WIOSUN®

German Brand

Table of contents

Introduction 3
Vision statements.....5
Mission statements 6
Our brand value 7
About us 8
Our Belief 9
Our core value 10
Our Services 11
History. 12
LOCATION.....13
OUR GOALS 14
Wiosun Production line Plane.....15
Team Summary. 16
Organization chart 17
Why us 18
Main Features of Wiosun's Raw material 19
Custom Features of WIOSUN's PV Panels 20
What's special about 5BB? 21
Why Embedded Power Optimizers ? 22
CERTIFICATE 27
Projects and Sales Reference.....28

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Introduction

WIOSUN FOR RENEWABLE ENERGY LTD.

- We propose you a solar panel made in Jordan with 30 years of German widespread experience and awarded with the National Prize in 2008 and 2012 for Outstanding Innovative Achievement for the trade, we are your specialist for manufacturing, sales, planning, maintenance and
- Qualified professionals who are committed to understanding and serving the needs of our clients.

  WIOSUN is known for the superiority of its services and we are determined to maintain our high standard through continuous improvement of processes and procedures.

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Introduction

WIOSUN is specialist for manufacturing, sales, planning, maintenance and installation of photovoltaic and combined systems.

WIOSUN proposes a solar module made in Jordan with German Technology and awarded for outstanding innovative achievement for the trade, producing two types of PV modules (Mono and Poly PERC Modules)

We are an ISO-9001 certified solar panel manufacturing company with capacity 65MW/Year. The total solar Modules production capacity will reach 100MW/Year.

Our factory based on the German Technology with a very high proficiency in accomplishing the work.

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Vision Statements

Vision

- Accelerate the adoption of solar technology across the world to conserve our environment and provide an environmentally friendly, sustainable and conflict-free power supply.

- In 2025 WIOSUN will become one of the leading international company for large scale

  WIOSUN is known for successfully completing fast-track complex projects.

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Mission Statement

Mission

- At WIOSUN, we put our customers and partners in the center of our attention and treat them with trust, respect and integrity.
- While driving for world-class products, continually improving the quality and environmental friendliness of our products are at the core of WIOSUN values.
- We are committed to comply with international safety, environment and quality standards at all times.

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Our Brand Values

WIOSUN's success is bases on seven basic principles that from the foundation of ethical code:

Quality, Service, Proficiency, Care, Trust and Innovation.

Attention to detail, dedication to perfection, its ability to offer technical, managerial experience on time, quality of working.

About Us.

- **Our Brand WIOSUN®** was founded by Willi Bihler, a solar technology pioneer entrepreneur (Solarzentrum Allgäu KG) and inventor. Although WIOSUN brand was founded in 2009, our experience was awarded with the **National German Prize in 2008 and later on in 2012** for outstanding innovative achievement for the trade.
- Other than providing high-quality and innovative products, there is nothing more important to us **than serving our customers!**

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Our Belief

We believe that success comes from co-operation and people strength.

We put all on service of our customers company resources, experience , knowledge of our people at the service of our customers.

All the opportunities to optimize technologies and to access new market.

By cooperating with our Customer, suppliers, employees, and the community cooperation

We focus our expertise and resources on developing market by - providing , completing valued superior quality

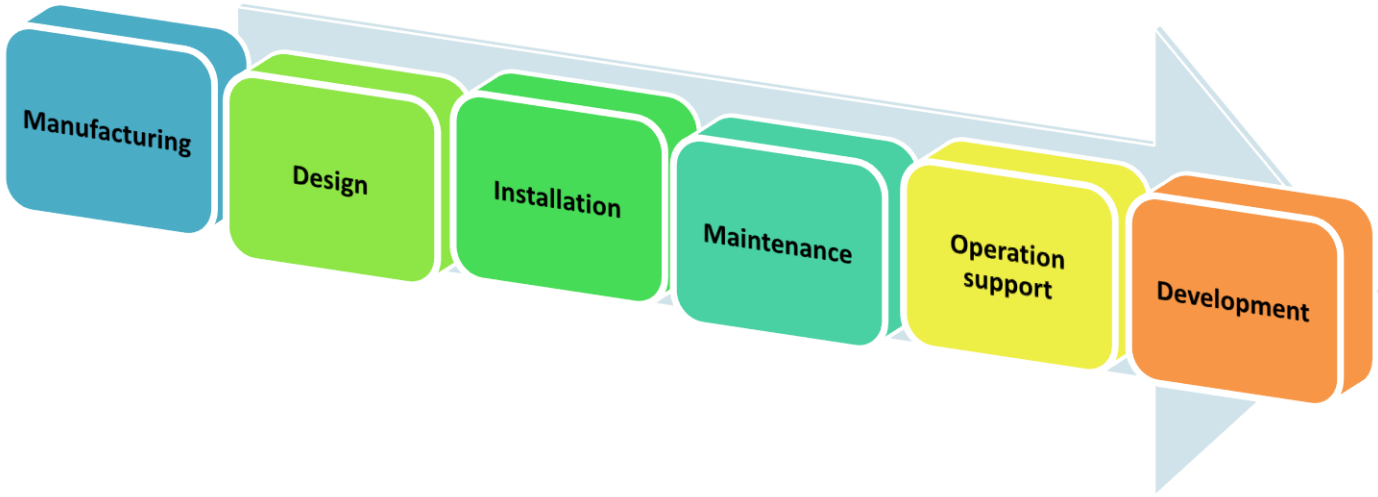
Our Core Values

- Integrity
- Innovation
- Experience
- Quality
- Flexibility
- Profitability

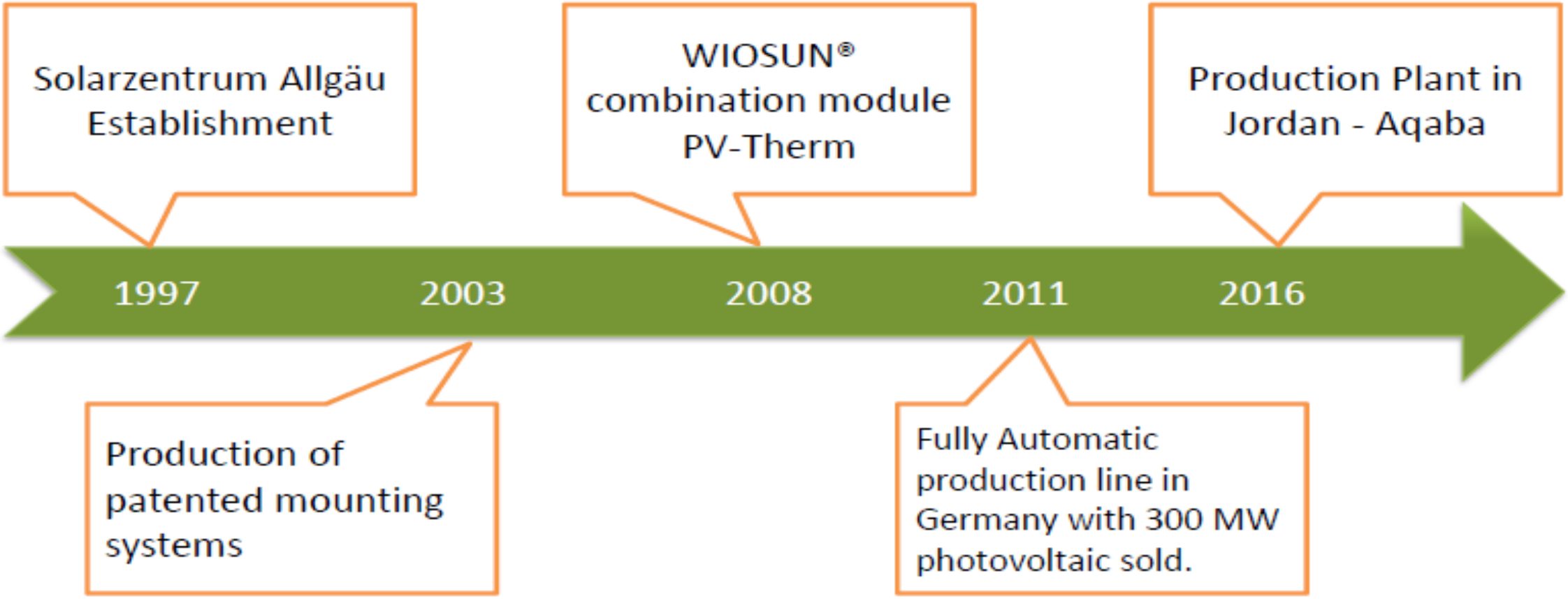
Our Services

We offer a Comprehensive Solutions of Photovoltaic and our showrooms offer the possibility to obtain a comprehensive picture of the fields of application of photovoltaic.

- Design
- Installation
- Maintenance
- Development
- Operation support



History



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LOCATION

Here in **Aqaba – Jordan**, we choose to establish our factory to extend our 30 years of German experience in the production of photovoltaic panels. We transfer the knowledge and the production line of WIOSUN brand to help our very promising market in Middle East as well as WIOSUN valued customers worldwide.

Our company is 2150 square meters on a parcel of 4084 square meters located at a highly supportive economic zone in Aqaba city where the crossroad of three continents.

The port of Aqaba is one of the main ports for importing and exporting goods to and from Iraq. Syria and Jordan.

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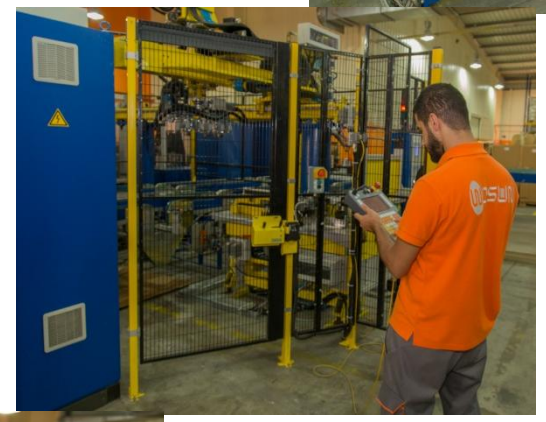
OUR GOALS

•Our main goals are:
* Investing in the latest technologies and equipment utilized to produce photovoltaic modules.
*Deliver high quality and safe product and service that satisfy our customers' requirements.
*Distribute WIOSUN product to our valued customers worldwide.
*Dominate the PV modules market in the Middle East.

• Our Commitment:
*WIOSUN is committed to achieving world-class quality through operational excellence, providing a safe and healthy work environment all times.
*We are fully committed to ensure compliance with the requirements of QMS, internationally accepted practices, standards and applicable legal requirements to achieve the company's goals.



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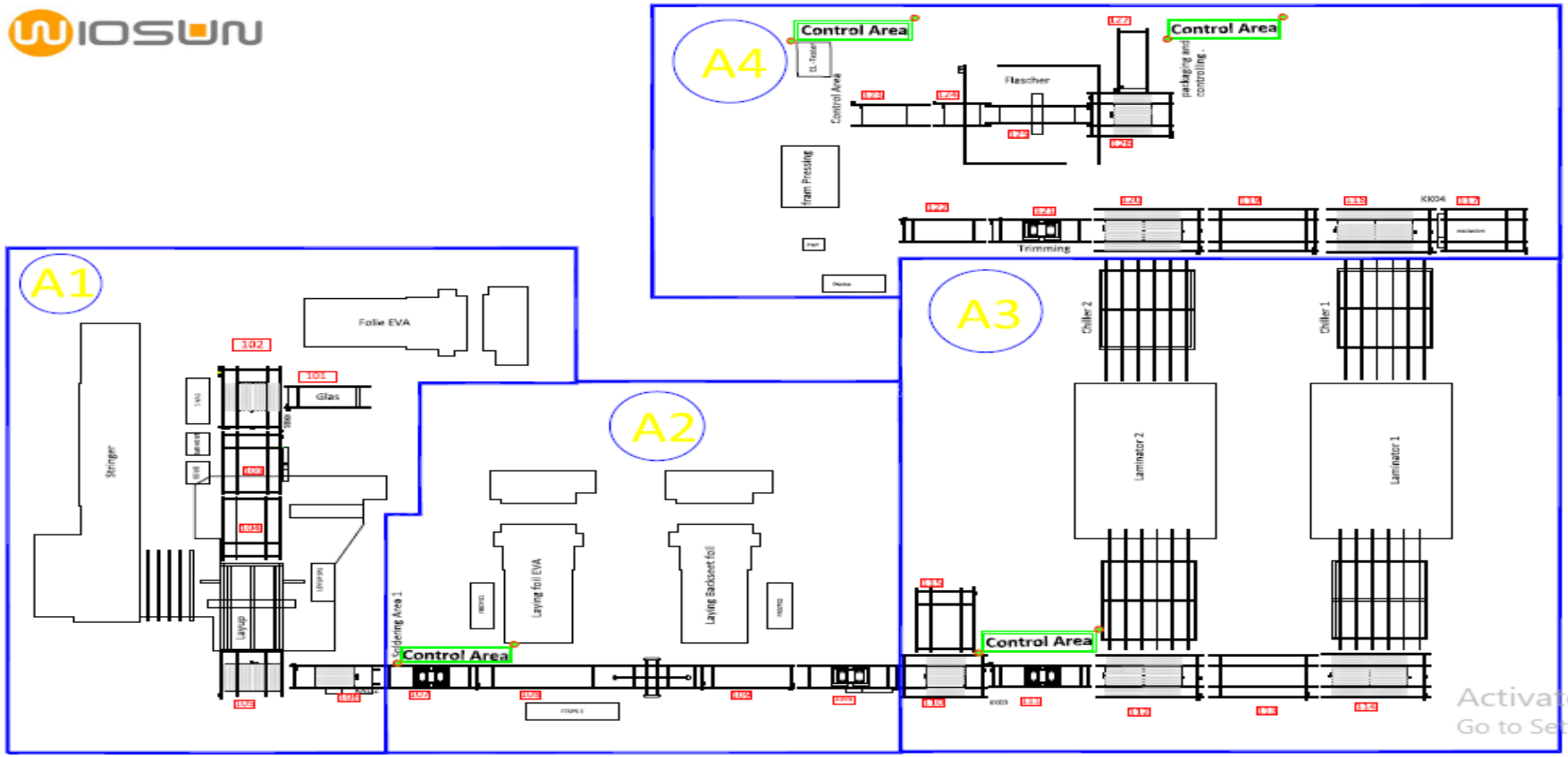
Wiosun Production line Plan



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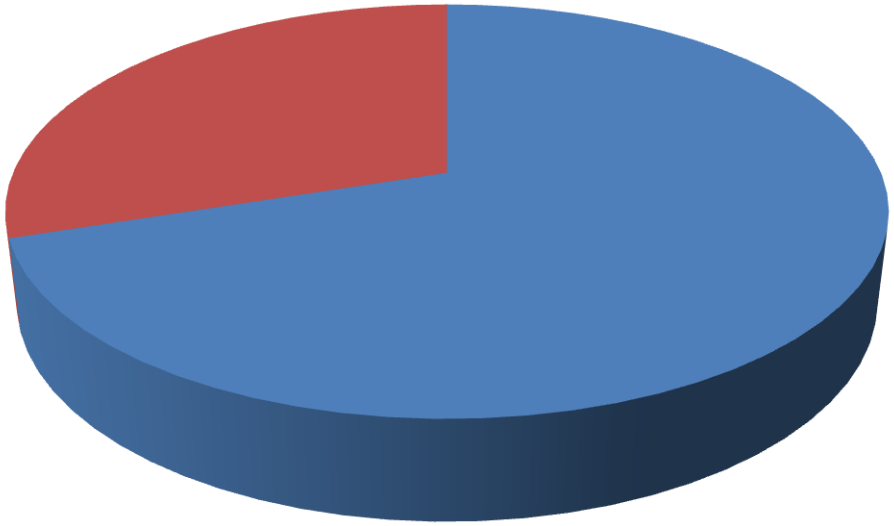
Team Summary.



Employees number more than 35.

Our factory based on the German technology with a very high proficiency and semi automation , so that we have a small number of employees.

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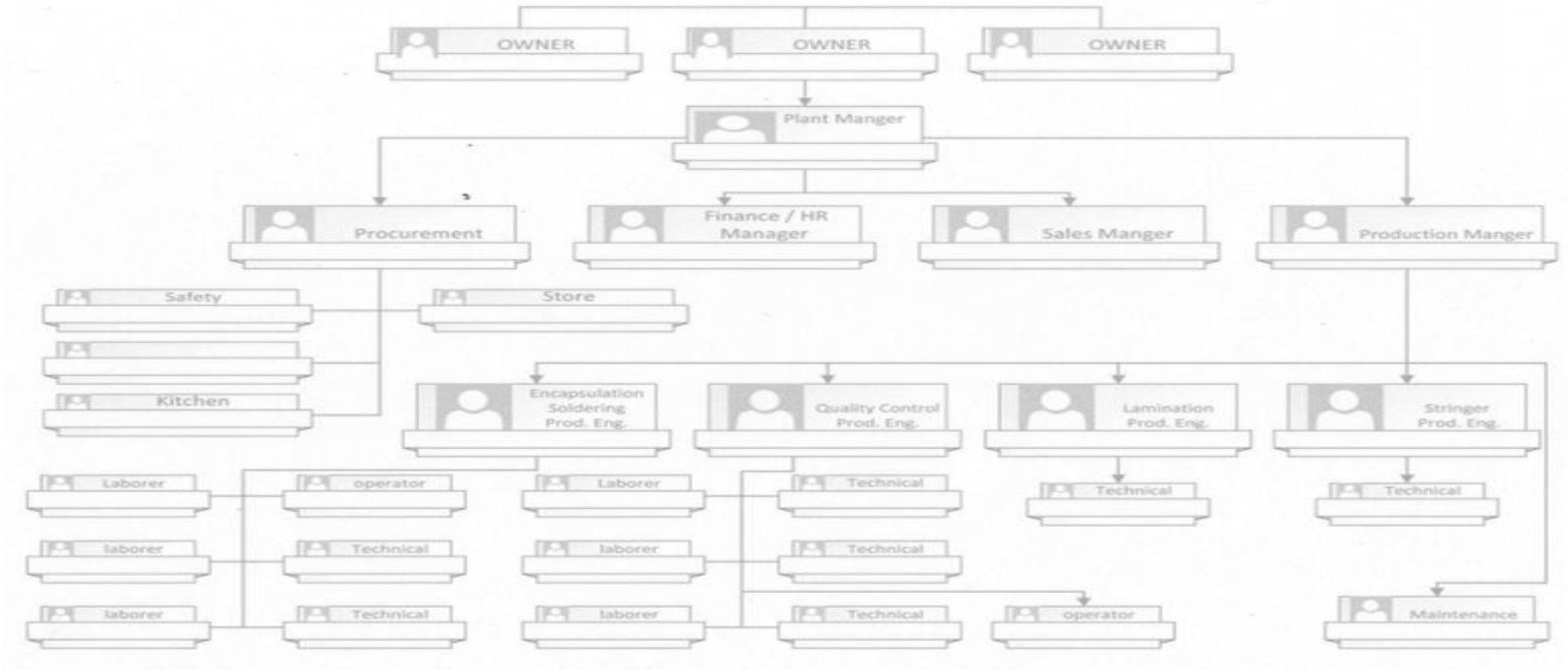
Organization chart



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Why us

- Are only satisfied when you are satisfied.
- Use only high-quality materials.
- Offer individual concepts for a fair price.
- Have over 5000 satisfied customers since 1984.
- Work flexible, reliable and clean.
- Offer a high degree of creativity.
- Are in use worldwide.

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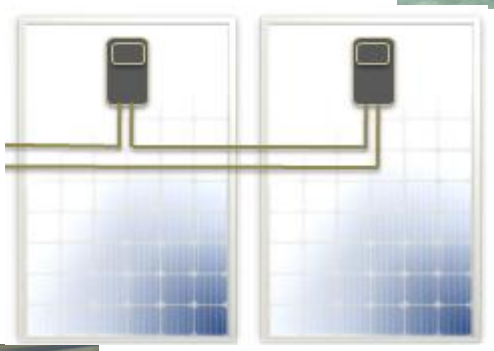
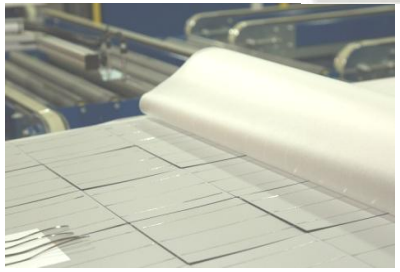
Main Features of Wiosun's Raw material :

- Non-yellowing back sheet that stands **1500V**.
- Junction box voltage level **1500V**.
- All ribbons with **Ag** which provides higher conductivity and reflectivity.





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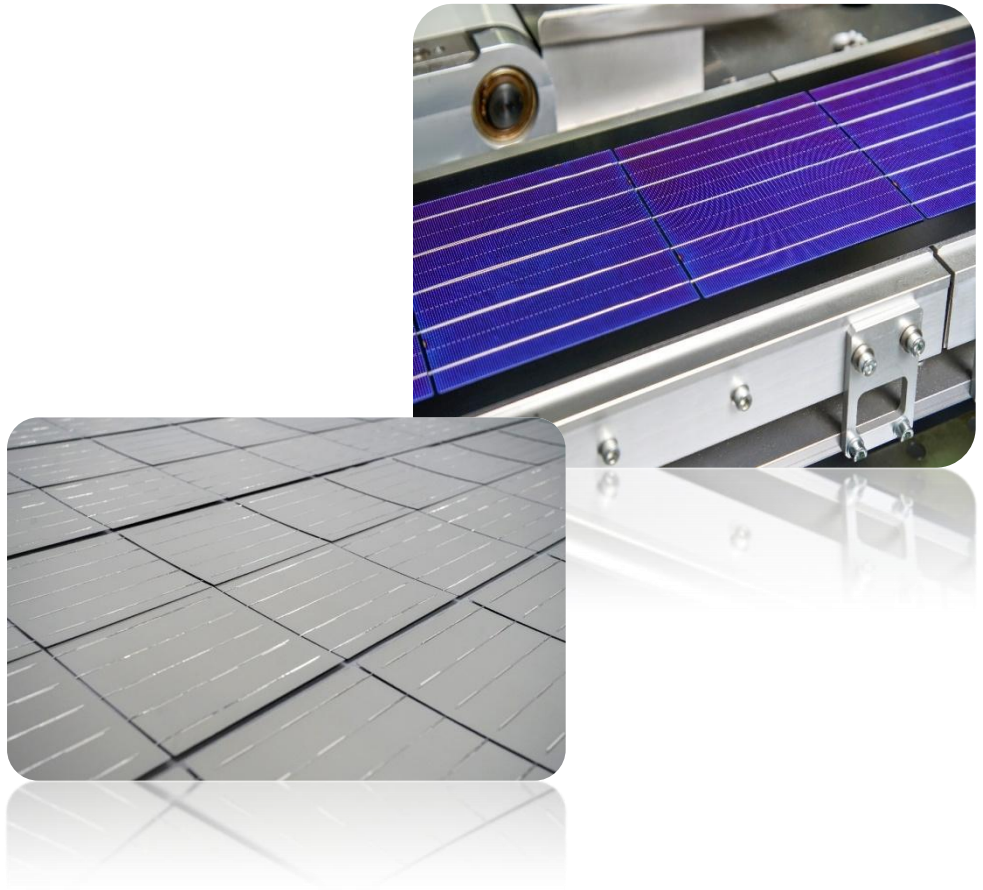
Main Features of Wiosun's Raw material :

- Five bus bars (**5BB**) with Passivated Emitter and Rear Cells (**PERC**).
- **Anti-PID** Cells and EVA (Anti- Potential Induced Degradation).



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Custom Features of WIOSUN's PV Panels

- Embedded **power optimizers**
- **Colored** PV modules
- Preferred **size** PV modules

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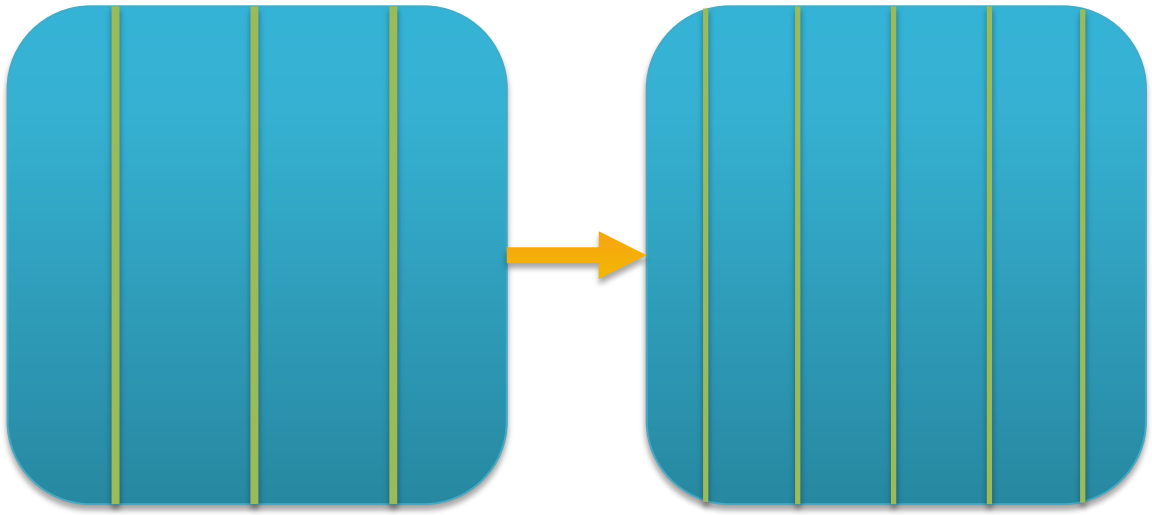
What's special about 5BB?



3BB 5BB

- **Less internal resistance losses** due to shorter effective fingers and less distance between the bus bars.
- Less impacts of **micro cracks**.
- Higher overall **efficiency.**

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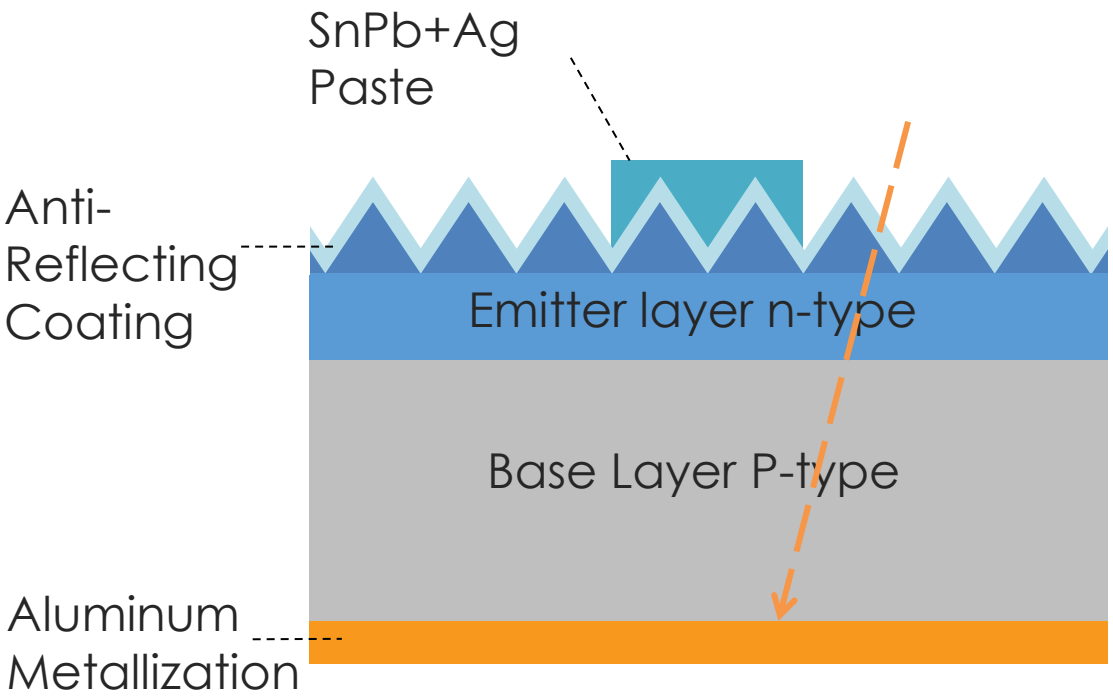
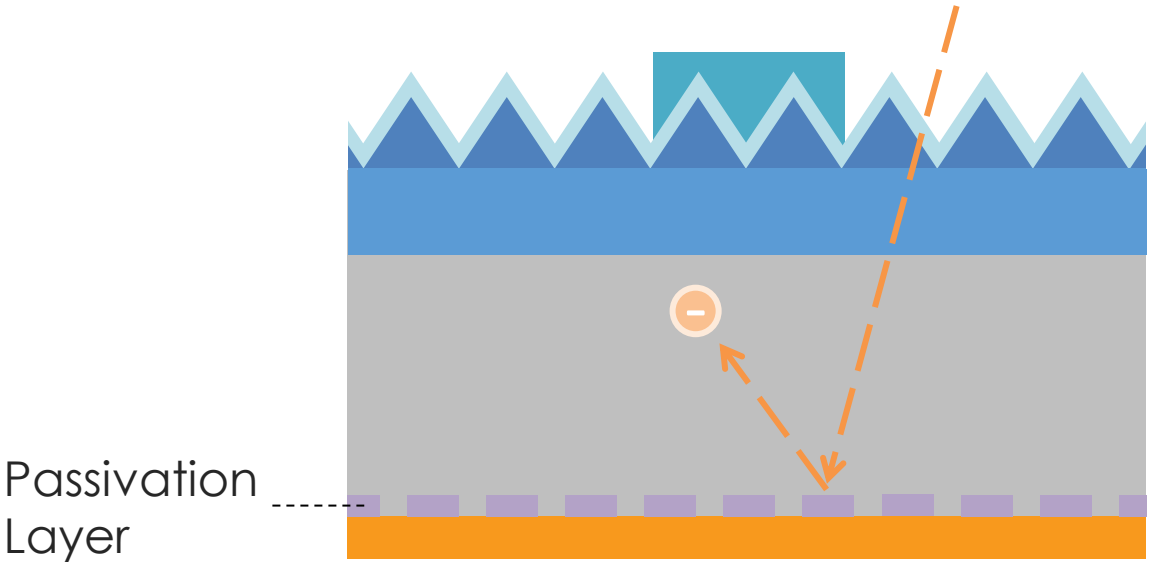
Non-PERC Cell



PERC Cell



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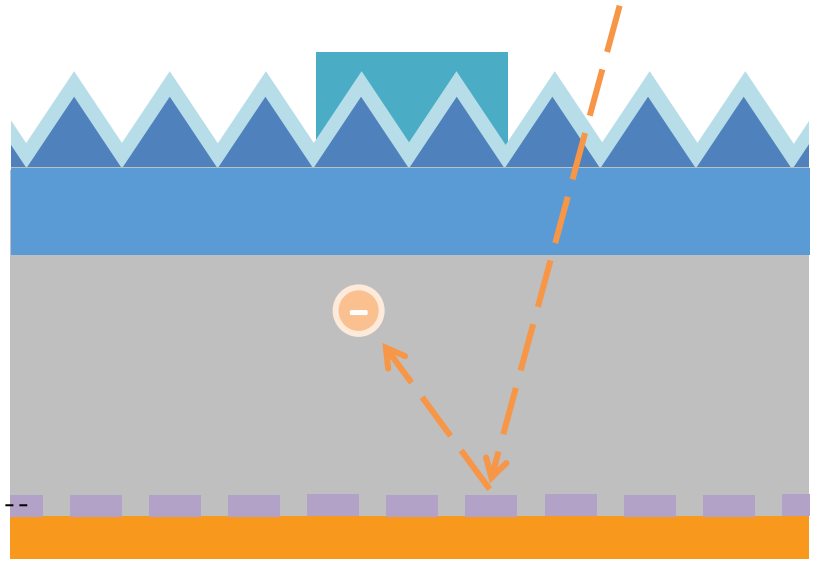
PERC Cell

- Higher cell efficiency results with a higher Module Efficiency.
- PERC Cells captures more light and so generates more power
- Better weak light performance than conventional cells



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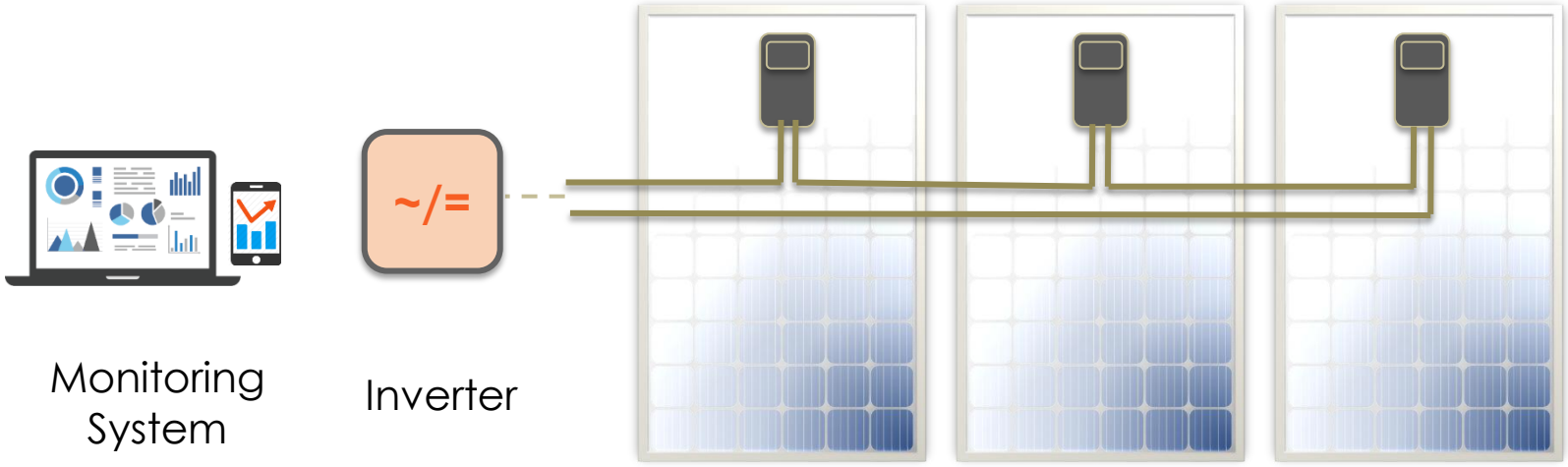
What's a Power Optimizer?

A **power optimizer** is a DC to DC converter technology developed to maximize the energy harvest from solar photovoltaic systems.



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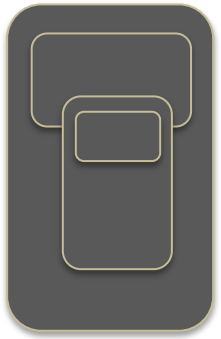
Why Embedded Power Optimizers ?



Power Optimizer

- Maximum power point tracker (MPPT) for each module which will raise the overall efficiency of the system up to 25%.

- Monitor each module separately.

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CERTIFICATE

We serve our customers with highly skilled delivery teams and professional works management experts aided by established Quality Assurance QA) and Quality Management Systems (QMS) to ensure the quality of the deliverable work. The QA/QC team consist of experienced engineers with QMS certification. The QA/QC team conforms to ISO 9001:2015 international We use standards for the execution and implementation of the works.

ISO 9001:2015
Quality Management System

CERTIFICATE

TÜV AUSTRIA

Management System as per
EN ISO 9001 : 2015

In accordance with TÜV AUSTRIA procedures, it is hereby certified that

WIOSUN FOR RENEWABLE ENERGY
Aqaba International Industrial Estate Aseza
77110 AQABA - JORDAN

Applies a Quality Management System in line with the above Standard for the following Scope

MANUFACTURING AND DEVELOPING PHOTOVOLTAIC SILICON MODULE USING CELLS TECHNOLOGY (MONO AND POLY - PERC AND NONPERC) 3BB AND 5BB IN TWO SIZE 60 AND 72 CELLS.

Certificate Registration No.: 05183860066923

Valid until: 2021-03-14

Head of Management Systems & Products Certification Division

Certification Body
at TÜV AUSTRIA

Athens, 2018-03-15

This certification was conducted in accordance with TÜV AUSTRIA auditing and certification procedures and is subject to regular surveillance audits.

TÜV AUSTRIA HELLAS
Athens, Greece

TÜV AUSTRIA GROUP

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CERTIFICATE

Jordan Standards and Metrology Organization (JSMO)
www.jsmo.gov.jo

Certification Department
A Product Certification Body operating according to
ISO/IEC 17065:2012

has granted this

Jordan Quality Mark Certificate

No.: JQM181401

for the product

"Monocrystalline photovoltaic Modules" for the trademark "WIOSUN"

which is produced by

WIOSUN FOR RENEWABLE ENERGY

P.O Box 1288 Aqaba 77110 Jordan

After the organization has fulfilled all the requirements of granting Jordan Quality Mark for its product according to Jordan Quality Mark instructions no.:3:2016 including the conformity of product to the technical requirements JQM-TR 111:2019

"Photovoltaic (PV) modules"

Hence, this organization is entitled to label its product with Jordan Quality Mark logo

Quality Mark
JQM181401

Issue Date : June16, 2019
Expiry Date : June15, 2022

Provided that the preconditions for the certification still exist

Certification Department Director
Eng. Tamara Qatarneh

Acting Director General
Yousef Al-Shamali

Jordan Standards and Metrology Organization (JSMO)
www.jsmo.gov.jo

Certification Department
A Product Certification Body operating according to
ISO/IEC 17065:2012

has granted this

Jordan Quality Mark Certificate

No.: JQM181402

for the product

"Polycrystalline photovoltaic Modules" for the trademark "WIOSUN"

which is produced by

WIOSUN FOR RENEWABLE ENERGY

P.O Box 1288 Aqaba 77110 Jordan

After the organization has fulfilled all the requirements of granting Jordan Quality Mark for its product according to Jordan Quality Mark instructions no.:3:2016 including the conformity of product to the technical requirements JQM-TR 111:2019

"Photovoltaic (PV) modules"

Hence, this organization is entitled to label its product with Jordan Quality Mark logo

Quality Mark
JQM181402

Issue Date : June16, 2019
Expiry Date : June15, 2022

Provided that the preconditions for the certification still exist

Certification Department Director
Eng. Tamara Qatarneh

Acting Director General
Yousef Al-Shamali

info@wiosun.co

Projects and Sales Reference

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Wiosun Projects in Germany

info@wiosun.co

Wiosun Projects in Jordan

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WIOSUN Projects in Iraq

info@wiosun.co

Projects and Sales Reference

Year	Total kWp Installed	Top Projects (Customers)	
1999-2003	10000		
2004	2687	Kögelsen. (Residential)	100 kWp
		Höfler (Residential)	75 kWp
		Karg (Residential)	60 kWp
2005	2726	Mair Alois (Residential)	140 kWp
		Bestler Ulrich (Residential)	130 kWp
		Zengerle Arno (Residential)	60 kWp
2006	2174	Schießel Heinrich (Residential)	120 kWp
		Roggors Johannes (Residential)	80 kWp
		Zierof Willi (Residential)	60 kWp
2007	4055	HLO Elektroplanung (Commercial)	360 kWp
		Pro Metall Fr. Hofer (Commercial)	310 kWp
		EVO Oberstdorf (Commercial)	170 kWp
2008	10098	Rudolf Markus (Residential)	220 kWp
		Sohmen Gerhard (Residential)	210 kWp
		Kühnel Robert (Residential)	130 kWp

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Projects and Sales Reference

Year	Total kWp Installed	Top Projects (Customers)	
2009	8107	Bürgerstrom MOD (Commercial)	260 kWp
		Kugelmann Sepp (Commercial)	170 kWp
		Agrarg. Gospersgrün (Commercial)	160 kWp
2010	12364	Höbel Werner (Commercial)	287 kWp
		Wiedenmann Reinhard (Residential)	278 kWp
		Pfanzelt Paul (Commercial)	255 kWp
2011	9810	Resele Andreas (Commercial)	970 kWp
		Pauli Wolfgang (Residential)	390 kWp
		Brandner Hans (Commercial)	240 kWp
2012	5111	Filser Zimmerei (Commercial)	410 kWp
		Pfanzelt Paul (Commercial)	380 kWp
		WaDaTech(Commercial)	210 kWp
2013	1717	Explorer Hotel (Commercial)	170 kWp
		Pfanzelt Paul (Commercial)	160 kWp
		Bayrhof Hans-Karl (Residential)	90 kWp
2014	690	Pfanzelt Paul Maschinenbau (Commercial)	150 kWp
		Pfanzelt Paul Maschinenbau Extension (Commercial)	125 kWp
		Scheibel Josef GmbH & Co. KG (Commercial)	100 kWp
2015	50		
Total kWp Installed	78589		

info@wiosun.co

WIOSUN FOR RENEWABLE ENERGY Ltd

Address: PBI Aqaba Industrial Estate LLP. In front of King Hussein International Airport .

Aqaba – Jordan

P.O.Box : 1288

Postal Code: 77110

Telephone : +962 3 203 4333 | +962 792675295

Fax : +962 3 203 4332

E-mail: info@wiosun.co

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