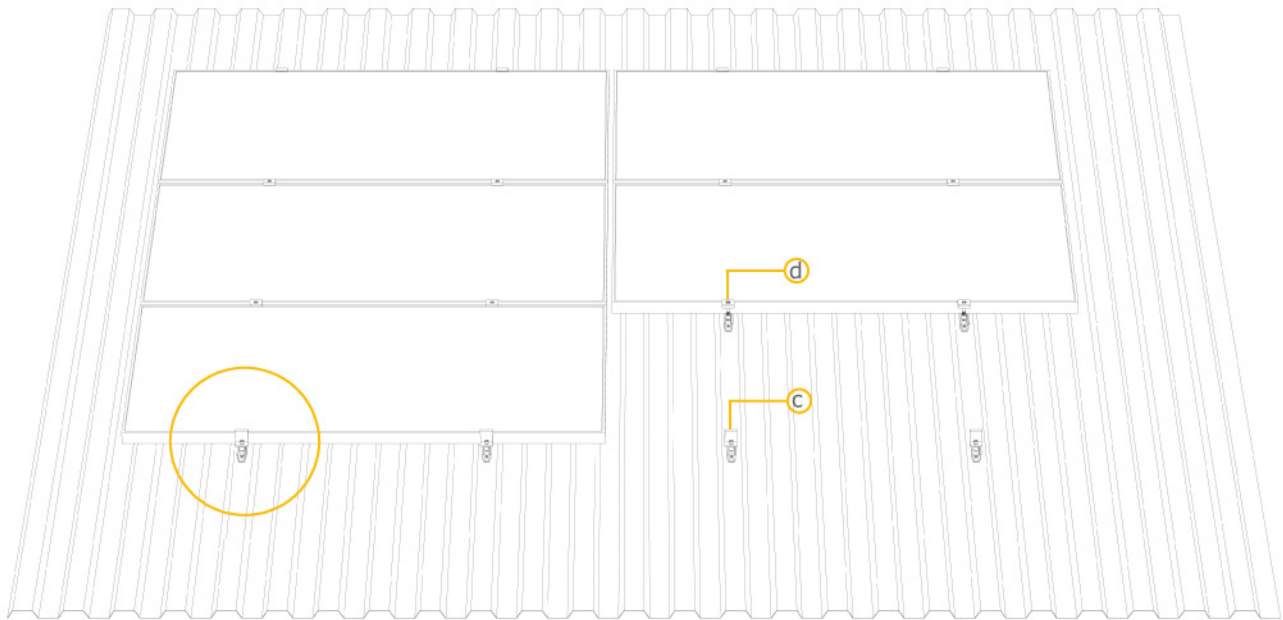
PV-ezRack Trapezoidal when installed in accordance with this guide will be structurally adequate and will meet the DIN 1055 standards. When installing this product please observe the appropriate health and safety regulations and take required safety precautions.

If necessary, please check that you are using the current version of our installation manual by contacting our local distributor our regional Clenergy office or by e-mail at sales@clenergy.com.

The installer is solely responsible for:

- Complying with all applicable building codes, including any that may supersede this manual.
- Ensuring that PV-ezRack and other products are appropriate for the particular installation and the installation environment.
- Ensuring that the structural strength of the roof is able to support the PV array and the live load conditions placed upon it.
- Ensure PV ez Rack Trapezoidal is able to take wind loadings at project location, factors such as height of the building, topography of the site, position of array on the roof, and wind zone should be taken into consideration.
- Using only PV-ezRack Trapezoidal components (substitution of parts may void the warranty).
- Ensuring that the U-Profile kit with the correct number and type of screws are selected for your specific project.
- Maintaining the waterproof integrity of the roof.
- Ensure that there are no less than two professional workers during panel installation.
- That the installation of relative electrical equipment is performed by professional electrician, ensuring safe installation of all electrical aspects of the PV array.

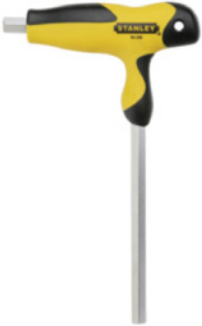
> 2. System Overview



- a. U-Profile
- b. Self-drilling Screw
- c. End Clamp
- d. Inter clamps

a. U-Profile	b. Self-drilling Screw SFS - SX3-S16-6.0 x 29 For sheet thickness from 0.63 to 1.50mm	b. Self-drilling Screw JF3-5.5x25 For sheet thickness from 0.40 to 0.63 mm	c. End Clamp	d. Inter Clamp

➤ 3. Tools Required

6mm Allan Key	Power Drill	Tape Measure
		
Torque Wrench	Chalk Line	8mm Socket
		
Marker Pen		
		

■ Note: These tools are just for mounting and not included with delivery.

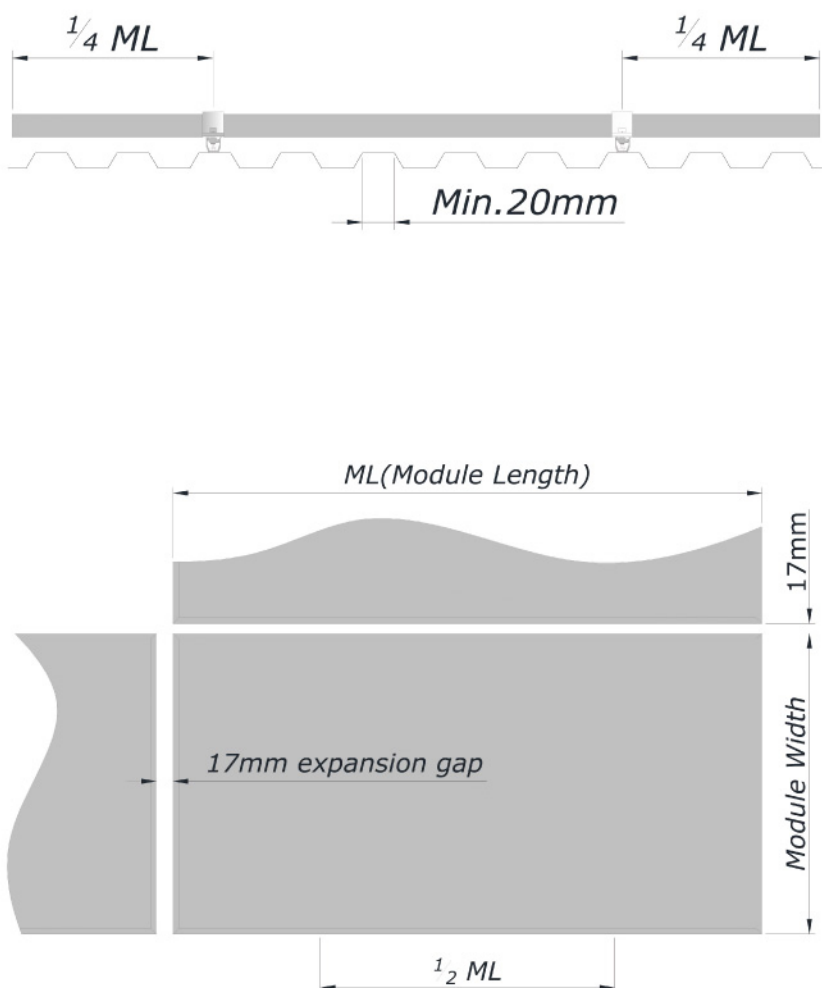
4. Installation

1. Preparation

Before ordering Clenergy's PV-ezRack Trapezoidal, please check that:

- The roof structure is able to support the PV array.
- PV-ezRack Trapezoidal is able to take the wind loadings based on location, height, position on the roof and wind zone.

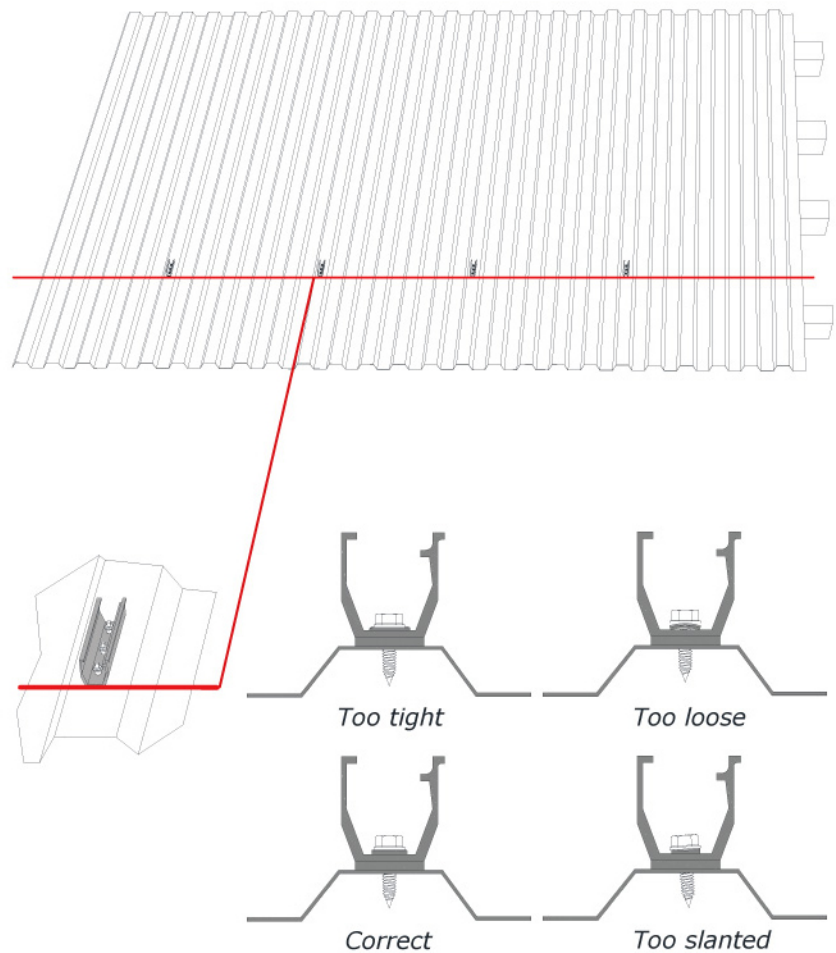
The distance between the two U-Profiles will depend upon the trapezoidal sheet profile but should be as near as possible half the PV module length apart. On the short side of the module always leave a expansion gap, ideally 17mm.



➤ 4. Installation

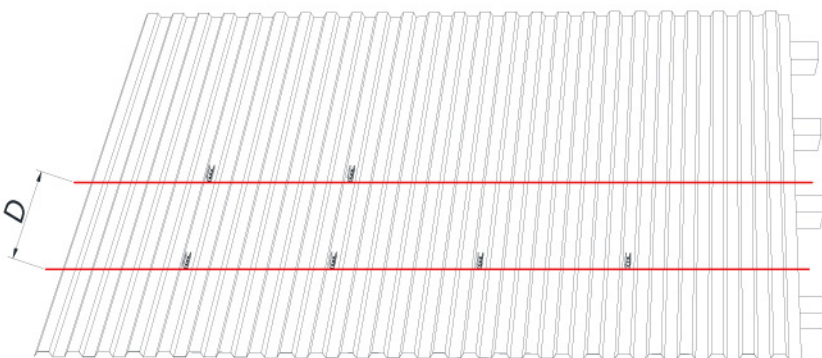
2. Start on the lower elevation of the roof, a chalk line or string is recommended so that the U-Profiles are in the same line. Use a marker pen to indicate the correct location of each U-Profile.

- It is important that screws are tightened correctly.



➤ 4. Installation

3. Mount the second row of U-Profiles. The distance between the two rows will be: $D = \text{Module width} + 17 \text{ mm}$. Continue to mount the rest of the U-Profiles in the same way.



➤ 4. Installation

4. Mount the modules.

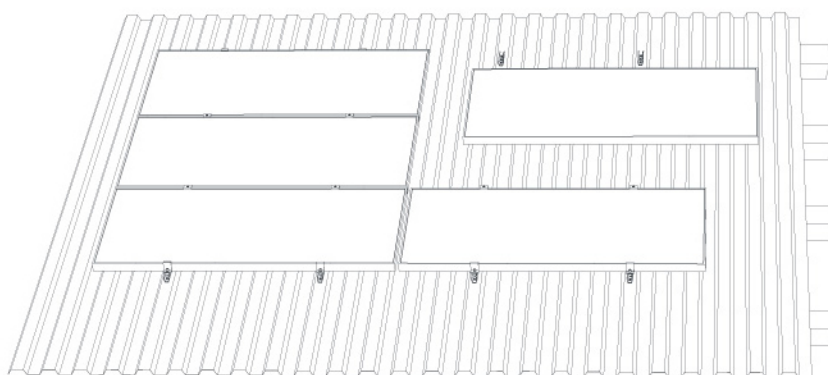
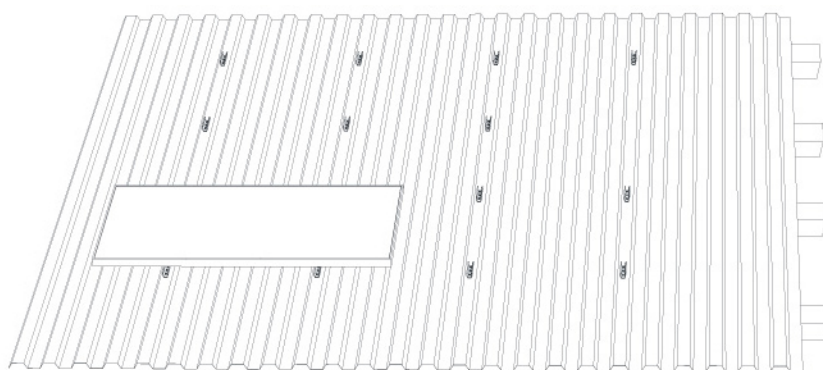
Mount the PV modules starting on the lower elevation of the roof.

Locate the modules according to step 1 at the 1/4 points of the modules. Next attach the end clamps to the U-Profiles as you work along the first low, and tighten the clamps with a 6mm allen key.

The module's must be placed in the middle of the U-Profile as the figure to the right shows.

Where two module face one another use inter clamps and tighten.

The recommended torque to the screws of the clamps: 20 Nm.



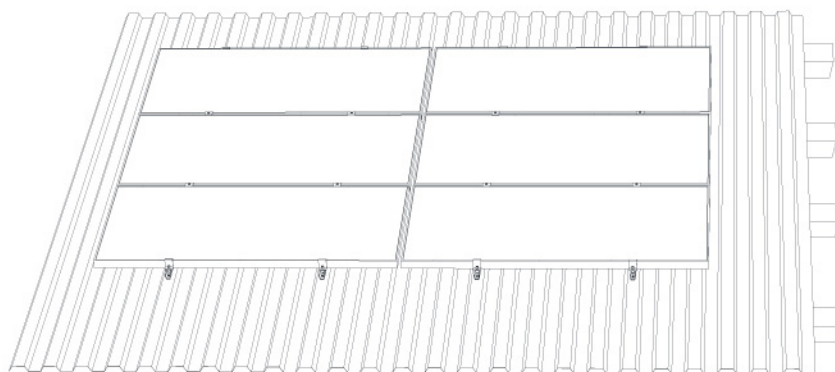
> 4. Installation

5. Installation completed.

The system now completed we would be very grateful to receive brief details and photos of your project.

Please send to:
sales@clenergy.com

The very best projects will be used as case studies and be displayed on our web site.



➤ 5. Warranty

10 Years Standard Warranty Terms and Conditions, 20 Year Designed Service Life

Clenergy international co. Ltd warrants to the original purchaser ("Purchaser") of product(s) that it manufactures ("Product") at the original installation site that the Product shall be free from defects in material and workmanship for a period of ten (10) years, except for the anodised finish, which finish shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of five (5) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser ("Finish Warranty").

The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by Purchaser. This Warranty does not cover damage to the Product that occurs during its shipment, storage, or installation.

This Warranty shall be VOID if installation of the Product is not performed in accordance with Clenergy's written installation instructions, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by Clenergy IN WRITING, or if the Product is installed in an environment for which it was not designed. Clenergy shall not be liable for consequential, contingent or incidental damages arising out of the use of the Product by Purchaser under any circumstances.

If within the specified Warranty periods the Product shall be reasonably proven to be defective, then Clenergy shall repair or replace the defective Product, or any part thereof, in Clenergy's sole discretion. Such repair or replacement shall completely satisfy and discharge all of Clenergy's liability with respect to this limited Warranty. Under no circumstances shall Clenergy be liable for special, indirect or consequential damages arising out of or related to use by Purchaser of the Product.

Manufacturers of related items, such as PV modules and flashings, may provide written warranties of their own. Clenergy's limited Warranty covers only its Product, and not any related items.



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