



Yingli Energy Development (Tianjin) Co., Ltd.  
英利能源发展有限公司  
3399 North Chaoyang Avenue  
Baoding 071051, China  
中国保定国家高新区朝阳北大街 3399 号 (071051)

20<sup>th</sup> September 2024

**Subject: Approval for Yingli module compatibility with Jurchen PEG Mounting structure**

To whom it may concern,

This letter is to approve the use of the Yingli modules listed below with the **HL (High-Load) design** Jurchen Technology PEG mounting structure as described in the Appendixes and its compliance with the Yingli standard installation manual.

Max test loads	<b>PANDA 3.0 PRO: YLxxxCF48 i/2</b>	
	<b>Downward load (Pressure)</b>	<b>Upward load (Suction)</b>
<b>High-Load <u>Snow</u> PEG 4x short side clamping + 2x long side <u>support</u> as shown in Appendix C</b>	+2550 Pa	-1800 Pa
<b>High-Load <u>Wind</u> PEG 4x short side clamping + 2x long side <u>clamping</u> as shown in Appendix D</b>	+2550 Pa	-2550 Pa
<b>High-Load <u>Wind</u> PEG for <u>Portrait</u> 6x long side clamping as shown in Appendix E</b>	+2550 Pa	-2568 Pa

The loads mentioned above are the maximum allowed, the Test loads. In case 1.5 security factor or higher is included in the design load calculation according to the relevant building code, the Design load is equal to the Test load, otherwise 1.5 security factor must be included:

$$[\text{Test load}] = 1.5 \times [\text{Design load}].$$


The PV modules installed using this installation method are covered by Yingli standard warranty as agreed in the purchase agreement.

Yingli warranty will not be valid in case the modules are damaged due to the installations not in accordance to Yingli instructions, mechanical load or other problem related to the supporting system.

Sincerely,

Yingli Technical Service Department

Name: Chao Ma

Signature: 



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### Center and Edge Clamps

The clamps shown in the photos below are applicable for all mounting methods described in this document.



▶ **Module mounting with Edge Clamp: At the North and South edges of the PEG block**



▶ **Module mounting with Center Clamp:**



### Appendix C

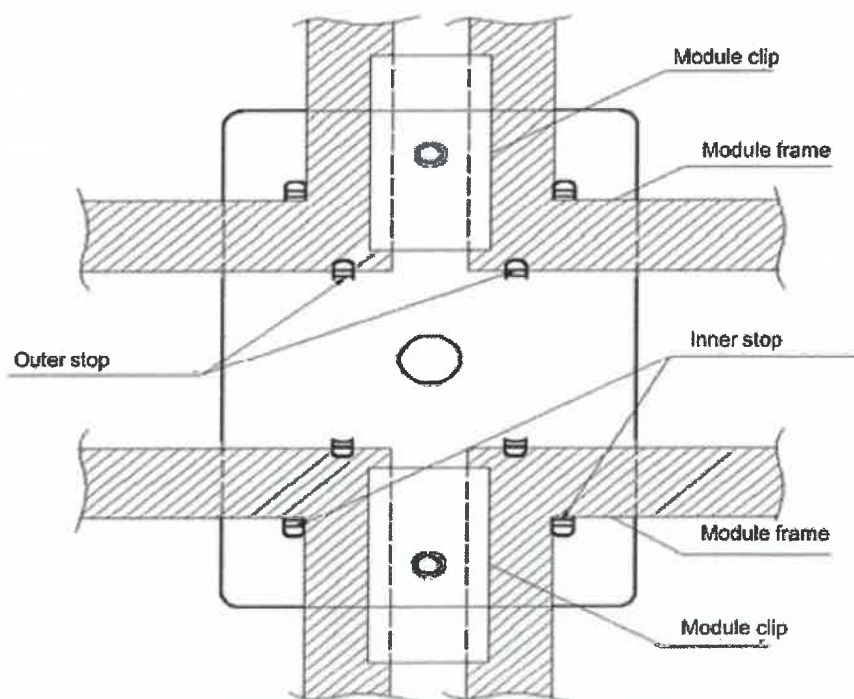
#### High-Load Snow PEG with 4 x short side clamping + 2 x long side support (without clamps)



## Module mounting method for JT PEG HL (High load) Snow design

This document describes the **modules mounting method** required on the **HL (High Load) design** of the PEG EW and SD system

- ▶ The modules are laid at **8 deg tilt** on **6 plates** of the PEG system, **4 plates located under the corners** of the modules and **2 plates located at the middle of the long edges** of the modules
- ▶ The modules are laid in **landscape orientation**, with the direction of the slope along the module's width
- ▶ The **clamps are connected along the short edges** of the modules and **close to the corners**, as shown in the drawings and photos included in this document
- ▶ There are **4 clamps**, connected near the corners of the module



**Modules Mounting Layout (Top View)**



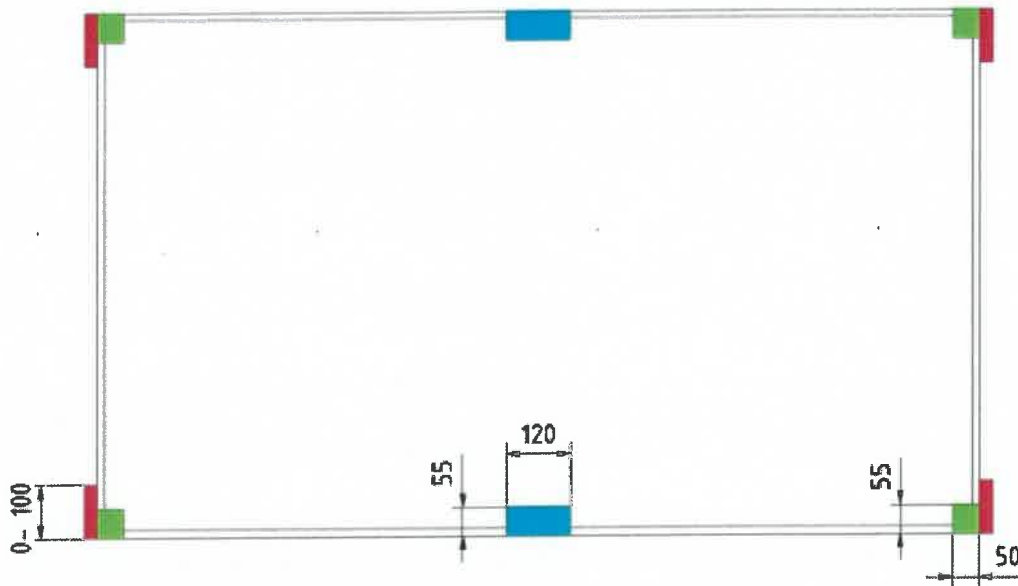
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	<p>The contact surface of the module clamps on the modules          Distance from corner: 100mm          Clip length: 70mm</p>
	<p>The contact surface of the modules on the plates</p>
	<p>Additional support for the module <u>without clamping</u>, to withstand high downward pressure.          Length = 120mm, width = 55mm</p>



## Appendix D

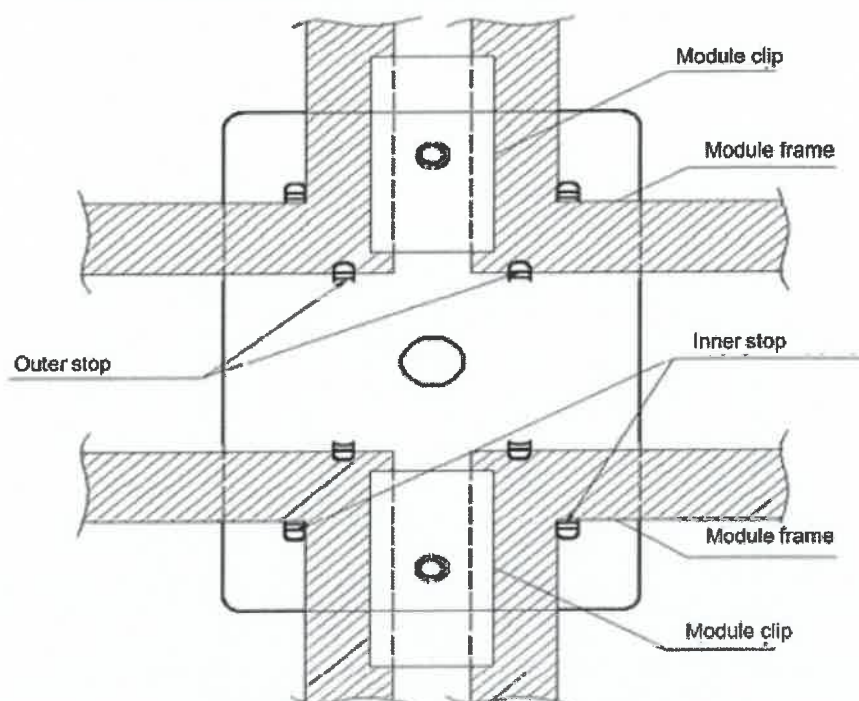
### High-Load Wind PEG with 4 x short side clamping + 2 x long side clamping



# Module mounting method for JT PEG HL (High load) Wind design

This document describes the modules mounting method required on the HL (High Load) design of the PEG EW and SD system

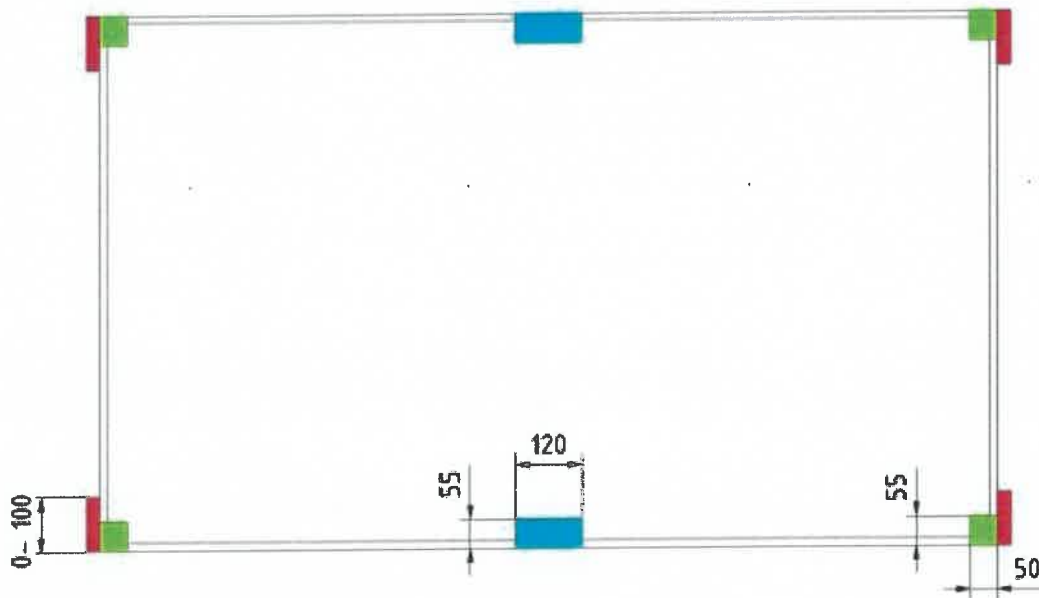
- ▶ The modules are laid at 8 deg tilt on 6 plates of the PEG system, 4 plates located under the corners of the modules and 2 plates located at the middle of the long edges of the modules
- ▶ The modules are laid in landscape orientation, with the direction of the slope along the module's width
- ▶ The clamps are connected along the short edges of the modules and close to the corners, as shown in the drawings and photos included in this document
- ▶ There are 6 clamps: 4 connected near the corners of the module and 2 connected at the center of the two long edges






**Modules Mounting Layout (Top View)**



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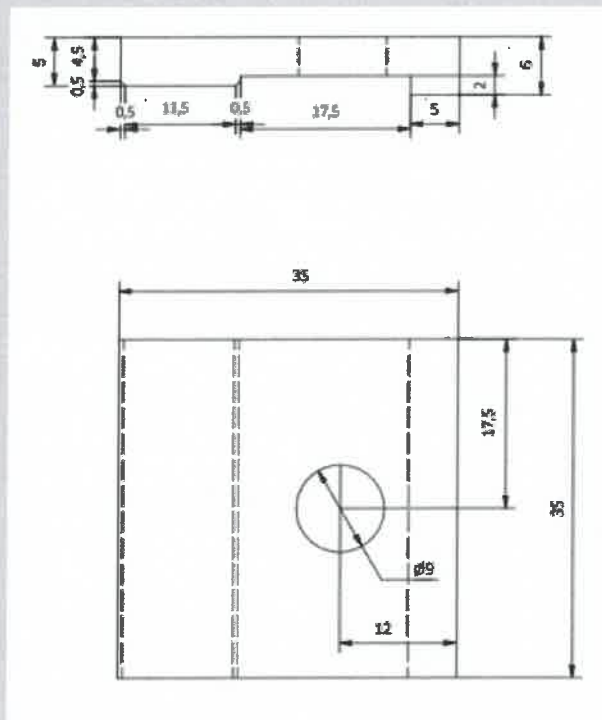


	<p>The contact surface of the module clamps on the modules                  Distance from corner: 100mm                  Clip length: 70mm</p>
	<p>The contact surface of the modules on the plates</p>
	<p>Additional support for the module <u>with clamping</u>, to withstand high downward <u>and</u> upward pressure.                  Bearing surface: length = 120 mm, width = 55 mm                  Clamping surface: length = 35 mm, width = 11,5 mm</p>



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► Additional clamp at the middle of the long edge:



## Appendix E

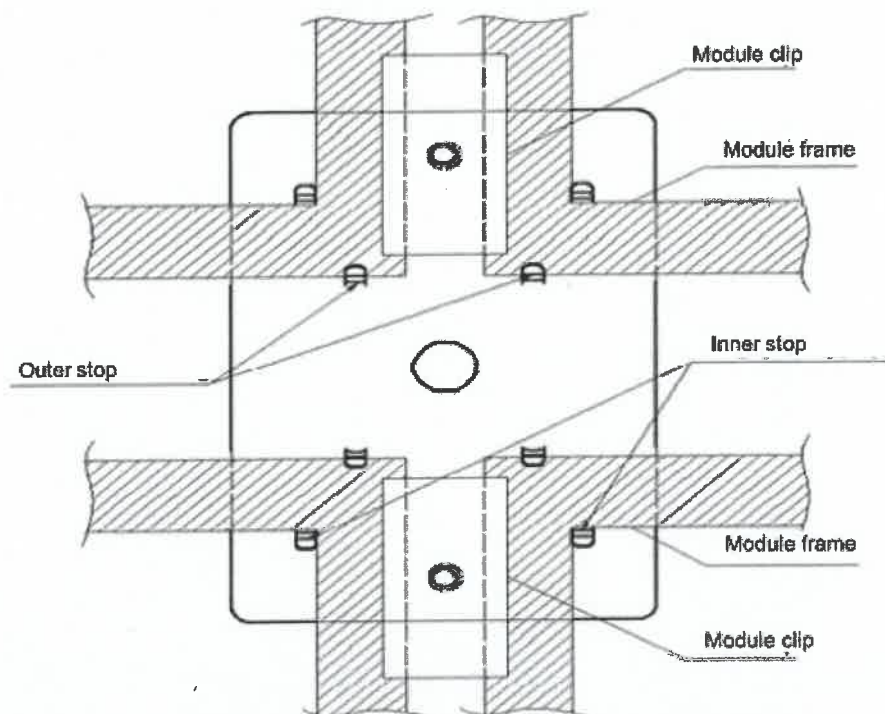
### High-Load Wind PEG for Portrait orientation with 6 x long side clamping



# Module mounting method for JT PEG portrait design

This document describes the modules mounting method required on the portrait design of the PEG EW and SD system.

- ▶ The modules are laid at 8 deg tilt on 6 plates of the PEG system, 4 plates located under the corners and 2 plates located at the middle of the long edges of the modules
- ▶ The modules are laid in portrait orientation, with the direction of the slope along the module's length
- ▶ The clamps are connected along the long edges of the modules and close to the corners, as well as the center of the long edges as shown in the drawings and photos included in this document

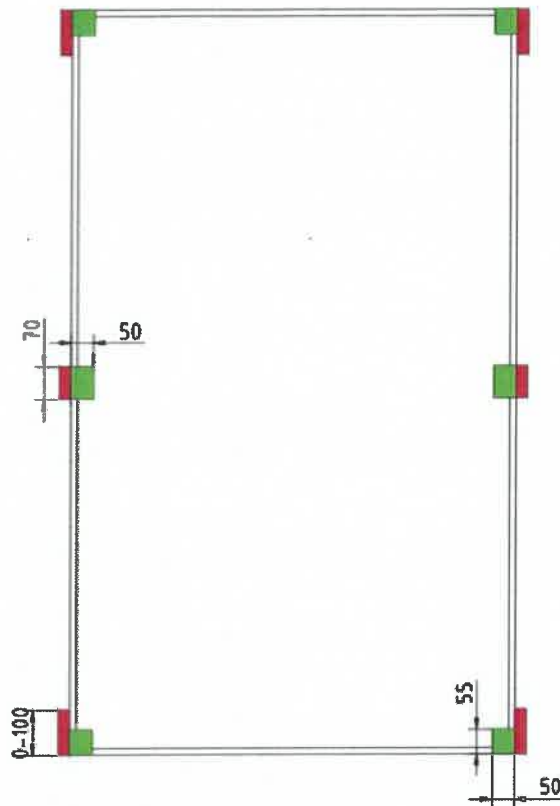




Modules Mounting Layout at the corner (Top View)





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	<p>The contact surface of the module clamps on the modules          Clip length: 70mm</p>
	<p>The contact surface of the modules on the plates</p>

