
DAXLER
Energy

Daxler Energy

Energise your Business

Daxler Energy manufactures photovoltaic panels in its massive factory of 100,000 square meters in Konya's 4th Organised Industrial Zone.

Applying artificial intelligence and Micro Gap technologies in a fully automated production line we manufacture high quality and efficient 158.75, 166,18X and 210 cells as well as Mono/Poly, PERC, Non Destructive Cut, 1/2 Half-Cut Cells and 1/3 Triple Cut Cells, Bifacial, Glass-Glass new generation solar panels.

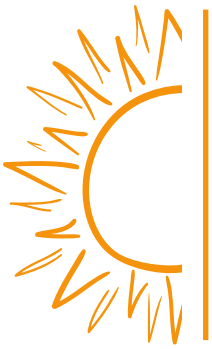
With our module production capacity reaching 1 GW, we have an important position in the domestic as well as export Markets.

Daxler Energy will **"Energise Your Business!"** with its innovative structure, fast production capabilities and high quality - high efficiency solar panels.


DAZLER

Why Solar Energy?

• Solar energy is the cleanest and most environmentally friendly source known. It is fundamental for the protection of our earth.
• It is an efficient and economical way to reduce human carbon footprint.
• Conventional electricity generation relies heavily on fossil fuels such as coal and natural gas. Since these resources are finite and non-renewable, price stability cannot be achieved. Solar energy is endless and contributes positively to market stability in energy prices.
• It protects the consumer against unpredictable increases in grid prices; it gives you independence. You are in control of your energy consumption and can thus keep your cost under control.
• You can install your solar modules on idle non-agricultural land as well as factory rooftops.
• Transmission cost and network losses are not affected as long-distance transmission is not required.



Get your solar energy with Daxler!

With Daxler Energy Photovoltaic Solar Panels, you can meet all or most of your business' energy needs.

• You can produce extra income by selling the surplus energy to the National Grid.

• In Off-Grid systems, you can dispose of the generator and have no fuel costs. You can irrigate your fields and provide electricity to your Business as well as home.

• By using sustainable energy, you increase the investment value of your business, land and home.

• You can benefit from many tax exemptions as well as grants and incentives and keep your production costs constant without thinking about the possible hikes in electricity prices.

• While doing all of these, you leave less carbon footprint and provide your own energy without polluting the environment.

• Daxler Energy solar panels mean a sustainable future for you and the world.

Why Daxler Energy?

OPERATIONAL ADVANTAGES

- 1 GW production capacity
- High quality production at affordable price.
- High customer satisfaction thanks to fully automated production lines with the latest technologies
- 12 years product warranty and 25 years linear performance warranty

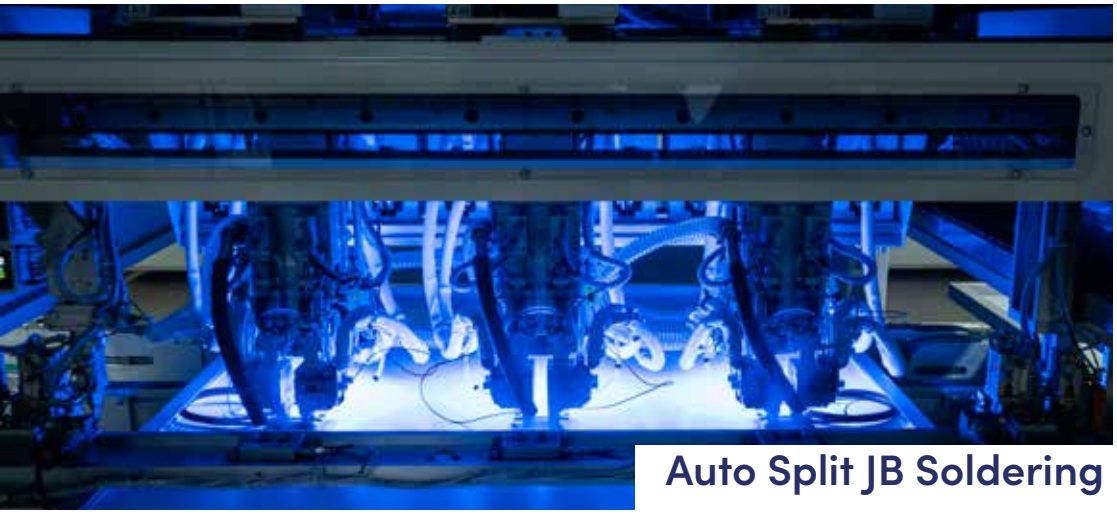
TECHNOLOGICAL ADVANTAGES

- String control with artificial intelligence
- EL test at string level
- Minimum panel flexibility, high insulation, long life span thanks to the use of silicone at the frame joints
- IP68 protection with potting junction box
- Thin block split JB
- Minimised risk of micro-fractures with NDC (Non Destructive Cutting) technique
- Optimum panel size, minimum cell stress with micro gap technique
- 12 years product warranty and 25s years linear performance warranty

Non-Destructive Cutting

High Accuracy Robotic Control

High Speed Stringer with
AI+Micro Gap+Optical Inspection+EL Imagine



Auto Split JB Soldering

3 Stage EL Control

High Precision Layup

On Grid (Grid Connected Systems)

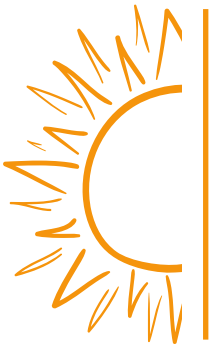
Industrial Rooftop Solar Energy System Applications

- You can create the optimum model for your industrial roofs with Daxler panels with a wide product range.
- Thanks to the panels mounted on the factory roofs, a significant part of the energy demand of the enterprises is met
- It may even provide additional income for your business by selling your surplus energy to the relevant institutions (Power Grids).
- Roof SPP investments pays for themselves in less than 5 years and their electricity consumption is recorded in profit.

The basic need of the Industry is to produce its own Energy.
It reduces your worries abut electricity bills by installing solar panels in your factory, industrial facilities. How much you save on your electricity bill will depend on the utility power usage and the size of the solar system to be installed based on your roof space.
The maximum number of panels you will use in relation to your roof size is an effective factor in energy production. As a result of offsetting, the surplus electricity is given to the grid and a profit is obtained.

Significant Investment Payback Time
A solar panel investment has a better payback period compared to fixed assets, machinery and equipment. Moreover, solar panel investments can be made within the scope of the incentive certificates.

Low Maintenance Cost
Rooftop solar panels require much less maintenance than plant and machinery. They have service life of more than 25 years if properly maintained.



Greenhouse/Livestock/ On Grid System

Install Solar Energy Systems (SES) in your greenhouses and livestock farms, produce your own electricity with Eco-Friendly advanced technology Daxler Solar Panels.

The greenhouses and livestock industry have unique and critical energy and water needs. You can meet your irrigation and different energy needs with the energy you get from the Sun. You can invest in solar energy in your farm and greenhouses with the support of Agriculture and Rural Development Support/IPARD Programme.

Daxler Solar Panels are an important part of the design in deciding, preliminary evaluation, planning, development and application of such systems working with solar energy.

As you meet the energy you need with the system you will install, you will also have the opportunity to sell the excess electricity thus produced. Considering that the food prices are constantly increasing, the decrease in energy costs and the income that the farmers will receive from energy sales will have a reducing effect on food inflation.

Off Grid

(Grid Independent System)

Solar Powered irrigation system (SPIS)

Daxler Energy Solar Panels for a sustainable future: Clean energy, Low Emissions, Right Choice for irrigation improvement and modernisation.
In our era of drought, increasing agriculture productivity and income will also increase the capacity of farmers to adapt to the effects of global warming. Solar powered systems will be the ideal choice for irrigation of agricultural lands outside the energy network.

Solar Powered Irrigation Systems
Greenhouse gas emissions will be reduced, enabling the development of irrigated agriculture and low emission irrigation. It provides a reliable source of energy to off-grid areas thus reducing irrigation costs with rural electrification. Since this is a sustainable model, it has a regulatory effect.

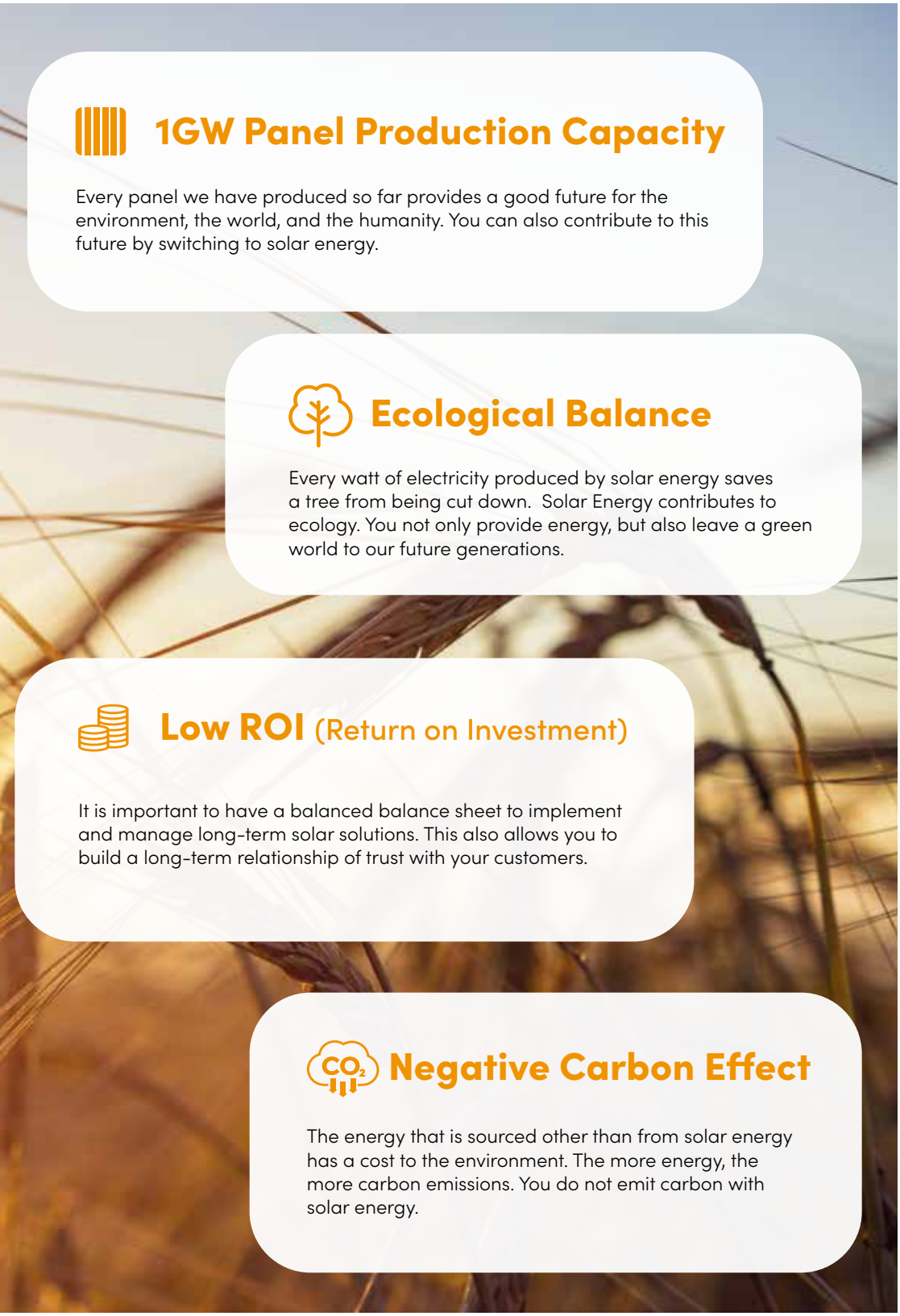
Use Green Energy and Reduce Emissions to Carbon Dioxide
Using PV energy instead of electricity produced from fossil fuels is a smarter and more sustainable decision in terms its economical return and environmental impact.

Safe Investment
Instability, uncertainty and fluctuations in electricity prices continue unabated. In these uncertain times we are living in, it becomes difficult to calculate electricity consumption and its cost to the production. The price of electricity produced by solar panels on land or roofs is easily calculated. Even with simulated values, the cost of solar electricity generation with long-time projection can be calculated. In this way, it is a safe investment.

Daxler Energy

For a sustainable future...

We don’t just use it as a slogan: we leave our mark on the world with every solar panel we make. We follow creative concepts and grow with each customer in our goal of leaving a better world for our future generation. We guarantee the current and future energy needs of our customers with high-quality technology.



1GW Panel Production Capacity

Every panel we have produced so far provides a good future for the environment, the world, and the humanity. You can also contribute to this future by switching to solar energy.

Ecological Balance

Every watt of electricity produced by solar energy saves a tree from being cut down. Solar Energy contributes to ecology. You not only provide energy, but also leave a green world to our future generations.

Low ROI (Return on Investment)

It is important to have a balanced balance sheet to implement and manage long-term solar solutions. This also allows you to build a long-term relationship of trust with your customers.

Negative Carbon Effect

The energy that is sourced other than from solar energy has a cost to the environment. The more energy, the more carbon emissions. You do not emit carbon with solar energy.

NDC Technology

Best cell performance with non-destructive cutting technology

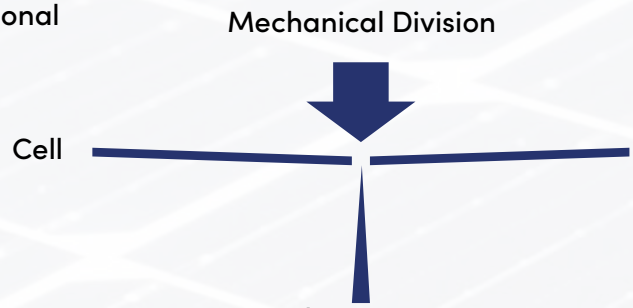
In conventional cell cutting processes, the cell surface is first exposed to a high temperature of over 1500°C by laser. After the laser reaches a certain depth, the cell is separated along the laser line under mechanical stress. As the decomposition in the cell takes place under a mechanical effect, micro-cracks are likely to occur in this technique.

Daxler Energy uses non-destructive cutting technology. This technology, called NDC, is mainly based on low-temperature laser management based on the principle of thermal expansion and contraction. In cells exposed to cold laser at low temperature during cutting, a natural decomposition occurs with thermal stress instead of mechanical decomposition. With NDC, a smoother cell section is obtained without the risk of micro-cracks. The mechanical strength of the cells obtained by cutting with the NDC technique is also high.

Traditional Cut

Clear contoured rough section

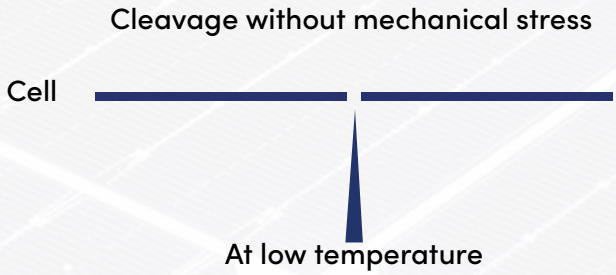
Cell cutting in conventional cutting



NDC Cutting

Smooth cut surface without cracks

Cell section in NDC non-destructive cutting.



MBB Technology

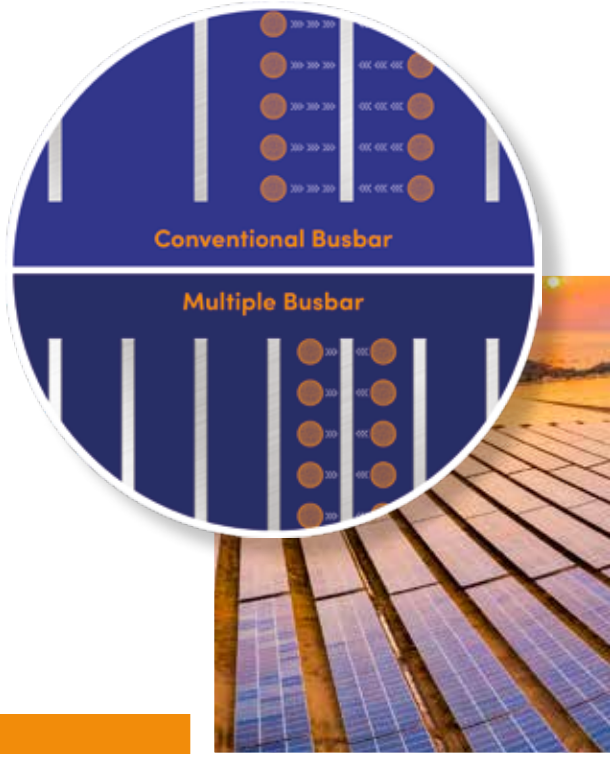
More module efficieny with Multibusbar technology

With MBB technology, the radiation reaches the busbar paths in a shorter distance.

Increasing the number of busbars comes first among the design optimisations made to increase module efficiency. Increasing the number of busbars also shortens the cumulative distance taken by the photons on the cell surface, and the current in the ribs is minimised.

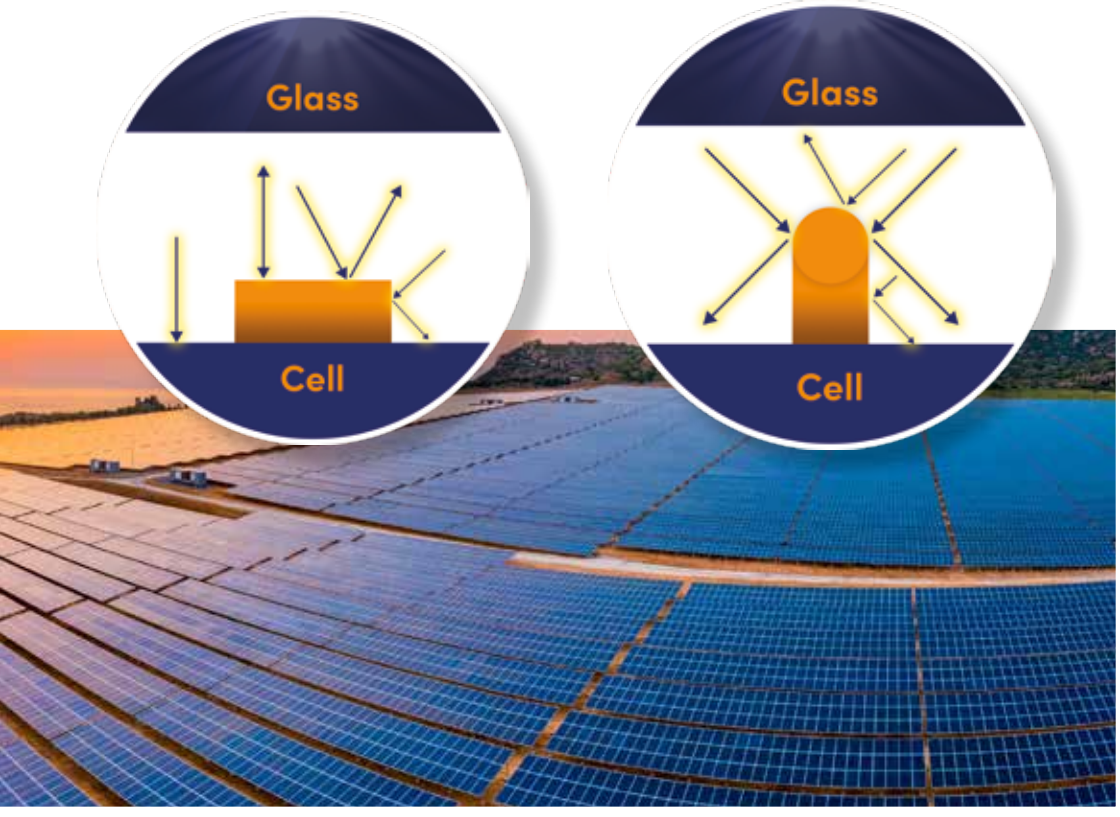
Thanks to the multiple busbar structure, the internal resistance losses are also reduced by shortening the distance between busbars.

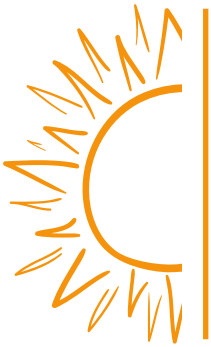
MBB technology also has a reducing effect on the formation of micro cracks between the busbars.



Round Ribbon Technology

Round ribbon technology
that leaves





High Precision Micro Gap Technology

Micro-gap technology enables more precise adjustment of the gap between cells and optimizes them.

Adjacent cell spacings are around 2 mm. To increase module efficiency, more cells must be placed on the limited light receiving surface of the panel.

Depending on the advances in ribbon applications and soldering technologies, Daxler Energy makes a positive contribution to CSF costs with its effect on the panel dimensions, with the effect of more effective encapsulation by optimising the distance between the cells by using the micro gap technique in its stringers.

- **Savings in BOS**
- **Optimum Application Solutions**
- **More reliable cell-to-cell distance**

Solar Panels

DAXLER
Energy

WM10-144-HC

535-550W MBB

As Daxler, we have started the pioneering of high efficiency module production using new cell technologies. We designed new 182mm cell modules with Multi-Busbar and Half-Cut technologies. In our state-of-the-art new production line we have maximized module efficiency and power output.

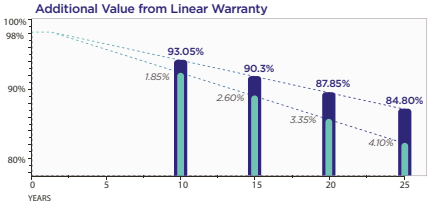
QUALITY SYSTEM

ISO9001 – ISO14001 – ISO45001

PRODUCT CERTIFICATES

In process

POWER GUARANTEE



KEY FEATURES

- EL Test at 3 points starting from Stringer to get the best quality.
- Thanks to micro gap technologie; cell gap and cell stress reduction, gain in module efficiency.
- Less power loss by minimizing the ghosting effect.
- High performance in low light.
- Ideal choice for utility and commercial scale projects Approved by TÜV
- High accurity sensitive sun similator PASAN A+ A+ A+ (Meyer Burger)
- Reduced BOS and improve ROI

HARSH ENVIRONMENTAL CONDITIONS

- Resistance to Sand, acid and hailstones. 2400pa wind load and 5400pa snow load.

DAXLER Energy

ELECTRICAL CHARACTERISTIC

Modul TYP / Module Type	WM10-144-HC			
Maximum Power at STC	535	540	545	550
Open Circuit Voltage (Voc)	49,40	49,50	49,82	49,96
Short Circuit Current (Isc)	13,70	13,81	13,85	13,94
Maximum Power Voltage (Vmp)	41,29	41,55	41,85	42,19
Maximum Power Current (Imp)	12,96	13,00	13,03	13,04
Module Efficiency %	20,70%	20,89%	21,09%	21,28%
Power Tolerance	0, -+5W			
Maximum System Voltage	1500V DC			
Maximum Serie Fuse Rating	25 A			

STC: Irradiance 1000 W/m2, Cell temperature 25°C, Air Mass AM=1.5
NOCT : Irradiance 800W/m2, Ambient temperature 20°C, Air Mass AM=1,5, Wind speed : 1 m/s
Power measurement tolerance: +/-3%

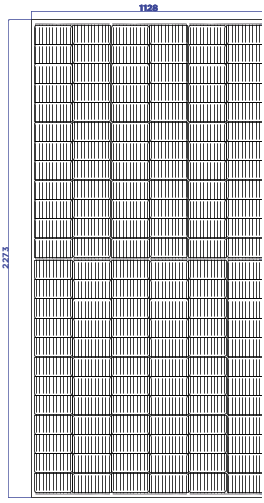
MECHANICAL PROPERTIES

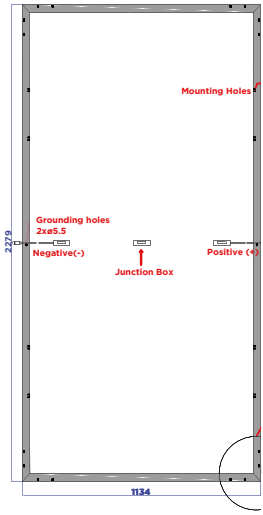
External Dimensions	2279 x 1134 x 35 mm	
Weight	26,5 kg	
Solar Cells	PERC Mono 182 x 91mm (144 pcs)	
Glass	3.2 mm AR coating tempered glass, low iron	
Frame	Anodized aluminum alloy	
Junction Box	3 Diodes	
Output Cables	4.0 mm2, (+)250/(-)350mm (Portrait) or (+)1300/(-)1350 mm (Landscape)	
Connectors	Stäubli MC4 EVO2	
Max. Test Load	Front side 5400Pa / Rear side 2400Pa	incl. Safety Factor of 1,5

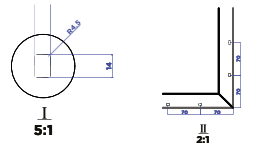
TEMPERATURE COEFFICIENTS

Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

MECHANICAL DIMENSIONS





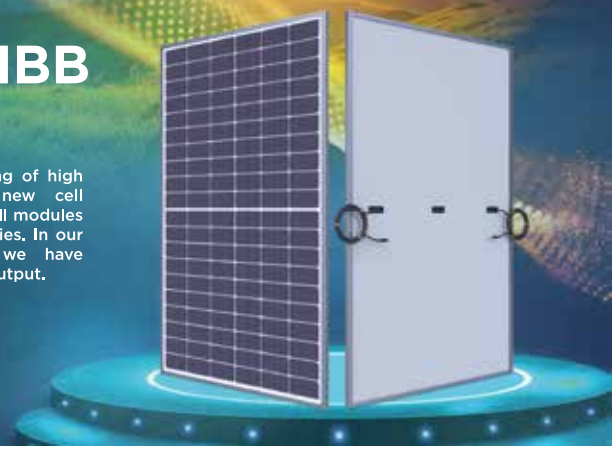


DAXLER Energy

WM10-120-HC

440-455W MBB

As Daxler, we have started the pioneering of high efficiency module production using new cell technologies. We designed new 182mm cell modules with Multi-Busbar and Half-Cut technologies. In our state-of-the-art new production line we have maximized module efficiency and power output.



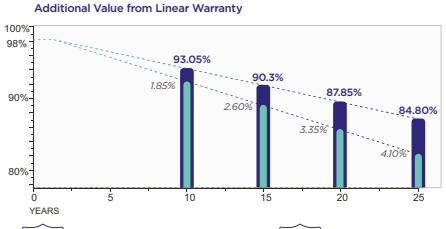
QUALITY SYSTEM

ISO9001 – ISO14001 – ISO45001

PRODUCT CERTIFICATES

TÜV SÜD | TSE | UL In process | CE

POWER GUARANTEE



12 Jahre — Guarantee on product material and workmanship

25 Jahre — Linear power output warranty

KEY FEATURES

- EL Test at 3 points starting from Stringer to get the best quality.
- Thanks to micro gap technologie; cell gap and cell stress reduction, gain in module efficiency.
- Less power loss by minimizing the ghosting effect.
- High performance in low light.
- Ideal choice for utility and commercial scale projects Approved by TÜV
- High accurity sensitive sun similator PASAN A+ A+ A+ (Meyer Burger)
- Reduced BOS and improve ROI

HARSH ENVIRONMENTAL CONDITIONS

- Resistance to Sand, acid and hailstones. 2400pa wind load and 5400pa snow load.
- Anti-PID

DAXLER Energy

ELECTRICAL CHARACTERISTIC

Modul TYP / Module Type	WM10-120-HC			
Maximum Power at STC	440	445	450	455
Open Circuit Voltage (Voc)	41,02	41,4	41,6	41,8
Short Circuit Current (Isc)	13,54	13,60	13,66	13,72
Maximum Power Voltage (Vmp)	34,8	35	35,2	35,4
Maximum Power Current (Imp)	12,64	12,71	12,78	12,85
Module Efficiency %	20,31%	20,55%	20,78%	21,01%
Power Tolerance	0, -+5W			
Maximum System Voltage	1500V DC			
Maximum Serie Fuse Rating	25 A			

STC: Irradiance 1000 W/m2, Cell temperature 25°C, Air Mass AM=1.5
NOCT : Irradiance 800W/m2, Ambient temperature 20°C, Air Mass AM=1,5, Wind speed : 1 m/s
Power measurement tolerance: +/-3%

MECHANICAL PROPERTIES

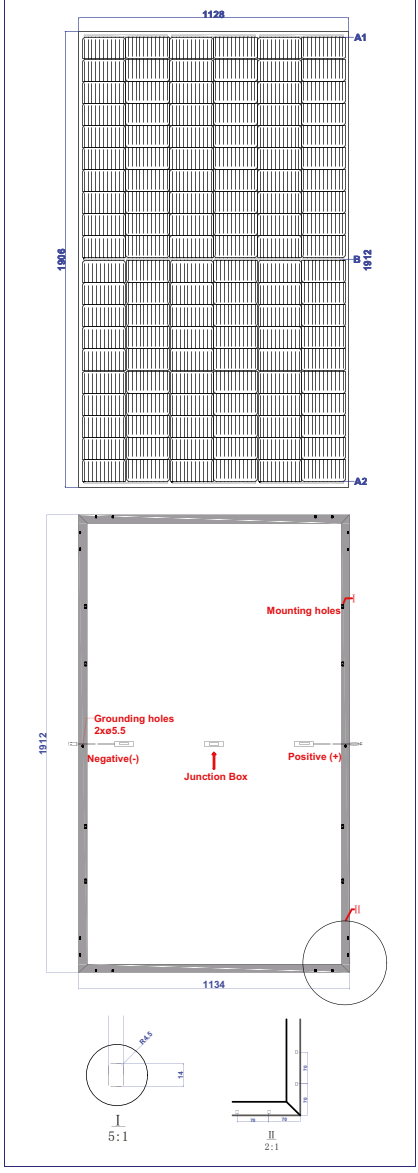
External Dimensions	1912x 1134 x 35 mm
Weight	24,2 kg
Solar Cells	PERC Mono 182 x 91mm (120 pcs)
Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	3 Diodes
Output Cables	4.0 mm2, (+)250/(-)350mm (Portrait) or (+)1300/(-)1350 mm (Landscape)
Connectors	Stäubli MC4 EVO2
Max. Test Load	Front side 5400Pa / Rear side 2400Pa | incl. Safety Factor of 1,5

TEMPERATURE COEFFICIENTS

Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

STC: Standard Test Conditions
NTC: Nominal Operating Cell Temperature

MECHANICAL DIMENSIONS



DAXLER
Energy

WM10-108-HC

390-405W MBB

As Daxler, we have started the pioneering of high efficiency module production using new cell technologies. We designed new 182mm cell modules with Multi-Busbar and Half-Cut technologies. In our state-of-the-art new production line we have maximized module efficiency and power output.

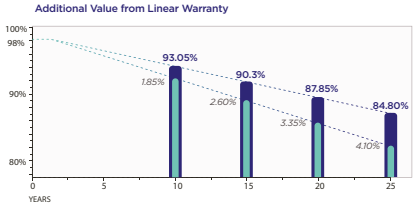
QUALITY SYSTEM

ISO9001 – ISO14001 – ISO45001

PRODUCT CERTIFICATES

In process

POWER GUARANTEE



12 Jahre — Guarantee on product material and workmanship

25 Jahre — Linear power output warranty

KEY FEATURES

- EL Test at 3 points starting from Stringer to get the best quality.
- Thanks to micro gap technologie; cell gap and cell stress reduction, gain in module efficiency.
- Less power loss by minimizing the ghosting effect.
- High performance in low light.
- Ideal choice for utility and commercial scale projects Approved by TÜV
- High accurity sensitive sun similator PASAN A+ A+ A+ (Meyer Burger)
- Reduced BOS and improve ROI

HARSH ENVIRONMENTAL CONDITIONS

- Resistance to Sand, acid and hailstones. 2400pa wind load and 5400pa snow load.
- Anti-PID

DAXLER Energy

ELECTRICAL CHARACTERISTIC

Modul TYP / Module Type	WM10-108-HC			
Maximum Power at STC	390	395	400	405
Open Circuit Voltage (Voc)	36,9	37,01	37,12	37,22
Short Circuit Current (Isc)	13,40	13,50	13,60	13,70
Maximum Power Voltage (Vmp)	30,59	30,69	30,81	30,93
Maximum Power Current (Imp)	12,78	12,88	12,99	13,1
Module Efficiency %	20,17%	20,42%	20,68%	20,94%
Power Tolerance	0, -+5W			
Maximum System Voltage	1500V DC			
Maximum Serie Fuse Rating	25 A			

STC: Irradiance 1000 W/m2, Cell temperature 25°C, Air Mass AM=1.5
NOCT : Irradiance 800W/m2, Ambient temperature 20°C, Air Mass AM=1,5, Wind speed : 1 m/s
Power measurement tolerance: +/-3%

MECHANICAL PROPERTIES

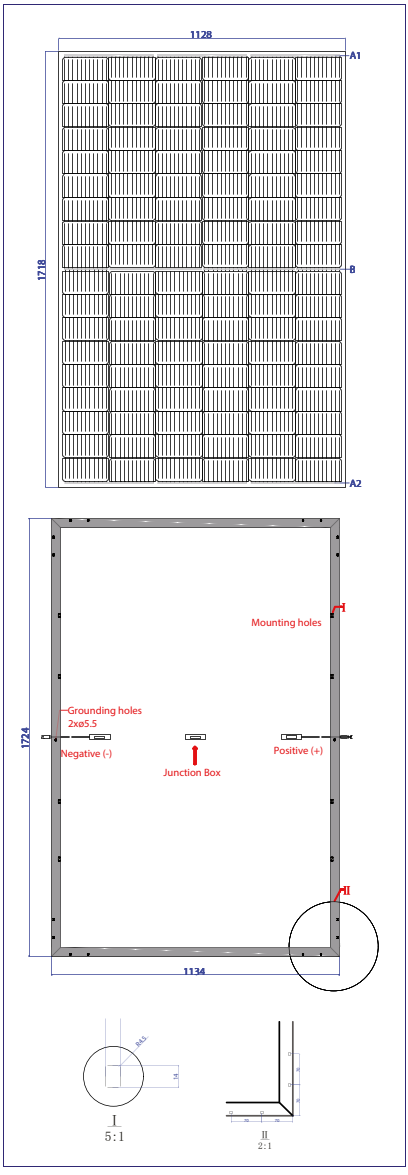
External Dimensions	1724 x 1134x 35 mm
Weight	21,5 kg
Solar Cells	PERC Mono 182 x 91mm (108 pcs)
Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminum alloy
Junction Box	3 Diodes
Output Cables	4.0 mm2, (+)250/(-)350mm (Portrait) or (+)1300/(-)1350 mm (Landscape)
Connectors	Stäubli MC4 EVO2
Max. Test Load	Front side 5400Pa / Rear side 2400Pa | incl. Safety Factor of 1,5

TEMPERATURE COEFFICIENTS

Pmax Temperature Coefficient	-0.35 %/°C
Voc Temperature Coefficient	-0.27 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40～+85 °C
Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C

STC: Standard Test Conditions
NOCT: Nominal Operating Cell Temperature

MECHANICAL DIMENSIONS



Application Types

Solar Power Plants (SPP)

On-Grid Rooftop Solar Power Plant

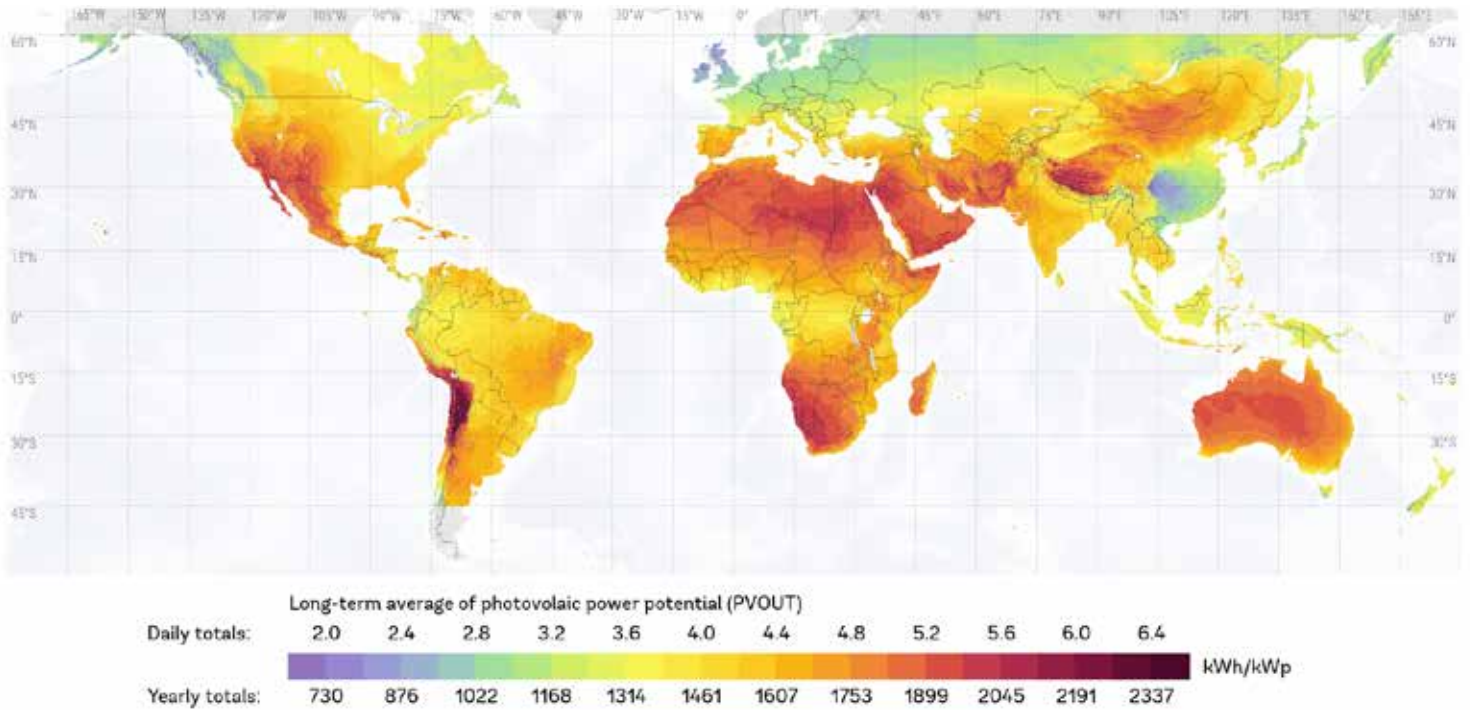
Solar-Powered Irrigation Systems (SPIS)

GreenHouse/Livestock On-Grid Systems

Carport

Solar Houses

World Solar Resource Map



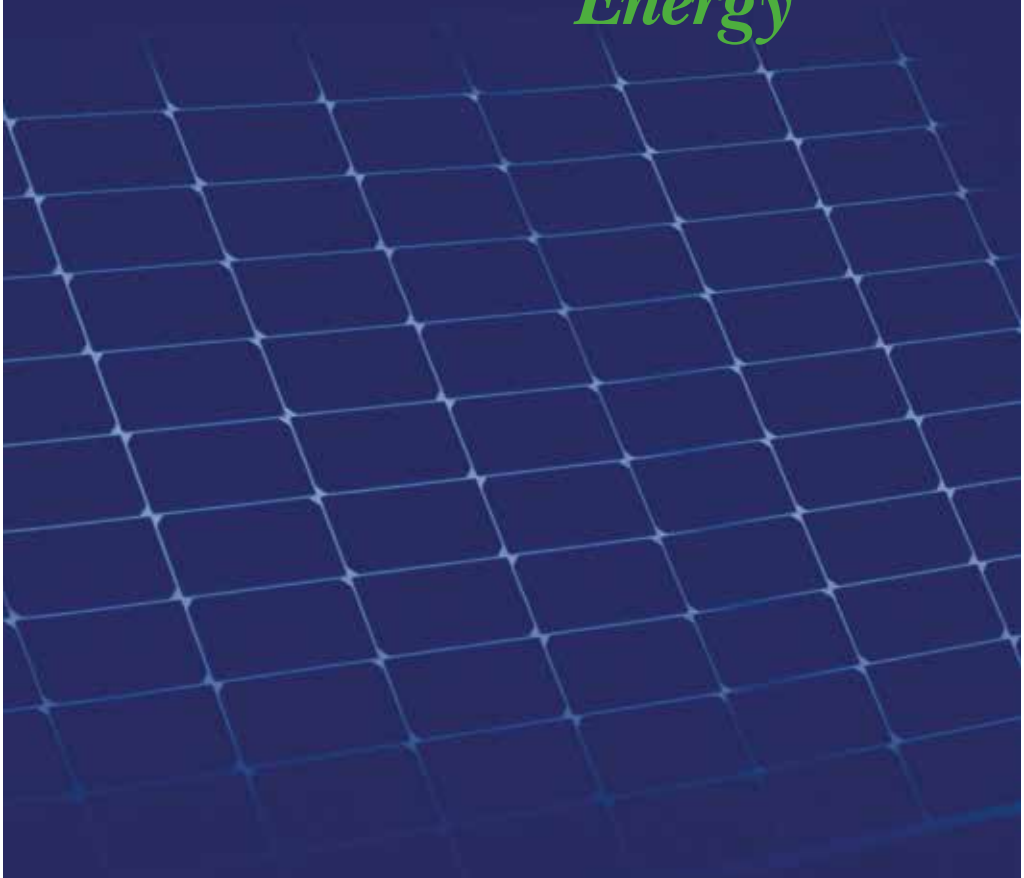
Fully Automated Framing

Auto Bussing with Advanced Technology

A+A+A Flash Test Measurement

DAXLER

Energy



Daxler Enerji A.Ş.
Büyükkayacık OSB 102. Cad. No:3/1
42160 Selçuklu - Konya / Turkey
Tel: +90 444 95 77
www.daxlerenergy.com