

## **ENF Solar Assessed Supplier**

Assessment Report Presented to:

Taizhou Chuangda Electronic Co., Ltd.  
泰州创达电子有限公司

Service Commissioned by:



Service Provided by:



March 21, 2018

Report Number: <<C159ENF20180301>>

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Expiry Date: 16/Mar./2020

Online Verification: <https://verified.chn.tuv.com>

## Introduction

This report has been commissioned by ENF Solar – the world’s most visited solar website. Inspections have been undertaken by TÜV Rheinland – a testing service provider who have been testing solar components since 1985. TÜV Rheinland is part of TÜV Rheinland Group, a technical services company established in 1872 and employing 17,000 staff around the world.

To make these reports, TÜV Rheinland sends inspectors directly to the factories to collect data, take pictures and check documents.

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*The objective of validating supplier information is to provide additional confidence to buyers so that they know the information has been verified by an independent third party.*

*The TÜV Rheinland “Supplier Capability Assessment” program is not designed to be a performance standard but rather an information validation program against an established criterion providing potential buyers with information on the establishments stated claims and capabilities.*

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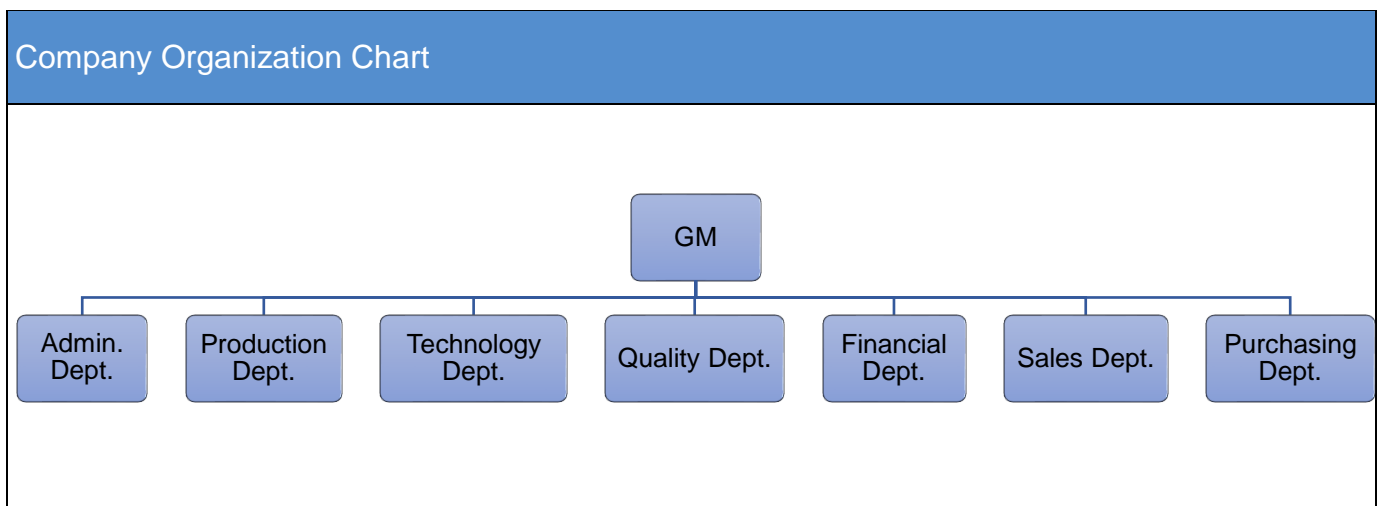
## Company Overview

Identification	Details		
Company Name	Taizhou Chuangda Electronic Co., Ltd.		
Facility address	No. 818, Longfeng Road, New Energy Industrial Park , Hailing District, Taizhou City, Jiangsu Province, China		
	Contact Person:	Mr. Pengcheng Wang	
	Tel:	0086-0523-86262088	
	Fax:	0086-0523-86585139	
	E-mail:	nick@tzcd-cn.com	
URL/Web Address	www.tzcd-cn.com		
Report Date	17/Mar./2018		
Expiry Date (24 months validity)	17/Mar./2018 -- 16/Mar./2020		
Name of Assessor	Jesse Wang		
Overall Turnover of Last Year	Confidential		
Total Building Size	1,248 m <sup>2</sup>		
Number of Buildings	1		
Office Size	300 m <sup>2</sup>		
Working Day	Mon. to Sat.	Working Hours	08:00 -- 11:30
			12:30 -- 17:00

## Legal Entity

Legal Entity			
Business License Number	91320		
Year Established	18/Dec./2013	Validity Period:	18/Dec./2013 -- 17/Dec./2033
Registered Address	No. 818, Longfeng Road, New Energy Industrial Park , Hailing District, Taizhou City, Jiangsu Province, China		
Company Address	No. 818, Longfeng Road, New Energy Industrial Park , Hailing District, Taizhou City, Jiangsu Province, China		
Registered Capital	RMB 2,000,000		
Corporate Representative	Mr. Yongkang Wang		
Industry	Solar Energy Products		
Products /Service	Junction Box For PV Module, Connector For Photovoltaic System		
Business Type	<input type="checkbox"/> Manufacturer	<input type="checkbox"/> Trading Company	<input checked="" type="checkbox"/> Combined
Type of Ownership	<input checked="" type="checkbox"/> Private Owner	<input type="checkbox"/> Public Company	<input type="checkbox"/> Joint Venture
	<input type="checkbox"/> Stated Owned	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other

## Human Resources



Department Name	Full Time Employee(s)	Part-Time Employee(s)	Total
GM	1	0	1
Admin. Dept.	2	0	2
Production Dept.	32	0	32
Technology Dept.	3	0	3
Quality Dept.	2	0	2
Financial Dept.	2	0	2
Sales Dept.	5	0	5
Purchasing Dept.	1	0	1
<b>Totals</b>	<b>48</b>	<b>0</b>	<b>48</b>

## Export Business Capacity

Current Export Situation																																						
There are 3 foreign trading employees in the company.																																						
<table border="1"> <thead> <tr> <th>Working Experience</th> <th>Headcount</th> </tr> </thead> <tbody> <tr> <td>Over 30 Years</td> <td>0</td> </tr> <tr> <td>21-30Years</td> <td>0</td> </tr> <tr> <td>11-20 Years</td> <td>0</td> </tr> <tr> <td>6-10 Years</td> <td>0</td> </tr> <tr> <td>2-5 Years</td> <td>3</td> </tr> <tr> <td>Less than 2 years</td> <td>0</td> </tr> </tbody> </table>		Working Experience	Headcount	Over 30 Years	0	21-30Years	0	11-20 Years	0	6-10 Years	0	2-5 Years	3	Less than 2 years	0	<table border="1"> <thead> <tr> <th>Accepted Language</th> <th>Listening &amp; Speaking</th> <th>Reading &amp; Writing</th> </tr> </thead> <tbody> <tr> <td>English</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>		Accepted Language	Listening & Speaking	Reading & Writing	English	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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N/A	N/A	N/A																																				
N/A	N/A	N/A																																				
Does the company have a valid export license?		<input checked="" type="checkbox"/> Yes Export License Registration No.: <u>02762096</u>	<input type="checkbox"/> No																																			
Trade Agents Employed Overseas		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																																			
Nearest Port		Shanghai Port																																				

Accepted Payment Terms	<input checked="" type="checkbox"/> FOB	<input checked="" type="checkbox"/> CIF	<input checked="" type="checkbox"/> EXW	<input checked="" type="checkbox"/> CFR
Accepted Payment Types	<input checked="" type="checkbox"/> L/C	<input checked="" type="checkbox"/> T/T	<input type="checkbox"/> Credit Card	<input checked="" type="checkbox"/> Cash
	<input type="checkbox"/> West Union	<input type="checkbox"/> Money Gram	<input type="checkbox"/> Paypal	<input type="checkbox"/> Money booker
Average lead time from product order confirmation to production delivery (products exiting the company)	10-15 Days			

Market Distribution (Previous 12 Months)		
Market	Main Product(s)	Total Revenue (%)
North America	N/A	0
South America	N/A	0
Eastern Europe	Junction Box For PV Module, Connector For Photovoltaic System	10.5
Southeast Asia	Junction Box For PV Module, Connector For Photovoltaic System	1.5
Africa	N/A	0
Oceania	Junction Box For PV Module, Connector For Photovoltaic System	3
Middle East	Junction Box For PV Module, Connector For Photovoltaic System	3
Eastern Asia	N/A	0
Western Europe	Junction Box For PV Module, Connector For Photovoltaic System	3
Central America	N/A	0
Northern Europe	Junction Box For PV Module, Connector For Photovoltaic System	1.5
Southern Europe	Junction Box For PV Module, Connector For Photovoltaic System	1.5
South Asia	Junction Box For PV Module, Connector For Photovoltaic System	6
Domestic Market	Junction Box For PV Module, Connector For Photovoltaic System	70

## Product Capabilities

Production Capacity		
Product Name	Production Line Capacity (Monthly)	Actual Units Produced (Previous Year)
Junction Box For PV Module	900,000 Sets	12,000,000 Sets
Connector For Photovoltaic System	1,800,000 Sets	20,000,000 Sets

Production Machinery			
Key Machine Name	Brand & Model No.	Quantity	Condition
Injection Molding Machine (Junction Box For PV Module, Connector For Photovoltaic System)	No Information	9	Good
Connector Assembly Line (Connector For Photovoltaic System)	No Information	2	Good
Photovoltaic Wire Harness Integrated Machine (Junction Box For PV Module)	No Information	1	Good
Junction Box Assembly Line (Junction Box For PV Module)	No Information	2	Good



<b>Injection Molding Machine (Junction Box For PV Module, Connector For Photovoltaic System)</b>	<b>Connector Assembly Line (Connector For Photovoltaic System)</b>	<b>Photovoltaic Wire Harness Integrated Machine (Junction Box For PV Module)</b>
		
<b>Junction Box Assembly Line (Junction Box For PV Module)</b>	<b>N/A</b>	<b>N/A</b>
	<p style="text-align: center;">N/A</p>	<p style="text-align: center;">N/A</p>

Key Testing Machinery			
Machine Name	Brand & Model No.	Quantity	Condition
Electronic Tensile Testing Machine (Junction Box For PV Module, Connector For Photovoltaic System)	No Information	1	Acceptable
High and Low Temperature Alternating Damp and Heat Test Box (Junction Box For PV Module, Connector For Photovoltaic System)	WGD / SJ4010	1	Acceptable
Salt Fog Test Chamber (Junction Box For PV Module, Connector For Photovoltaic System)	No Information	1	Acceptable
Constant Temperature Drying Oven (Junction Box For PV Module, Connector For Photovoltaic System)	No Information	1	Acceptable

Multipath Temperature Tester (Junction Box For PV Module, Connector For Photovoltaic System)	SH-X	1	Acceptable
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**Electronic Tensile Testing Machine (Junction Box For PV Module, Connector For Photovoltaic System)**



**High and Low Temperature Alternating Damp and Heat Test Box (Junction Box For PV Module, Connector For Photovoltaic System)**



**Salt Fog Test Chamber (Junction Box For PV Module, Connector For Photovoltaic System)**



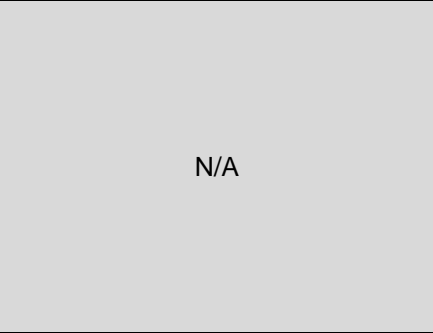
**Constant Temperature Drying Oven (Junction Box For PV Module, Connector For Photovoltaic System)**



**Multipath Temperature Tester (Junction Box For PV Module, Connector For Photovoltaic System)**



N/A



**Production Flow (Junction Box For PV Module)**

<b>1: Injection Molding</b>	<b>2: Assembling</b>	<b>3: Testing</b>
		
<b>4: In line Inspecting</b>	<b>5: Packing</b>	<b>N/A</b>
		N/A

Production Flow (Connector For Photovoltaic System)

1: Injection Molding 1



2: Assembling 1



3: Assembling 2



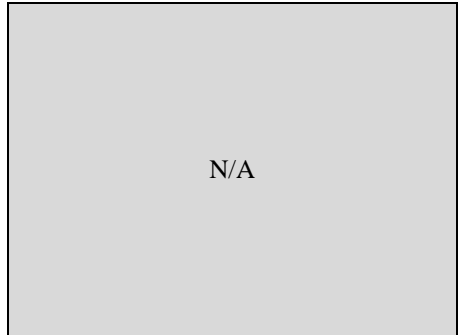
4: In line Inspecting



5: Packing



N/A



## R & D Capacity

### Current Situation

There are 3 R&D engineers in the company.

Education Level	Headcount
Doctorate	0
Post-Graduate	0
Graduate	2
Junior College	1
Technical School	0
High School	0

Work Experience	Headcount
Over 30 Years	0
21-30 Years	0
11-20 Years	0
6-10 Years	2
2-5 Years	1
Less than 2 years	0

### Brand Situation

Registration/application No.	Brand Name	For Approval to Use Goods	Validity Date	Ref.
N/A	N/A	N/A	N/A	N/A

### Patent Situation

Patent No.	The Name of the Patent	The Patent Type	Available Date	Ref.
ZL 2015 1 0928796.1	Dislocation Feed Riveting Machine	Invention patent	21/Nov./2017	Photo in Certification & Photos (Patent Photos)
ZL 2016 2 0125149.7	A Photovoltaic Junction Box Transport Vehicle.	The patent for utility model	27/Jul./2016	Photo in Certification & Photos (Patent Photos)
Does the company provide OEM/ODM service for others?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are there relevant design input/output, review, and verification documents available for the assessed company?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Based on inspection, are R&D employees equipped with adequate specialized equipment?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Do R&D employees use any specific software for designing new products?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No



**Development Devices (N/A)**

N/A	N/A	N/A
N/A	N/A	N/A

**Management Systems & Quality Control Management**

Quality Management System Certification				
Certification	Certified By	Certificate No.	Business Scope	Expiry Date
N/A	N/A	N/A	N/A	N/A

Product Certification				
Certification	Certified By	Certificate No.	Product Name & Model No.	Expiry Date
Product Certificate	TUV SUD	B141190427001	Installation Box Junction Box For PV Module & PV-JB01	26/Nov./2014 -- 24/ Nov./2019
Product Certificate	TUV SUD	B171290427002	Connector Connectors For Photovoltaic Systems & TT02	02/Jan./2018 -- 26/Dec./2022
Zertifikat Certificate	TUV Rheinland	50365324	Junction Box for PV Module & PV-JB01;PV-JB01B;PV-JB08	13/Jan./2017 -- 31/Dec./2049
Zertifikat Certificate	TUV Rheinland	50365329	Connector for Photovoltaic System & PV-TT01	28/Nov./2017 -- 31/Dec./2049

Test Report			
Test Report	Certified By	Product Name & Model No.	Expiry Date
N/A	N/A	N/A	N/A

Quality Control Management			
Content	Observations / Comments		
Does the company set up any inspection standards for raw materials?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Has the company set up necessary quality inspection standards in the process of production?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Does the company have any measures to control the management of unqualified materials after sampling, to avoid mixing up or wasting?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Are work instructions available at the location where the processes take place?	<input type="checkbox"/> Total line	<input checked="" type="checkbox"/> Parts of the line	<input type="checkbox"/> No
Is personal protective equipment (PPE) needed in the production line?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Is the management and usage of production materials as well as the production process executed by staff who are appropriately trained and qualified or by senior staff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

Supplier Management			
Content	Observations / Comments		
Does the company have a supplier assessment procedure?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Does the company establish and implement a standard procedure for purchasing contract review and approval?	<input checked="" type="checkbox"/> Yes, with written standard procedures	<input type="checkbox"/> Yes, with written procedure but lack of consistent standard	<input type="checkbox"/> No

Does the company keep its supplier assessment reports?	<input checked="" type="checkbox"/> Yes, Keep for <u>1</u> years available			<input type="checkbox"/> No
Are the company's purchasing documents sufficient to ensure product safety control and their customers' requirements?	<input checked="" type="checkbox"/> Yes, the purchasing document includes all the information required	<input type="checkbox"/> Yes, however the purchasing document includes incomplete information		<input type="checkbox"/> No
Is there a procedure to conduct random product inspections after final packaging?	<input checked="" type="checkbox"/> Yes, with clear standard and written inspection records	<input type="checkbox"/> Yes, with inspection records but no procedures	<input type="checkbox"/> Yes, with procedures but no inspection records	<input type="checkbox"/> No, inspections are not necessary

After Sales Service				
Content	Observations / Comments			
Has the company set up any procedure for customer feedback, including complaints, clearly recorded and maintained?	<input checked="" type="checkbox"/> Yes, with a standard feedback form and records	<input type="checkbox"/> Yes, with a standard feedback form but no records	<input type="checkbox"/> Yes, with records but no standard feedback form	<input type="checkbox"/> No
Are there any clear procedures for handling customer complaints?	<input type="checkbox"/> Yes, with clear procedures and written records	<input type="checkbox"/> Yes, with clear procedures but no written records	<input checked="" type="checkbox"/> Yes, with written records but no clear procedures	<input type="checkbox"/> No
Does the company have the SOP (Standard Operation Procedure) for after-sales service? Does the company provide after-sales consulting services?	<input checked="" type="checkbox"/> Yes			<input type="checkbox"/> No
Does the company implement the provisions of the National Three Warrantees (warranty for repair/replacement /return) for their products?	<input checked="" type="checkbox"/> Yes			<input type="checkbox"/> No



## Corporate Social Responsibility

Child Labour & Forced Labor		
Content	Observations / Comments	
Is it clarified that there's no child labor in the company?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company have an explicit job management program, and take corresponding measures to check the age of the employees?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Are the staff clearly aware of the terms of labour contract, regulations of the company and the right of free employment?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Have the staff been forced to work overtime? Will they be fined or fired if they refuse to?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Health and Safety		
Content	Observations / Comments	
Has the company set up a safety responsibility system, and distributed to all levels of supervisor and provided them with corresponding training?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company conduct regular inspection of the plant and equipment, to ensure the health and safety of the workshop at least in accordance with the law?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company regularly provide necessary safety and health training, to make the staff understand that there might be occupational hazards in their work, and take appropriate protective measures when necessary? (For example, how to use personal protective equipment safely, etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company hold regular fire drills, including fire drills and evacuation drills? Do the staff clearly know how to raise an alarm, how to evacuate and how to use the fire extinguisher?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No (No regular fire drill was conducted by the factory)
Does the company have the approval report issued by the local Fire Bureau?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company provide sufficient first aid equipment? Are first-aid kits and trained first-aiders available in each workplace?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No (No qualified first aider available in workshop)

Does the company provide clean lavatories, separating men's and ladies'?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the company provide clean drinking water to the staff? Is there unrestricted access to the drinking water?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

## Development / Expansion Plans

Company Development / Expansion Plans	
Company Development Action	Timeframe
The organization is going to develop the new overseas market.	12 Months

## Certification & Photos

### Certification

Business License	Tax Registration Certificate

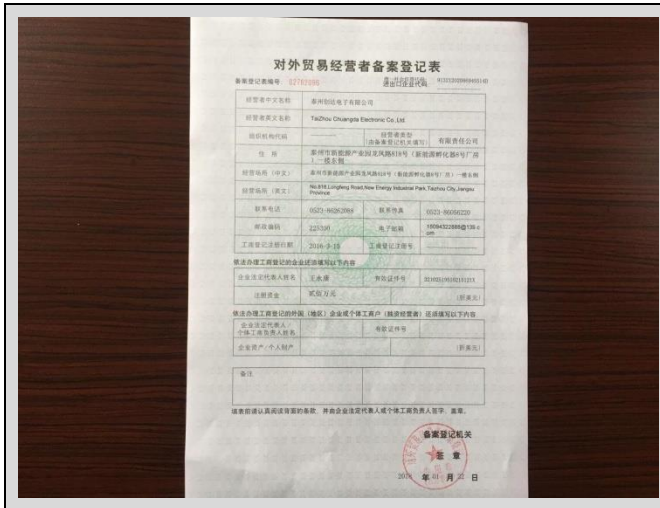
Permit for Opening Bank Account



Organization Code Certificate



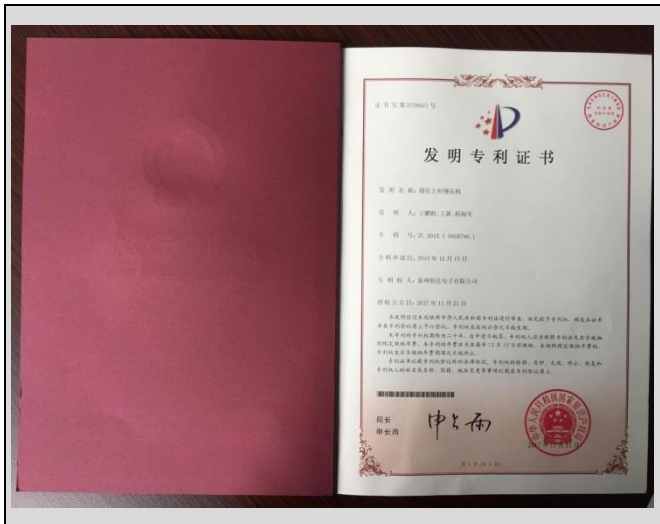
Certificate Photo -- Import and Export Enterprise Registration



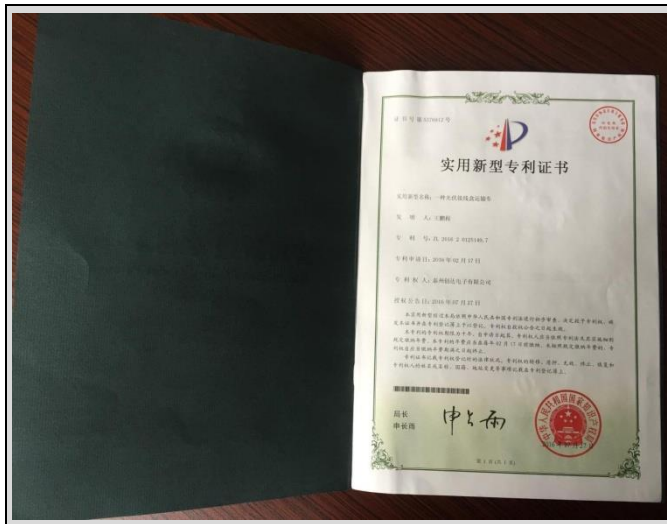
Certificate Photo -- Custom Clearance Registration Form



Certificate Photo -- Patent 1



Certificate Photo -- Patent 2





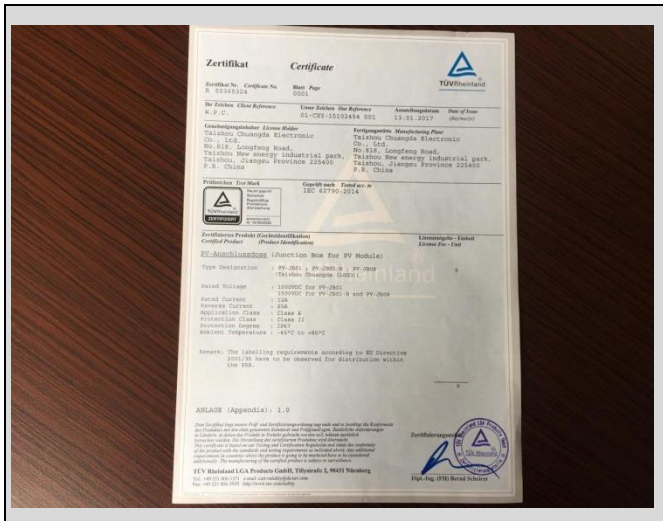
Certificate Photo -- Product Certificate 1



Certificate Photo -- Product Certificate 2



Certificate Photo -- Zertifikat Certificate 1



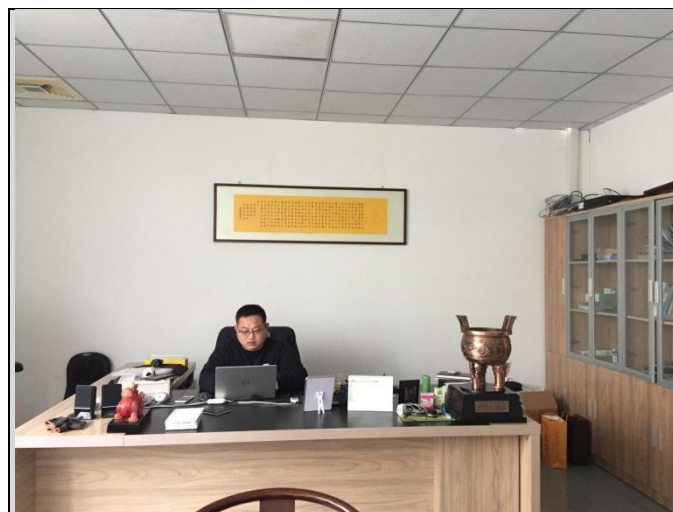
Certificate Photo -- Zertifikat Certificate 2



Company Gate



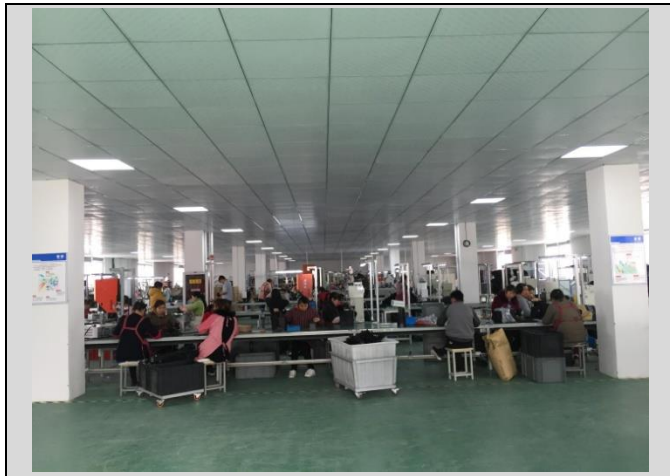
Office



Workshop



Workshop



Warehouse



Warehouse



Product Photo (Junction Box For PV Module)



Product Photo (Junction Box For PV Module)





Product Photo (Junction Box For PV Module)



Product Photo (Junction Box For PV Module)



Product Photo (Connector For Photovoltaic System)



Product Photo (Connector For Photovoltaic System)



-- The END --