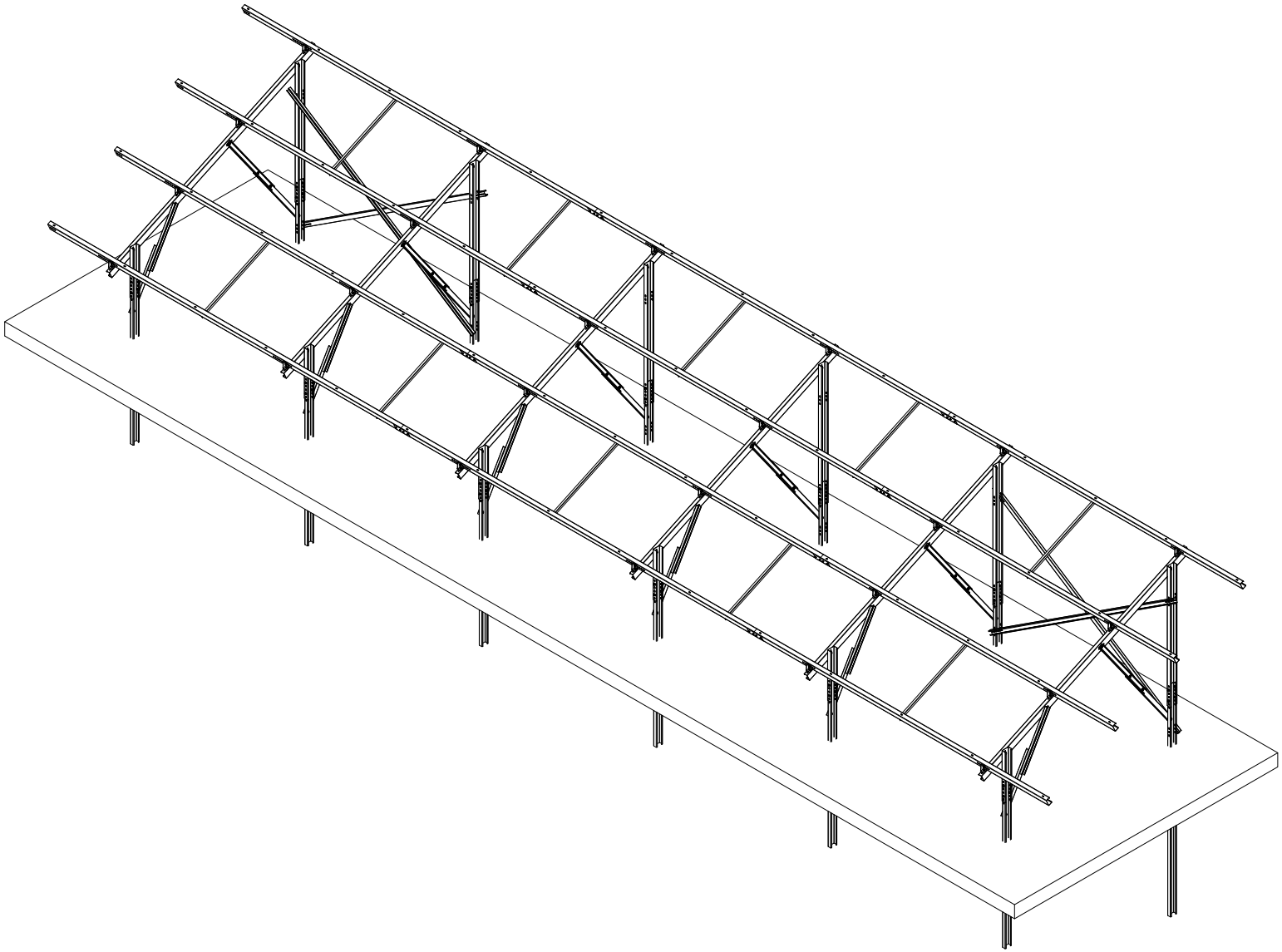
Customer Approval	
Signature	Date

unit:mm



Installation Manual for PV Mounting Structure

Binding Line

Renewable Energy
POWERWAY

Architect:

Developer:

Notes:

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2.Please refer to the construction drawing and other relevant drawings. Please inform the designer when there is any discrepancies.

NO	DATE	NOTE

PROJECT NAME :
UK Stark Haunton

EPC CONTRACTOR :
-

PROJECT OWNER :
-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	1
Date	2024/2

Customer Approval	
Signature	Date

1. Installation statement

unit:mm

1.1 Default installation sequence

1) Pile installation shall be carried out according to the spacing shown in the figure below, and the tolerance shall be controlled within the schematic range.

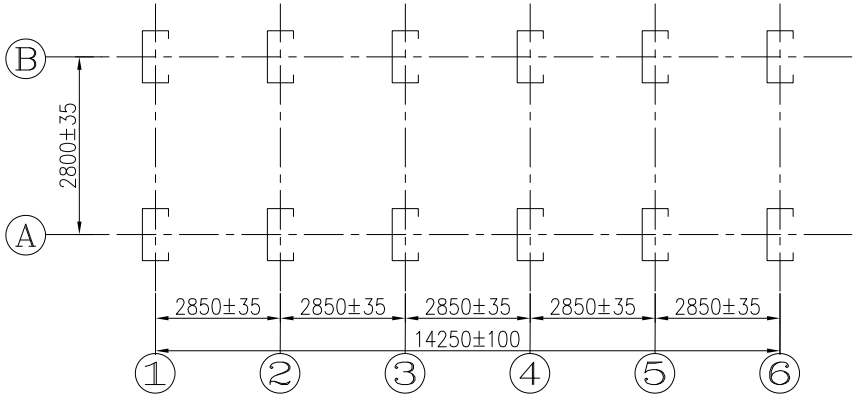
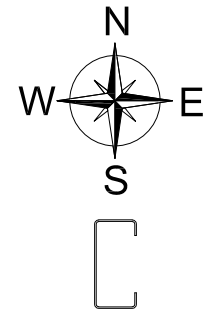


Table 2V14



*Please note the direction of the C pile

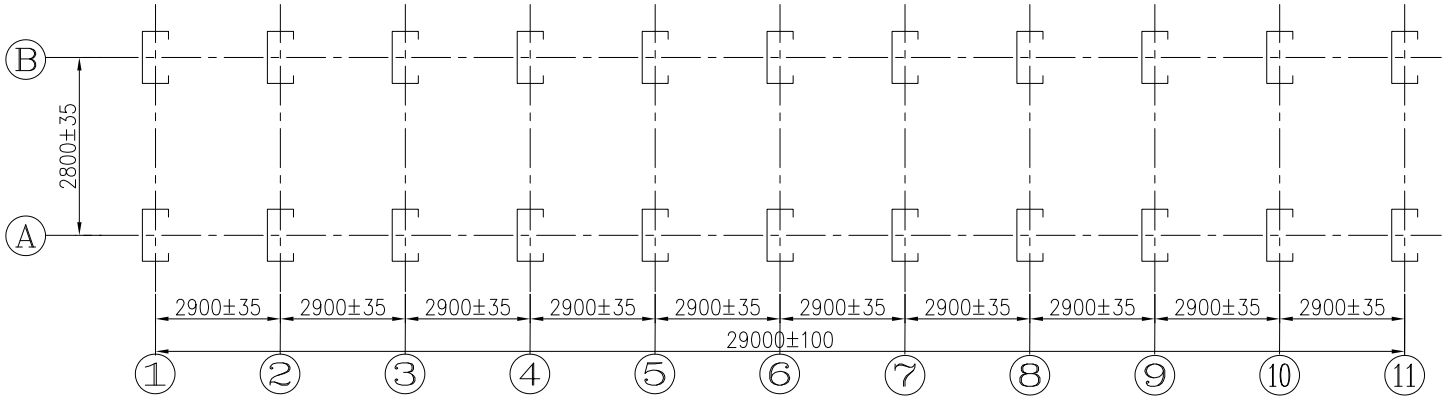


Table 2V27

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :
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EPC CONTRACTOR :
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PROJECT OWNER :
-

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Check	feng
Verify	Aku
Approval	Chen
Drawing No.	2
Date	2024/2

Customer Approval	
Signature	Date

unit:mm

2) After completing the installation of the pile, fix the post on the pile.

3) Pre install the Sub - Main rail connector on the main beam, then install the main rail on the top of the post.

4) Install the strut to complete the installation of the frame.

5) Install the sub rail on the frame and connect each section of the sub rail.

6) Install the horizontal support (Brace Ⅰ) of the sub rail.

7) Install the support (Brace Ⅱ) between the rear post at the specified position.

8) Install the end clamp, mid clamp and the conductive clip on the sub rail at the specified position.

Note: The above installation steps can be adjusted according to the actual construction conditions.
Before completing the installation of the whole set of supports, the stability and safety of local supports shall be ensured, and the installation shall be stopped in case of severe weather.

Please refer to section 3 for detailed node installation.

1.2 Drilling at site

*If field drilling is required during installation, ensure that the newly drilled hole does not interfere with the original hole. The drilling size is recommended to be 2mm larger than the bolt diameter. For example, the M10 bolt should have a hole with a diameter of 12mm. The recommended distance from the original hole is not less than 35mm.

*Round hole is preferred for new drilling.

*During drilling, ensure that the edge of the hole is smooth without fracture.

*If the surrounding zinc coating is damaged during drilling, it needs to be sprayed with anti-rusting paint. Cold sprayed zinc with zinc content not less than 92%(refer to ASTM A780M) shall be used for spraying, and the spraying thickness shall not be less than 100μm.

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :
UK Stark Haunton

EPC CONTRACTOR :
-

PROJECT OWNER :
-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	3
Date	2024/2

Customer Approval	
Signature	Date

unit:mm

1.3 Recommended Equipment & Tools

Following tools and auxilliary equipment are recommended for a simple and safe assemble:

ELEMENTS*	DESCRIPTION
	Allen key for: M8 connections (Inner Hex Bolt)
	Wrench for: M8/M10/M12 connections (hexagonal head)
	Moment key/Torque Wrench for: M8/M10/M12 connections (Inner Hex & hexagonal head)
	Carriage wrench for: M8/M10/M12 connections (hexagonal head)
	Protection shoes
	Flexible rule for: Measuring length

ELEMENTS*	DESCRIPTION
	Electric Wrench for: M8/M10/M12 connections (hexagonal socket)
	yarn for: Installation positioning
	Gloves
	Gradienter for: Measuring angle
	Safety helmet

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :
UK Stark Haunton

EPC CONTRACTOR :
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PROJECT OWNER :
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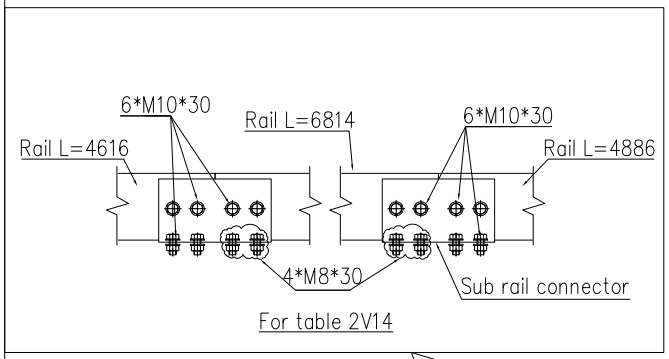
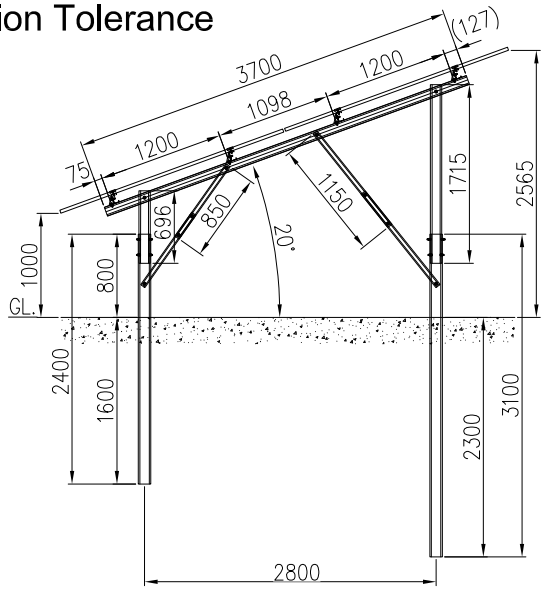
Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	4
Date	2024/2

Customer Approval	
Signature	Date

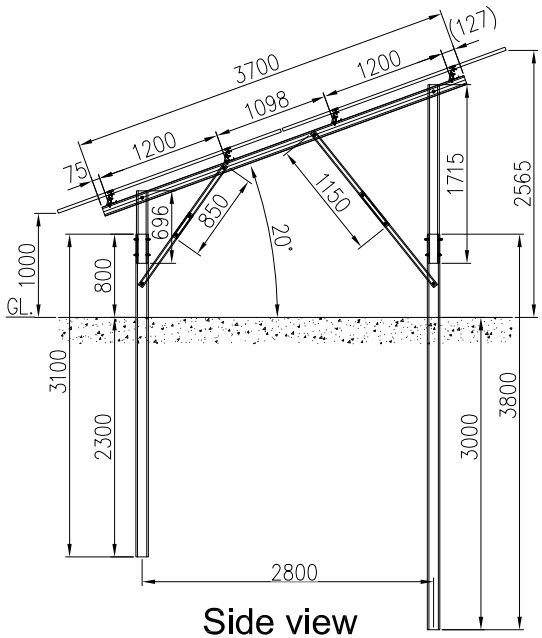
unit:mm

2. Mounting Structure Size and Installation Tolerance

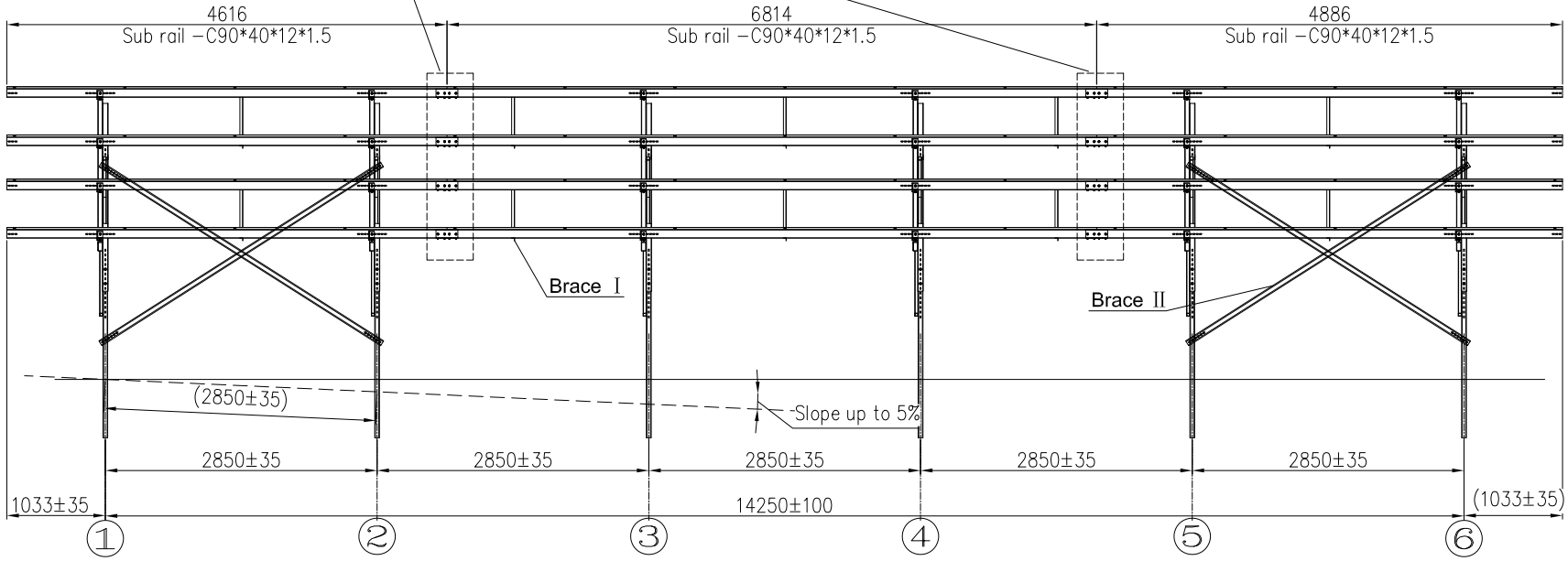




Side view interior



Side view exterior



Front View (example of PV table 2V14)

The structure can be installed at a maximum slope of 5%

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :
UK Stark Haunton

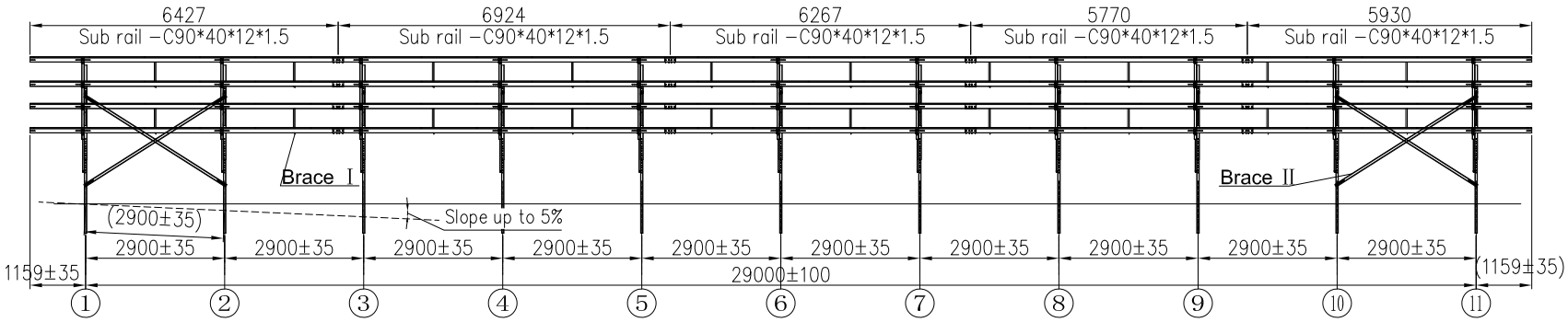
EPC CONTRACTOR :
-

PROJECT OWNER :
-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	5
Date	2024/2

Customer Approval	
Signature	Date

unit:mm



Front View (example of PV table 2V27)

The structure can be installed at a maximum slope of 5%

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :

UK Stark Haunton

EPC CONTRACTOR :

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PROJECT OWNER :

-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	6
Date	2024/2

Customer Approval	
Signature	Date

unit:mm

2.1 Bill of Material (example of PV table 2V27)exterior

Member	Section	Length	Quantity / table
Pile L3100	C 120*60*15*3.0	3100	11
Pile L3800	C 120*60*15*3.0	3800	11
Post L696	C 110*50*15*1.5	696	11
Post L1715	C 110*50*15*1.5	1715	11
Main rail	C 90*40*12*1.5	3700	11
Sub rail L6427	C 90*40*12*1.5	6427	4
Sub rail L6924	C 90*40*12*1.5	6924	4
Sub rail L6267	C 90*40*12*1.5	6267	4
Sub rail L5770	C 90*40*12*1.5	5770	4
Sub rail L5930	C 90*40*12*1.5	5930	4
Strut L850	C 50*30*10*1.5	850	22
Strut L1150	C 50*30*10*1.5	1150	22
Brace Ⅰ L1250	L 30*30*1.5	1250	20
Brace Ⅱ L3500	C 60*35*10*1.5	3500	4
Sub rail connector	L 90*43*3.0	160	16
Sub - Main rail connector	L 80*50*5.0	60	44
Mid clamp	-	80	104
End clamp	-	80	8
Conductive clip	-	-	52

(Refer to the scheme drawing for component types of other arrays .)

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

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PROJECT OWNER :
-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	7
Date	2024/2

Customer Approval	
Signature	Date

unit:mm

2.1 Bill of Material (example of PV table 2V27)interior

Member	Section	Length	Quantity / table
Pile L2400	C 120*60*15*3.0	2400	11
Pile L3100	C 120*60*15*3.0	3100	11
Post L696	C 110*50*15*1.5	696	11
Post L1715	C 110*50*15*1.5	1715	11
Main rail	C 90*40*12*1.5	3700	11
Sub rail L6427	C 90*40*12*1.5	6427	4
Sub rail L6924	C 90*40*12*1.5	6924	4
Sub rail L6267	C 90*40*12*1.5	6267	4
Sub rail L5770	C 90*40*12*1.5	5770	4
Sub rail L5930	C 90*40*12*1.5	5930	4
Strut L850	C 50*30*10*1.5	850	22
Strut L1150	C 50*30*10*1.5	1150	22
Brace Ⅰ L1250	L 30*30*1.5	1250	20
Brace Ⅱ L3500	C 60*35*10*1.5	3500	4
Sub rail connector	L 90*43*3.0	160	16
Sub - Main rail connector	L 80*50*5.0	60	44
Mid clamp	-	80	104
End clamp	-	80	8
Conductive clip	-	-	52

(Refer to the scheme drawing for component types of other arrays .)

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

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UK Stark Haunton

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PROJECT OWNER :
-

Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	8
Date	2024/2

Customer Approval	
Signature	Date

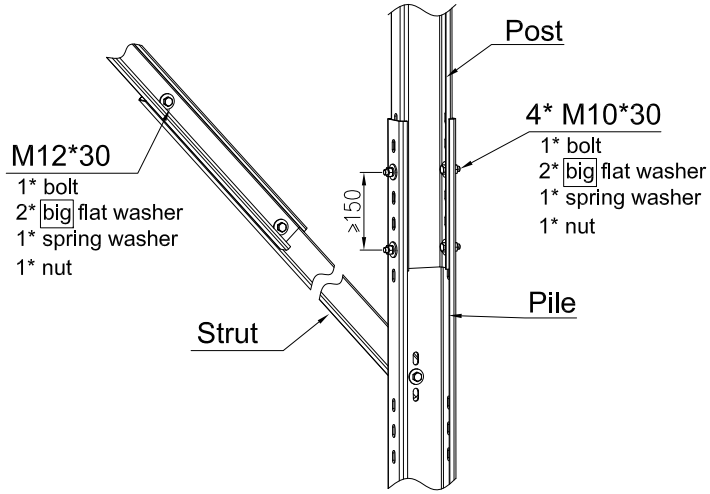
unit:mm

2.2 Bill of Material (example of PV table 2V14)exterior

Member	Section	Length	Quantity / table
Pile L3100	C 120*60*15*3.0	3100	6
Pile L3800	C 120*60*15*3.0	3800	6
Post L696	C 110*50*15*1.5	696	6
Post L1715	C 110*50*15*1.5	1715	6
Main rail	C 90*40*12*1.5	3700	6
Sub rail L4616	C 90*40*12*1.5	4616	4
Sub rail L6814	C 90*40*12*1.5	6814	4
Sub rail L4886	C 90*40*12*1.5	4886	4
Strut L850	C 50*30*10*1.5	850	12
Strut L1150	C 50*30*10*1.5	1150	12
Brace Ⅰ L1250	L 30*30*1.5	1250	10
Brace Ⅱ L3500	C 60*35*10*1.5	3500	4
Sub rail connector	L 90*43*3.0	160	8
Sub - Main rail connector	L 80*50*5.0	60	24
Mid clamp	-	80	52
End clamp	-	80	8
Conductive clip	-	-	26

(Refer to the scheme drawing for component types of other arrays .)

3.1 Pile & Post & Strut connection



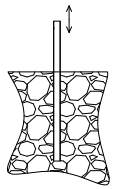
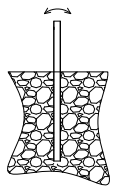
Embedment depth	Verticality in all direction	Twist Angle
		
±50 mm	±1°	±1°

Figure -Tolerances for ramming

(Pile can be adjusted up and down by ±50mm)

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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Check	feng
Verify	Aku
Approval	Chen
Drawing No.	9
Date	2024/2

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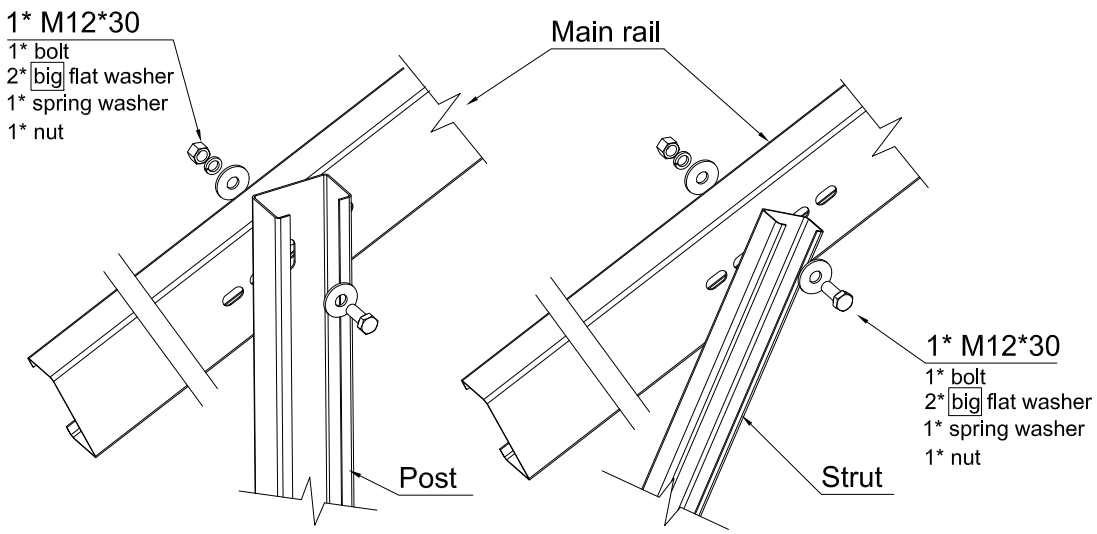
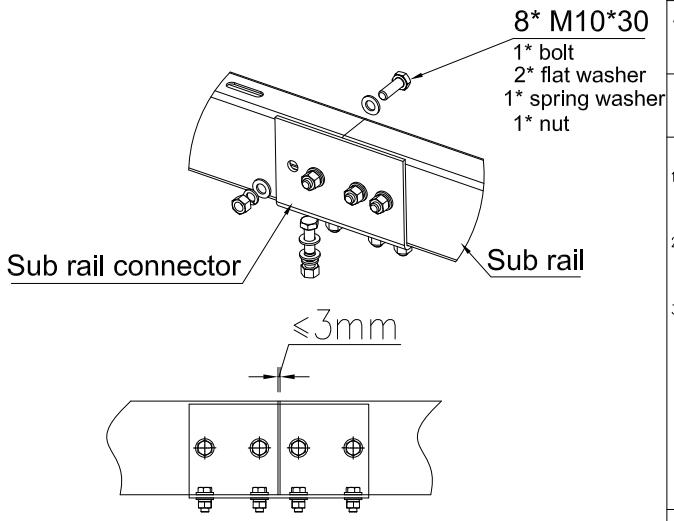
Signature	Date

unit:mm

3.2 Main rail & Post / Strut connection

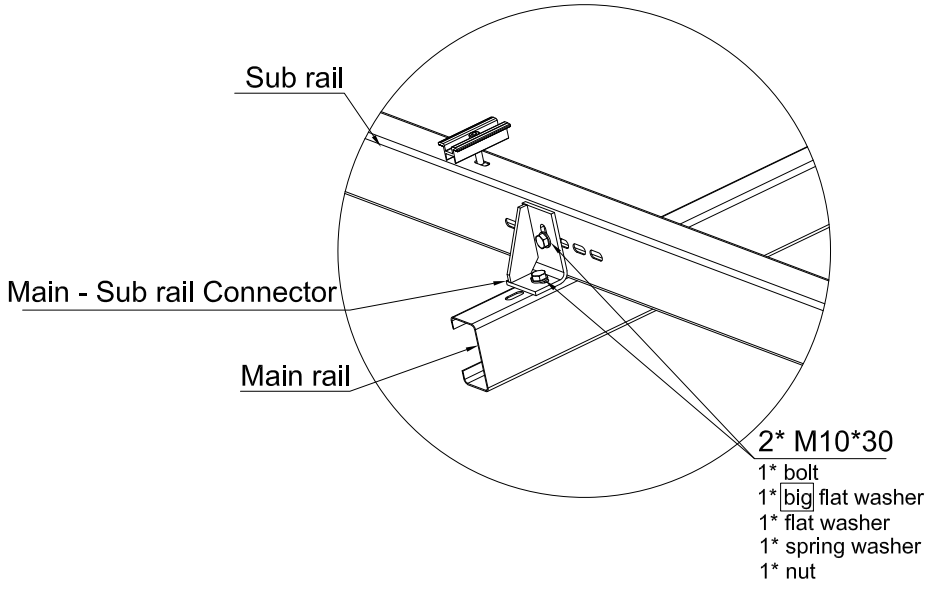


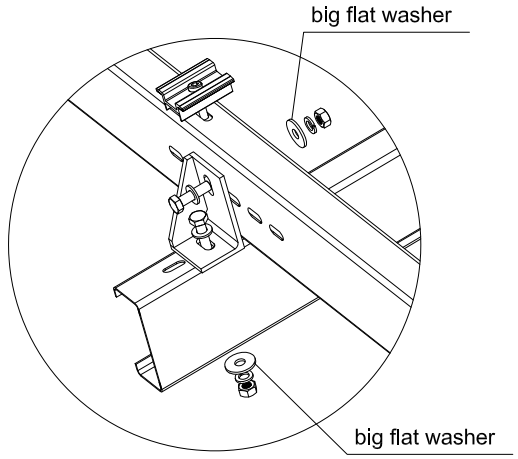
3.3 Sub rail connection



* the gap between sub rail shall not be greater than 3mm

3.4 Main rail & Sub rail connection





* The big flat washer is on the thin wall side

Binding Line

Renewable Energy
POWERWAY

Architect:

Developer:

Notes:

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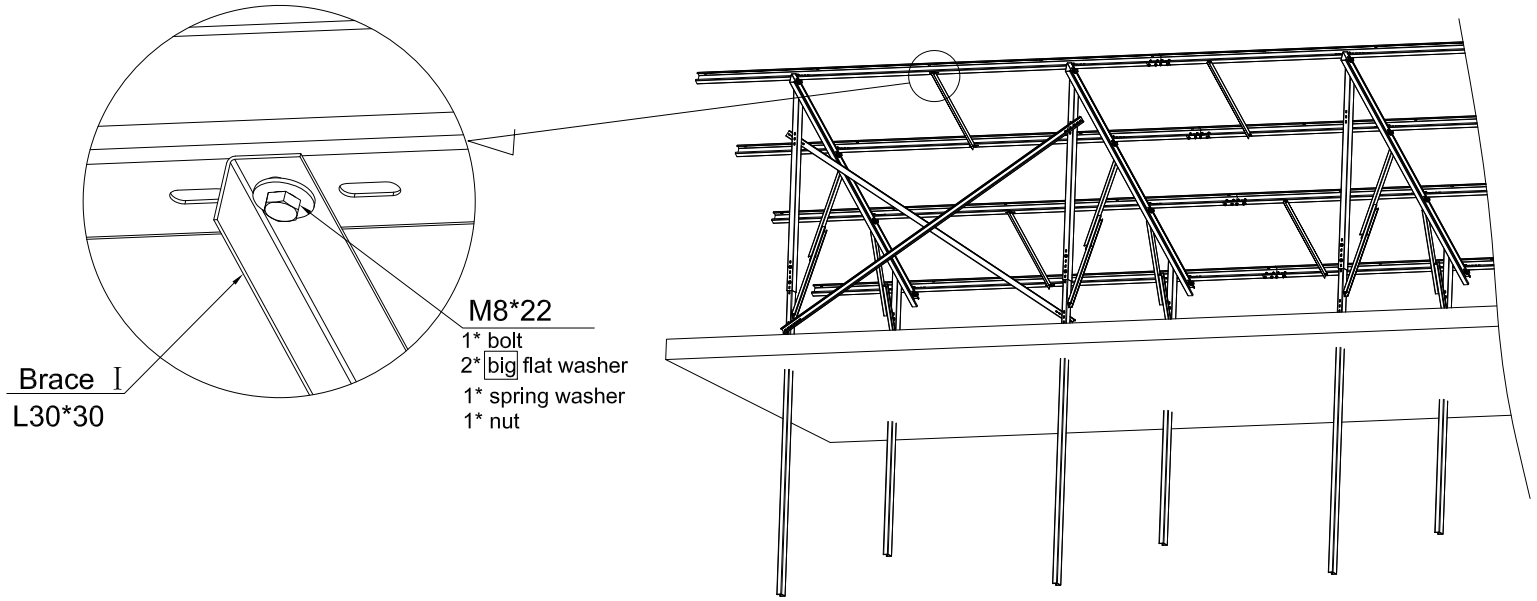
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	10
Date	2024/2

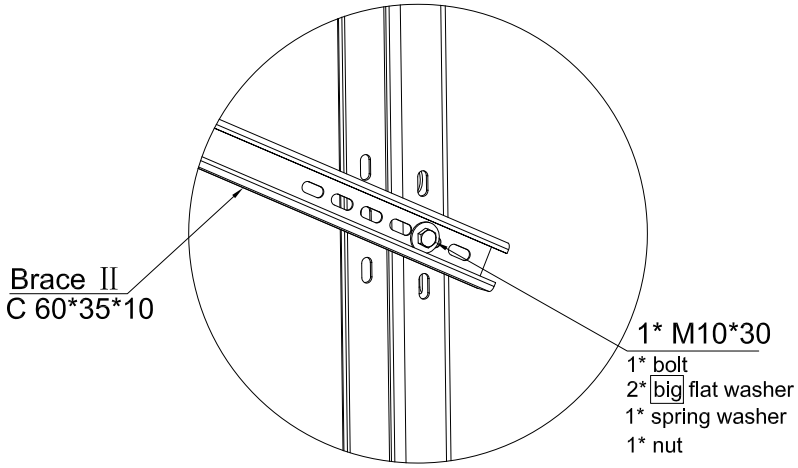
Customer Approval	
Signature	Date

unit:mm

3.5 Installation of brace Ⅰ between sub rail



3.6 Installation of brace Ⅱ between rear post



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Architect:

Developer:

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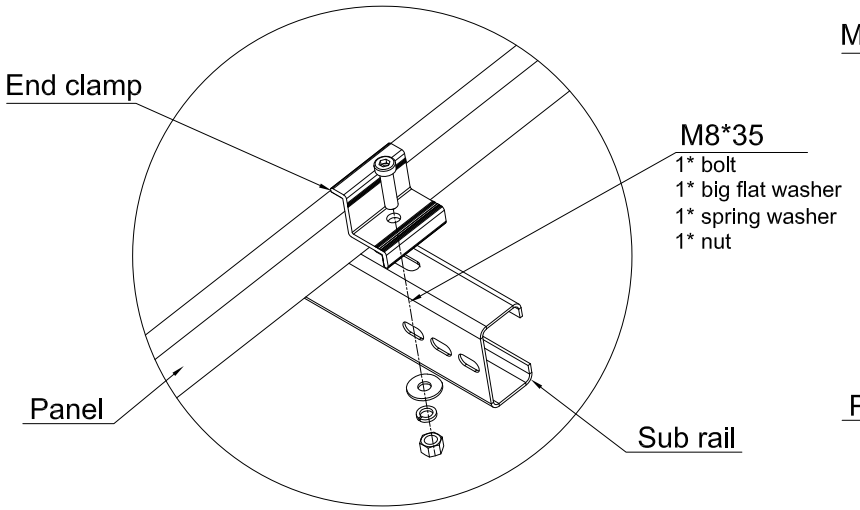
Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	11
Date	2024/2

Customer Approval	
Signature	Date

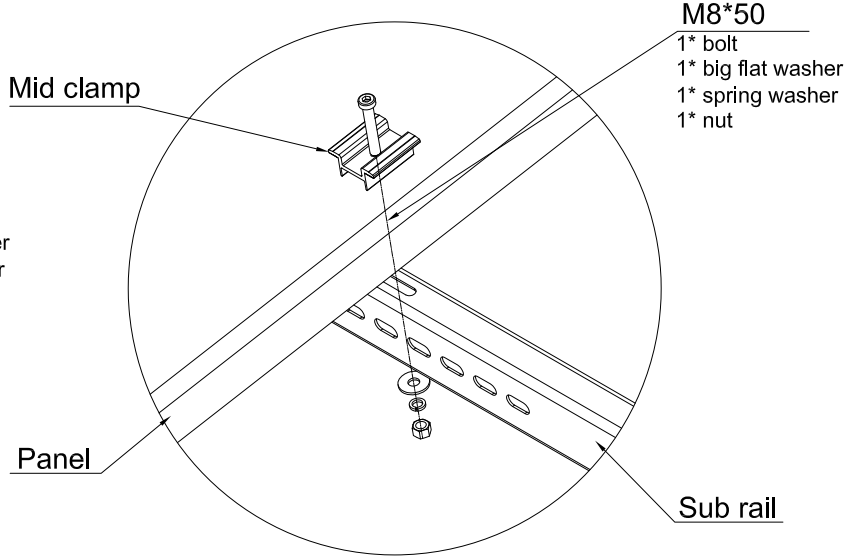
unit:mm

3.7 End clamp connection



End clamp assemble sequence

3.8 Mid clamp connection



Mid clamp assemble sequence

Binding Line

Renewable Energy
POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

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PROJECT OWNER :
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Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	12
Date	2024/2

Customer Approval	
Signature	Date

unit:mm

3.9 PV Modules Assembly Instructions

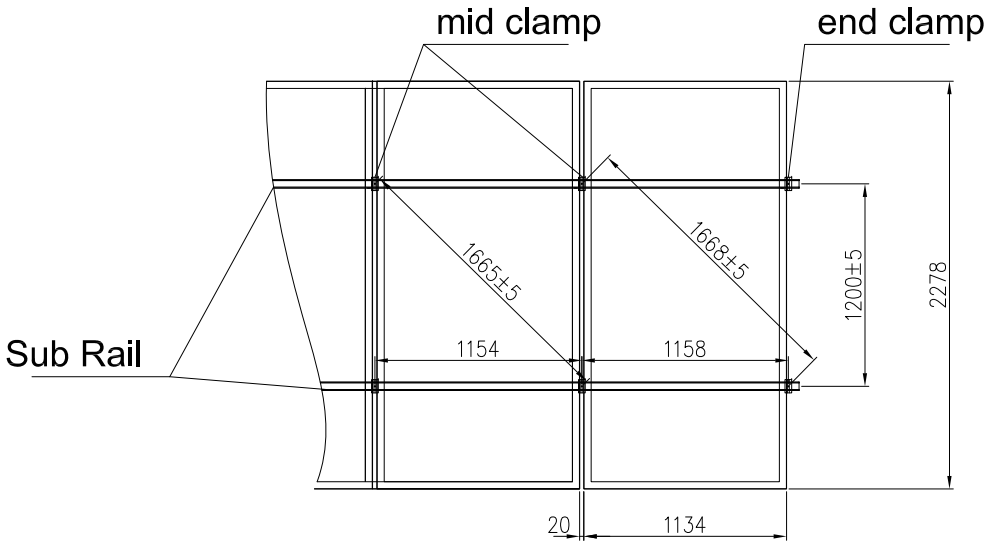
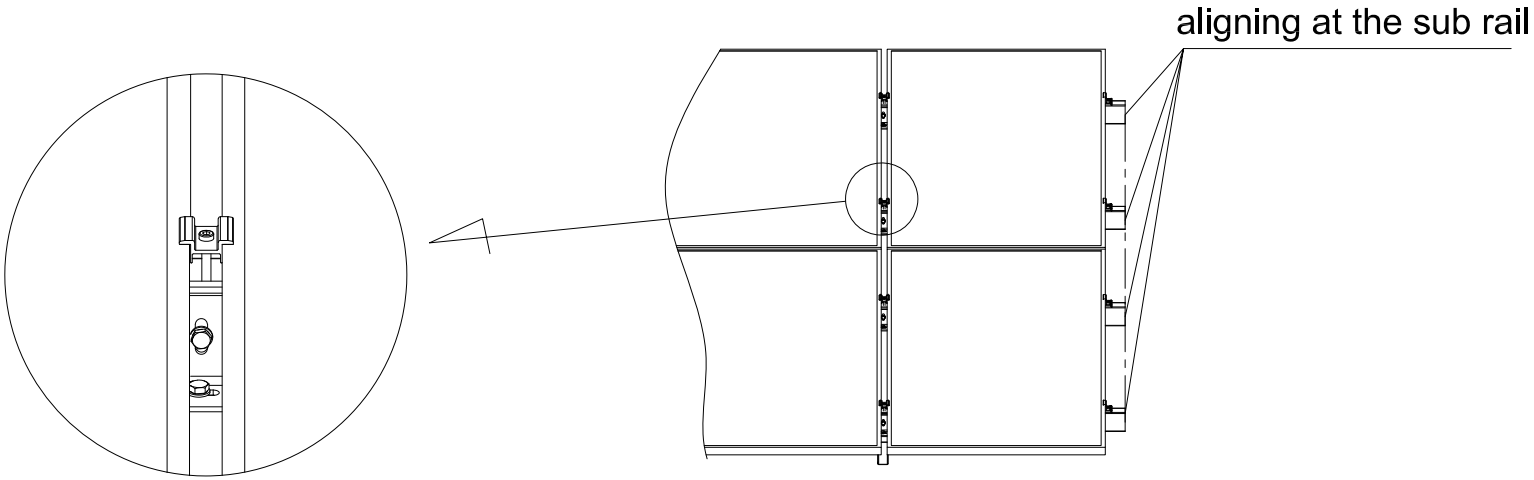


Figure - Module fixed



*The clamp shall be installed close to the module as much as possible, and the total gap between both sides of the clamp and the module shall not be greater than 1mm.

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

Notes:

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NO	DATE	NOTE

PROJECT NAME :
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PROJECT OWNER :
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Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	13
Date	2024/2

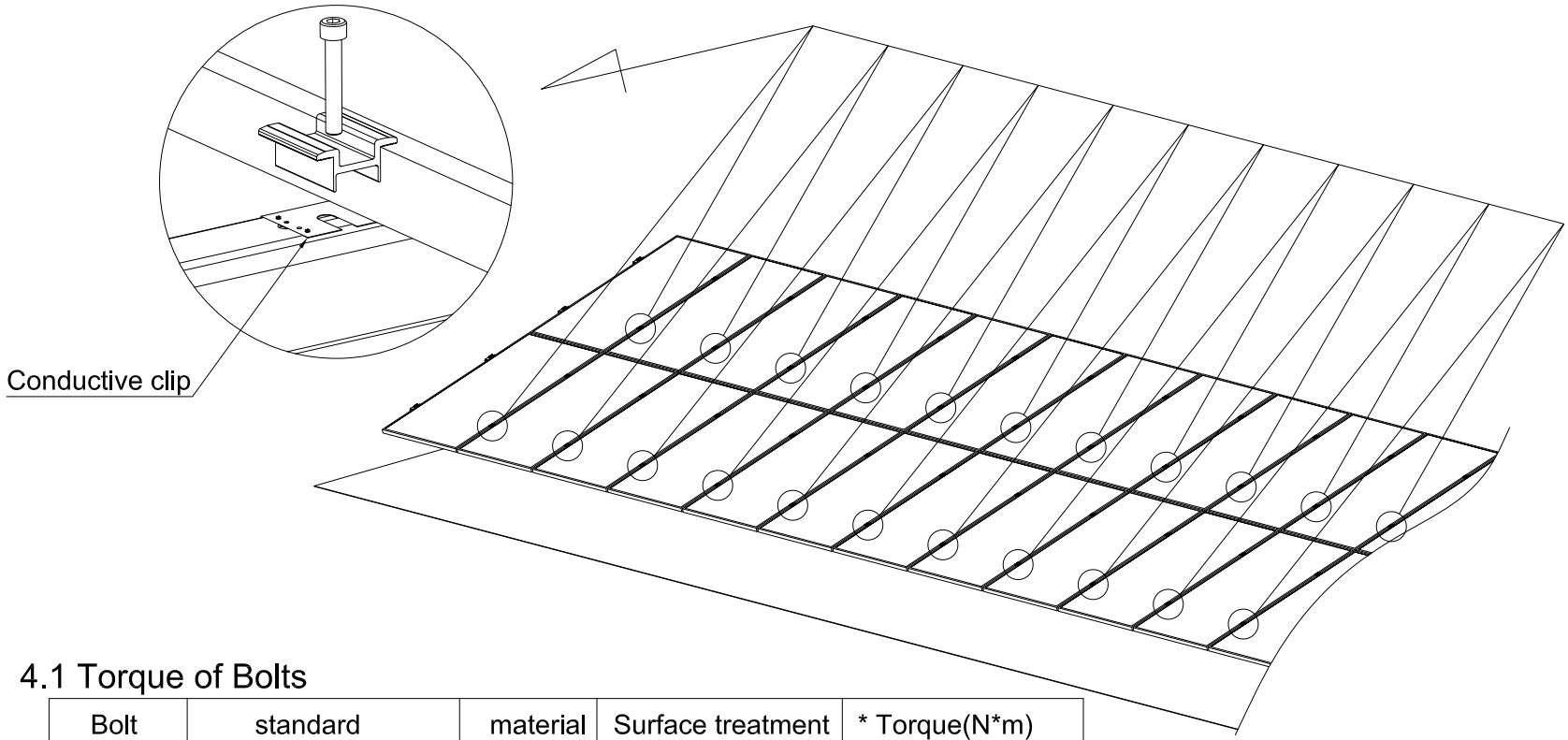
Customer Approval	
Signature	Date

unit:mm

4. Conductive Clip Installation Position

The Conductive Clip Installation Position please see the below picture.

Every 2 Mid Clamps use 1 Conductive clip.



4.1 Torque of Bolts

Bolt	standard	material	Surface treatment	* Torque(N*m)
M8*22	DIN EN ISO 4017	A2-70	—	20-30
M8*30	DIN EN ISO 4017	A2-70	—	20-30
M8*35	DIN EN ISO 4762	A2-70	—	16-18
M8*50	DIN EN ISO 4762	A2-70	—	16-18
M10*30	DIN EN ISO 4017	GR8.8	H.D.G. 50μm	40-50
M12*30	DIN EN ISO 4017	GR8.8	H.D.G. 50μm	50-60

*According to the data obtained from the test and experience, the site is adjusted according to the actual situation.

Binding Line

Renewable Energy POWERWAY

Architect:

Developer:

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PROJECT OWNER :
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Design	he
Check	feng
Verify	Aku
Approval	Chen
Drawing No.	14
Date	2024/2