



Contents

CW SolarCell

M10 High Efficiency Solar Panels

Rectangle Solar Panels

CW Alüminyum



Factory Area
75.000m²



ABOUT US

CW Energy USA is a pioneering brand shaping the future of the renewable energy sector in America with its innovative approach and expertise in solar energy.

As part of a globally active solar energy company, CW Energy USA leverages advanced photovoltaic (PV) technology and extensive experience to contribute to sustainable energy solutions in one of the world's largest renewable energy markets.

Founded on the strong legacy of its parent company, established in 2010, CW ENERJİ MÜH. TİC. VE SAN. A.Ş. boasts an impressive annual production capacity of 1.8 GW. We provide reliable, innovative, and efficient solar energy solutions tailored for both residential and commercial applications.

Our mission is to create a more sustainable and livable world by delivering clean energy solutions and fostering an environmentally conscious future.

With strategically located warehouses in New Jersey, Georgia, Texas, and our newly added warehouse in California and Florida, we ensure fast delivery and exceptional customer support.

CW Energy USA offers cutting-edge solar solutions, including High Efficiency, PERC Mono, and flexible solar panels, designed to meet the evolving needs of the renewable energy sector.

Committed to environmental sustainability and continuous technological advancement, CW Energy USA strives to be a trusted partner for all stakeholders in the industry.

With a strong emphasis on transparency, quality, and excellence, we are dedicated to harnessing the power of the sun to build a sustainable and brighter future for generations to come.





CW  Energy[®]

CW Energy USA Inc.

Office

2513 Shallowford RD 200
Suit 273, Marietta, GA, 30066,
United States of America



CW  Energy[®] Germany AG

CW Energy German AG

Showroom

Bürgerplatz 5 - 85748
Garching Munich / ALMANYA



**Antalya Industrial Zone
1st Section**

1.Productions Center

Headquarters, Solar Panel
Production Facility, R&D, Warehouse



**Antalya Industrial Zone
1st Section**

2.Productions Center

Lihtium Battery Production,
Assembly Facility, Warehouse



Antalya Free Zone

3.Productions Center

Solar Panel Production Fa
Warehouse

 **Production Line / Office**

 **Point Of Sale**

 **Warehouse**



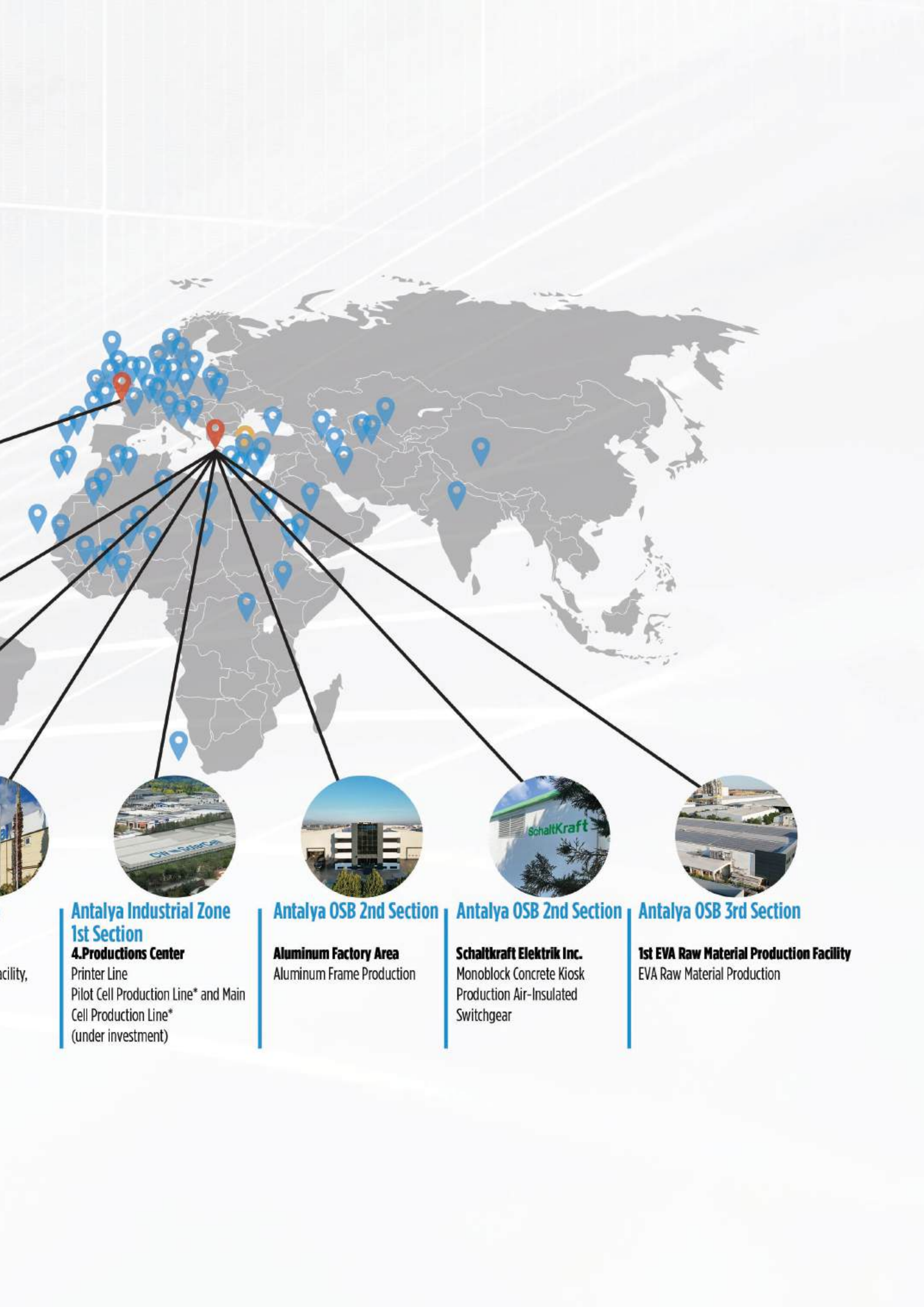
Bursa Office



Ankara Office



İstanbul Office



facility,



**Antalya Industrial Zone
1st Section**

4.Productions Center

Printer Line
Pilot Cell Production Line* and Main
Cell Production Line*
(under investment)



Antalya OSB 2nd Section

Aluminum Factory Area

Aluminum Frame Production



Antalya OSB 2nd Section

Schaltkraft Elektrik Inc.

Monoblock Concrete Kiosk
Production Air-Insulated
Switchgear



Antalya OSB 3rd Section

1st EVA Raw Material Production Facility

EVA Raw Material Production



Knowledge Hub

We make knowledge more accessible with our education portal.



Expert Support

Our pre-sales and after-sales support teams are by your side at every step, providing the best solutions.



Global Reach

We export to more than 60 countries.



Project Design

We offer free project design support, with our professional project design team.



Reliable Stock & Fast Delivery

With our ready stock, we respond to your demands quickly.



You Stay in Control!



Sustainability and Environmental Responsibility

Through our investments in renewable energy sources, we reduce our carbon footprint and strive to leave a cleaner world for future generations.



Quality Control from the Very First Step

Starting with raw material production, our quality control ensures unmatched excellence in every detail.



Technology

Equipped with state-of-the-art technology, our production facilities utilize the most advanced manufacturing techniques to ensure industrial excellence.



Customer-Centric Approach

We always prioritize the needs of our customers and aim to provide them with the best service.



CW SolarCell

COMPANY PROFILE

About Us

Founded in 2024 as a subsidiary of **CW Enerji Engineering, Trade and Industry Inc.**, CW SolarCell is committed to delivering products and services at **global standards** through high-quality production lines and advanced machinery — without compromising on quality.

With a strong focus on **technology and R&D**, CW SolarCell continuously upgrades its manufacturing systems to ensure rapid development and innovation. The company consistently adapts to **evolving cell technologies**, sizes, and efficiencies with a disciplined approach.

By closely following **market trends** and investing in up-to-date technologies, CWSC offers high-performance, cutting-edge solutions to meet the diverse needs of modern users and the dynamic solar industry.

MANUFACTURING CAPABILITIES

Cell Production Process

CW Enerji is taking confident steps towards vertical integration, minimizing raw material dependency by not only producing solar panels but also manufacturing key components. In this direction, CWSC has initiated cell and ingot production, enhancing both manufacturing flexibility and operational capability.

OUR PRODUCTS

High Efficiency M10R 16BB Solar Cell

Specification	Details
Dimensions	182.2 mm × 183.75 mm (± 0.5 mm)
Thickness	130 ± 13 µm
Front Side (–)	Blue (dark blue) anti-reflective coating (SiNx)
Rear Side (+)	Blue (dark blue) anti-reflective coating (SiNx)



Incoming Quality Control

- Customized inspection and approval protocols for suppliers.
- Physical & chemical testing via batch sampling.
- Elimination of substandard raw materials at entry point.

In-Process Quality Control

- Real-time monitoring at critical production points.
- Integration of Automated Optical Inspection (AOI) & I-V testing.
- Immediate halt mechanism for out-of-spec process anomalies.

Final Quality Control

- EL and Flash Tests to verify product performance.
- Visual inspection, barcode tracking & full traceability.
- Final product approval based on customer specifications.

Outgoing Quality Control

- 100% tested product verification through digital tracking.
- Closed-loop monitoring system for secure shipment.
- Random sampling for quality assurance before delivery.

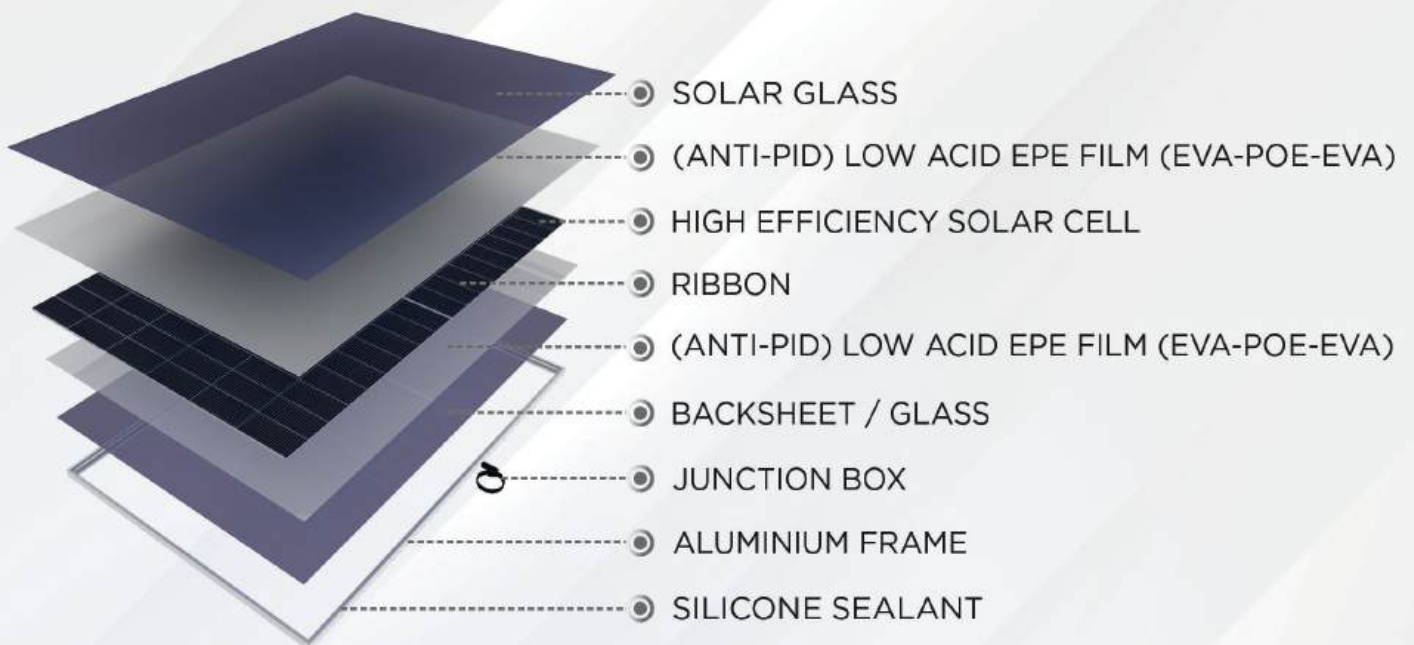


The cell features **SiNx (Silicon Nitride)** coatings on both sides, effectively minimizing reflection and improving light absorption.

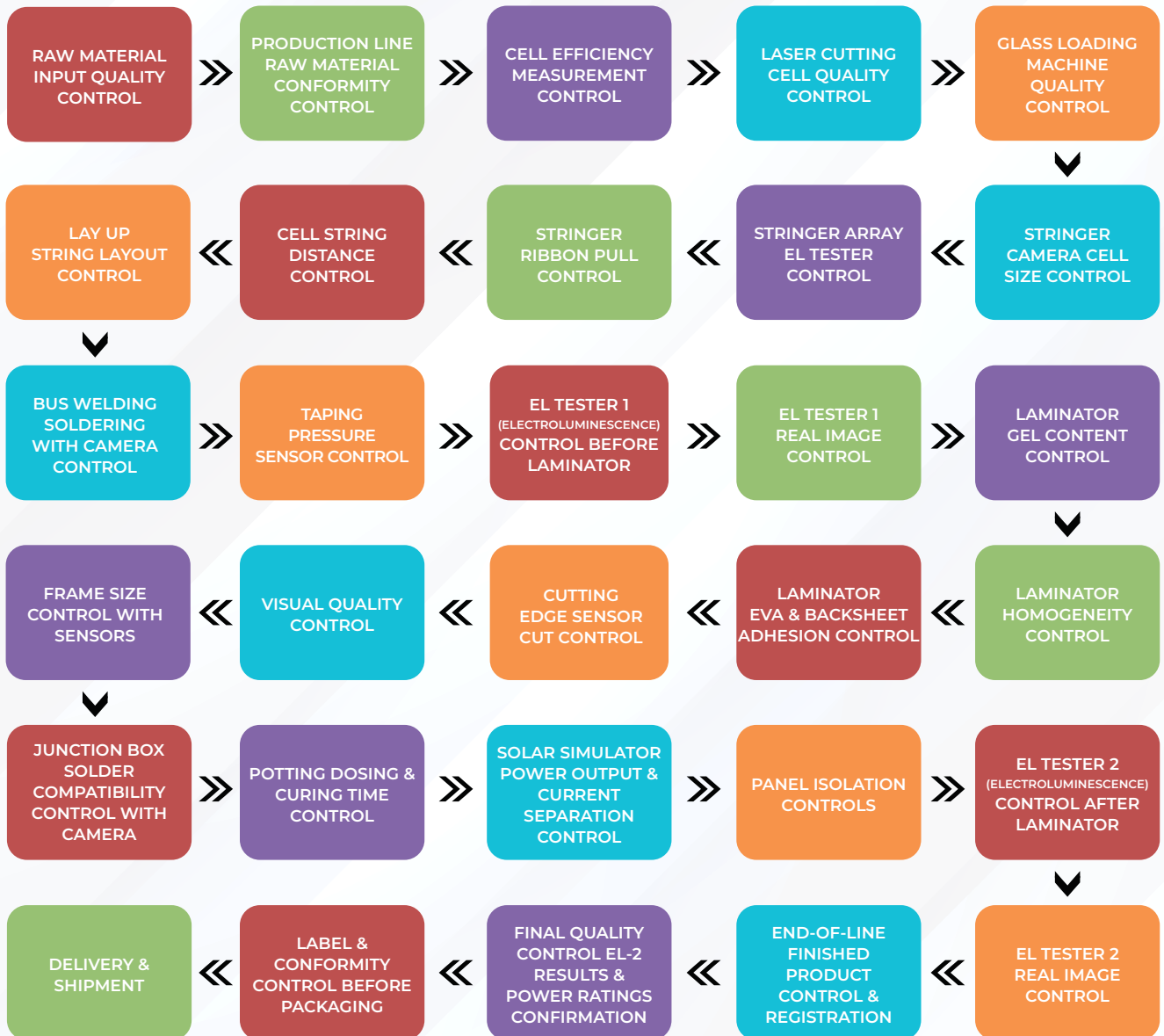
The cell features **SiNx (Silicon Nitride)** coatings on both sides, effectively minimizing reflection and improving light absorption.

Engineered with **16 busbars (16BB)**, this high-efficiency cell is optimized for next-generation High Efficiency solar module production.

Engineered with **16 busbars (16BB)**, this high-efficiency cell is optimized for next-generation High Efficiency solar module production.



SOLAR PANEL QUALITY CONTROL POINTS



Mission & Vision

As CW Energy continues to invest in solar energy—nature's greatest gift—we contribute to a greener world through the CW Energy Memorial Forest. Our vision is to expand the use of infinite solar energy and other clean energy sources to support both Türkiye's and the global economy while fostering an ecological, sustainable, and greener planet. By embracing new technologies, we are committed to shaping a better future for humanity. To achieve this, CW Energy is dedicated to leaving a more livable environment for future generations. Our core mission is to sustain our presence as an honest, reliable, principled, and forward-thinking organization for years to come.



While CW Enerji continues to invest in the energy of the sun which is nature's greatest blessing, we contribute to a greener world by with the CW Enerji Memorial Forest.

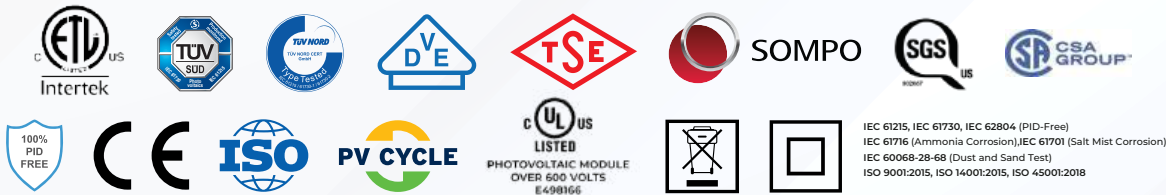
Quality & Certification

CW Enerji is a solar panel manufacturing company that offers new technologies by acting sensitively in order to make the lives of people and other beings more sustainable, whose priority in all products and services is customer orientation and high quality, and which is taking firm steps towards becoming the world leader in the sector. Solar panels manufactured in the factory with ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO/IEC 27001:2017, ISO 50001:2018, ISO 10002:2018, UL, IEC certificates and standards which tested by independent test organizations to ensure certification compliance and regulatory standards. The solar panels manufactured by CW Enerji with these values are secured by the world's leading reinsurance companies with a "30-year linear performance warranty".

FORTUNE
TÜRKİYE
500



**TÜRKİYE'S
TOP 500 INDUSTRIAL
ENTERPRISES
2024**



We Continue to
Produce the Best.



182mm
M10
Cell
182mm

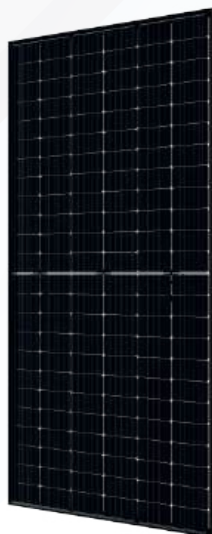
210mm
G12
Cell
210mm

182.2mm
M10R
Cell
183.75mm

182.3mm
High
Efficiency
Rectangle
G12R
Cell
210mm



108TNB10
450-445Wp



144TNB10
600-585Wp



132TNB12R
640-610Wp

Half Cut BIFACIAL HIGH-EFFICIENCY SOLAR PANELS • 108TNB10



Reliability Tested & Verified

Performance Durability



High Conversion Efficiency

High panel efficiency to guarantee high power output



Self-Cleaning And Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust



Outstanding Low Irradiation Glass

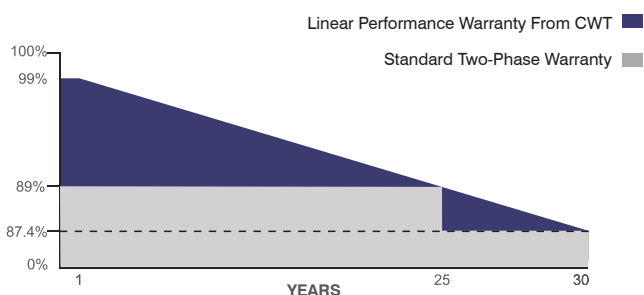
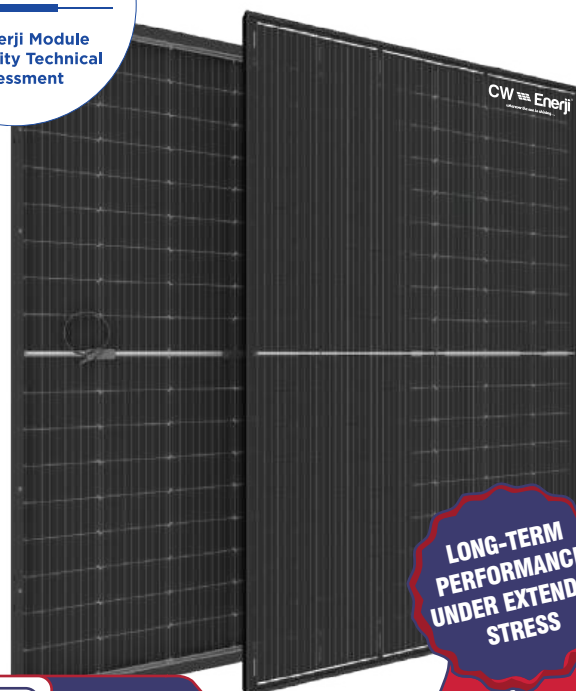
Outstanding panel performance even in weak light conditions



0~+5W Positive Power Tolerance



Easy Installation



30 Years Performance Warranty



25 Years Product Warranty

CWT450-108TNB10 450 Wp

CWT445-108TNB10 445 Wp



IEC 61215, IEC 61730-1, IEC 61730-2, IEC 63209-1
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
UL 61730-1, UL61730-2

BIFACIAL HIGH-EFFICIENCY SOLAR PANELS • 108TNB10 **Half Cut**

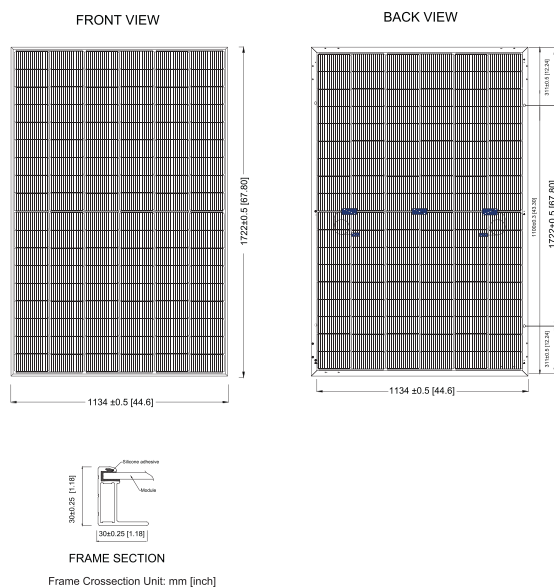
ELECTRICAL CHARACTERISTICS

Model Type	CWT445 108TNB10	CWT450 108TNB10
Peak Power (P _{max})	445 Wp	450 Wp
Module Efficiency (%)	22,79	23,04
Maximum Power Voltage (V _{mp})	32,94	33,14
Maximum Power Current (I _{mp})	13,51	13,58
Open Circuit Voltage (V _{oc})	39,11	39,31
Short Circuit Current (I _{sc})	14,31	14,38
Power Tolerance	0~+5W	
Maximum System Voltage	1500V DC	
Operating Temperature	-40 ~ +85°C	
Protection Class	Class II	
Fire Class	UL type 29 / IEC Class C	
Maximum Series Fuse Rating	25A	
Bifaciality Rate	%80±5	

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm/inch)	182,2x91,8 / 7,17x3,61
Cells per Module(pcs)	108 (6x18)
Weight(kg/lbs)	21.45 / 47.29
Panel Dimensions(mm/inch)	1722x1134x30 / 67.80x44.65x1.18
Max. Wind/Snow Load(Pa)/(lb/ft²)	(2400 / 5400) / (50 / 212)
Junction Box	IP68
Connector	Original Staubli MC4-EVO2
Junction Box Cable Length(mm/inch)	350-1600 / 13.78-63.00
Frame Color	Silver / Black
Rear Side Material	Transparent Backsheet

PHYSICAL CHARACTERISTICS



* The specifications are obtained under the standard test conditions: 1000W/m² solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

* For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation not in accordance with the guidelines as outlined in the installation manual will terminate the warranty. Please refer to the installation manual and the warranty documents for further details.

* CW Enerji reserves the right to change the specification of products without prior notice.

REAR SIDE POWER GAIN

(450W Front Power Referenced)

Rear Side Power Gain	5%	10%	15%	20%	25%
Peak Power (P _{max})	472.50	495.00	517.50	540.00	562.50
Short Circuit Current (I _{sc})	15.10	15.82	16.54	17.26	17.98
Open Circuit Voltage (V _{oc})	41.07	43.02	44.98	46.93	48.89
Maximum Power Current (I _{mp})	14.26	14.94	15.62	16.30	16.98
Maximum Power Voltage (V _{mp})	34.80	36.45	38.11	39.77	41.43

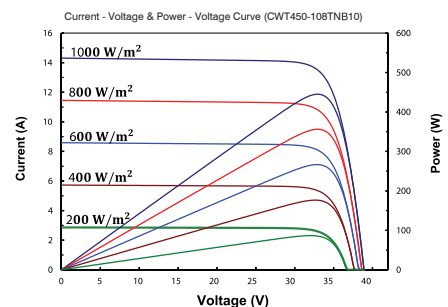
TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (I _{sc})	0.040%/°C
Temp. Coeff. of (V _{oc})	-0.260%/°C
Temp. Coeff. of (P _{max})	-0.30%/°C

PACKING CONFIGURATION

Container	40' GP
Pieces per Pallet	35
Pieces Per Container	875
Pallet Per Container	25

ELECTRICAL CHARACTERISTICS



HIGH-EFFICIENCY SOLAR PANELS • 108TNB10

Half Cut

Multi-BB

BLACK ON BLACK



Reliability Tested & Verified

Performance Durability



High Conversion Efficiency

High panel efficiency to guarantee high power output



Self-Cleaning And Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust



Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions



0~+5W Positive Power Tolerance

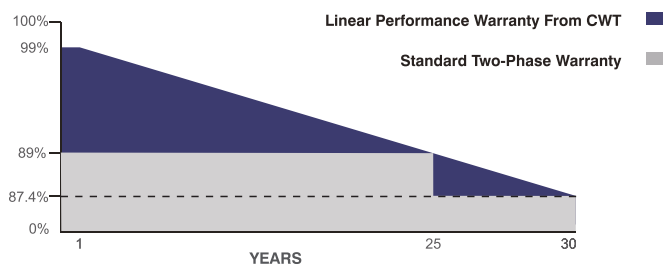


Easy Installation



BLACK ON BLACK

16BB



30 Years Performance Warranty



25 Years Product Warranty

CWT450-108TNB10 450 Wp

CWT445-108TNB10 445 Wp



IEC 61215, IEC 61730-1, IEC 61730-2, IEC 63209-1
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
UL 61730-1, UL61730-2

ELECTRICAL CHARACTERISTICS

Model Type	CWT445 108TNB10	CWT450 108TNB10
Peak Power (P_{max})	445 Wp	450 Wp
Module Efficiency (%)	22,79	23,04
Maximum Power Voltage (V_{mp})	32,94	33,14
Maximum Power Current (I_{mp})	13,51	13,58
Open Circuit Voltage (V_{oc})	39,11	39,31
Short Circuit Current (I_{sc})	14,31	14,38
Power Tolerance	0~+5W	
Maximum System Voltage	1500V DC	
Operating Temperature	-40 ~ +85°C	
Protection Class	Class II	
Fire Class	UL type 29 / IEC Class C	
Maximum Series Fuse Rating	25A	

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm/inch)	182 x 91 / 7.16x 3.58
Cells per Module(pcs)	108 (6x18)
Weight(kg/lbs)	21.45 / 47.29
Panel Dimensions(mm/inch)	1722x1134x30 / 67.80x44.65x1.18
Max. Wind/Snow Load(Pa)/(lb/ft ²)	(2400 / 5400) / (50 / 112.8)
Junction Box	IP68
Connector	Original Staubli MC4-EVO2
Junction Box Cable Length(mm/inch)	350-1600 / 13.78-63.00
Frame Color	Black

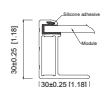
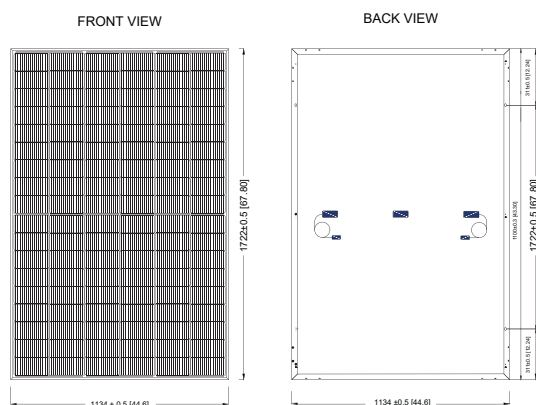
TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (I_{sc})	0.040%/°C
Temp. Coeff. of (V_{oc})	-0.260%/°C
Temp. Coeff. of (P_{max})	-0.30%/°C

PACKING CONFIGURATION

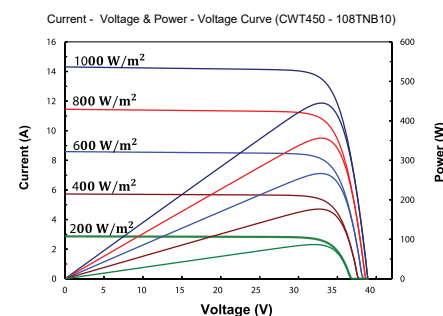
Container	40' GP
Pieces per Pallet	35
Pieces Per Container	875
Pallet Per Container	25

PHYSICAL CHARACTERISTICS



FRAME SECTION

Frame Cross-section Unit: mm [inch]



* The specifications are obtained under the standard test conditions: 1000W/m² solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is ±3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

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Half Cut BIFACIAL HIGH-EFFICIENCY SOLAR PANELS • 144TNB10



Reliability Tested & Verified

High Performance Durability Under Extended Stress



High Conversion Efficiency

High panel efficiency to guarantee high power output



Self-Cleaning And Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust



Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions



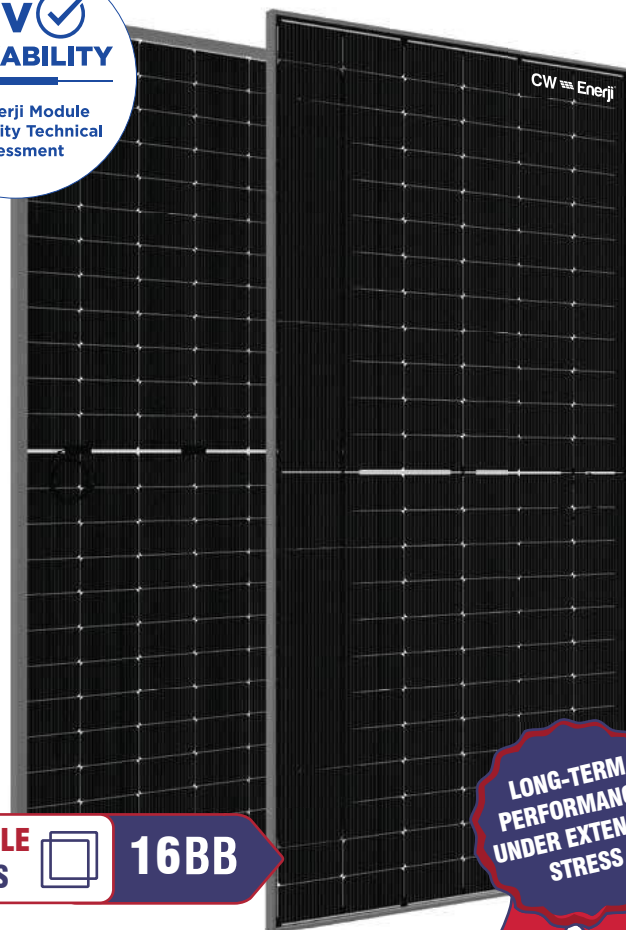
0~+5W Positive Power Tolerance



Easy Installation



Twice EVA Laminated Double Glass

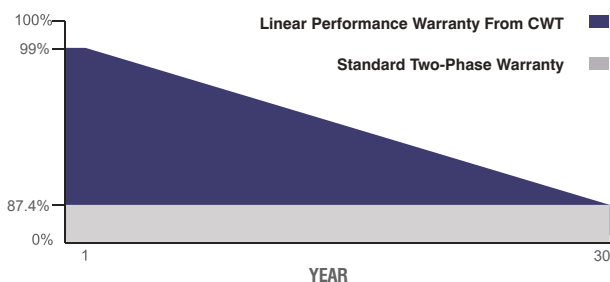


**DOUBLE
GLASS**



16BB

**LONG-TERM
PERFORMANCE
UNDER EXTENDED
STRESS**



30 Years Performance Warranty



30 Years Product Warranty

CWT600-144TNB10 600 Wp

CWT595-144TNB10 595 Wp

CWT590-144TNB10 590 Wp

CWT585-144TNB10 585 Wp



IEC 61215, IEC 61730-1, IEC 61730-2 IEC 63209-1
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
UL 61730-1, UL 61730-2

BIFACIAL HIGH-EFFICIENCY SOLAR PANELS ● 144TNB10 **Half Cut**

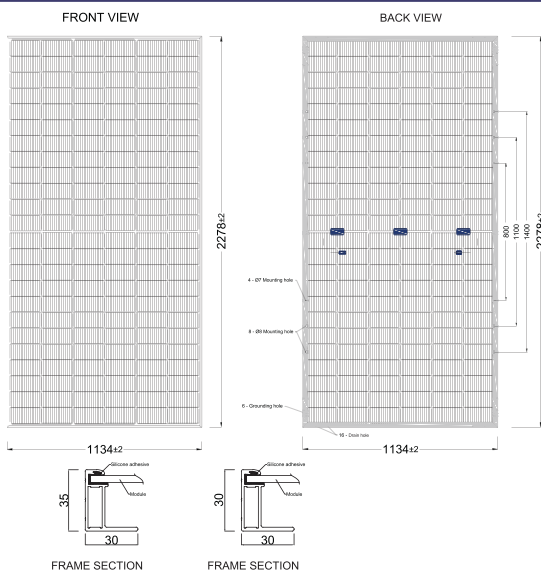
ELECTRICAL CHARACTERISTICS

Model Type	CWT585 144TNB10	CWT590 144TNB10	CWT595 144TNB10	CWT600 144TNB10
Peak Power (P _{max})	585 Wp	590 Wp	595 Wp	600 Wp
Module Efficiency (%)	22.65	22.84	23.03	23.23
Maximum Power Voltage (V _{mp})	43.15	43.35	43.55	43.75
Maximum Power Current (I _{mp})	13.56	13.62	13.67	13.72
Open Circuit Voltage (V _{oc})	51.78	51.98	52.18	52.38
Short Circuit Current (I _{sc})	14.24	14.30	14.36	14.42
Power Tolerance	0~+5W			
Maximum System Voltage	1500V DC			
Operating Temperature	-40 ~ +85°C			
Protection Class	Class II			
Fire Class	UL type 29 / IEC Class C			
Maximum Series Fuse Rating	25A			
Bifaciality Rate	%80±5			

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm/inch)	182,2x91,8 / 7,17x3,61
Cells per Module(pcs)	144 (6x24)
Weight(kg/lbs)	(30 mm) 32.0 / 70.54 (35 mm) 33.0 / 72.75
Panel Dimensions(mm/inch)	2278x1134x30 / 89.69x44.65x1.18 2278x1134x35 / 89.69x44.65x1.38
Max. Wind/Snow Load(Pa)/(lb/ft²)	(2400 / 5400) / (50 / 212)
Junction Box	IP68
Connector	Original Staubli MC4-EVO2
Junction Box Cable Length(mm/inch)	300-1600
Glass Thickness(mm/inch)	(2.0 / 2.0) / (0.08 / 0.08)
Frame Color	Silver / Black

PHYSICAL CHARACTERISTICS



* The specifications are obtained under the standard test conditions: 1000W/m2 solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

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REAR SIDE POWER GAIN

(600W Front Power Referenced)

Rear Side Power Gain	10%	20%	30%
Peak Power (P _{max})	660.00	720.00	780.00

TEMPERATURE CHARACTERISTICS

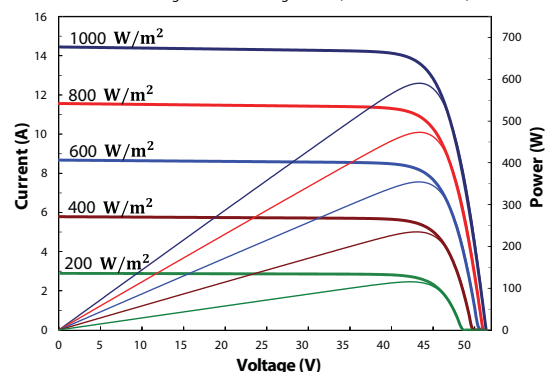
Temp. Coeff. of (I _{sc})	0.040%/°C
Temp. Coeff. of (V _{oc})	-0.260%/°C
Temp. Coeff. of (P _{max})	-0.30%/°C

PACKING CONFIGURATION

Container	40' GP
Pieces per Pallet	31
Pieces Per Container	558
Pallet Per Container	18

ELECTRICAL CHARACTERISTICS

Current - Voltage & Power - Voltage Curve (CWT590 - 144TNB10)



Half Cut

BIFACIAL HIGH-EFFICIENCY SOLAR PANELS • 132TNB12R



Reliability Tested & Verified

High Performance Durability Under Extended Stress



High Conversion Efficiency

High panel efficiency to guarantee high power output



Self-Cleaning And Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust



Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions



0~+5W Positive Power Tolerance



Easy Installation



Twice EVA Laminated Double Glass

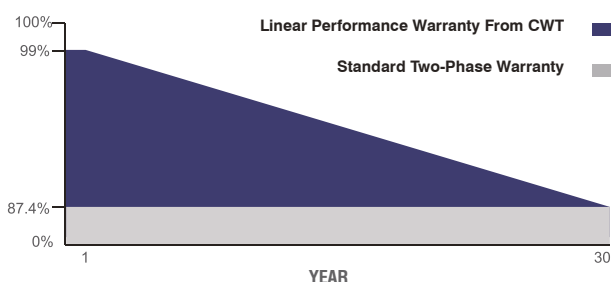


**DOUBLE
GLASS**



16BB

**LONG-TERM
PERFORMANCE
UNDER EXTENDED
STRESS**



CWT640-132TNB12R 640 Wp CWT620-132TNB12R 620 Wp
CWT635-132TNB12R 635 Wp CWT615-132TNB12R 615 Wp
CWT630-132TNB12R 630 Wp CWT610-132TNB12R 610 Wp
CWT625-132TNB12R 625 Wp



30 Years Performance Warranty



30 Years Product Warranty



IEC 61215, IEC 61730-1, IEC 61730-2, IEC 63209-1
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

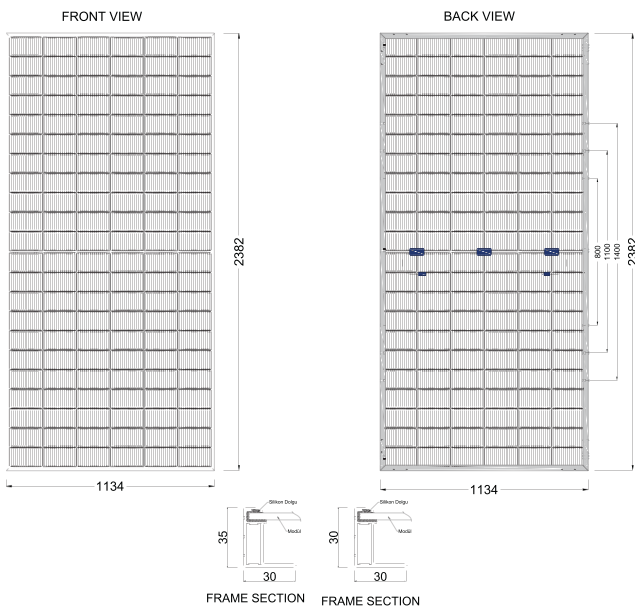
ELECTRICAL CHARACTERISTICS

Model Type	CWT610 132TNB12R	CWT615 132TNB12R	CWT620 132TNB12R	CWT625 132TNB12R	CWT630 132TNB12R	CWT635 132TNB12R	CWT640 132TNB12R
Peak Power (P _{max})	610 Wp	615 Wp	620 Wp	625 Wp	630 Wp	635 Wp	640 Wp
Module Efficiency (%)	22.58	22.77	22.95	23.14	23.32	23.51	23.69
Maximum Power Voltage (V _{mp})	40.62	40.82	41.02	41.22	41.42	41.62	41.82
Maximum Power Current (I _{mp})	15.02	15.07	15.12	15.17	15.22	15.26	15.31
Open Circuit Voltage (V _{oc})	48.59	48.79	48.99	49.19	49.39	49.59	49.79
Short Circuit Current (I _{sc})	15.90	15.96	16.02	16.08	16.14	16.20	16.26
Power Tolerance	0~+5W						
Maximum System Voltage	1500V DC						
Operating Temperature	-40 ~ +85°C						
Protection Class	Class II						
Fire Class	UL type 29 / IEC Class C						
Maximum Series Fuse Rating	25A						
Bifaciality Rate	%80±5						

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm/inch)	182,3x105 / 7,17x4,14
Cells per Module(pcs)	132 (6x22)
Weight(kg/lbs)	(30 mm) 34,95 / 77,05 (35 mm) 35,95 / 79,25
Panel Dimensions(mm/inch)	2382x1134x30 / 93.78 x 44.65x1.18 2382x1134x35 / 93.78 x 44.65 x1.38
Max. Wind/Snow Load(Pa)/(lb/ft²)	(2400 / 5400) / (50 / 112.8)
Junction Box	IP68
Connector	Original Staubli MC4-EVO2
Junction Box Cable Length(mm/inch)	350-1600 / 13.78-63.00
Glass Thickness(mm/inch)	(2.0 / 2.0) / (0.08 / 0.08)
Frame Color	Silver / Black

PHYSICAL CHARACTERISTICS



REAR SIDE POWER GAIN

(630W Front Power Referenced)

Rear Side Power Gain	10%	20%	30%
Peak Power (P _{max})	693.00	732.00	819.00

TEMPERATURE CHARACTERISTICS

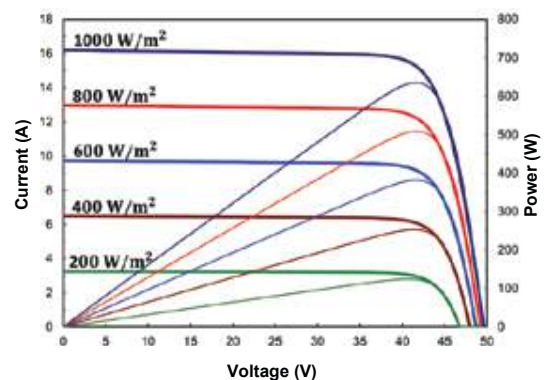
Temp. Coeff. of (I _{sc})	0.040%/°C
Temp. Coeff. of (V _{oc})	-0.260%/°C
Temp. Coeff. of (P _{max})	-0.30%/°C

PACKING CONFIGURATION

Container	40' GP	40' GP
Frame Thickness (mm)	35	30
Pieces per Pallet	31	36
Pieces Per Container	558	648
Pallet Per Container	18	18

ELECTRICAL CHARACTERISTICS

Current - Voltage & Power - Voltage Curve (CWT630 - 132TNB12R)



* The specifications are obtained under the standard test conditions: 1000W/m² solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

* For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation not in accordance with the guidelines as outlined in the installation manual will terminate the warranty. Please refer to the installation manual and the warranty documents for further details.

* CW Enerji reserves the right to change the specification of products without prior notice.

◆ CWT-FLEX-FBAG-110 110Wp

Easy to install, to carry and to use, the CW Enerji foldable solar panel is a powerful companion ready to take you on your next adventure. Designed to withstand harsh operating conditions, the high-performance solar panel offers a practical and reliable solution for emergencies. CW Enerji foldable solar panel, which has high light transmittance ETFE polymer, durable fiberglass sheet and high efficiency IBC solar cell in its structure, is produced in international quality standards with 7-layer high lamination technology. With CW Enerji foldable solar panels, you can charge your phone or tablet directly with USB power output, while at the same time you can get up to 110W instant power output with solar connectors. It is also possible to increase capacity by connecting multiple products together. Models can be customized for your different needs.



Prism Surface

Maximum light absorption through prism surface



Excellent Light Transmit with ETFE

Higher light transmittance, corrosion resistance, operating temperature range



IBC Cell Technology

Flexible, durable and high efficient cell with back contact connection



Ultra Lightweight

Ultra thin and durable design



Easy to use

Easy to use, practical design



Increasable Capacity

Increasable power by connecting two or more products together



Solar
Connector



Prism
Surface



USB Fast Charging
Output

The holders allows you to adjust the panel to the optimum angle for maximum performance. You can make adjustments as the position of the sun changes.



SOMPO



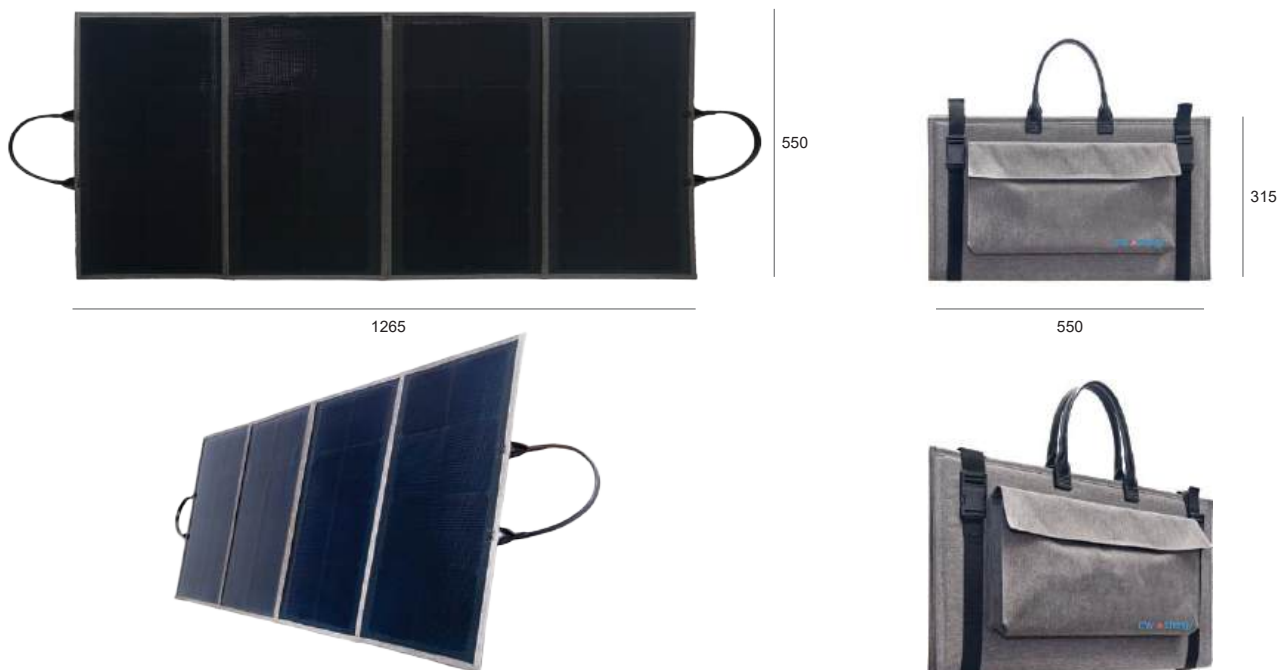
ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

FOLDABLE SOLAR PANELS

ELECTRICAL CHARACTERISTICS

Model Type	CWT-FLEX-FBAG-110 110Wp
Peak Power (Pmax)	110 Wp
Power Tolerance	0~+5W
Maximum Power Voltage (Vmp)	18.84
Maximum Power Current (Imp)	5.84
Open Circuit Voltage (Voc)	22.80
Short Circuit Current (Isc)	6.15
Temp. Coeff. of Pmax	-0.29%/°C
Temp. Coeff. of Voc	-55.68mV/°C
Temp. Coeff. of Isc	2.9mA/°C
Dimensions (Opened/Closed)(mm)	1265x550x6 / 550x315x24
Weight	4
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	15A
Protection Class	IP68
Junction Box Cable Length (mm)	600
Connector	MC4
USB Output	QC 3.0 Quick Charge 5V-9V-12V
Exterior of the Product	Fabric

Unit: mm



* The specifications are obtained under the standard test conditions: 1000W/m² solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

*CW Enerji reserves the right to change the specification of products without prior notice

Easy Life

CW Energy USA 15 Wp MOBILE 25Wp FOLDABLE SOLAR CHARGING PANEL



CW Energy Mobile Solar Charging panels provide power to portable chargers such as powerbanks, smart phones, tablets or other USB devices directly from the sun, offering a wide range of applications.

CW Energy USA Easy Life Series Foldable Solar Charging Panel provide power to portable chargers such as powerbanks, smart phones, tablets or other USB devices directly from the sun, offering a wide range of applications.



Prism Surface

Maximum light absorption through prism surface



Excellent Light Transmit with ETFE

Higher light transmittance, corrosion resistance, operating temperature range



IBC Cell Technology

Flexible, durable and high efficient cell with back contact connection



Ultra Lightweight

Compact design with easy to carry size and weight



Fast Charging Technology

Fast charging up to 3 amps with QC 3.0 technology



Don't Bend The Panel

Bending the panel causes damage to the cells inside and energy loss



Charging
Devices While
Sunbathing



Charging
Powerbanks
While Walking



Charging On the
Stroller



For USB Fan
Charging



USB and Type-C
ports



For Ipad
Charging



USB & Type-C
Charger



Zippered Pocket



IPX4
Protection



Hanger and
Carabiner



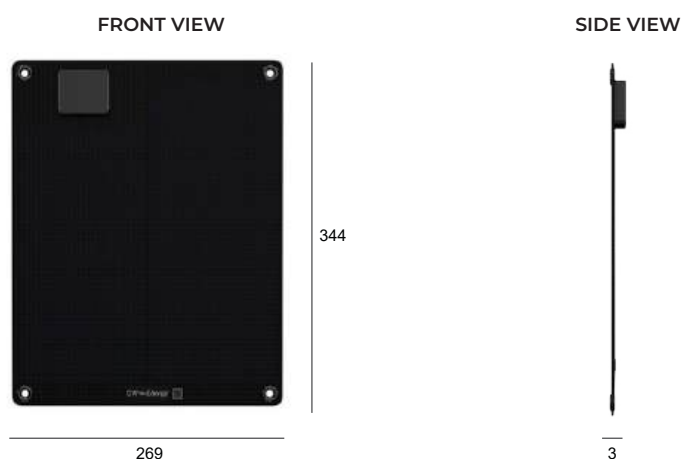
*Different colour options are available.

MOBILE & FOLDABLE SOLAR CHARGING PANEL

Model Type	CWT-FSC-15	CWT-FSC-25
Peak Power (P_{max}) [Wp]	15	25
Maximum Power Voltage (V_{mp})[V]	9.31	9.90
Maximum Power Current (I_{mp})[A]	1.63	2.55
Open Circuit Voltage (V_{oc})[V]	10.81	11.41
Short Circuit Current (I_{sc})[A]	1.72	2.70
Temp. Coeff. of P_{max}	-0.29%/°C	-0.29%/°C
Temp. Coeff. of V_{oc}	-26.1mV/°C	-27.84mV/°C
Temp. Coeff. of I_{sc}	2.90mA/°C	2.9mA/°C
Dimensions (Opened/Closed)[mm]	269x344x3	698x268x4 / 175x268x40
Weight [kg]	0.415	0.8
Output Ports	USB-A / TYPE-C	USB-A / TYPE-C
USB Output Voltage	5V/9V/12V	QC 3.0 Quick Charge 5V-9V-12V
Maximum Charging Current [A]	3	3
Exterior of the Product		Fabric

PHYSICAL CHARACTERISTICS

Unit: mm



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018





GERMANY 18.8 MWp



KARS 42.64 MWp



GERMANY 725 kWp



KAYSERİ 22 MWp



COMPANY PROFILE

About Us

At CW Aluminum, we produce frames, mounting apparatus, and infrastructure materials tailored to renewable energy technologies. Thanks to our advanced technology and engineering-developed mounting systems, we provide reliable and long-lasting solutions to the industry. We prioritize quality and efficiency at the highest level by developing functional and innovative products customized to meet customer needs.

In EPC projects, we integrate our solar panels and construction solutions to enhance customer satisfaction while ensuring more efficient and sustainable outcomes in the sales processes. By increasing our domestic production capacity, we contribute to both economic growth and the development of a sustainable energy infrastructure, thus adding value to the future.

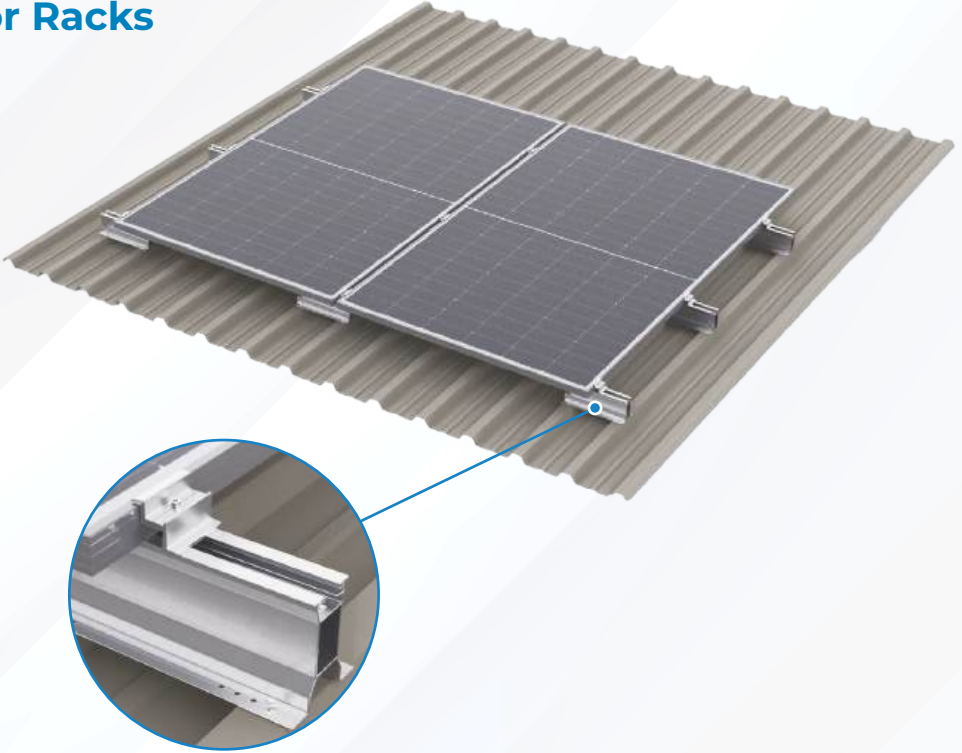


SLOPED ROOF CONSTRUCTION SYSTEMS

Trapezoidal and Sandwich Roof Systems

Top-Mounted Systems for Racks

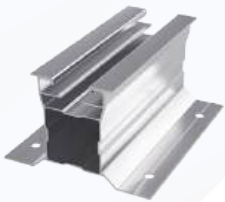
This construction system, developed for trapezoidal and sandwich roofs, offers height options of 60 mm and 80 mm and is mounted on the roof rack from the top. Sharp-ended screws or suitable rivets can be used for the installation of stainless steel. The wide bottom opening allows for easy assembly, while the top opening supports both horizontal and vertical installation. Hole sizes for parts can be pre-drilled during production, preventing burr formation. Roof sealing is ensured with the EPDM strip. A lightweight and durable system has been designed, considering static calculations to ensure suitability for wind, snow, and earthquake loads.



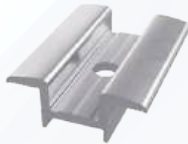
Technical Data Details

Height:	H: 60 mm H: 80 mm
Length:	Part Profile or Full Length Profile
Applications:	Trapezoidal and 2-3-4-5 Ribbed Sandwich Roofs
Mounting Method:	Yatay ve Dikey Montaja Uygun
Roof Mounting Method:	Sharp-Ended Screw or Rivet (Pop/Butterfly/Sealed Gasket Rivet)
Construction Material Details:	6060 - 6063 - 6005 Aluminum

Related System Components



Rafter Profile
(Storm Model)



Mid Clamp
(Storm/Diamond Model)



End Clamp
(Storm/Diamond Model)



Sharp-Ended
Screw



Aluminum Clawed Nut
(Storm Model)



Rivet



Hex Socket Bolt
(M8)



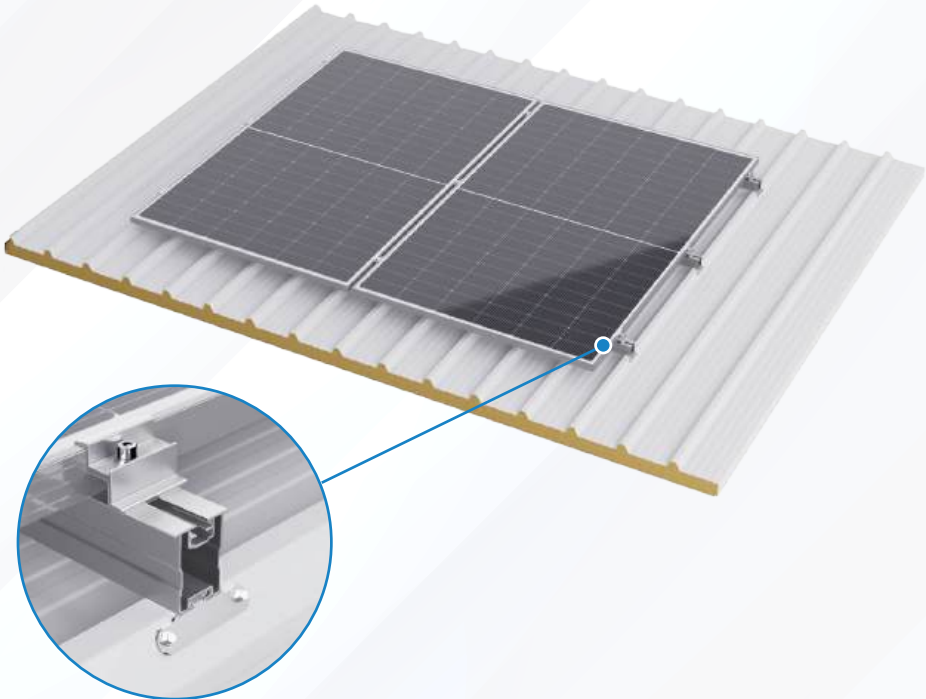
EPDM Tape

SLOPED ROOF CONSTRUCTION SYSTEMS

Trapezoidal and Sandwich Roof Systems

Side and Bracket Mounted Systems for Ribbed Roofs

Construction System Developed for Trapezoidal and Sandwich Roofs – A versatile system offering 60mm and 80mm height options, suitable for quick installation on ribbed roofs, with pre-drilled holes to prevent burrs and EPDM tape for waterproofing. Designed to handle wind, snow, and seismic loads with lightweight and durable construction.



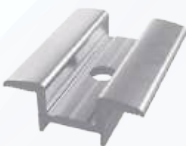
Technical Data Details

Height:	H: 60 mm H: 80 mm
Length:	Part Profile or Full Length Profile
Applications:	Trapezoidal and 2-3-4-5 Ribbed Sandwich Roofs
Mounting Method:	Side Mounting on the Roof Rib
Roof Mounting Method:	Self-Tapping Screw
Construction Material Details:	6060 - 6063 - 6005 Aluminum

Related System Components



Rafter Profile
(Diamond Model)



Mid Clamp
(Diamond Model)



End Clamp
(Diamond Model)



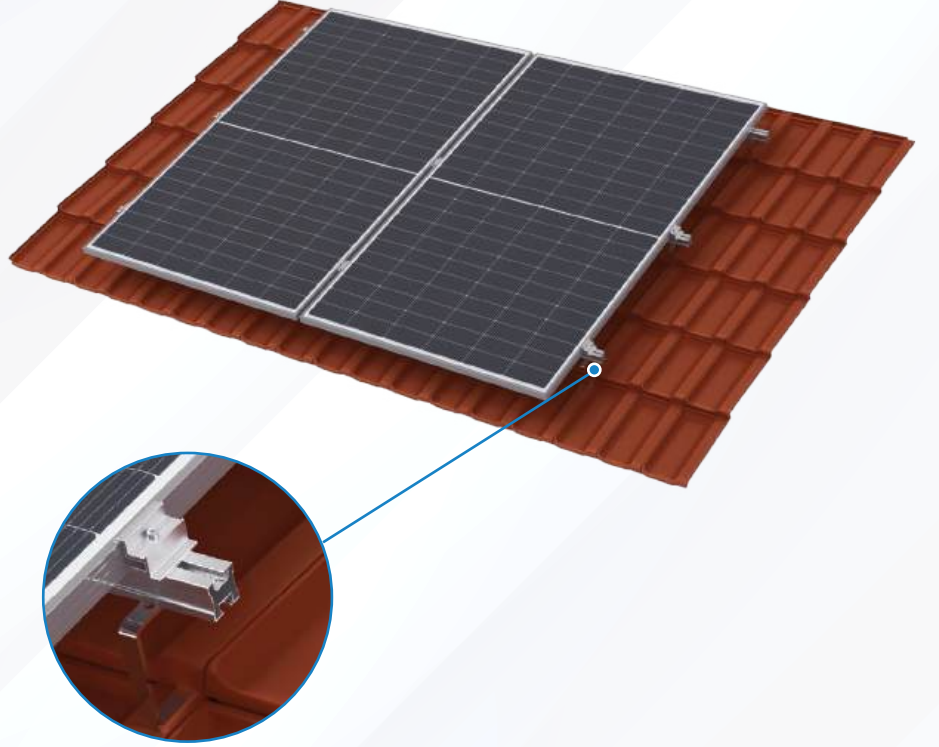
Sharp-Ended
Screw



PITCHED ROOF MOUNTING SYSTEMS

Tile Roof Mounting Systems

Kiremit çatılar için geliştirilen bu konstrüksiyon sistemi, çatı aşıklarına veya kirişlerine sabitlenerek tam boy uygulanır. Montajda aşık malzemesine uygun vidalar kullanılır ve sistem dikey ile yatay montaja uygundur. Çatı kancası monte edildikten sonra kiremitin tekrar kapatılması kolaydır, bu sayede ekstra izolasyona gerek kalmaz. Statik hesaplarla rüzgar, kar ve deprem yüklerine uygun, hafif ve dayanıklı bir yapı oluşturulmuştur. Çatı kancasındaki yükseklik ayarı sayesinde, piyasadaki çoğu kiremit çatı ile uyum sağlar.



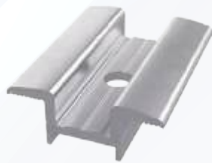
Technical Data Details

Height:	H: 40 mm
Length:	Full-Length Profile
Applications:	Tile Roof
Mounting Method:	Roof Purlins
Roof Mounting Method:	Connection Element for Roof Purlins (Wood, Concrete, Steel)
Construction Material Details:	6060 - 6063 - 6005 Aluminum

Related System Components



Rafter Profile
(Storm Model)



Mid Clamp
(Storm Model)



End Clamp
(Storm Model)



T-Head
Bolt



Roof



Wood



Hex Socket Bolt



Hexagon

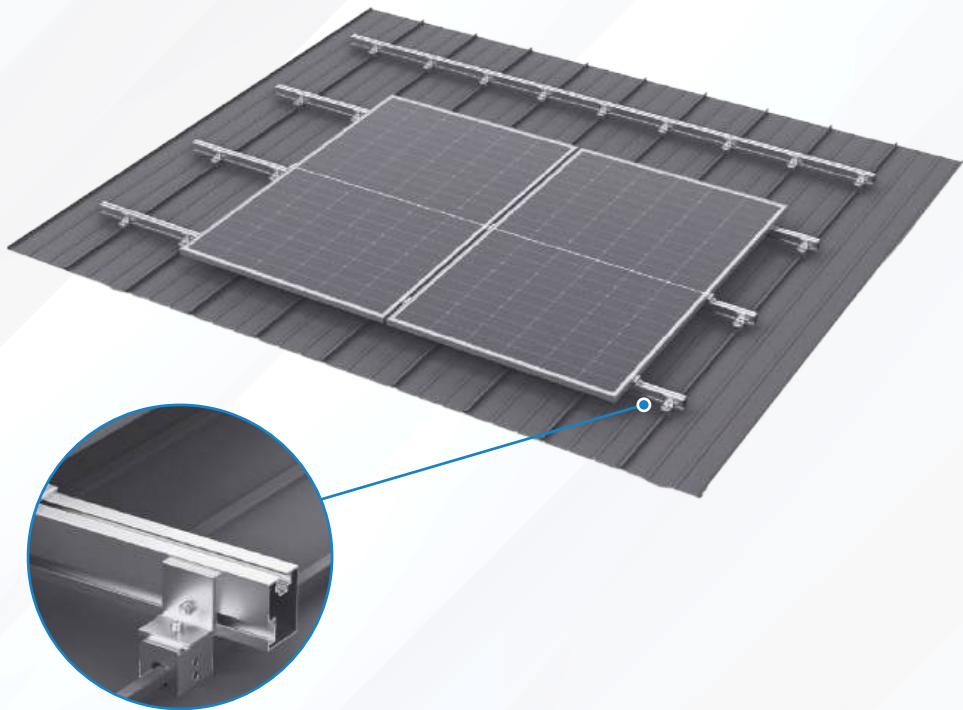


Square

PITCHED ROOF CONSTRUCTION SYSTEMS

Tile Roof Mounting Systems

This construction system is mounted using a compression method, with screws included in the connection equipment. It is suitable for both vertical and horizontal mounting. Thanks to the compression method, no drilling is required on the roof, which prevents damage to the insulation. A lightweight and durable structure has been designed, capable of withstanding wind, snow, and seismic loads, based on static calculations. The system utilizes a standing seam attachment, L-brackets, and full-length profiles during installation.



Technical Data Details

Height:	H: 60 mm
Length:	Full-Length Profile
Applications:	Standing Seam Roof
Mounting Method:	Vertical
Roof Mounting Method:	Compression to the Rib
Construction Material Details:	6060 - 6063 - 6005 Aluminum

Related System Components



Rafter Profile
(Storm Model)

Mid Clamp
(Storm Model)

End Clamp
(Storm Model)

T-Head
Bolt

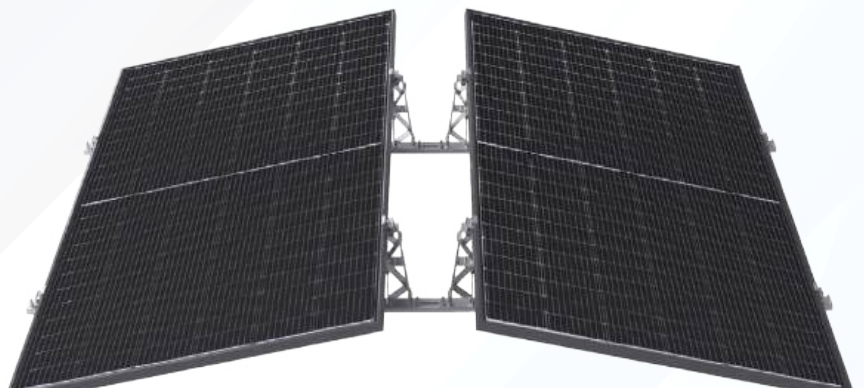
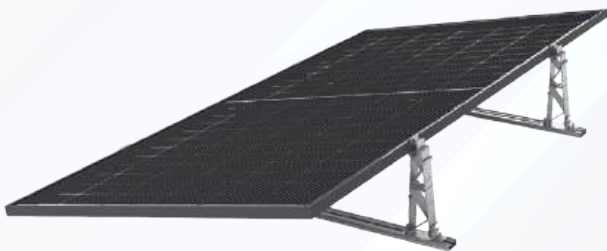
FLAT ROOF CONSTRUCTION SYSTEMS

Flat Roof Type Systems



Flat Roof Constructions are supporting systems designed to securely and efficiently mount solar panels either horizontally or at an inclined angle. These constructions are typically made from aluminum, galvanized steel, or stainless steel to enhance durability and offer long-lasting performance. In flat roof systems, the optimal placement of panels at the correct angle is crucial to capture the maximum amount of sunlight. Therefore, fixed or adjustable angle constructions can be preferred.

These structures offer high resistance to wind and snow loads, ensuring that solar panels are securely fixed in place. Additionally, ballast systems that do not require drilling allow for installation without damaging the roof. The modular design of flat roof solar constructions provides easy installation and maintenance. These systems are widely used in commercial, industrial, and large-scale energy projects. They are an ideal solution for both achieving energy efficiency and supporting the transition to sustainable energy.



PRODUCT LIABILITY POLICY CERTIFICATE

This certificate is a brief summary of Sompo Sigorta A.Ş. Excess Product Liability policy for Solar Energy Panels produced by **Cw Enerji Mühendislik Ticaret Ve Sanayi Anonim Şirketi**.

Policy Number : 200200033748770 & 200200033748769

Policy Inception Date : 21/07/2025

Policy End Date: 21/07/2026

Insured Address : TÜRKİYE, Antalya 7190, Döşemealtı, Aosb 1. Kısım MAH. Atatürk Bulvarı Cw Enerji AŞ NO:20

Insured : Cw Enerji Mühendislik Ticaret Ve Sanayi Anonim Şirketi

Coverage : Product Liability

Retroactive Date : 21/07/2017

Field Of Activity : Solar Energy Panel Manufacturing

Coverage Details:**Product Liability:**

Within the scope of this coverage, subject to the terms and coverage limits of this policy, caused by the defect of the insured's products defined above (insured product) and resulting from an event occurring within the geographical scope specified above, the insurer is responsible for;

- * bodily injuries
- * material damages

within the scope of the above-mentioned activity of the insured, against the insured by third parties. will indemnify the insured against any claims for damages that may be asserted.

This coverage is valid in accordance with the attached Product Liability Insurance General Conditions and applicable provisions.

Sompo Sigorta A.Ş. Provided pursuant to Product Liability Insurance Special Conditions.

Territorial Scope : Worldwide (Excluding Cuba, Iran, Syria, North Korea, North Sudan, Venezuela, Myanmar, Crimea and the Donbas Region (including Luhansk, Donetsk, Kherson and Zaporizhzhia), Russia and Belarus)

Policy Limits:

Product Liability USD 50.000.000 (Defense Costs are included in the Coverage Limit)

THIS CERTIFICATE IS ISSUED FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT GIVE ANY ADDITIONAL RIGHTS TO THE CERTIFICATE OWNER. THIS CERTIFICATE DOES NOT ALTER, POSITIVELY OR NEGATIVELY, OR EXTEND THE TERMS PROVIDED BY THE ORIGINAL POLICY.

INSURED

Cw Enerji Mühendislik Ticaret Ve Sanayi Anonim Şirketi

INSURER

Sompo Sigorta A.Ş.

OZGUR
LEVENT
OVUNC

Digitally signed
by OZGUR
LEVENT OVUNC
Date: 2025.08.21
15:47:51 +03'00'

MUSTAFA
FA
ARSLAN

Digitally signed
by MUSTAFA
ARSLAN
Date: 2025.08.22
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