FAERS

RELIABLE ENERGY
FOR A BRIGHTER TOMORROW

FACTORY PRESENTATION

ZAKH RENEWABLE ENERGY AND ENGINEERING MANUFACTURING FZ-LLC
UAE 2025

made in UAE صنع في الإمارات

CERTIFIED ISO 9001 COMPANY

CERTIFIED ISO 22000 CERTIFIED

COMPANY FOUNDED

ZAKH Renewable Energy was founded in **2017** in **Azerbaijan** as an **R&D laboratory**, bringing together scientists from CIS and around the world to develop and improve photovoltaic (PV) technologies.

EARLY DEVELOPMENT (2017–2020)

During 2017–2020, the company focused on intensive research, development, and patenting of new PV technologies. The R&D team worked on improving solar cell efficiency, developing new encapsulation materials, and testing long-term durability in various climate conditions. These years were dedicated to scientific innovation and building intellectual property.

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TECHNOLOGICAL TRANSITION (2020–2023)

Between 2020 and 2023, scientists and engineers concentrated on applied technologies for solar panel manufacturing and began developing Building-Integrated Photovoltaics (BIPV). Extensive work was carried out by a large, multidisciplinary team of specialists to prepare new product lines that would merge architectural design with energy generation.

EXPANSION INTO MANUFACTURING (2023–2024)

In 2023, the company decided to move from pure R&D to full-scale manufacturing, establishing a production facility in the Ras Al Khaimah Economic Zone (RAKEZ), United Arab Emirates. In 2024, ZAKH launched production of solar panels specifically designed for hot climates — optimized for high temperature and sand resistance. Simultaneously, the company developed a BIPV series with special multilayer insulation designed to prevent heat penetration into buildings. These systems include advanced façade panels that reduce indoor heat gain while maintaining natural light transmission, created in a modular gradient system for flexible architectural application.

PRODUCTION LINES OF THE COMPANY

ZAKH RENEWABLE ENERGY OPERATES TWO INDEPENDENT PRODUCTION LINES:

LINE 1
600 MW capacity for solar PV panels.

LINE 2
BIPV panel production with a total capacity of ≈ 500 000 m^2 of façade systems annually.

WHERE IS THE HEADQUARTERS LOCATED?

Headquarters : Building A2, Silicone Oasis, Dubai

Factory and Office : Rakez Free Zone , Al Ghayl, Ras Al Khaimah

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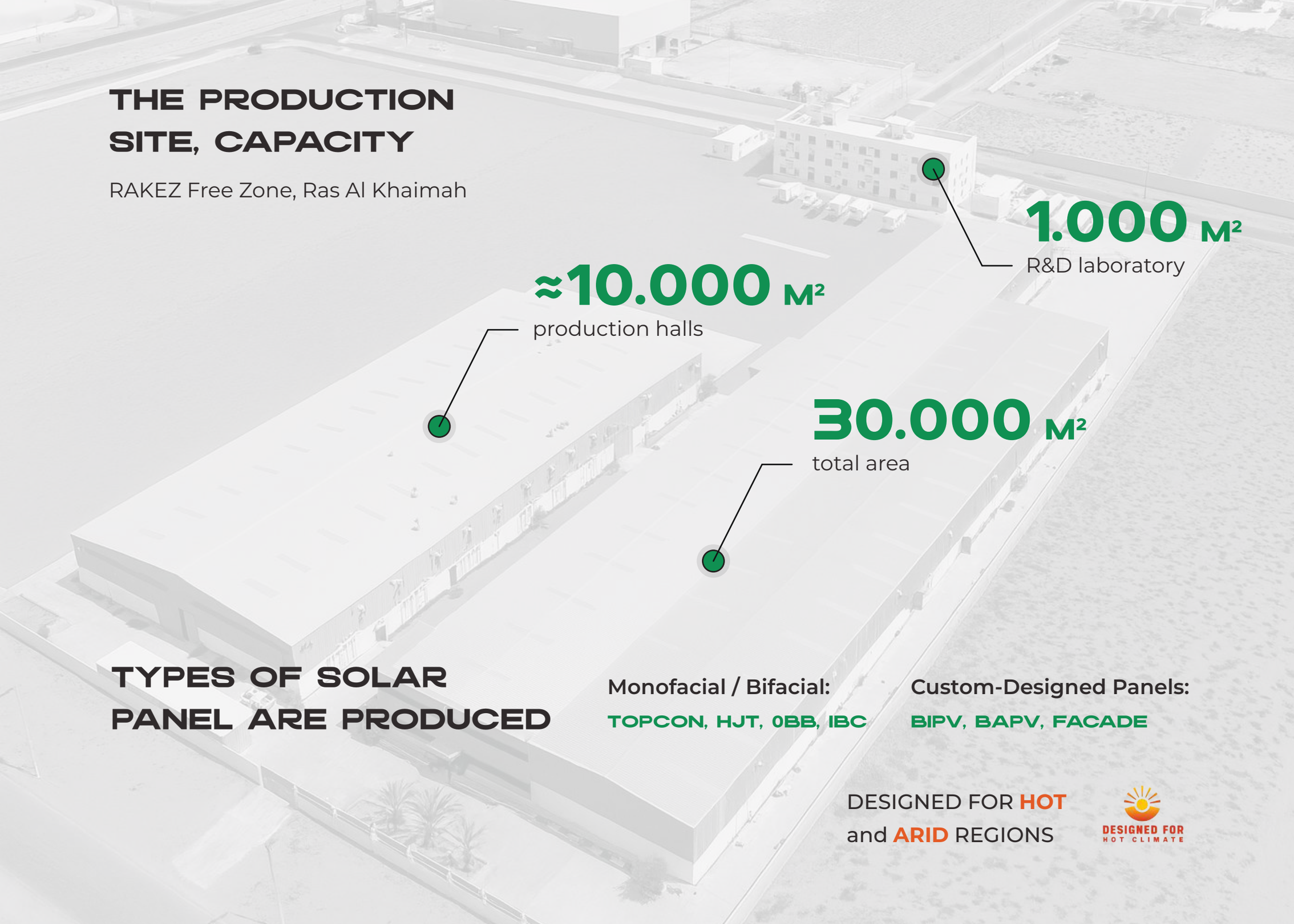

THE PRODUCTION SITE, CAPACITY

RAKEZ Free Zone, Ras Al Khaimah

1.000 M²
R&D laboratory

≈10.000 M²
production halls

30.000 M²
total area

TYPES OF SOLAR PANEL ARE PRODUCED

Monofacial / Bifacial:
TOPCON, HJT, 0BB, IBC

Custom-Designed Panels:
BIPV, BAPV, FACADE

DESIGNED FOR **HOT** and **ARID** REGIONS

DESIGNED FOR HOT CLIMATE

FUTURE SCALING

IN Q2 2026, ZAKH WILL LAUNCH:

1. **1.2 GW**
   A 1.2 GW production line for standard solar panels.

2. **1,000,000 M²**
   A 1 000 000 m² BIPV facade line.

3. **400 MW NEW GENERATION**
   An additional 400 MW line for **unique** panels with a 45-year performance warranty.

MAIN SALES MARKETS

UAE, GGC, MENA, Europe, USA and Australia.

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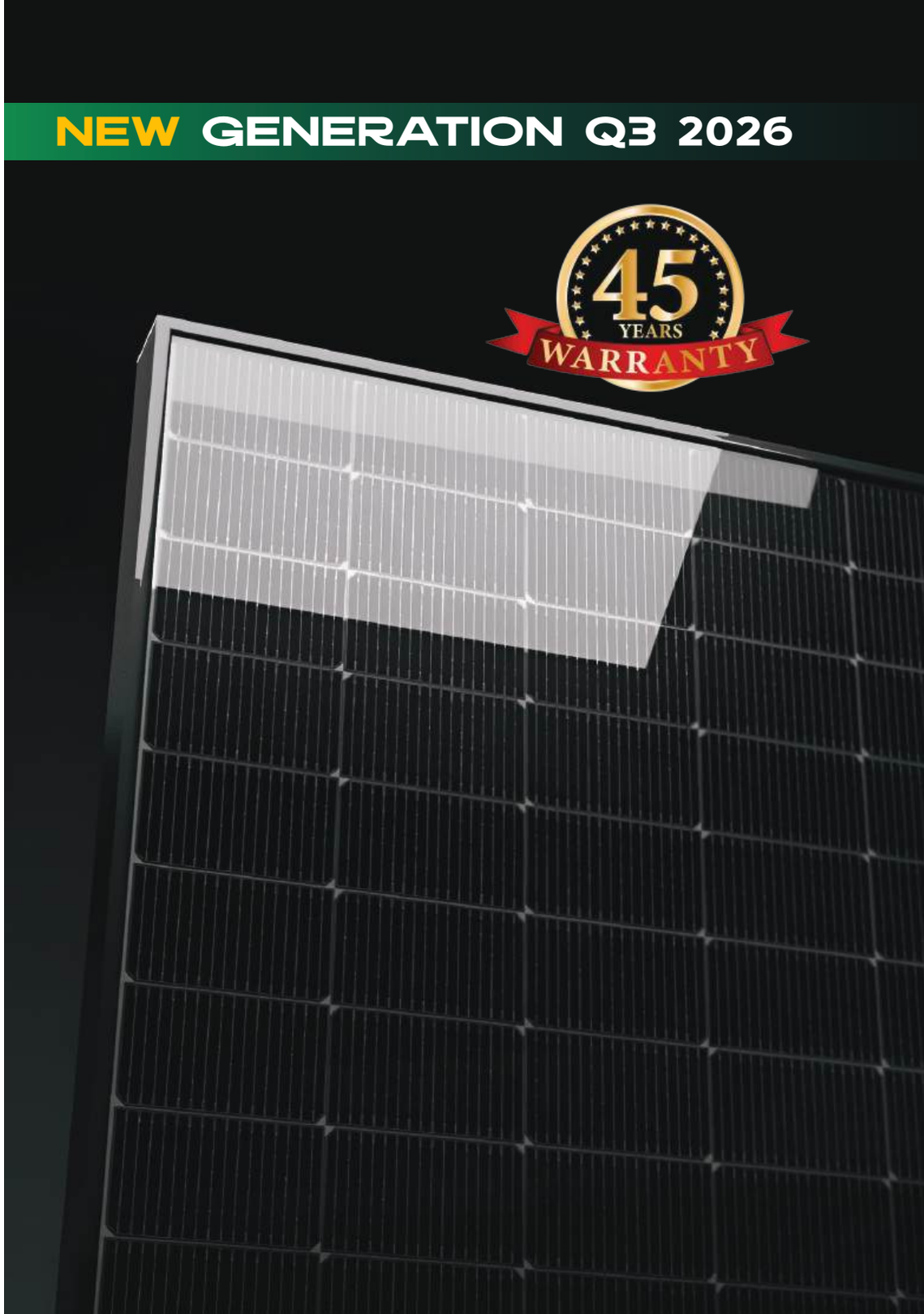

MISSION STATEMENT

COMPANY MISSION

ZAKH Renewable Energy aims to accelerate the global transition to clean energy through advanced technologies, sustainable design, and responsible local manufacturing.

CORE VALUES

Innovation, sustainability, quality, reliability, and long-term performance.

CONTRIBUTION TO CLEAN ENERGY

Development and production of high-efficiency PV and BIPV systems adapted for hot and arid climates, reducing carbon emissions and energy waste.

DISTINCTIVE ADVANTAGE

Strong focus on R&D, UAE-based production, and unique technologies such as thermal-resistant facades and panels with 45-year durability.

LONG-TERM GOAL

To establish ZAKH Renewable Energy as a global leader in innovative PV and BIPV solutions, supporting the UAE Net Zero 2050 vision.

GLOBAL PRESENCE

PRODUCTION / OFFICES / DISTRIBUTION

HEADQUARTERS OFFICE

RAKEZ, Ras Al Khaimah, UAE.

AFRICAN OFFICE

Nairobi, Kenya.

PRODUCTION SITE

RAKEZ Free Zone, Ras Al Khaimah, UAE.

OPERATIONAL HEADQUARTERS

Dubai Silicon Oasis, Dubai, UAE.

PARTNER MARKETS

UAE, GCC, Africa, Europe, and the USA.

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SYSTEM AND PRODUCT CERTIFICATION

CERTIFICATES APPLY TO ALL MODULE TYPES N-TYPE

TopCon, HJT, IBC, 0BB

Confirming suitability for installation in residential, commercial, and utility-scale projects.

MODULES ARE COVERED BY

30-years product warranty

15-years product warranty

Ensuring long-term stability, efficiency, and reliability under certified operating standards.

All ZAKH Renewable Energy solar modules are certified according to international safety and performance standards.

THE FOLLOWING CERTIFICATIONS ARE APPLICABLE ACROSS THE PRODUCT RANGE (380–740 W):

- **IEC 61215**
  Design qualification and type approval for crystalline silicon PV modules.
- **IEC 61730**
  Safety qualification for PV modules (Part 1 & 2).
- **IEC 61701**
  Resistance to salt mist corrosion (for coastal and high-humidity environments).
- **IEC 62804**
  Potential Induced Degradation (PID) resistance certified.
- **IEC 62716**
  Resistance to ammonia corrosion (for agricultural and industrial settings).
- **ISO 9001**
  Quality management system.
- **ISO 14001**
  Environmental management system.
- **ISO 45001**
  Occupational health and safety management system.

OUR TEAM

MANAGEMENT

ZAHAR SHASHKOV
CEO

MARINA STRATEVA
COO

MOHAN YADAV
Head of Solar
Production and Quality

VESAM HARONOV
CLO

ALEXANDER SHIRYAEV
CFO

AARON DAVIDOFF
Head of Sales and Marketing

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R&D DEPARTMENT

LEONID YUFEREV

Lead Engineer – Hybrid Electrical Integration
PhD in Electrical Engineering

VLADIMIR KORCHAGIN

Chemical Research Specialist – Nanomaterials

OLGA SHEPOVALOVA

Head of R&D – Next Generation Solar Technologies

ALEXANDER IVLEV

R&D Structural Engineer – Solar & BIPV Systems

IRINA PERSIC

Senior Photovoltaic Materials Scientist
Patents & Innovation

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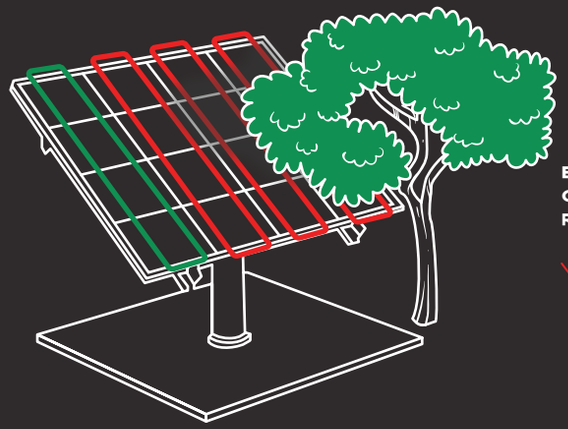
WHY ZAKH RENEWABLE ENERGY PANEL TO BE CHOSEN THEN

STANDARD MODULE

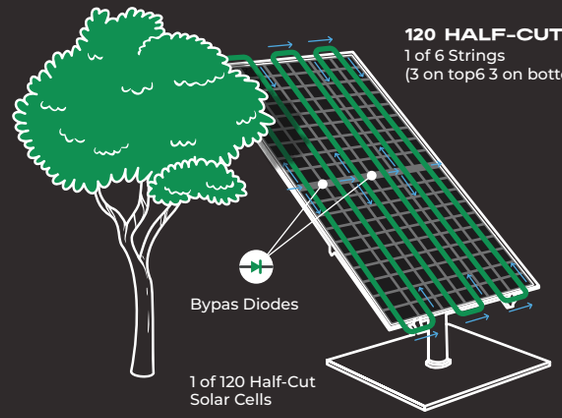
FAERS MODULE

SHADING LOSSES



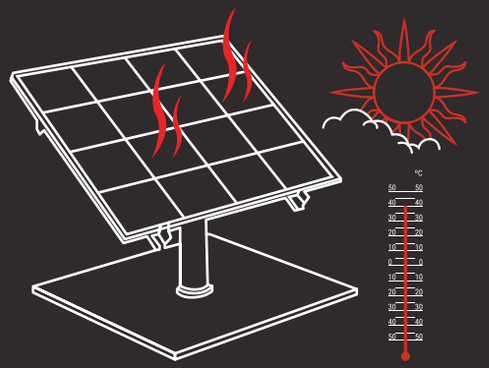
EVEN PARTIAL SHADING CAN SIGNIFICANTLY REDUCE POWER OUTPUT

↘ **REDUCE 40%**



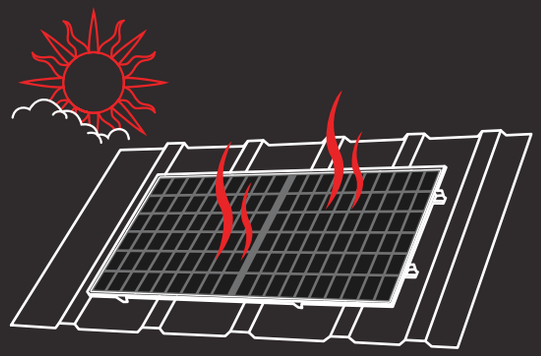
FAERS MANUFACTURE HALF CUT SOLAR PANEL WHICH DON'T REDUCE GENERATION EVEN DUE TO SHADOW EFFECT

TEMPERATURE LOSSES



HIGH TEMPERATURES AN SOLAR PANEL EFFICIENCY

↘ **40°C**
EFF GO DOWN



FAERS MODULE HAS LOW TEMPERATURE COEFFICIENT THEN ANY TYPICAL SOLAR MODULE

→ **0–75°C**
EFF IS STABLE

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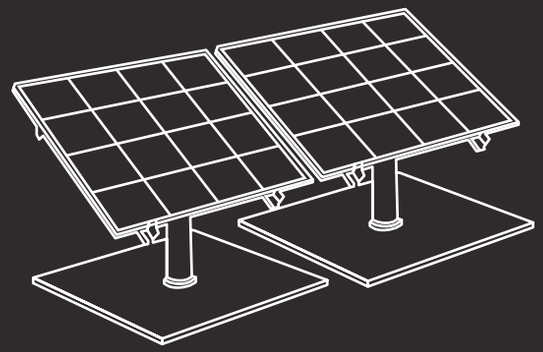
WHY ZAKH

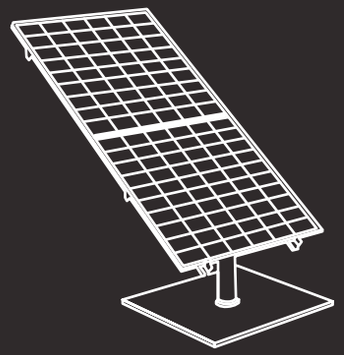
STANDARD MODULE

FAERS MODULE

DEGRADATION LOSSES

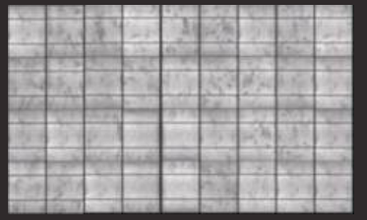


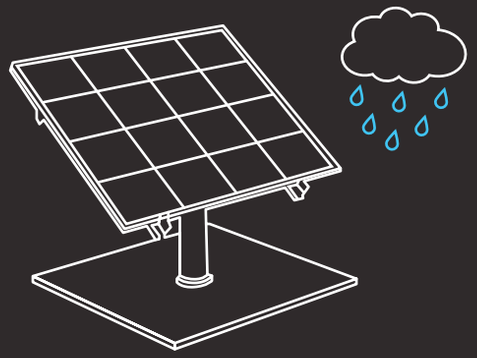
SOLAR PANEL
TYPICALLY LOSE 3-5%
EFFICIENCY PER YEAR



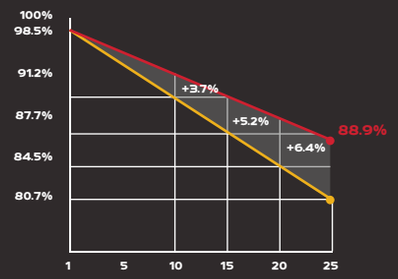
HALF-CUT TECHNOLOGY

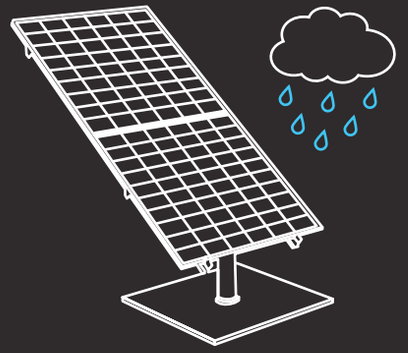
DEGRADTION LOSSES
0.4-1% EFFICIENCY



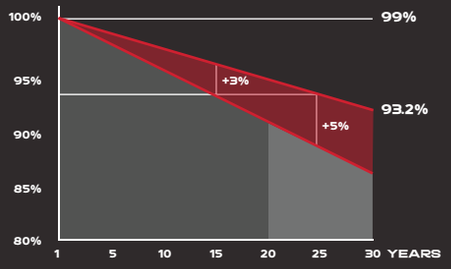


SOLAR PANEL TYPICALLY
LOSE 10-12% EFFICIENCY
PER YEAR IN LIFE SPAN





DEGRADTION LOSSES 90%
EFFICIENCY AFTER 30 YEARS

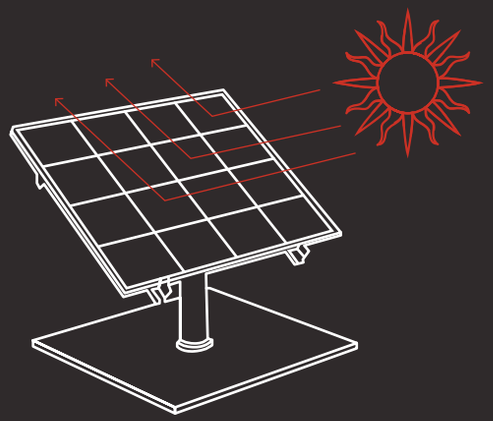


WHY ZAKH RENEWABLE ENERGY PANEL TO BE CHOSEN THEN

STANDARD MODULE

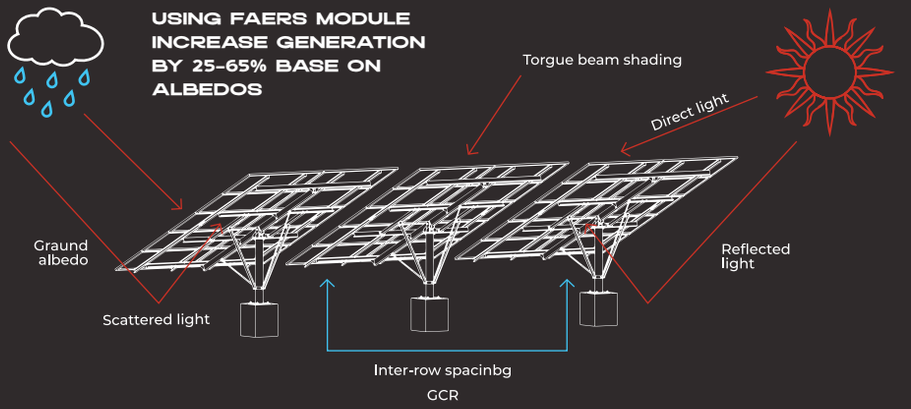
FAERS MODULE

DEGRADATION LOSSES

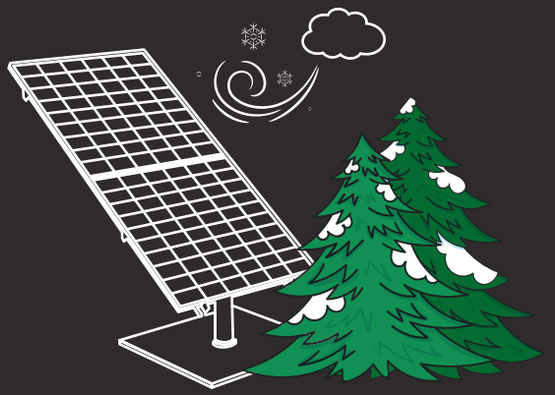


TYPICAL MODULE GENERATED ONLY FROM FRONT SIDE

USING FAERS MODULE INCREASE GENERATION BY 25-65% BASE ON ALBEDOS



TYPICAL MODULE SUSTAIN SNOW SPEED OF 5200KPA & WIND SPEED OF 2400KPA



FAERS MODULE DESIGN TO SUSTAIN SNOW SPEED OF 5600KPA & WIND SPEED OF 2500KPA

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WHY ZAKH

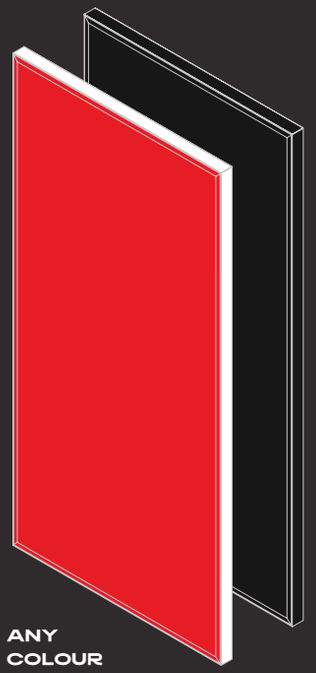
STANDARD MODULE

FAERS MODULE

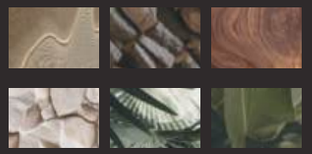
DEGRADATION LOSSES

TYPICAL SOLAR PANELS
WITH UNIVERSAL, SHED,
SIZE & COLOR

ANY
TEXTURE



ANY
COLOUR



MANUFACTURING EXCELLENCE

LINE 1: SOLAR PANEL PRODUCTION 600 MW

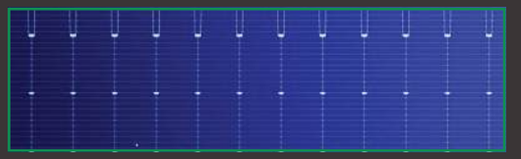
LOCATION & AUTOMATION

PRODUCTION CAPACITY
600 MW

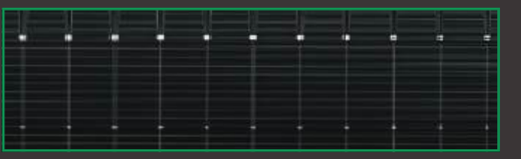
FACILITY
FULLY AUTOMATED PRODUCTION LINE WITH HIGH-PRECISION PROCESS CONTROL.

CONFIGURATION
OPTIMIZED FOR N-TYPE SOLAR MODULES.

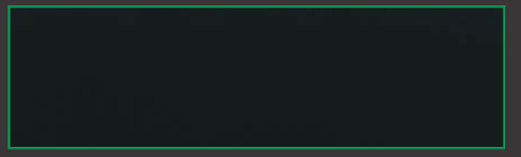
SUPPORTED TECHNOLOGIES
TOPCON, HJT, AND IBC.



TOPCON

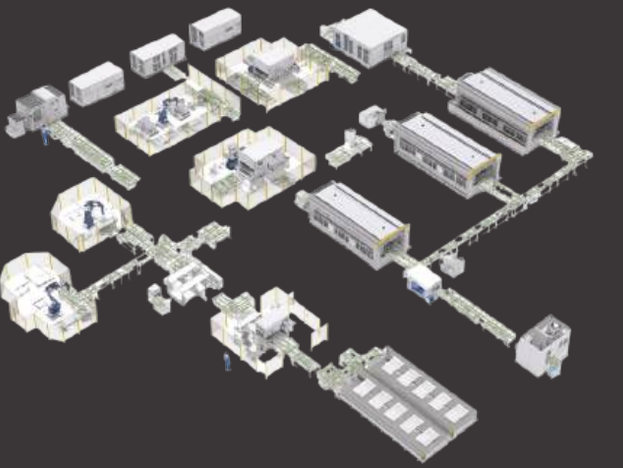


HJT



IBC

0BB



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ADVANTAGES OF THE PRODUCTION LINE

High automation with low energy consumption, ensuring stable and sustainable performance.

TIER 1
SUPPLIERS

Tier 1 equipment and raw material suppliers, guaranteeing consistent product quality and durability.

High efficiency output, delivering increased power per square meter compared to conventional technologies.

DESIGNED FOR
HOT CLIMATE

Climate adaptation: panels are designed for hot and arid enviroments, maintaining stability under giht temperatures.

Independent cell operation: if one cell malfunctions, the rest of the panel maintains full performance.


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LINE 1: SOLAR PANEL PRODUCTION 600 MW

MANUFACTURING EXCELLENCE

LOCATION & AUTOMATION

PRODUCTION CAPACITY
500,000 M^2 PER YEAR.

FACILITY
FULLY AUTOMATED, EQUIPPED FOR PRODUCTION OF ADVANCED BIPV SOLAR FACADE SYSTEMS.

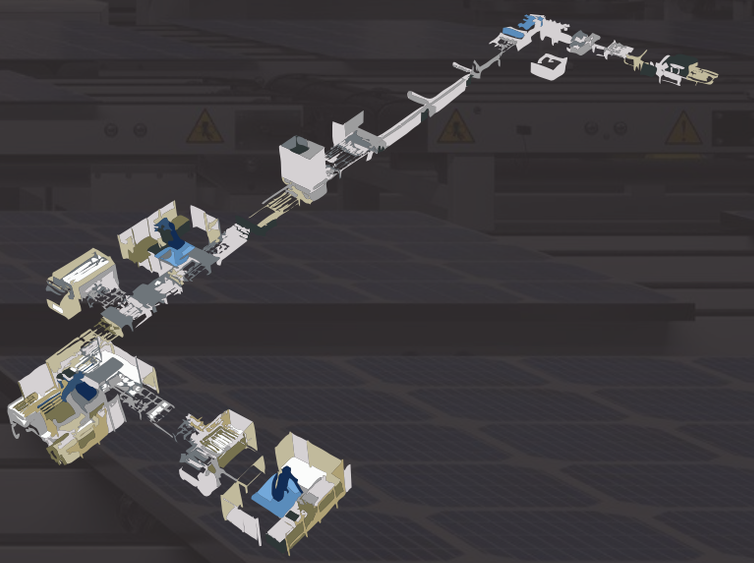
SIZE
FACADE SIZE CAN BE PRODUCED: UP TO 5M*3.75M

ADAPTABLE FOR
1. RAINSCREEN
2. CURTAIN WALL
3. PREFABRICATED SYSTEM

PRODUCT RANGE
CUSTOMIZABLE FAÇADE-INTEGRATED PV PANELS ADAPTABLE FOR RAINSCREEN, CURTAIN WALL, AND PREFABRICATED SYSTEMS.

LINE 2: BIPV PRODUCTION 500,000 M^2

CONFIGURATION
DESIGNED FOR LARGE-SCALE ARCHITECTURAL INTEGRATION — AVAILABLE IN ANY COLOR, SIZE, OR SHAPE, INCLUDING CURVED AND TEXTURED SURFACES.



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ADVANTAGES OF THE PRODUCTION LINE

NON-COMBUSTIBLE MATERIALS:
the facade does not burn or spread fire, ensuring full building safety.

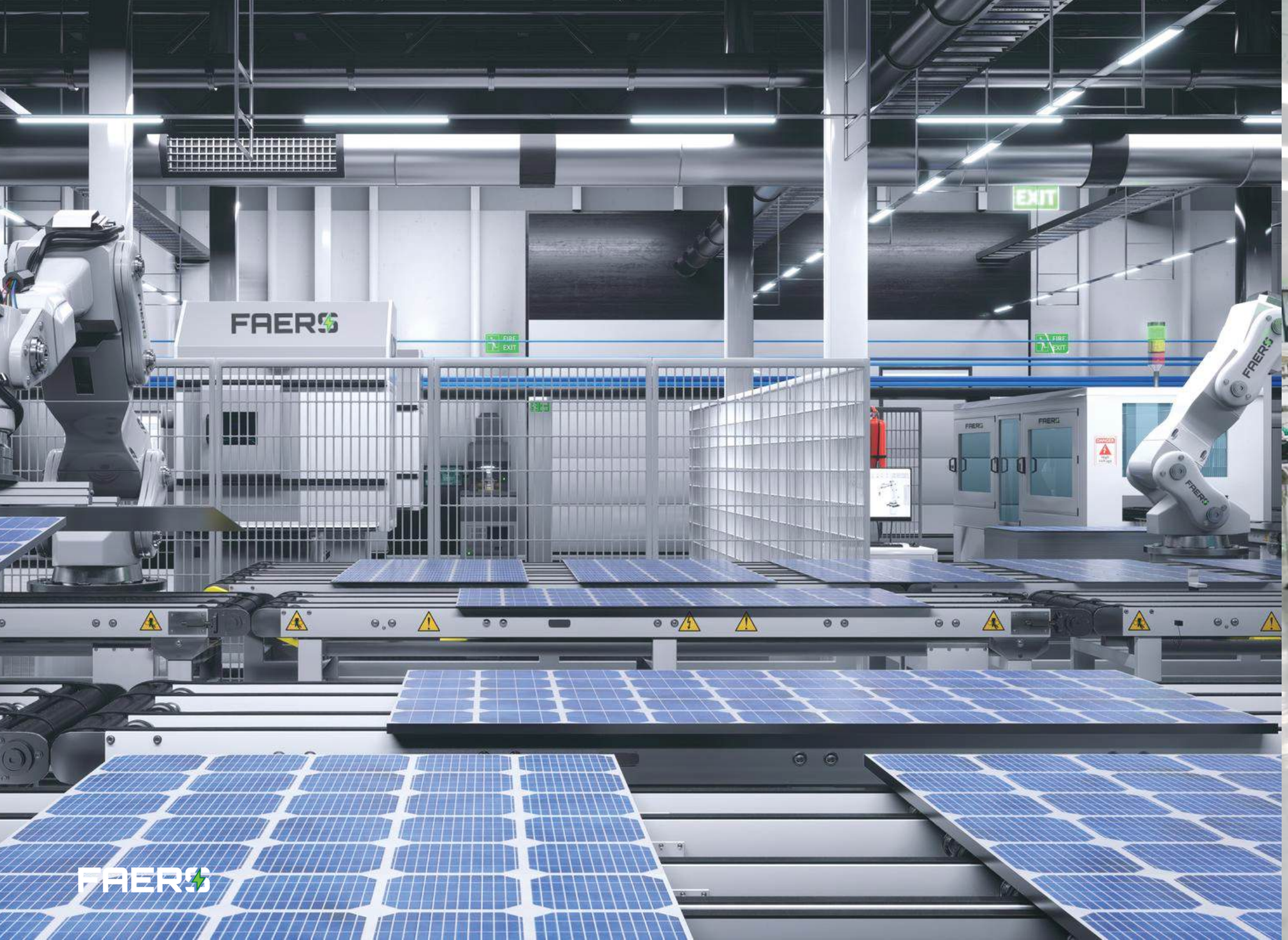
LOW MAINTENANCE:
self-cleaning and corrosion-resistant glass; panels are easy to wash and retain both aesthetics and efficiency over time.

DURABILITY:
resistant to UV exposure, temperature extremes from –40°C to +85°C, and physical impact maintaining long-term performance without cracking or fading.

ENERGY AND INSULATION EFFICIENCY:
panels not only generate electricity but also reduce heat transfer, keeping interiors cooler and cutting overall energy use.

ARCHITECTURAL FLEXIBILITY:
supports any color, finish, or texture — matte, glossy, satin, orwood transforming buildings into functional, energy-generating facades.

PHOTOVOLTAIC CURTAIN WALL(# PV STONE 1)


FAERS
EXIT
FIRE
EXIT
FAERS

LINE 2: BIPV PRODUCTION 500,000 M^2

PRODUCTION PORTFOLIO

FAMILY ULTRA

850W MAXIMUM POWER OUTPUT

24.3% MAXIMUM MODULE EFFICIENCY

0~+5W POWER TOLERANCE

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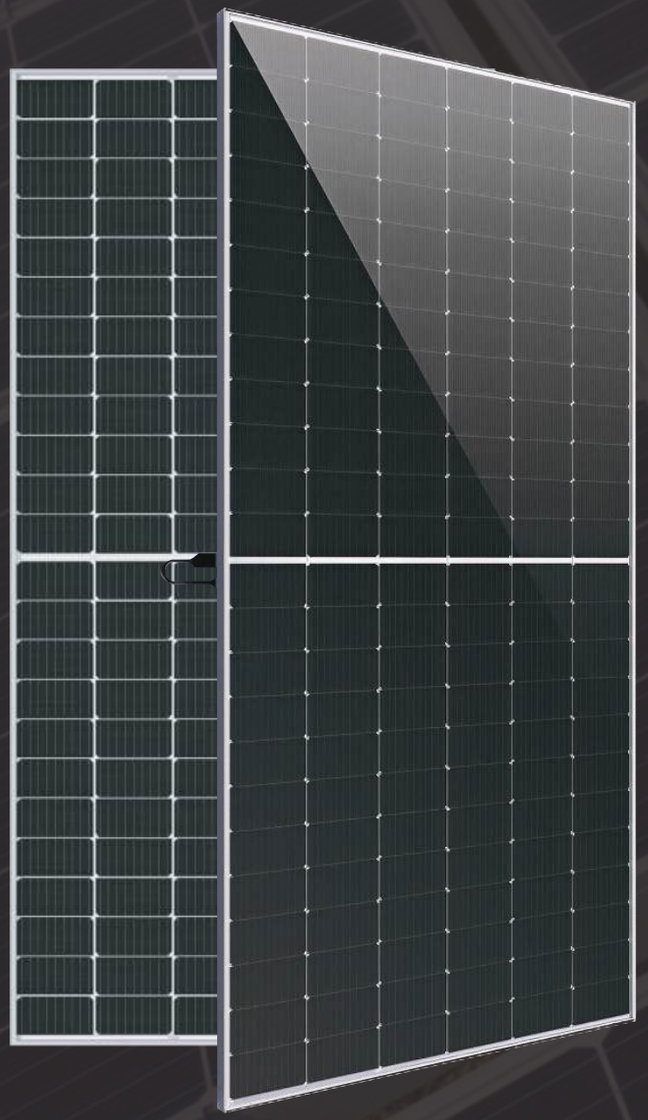
15 YEARS
PRODUCT WARRANTY
ON MATERIALS

30 YEARS
LINEAR POWER
OUTPUT WARRANTY

Flagship ultra-power modules for carports, BIPV roofs, solar tiles, and architectural integrations.



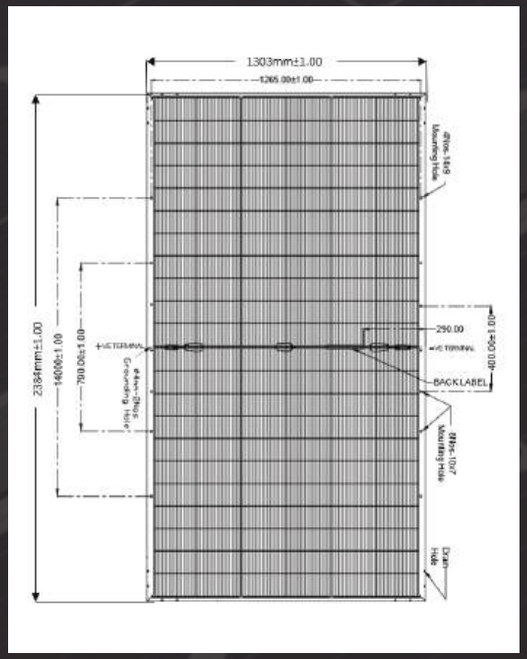
made in UAE صنع في الإمارات

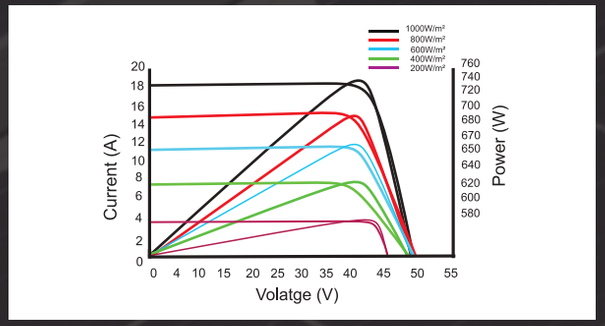
TEMPERATURE CHARACTERISTIC

Temperature coefficients of Pmax	-0.35% °C
Temperature coefficients of Voc	-0.28% °C
Temperature coefficients of Isc	-0.048% °C

FAERS

FROM HOMES TO MEGAPROJECTS
— THE COMPLETE SOLAR SOLUTION





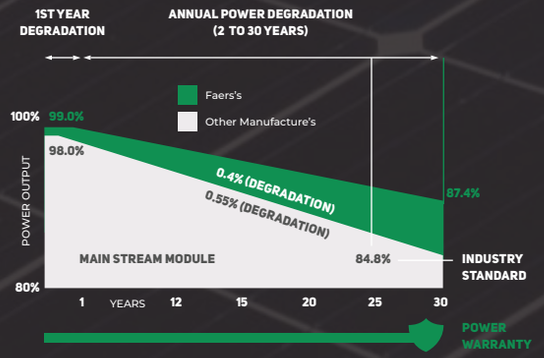
PACKAGING CONFIGURATION

Container	40 Feet	Pieces/Pallet	31
Pallets/Container	620	Pallets/Container	20

MECHANICAL CHARACTERISTICS

Cell type	Topcon Bifacial
No.of cells	132 [2 x (11 x 6)]
Dimensions	2384×1303×35mm
Weight	37.5 kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.00mm, Heat Strengthened Glass
Frame	Anodized Aluminum Alloy
EVA	Transparent EVA
Junction Box	IP68, 3 diodes 35amp
Output Cables	4 mm2 (IEC), 12 AWG (UL)
Connectors	MC4 compatible Connectors
Cable Length	400 mm (Customize length available)

INTRODUCTION



- N-TYPE TOPCON TECHNOLOGY FOR LOWER LCOE
- ULTRA-LOW DEGRADATION, LONGER WARRANTY, HIGHER OUTPUT
- PID RESISTANCE
- DOUBLE-SIDED POWER GENERATION, HIGHER YIELD
- UNIVERSAL SOLUTION FOR RESIDENTIAL AND C&L APPLICATION

BIFACIAL OUTPUT-REARSIDE POWER GAIN

	STC Condition Output	700	705	710	715	720	725	730	735	740
5%	Maximum Power Pmax	735	740.25	745.5	750.75	756	761.25	766.5	771.75	777
	Module Efficiency STC (%)	23.66	23.83	24.00	24.17	24.34	24.51	24.68	24.84	25.01
10%	Maximum Power Pmax	770	775.5	781	786.5	792	797.5	803	808.5	814
	Module Efficiency STC (%)	24.79	24.96	25.14	25.32	25.50	25.67	25.85	26.03	26.20
15%	Maximum Power Pmax	805	810.75	816.5	822.25	828	833.75	839.5	845.25	851
	Module Efficiency STC (%)	25.91	26.10	26.28	26.47	26.66	26.84	27.03	27.21	27.40

PRODUCTION PORTFOLIO

FAMILY MAX

675W MAXIMUM POWER OUTPUT

23.82% MAXIMUM MODULE EFFICIENCY

0~+5W POWER TOLERANCE

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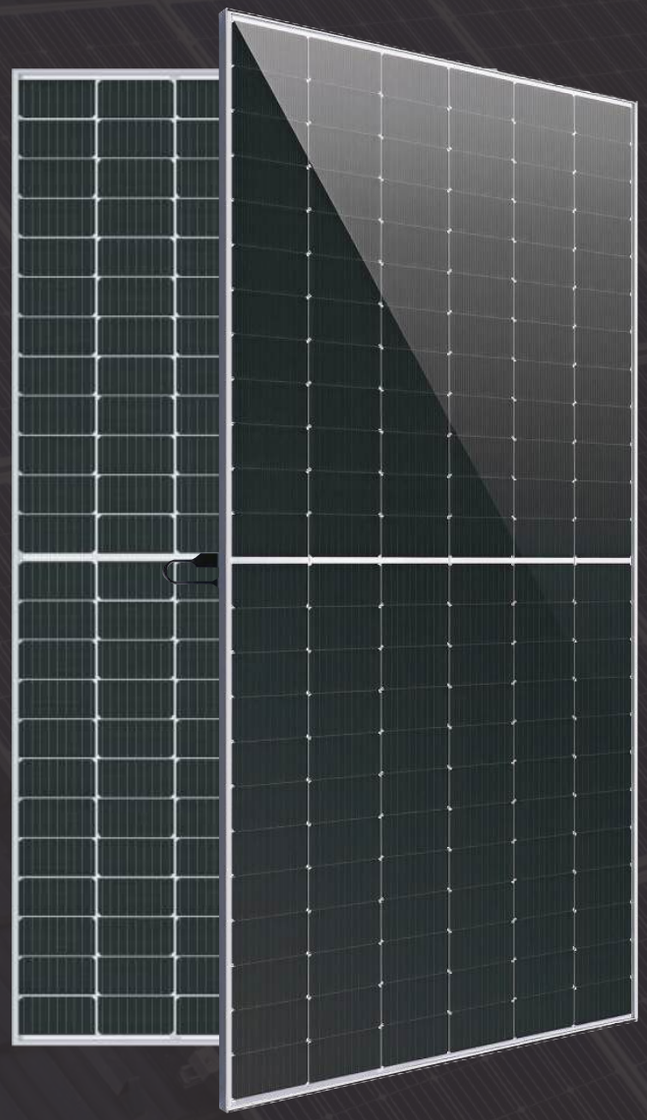
15 YEARS
PRODUCT WARRANTY
ON MATERIALS

30 YEARS
LINEAR POWER
OUTPUT WARRANTY

Advanced high-output modules ideal for large-scale solar farms and industrial applications, delivering maximum power and superior mechanical durability.



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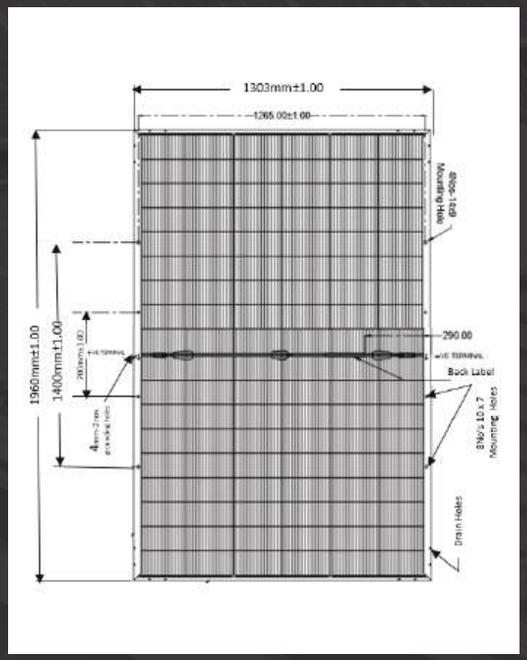
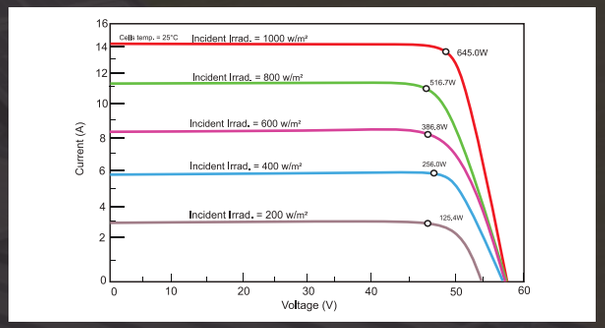
— THE COMPLETE SOLAR SOLUTION





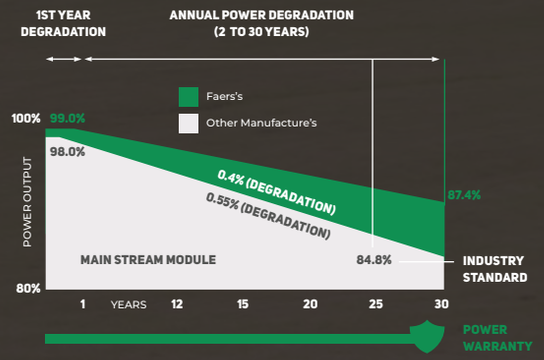
PACKAGING CONFIGURATION

Container	40 Feet	Pieces/Pallet	31
Pallets/Container	620	Pallets/Container	20

MECHANICAL CHARACTERISTICS

Cell type	Topcon Bifacial
No.of cells	108 [2 x (9 x 6)]
Dimensions	1960x1303x35mm
Weight	32.2 kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.00mm, Heat Strengthened Glass
Frame	Anodized Aluminum Alloy
EVA	Transparent EVA
Junction Box	IP68, 3 diodes 35amp
Output Cables	4 mm2 (IEC), 12 AWG (UL)
Connectors	MC4 compatible Connectors
Cable Length	400 mm (Customize length available)

INTRODUCTION



- N-TYPE TOPCON TECHNOLOGY FOR LOWER LCOE
- ULTRA-LOW DEGRADATION, LONGER WARRANTY, HIGHER OUTPUT
- PID RESISTANCE
- DOUBLE-SIDED POWER GENERATION, HIGHER YIELD
- UNIVERSAL SOLUTION FOR RESIDENTIAL AND C&L APPLICATION

BIFACIAL OUTPUT-REARSIDE POWER GAIN

	STC Condition Output	570	575	580	585	590	595	600	605
5%	Maximum Power Pmax	598.50	603.75	609.00	614.25	619.50	624.75	630.00	635.25
	Module Efficiency STC (%)	23.43	23.64	23.85	24.05	24.26	24.46	24.67	24.87
10%	Maximum Power Pmax	627.0	632.5	638.0	643.5	649.0	654.5	660.0	665.5
	Module Efficiency STC (%)	24.55	24.77	24.98	25.20	25.41	25.63	25.84	26.06
15%	Maximum Power Pmax	655.50	661.25	667.00	672.75	678.50	684.25	690.00	695.75
	Module Efficiency STC (%)	25.67	25.89	26.12	26.34	26.57	26.79	27.02	27.24

PRODUCTION PORTFOLIO

FAMILY PRO

605W MAXIMUM POWER OUTPUT

23.69% MAXIMUM MODULE EFFICIENCY

0~+5W POWER TOLERANCE

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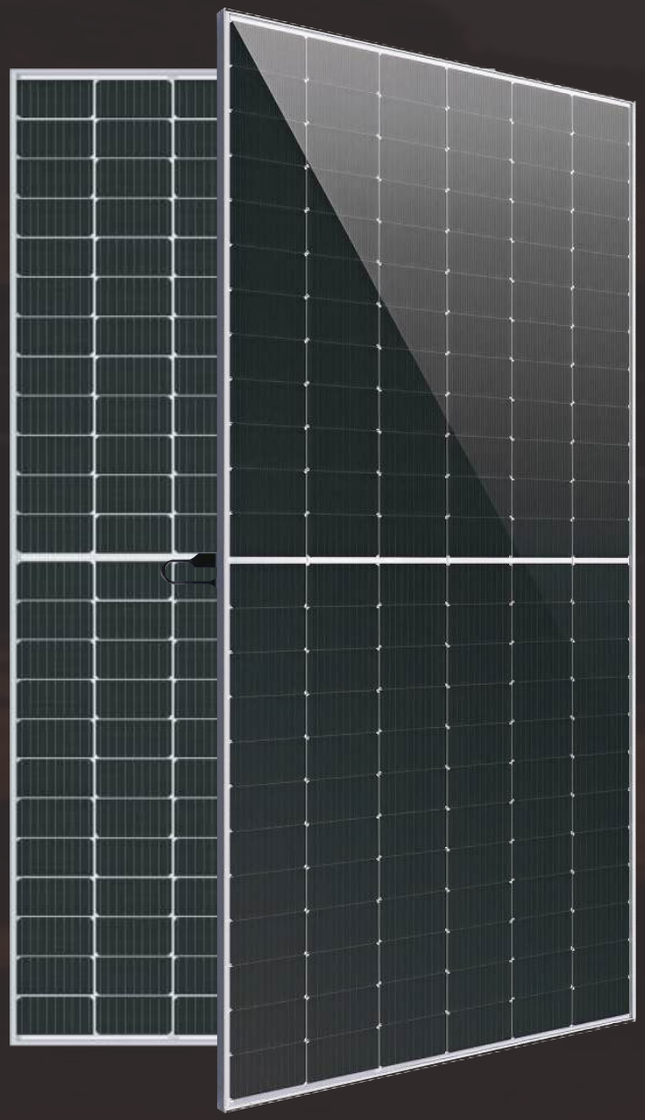
15 YEARS
PRODUCT WARRANTY
ON MATERIALS

30 YEARS
LINEAR POWER
OUTPUT WARRANTY

Main commercial product line featuring N-Type TOPCon modules for industrial and commercial installations, offering high efficiency and long-term reliability.



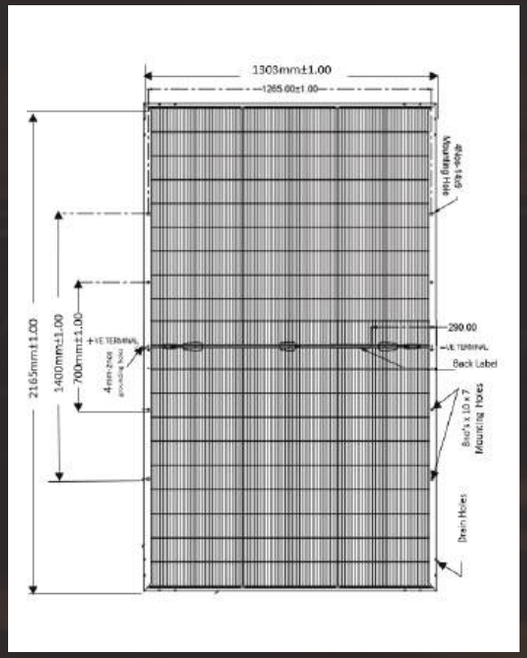
made in UAE صنع في الإمارات

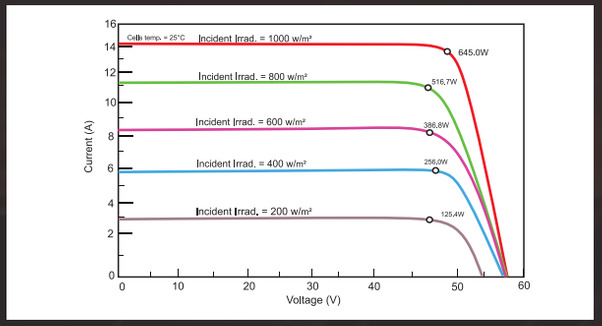
TEMPERATURE CHARACTERISTIC

Temperature coefficients of Pmax	-0.35% °C
Temperature coefficients of Voc	-0.28% °C
Temperature coefficients of Isc	-0.048% °C

FAERS

FROM HOMES TO MEGAPROJECTS
— THE COMPLETE SOLAR SOLUTION





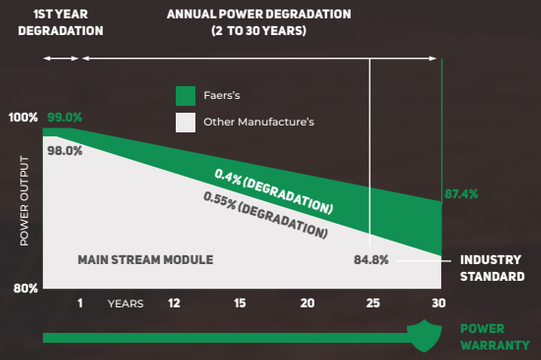
PACKAGING CONFIGURATION

Container	40 Feet	Pieces/Pallet	31
Pallets/Container	620	Pallets/Container	20

MECHANICAL CHARACTERISTICS

Cell type	Topcon Bifacial
No.of cells	120 [2 x (10 x 6)]
Dimensions	2165x1303x35mm
Weight	35.8 kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.00mm, Heat Strengthened Glass
Frame	Anodized Aluminum Alloy
EVA	Transparent EVA
Junction Box	IP68, 3 diodes 35amp
Output Cables	4 mm2 (IEC), 12 AWG (UL)
Connectors	MC4 compatible Connectors
Cable Length	400 mm (Customize length available)

INTRODUCTION



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BIFACIAL OUTPUT-REARSIDE POWER GAIN

	STC Condition Output	635	640	645	650	655	660	665	670	675
5%	Maximum Power Pmax	666.75	672.00	677.25	682.50	687.75	693.00	698.25	703.50	708.75
	Module Efficiency STC (%)	23.64	23.83	24.02	24.20	24.39	24.57	24.76	24.95	25.13
10%	Maximum Power Pmax	698.5	704.0	709.5	715.0	720.5	726.0	731.5	737.0	742.5
	Module Efficiency STC (%)	24.77	24.96	25.16	25.35	25.55	25.74	25.94	26.13	26.33
15%	Maximum Power Pmax	730.25	736.00	741.75	747.50	753.25	759.00	764.75	770.50	776.25
	Module Efficiency STC (%)	25.90	26.10	26.30	26.51	26.71	26.91	27.12	27.32	27.53

PRODUCTION PORTFOLIO

FAMILY AIR (TILES)

400W MAXIMUM POWER OUTPUT

23.52% MAXIMUM MODULE EFFICIENCY

0~+5W POWER TOLERANCE

15 YEARS
PRODUCT WARRANTY
ON MATERIALS

30 YEARS
LINEAR POWER
OUTPUT WARRANTY

Entry-level high-quality modules designed for residential rooftops, façades, and small-scale commercial systems. Excellent performance under low light and high temperatures.

TEMPERATURE CHARACTERISTIC

Temperature coefficients of Pmax	-0.35% °C
Temperature coefficients of Voc	-0.28% °C
Temperature coefficients of Isc	-0.048% °C

made in UAE صنع في الإمارات

FAERS

FROM HOMES TO MEGAPROJECTS
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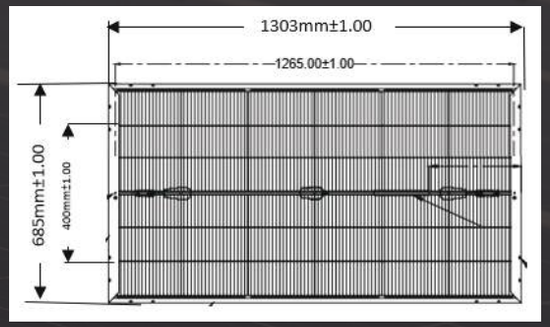
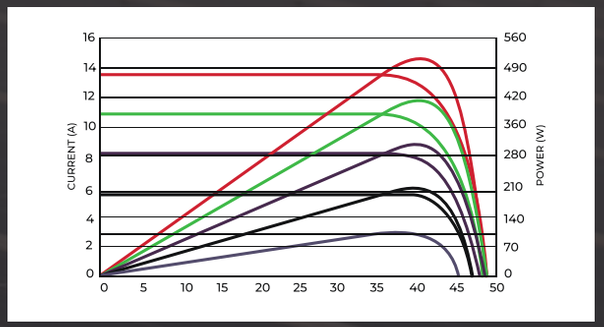




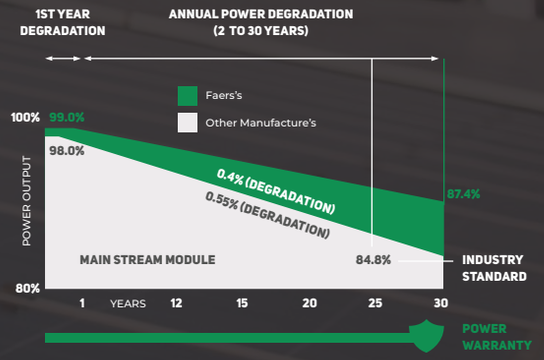
PACKAGING CONFIGURATION

Container	40 Feet	Pieces/Pallet	72
Pallets/Container	1440	Pallets/Container	20

MECHANICAL CHARACTERISTICS

Cell type	Topcon Bifacial
EVA	Transparent EVA
Junction Box	IP68, 3 diodes 35 amp
Output Cables	4 mm2 (IEC), 12 AWG (UL)
Connectors	MC4 compatible Connectors
Cable Length	400 mm (Customize length available)

INTRODUCTION



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Sr.№	Model Name	System Voltage (V)	Electrical Rating							Fuse rating (A)					№.of Bypass diodes	№.of cells per by pass diode (№)
			Voc (V)	Vm (V)	Isc (A)	Im (A)	Pm (W)	Eff	FF%		L (mm)	W (mm)	Frame Height	H (mm)		
1	FEARS-36H-400	1500	25.96	22.35	18.22	17.91	400.289	26.95	84.63	20	685	1303	35	Y-35 X-23	3	12 cell half cut
2	FEARS-36H-395	1500	25.94	22.33	17.98	17.69	395.018	26.59	84.69	20	685	1303	35	Y-35 X-23	3	12 cell half cut
3	FEARS-36H-390	1500	25.92	22.31	17.83	17.49	390.202	26.27	84.43	20	685	1303	35	Y-35 X-23	3	12 cell half cut
4	FEARS-36H-385	1500	25.90	22.29	17.58	17.28	385.171	25.93	84.59	20	685	1303	35	Y-35 X-23	3	12 cell half cut
5	FEARS-36H-380	1500	25.88	22.27	17.36	17.08	380.372	25.60	84.66	20	685	1303	35	Y-35 X-23	3	12 cell half cut

TYPES OF SOLAR FACADE SOLUTIONS

BAPV — BUILDING APPLIED PHOTOVOLTAICS

BAPV systems are solar panels installed on top of an existing building facade or roof. They do not replace the construction material but are attached to it using mounting systems.

KEY ADVANTAGES

- EASY INSTALLATION ON NEW OR EXISTING BUILDINGS
- LOWER COST AND FASTER IMPLEMENTATION
- LIGHTWEIGHT STRUCTURE
- IDEAL FOR RETROFIT PROJECTS AND BUILDINGS WITH FINISHED FACADES

FAERS

BIPV — BUILDING INTEGRATED PHOTOVOLTAICS

BIPV systems are solar panels that become part of the building's structure — they replace traditional materials such as glass, stone, or metal cladding.

KEY ADVANTAGES

- **DUAL FUNCTION — ARCHITECTURAL FAÇADE + POWER GENERATION**
- **HIGHEST AESTHETIC INTEGRATION**
- **EXCELLENT THERMAL AND SOUND INSULATION**
- **LONG-TERM ENERGY SAVINGS AND MODERN DESIGN**

TYPES OF SOLAR FACADE SOLUTIONS

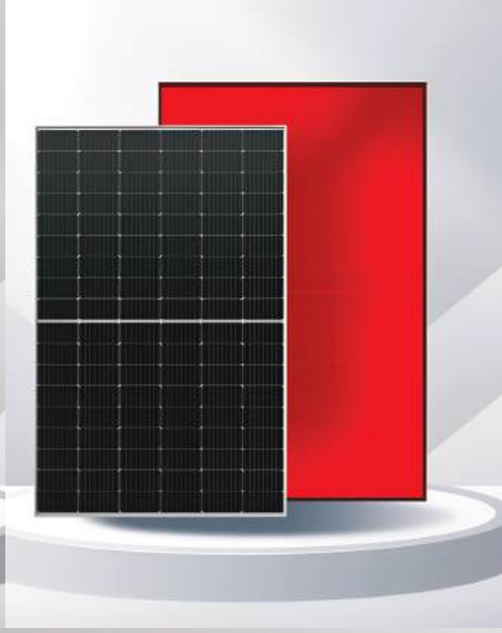
CUSTOMIZATION DESIGN (BAPV OR BIPV)

The Customization Design line allows clients to choose between BAPV or BIPV configurations, combining both technologies depending on project requirements.

KEY ADVANTAGES

- FULL FLEXIBILITY IN DESIGN, COLOR, AND MATERIAL
- CUSTOM SHAPES AND TEXTURES FOR ARCHITECTURAL HARMONY
- TAILORED TECHNICAL PARAMETERS — THICKNESS, EFFICIENCY, TRANSPARENCY
- SUITABLE FOR ANY CLIMATE AND CONSTRUCTION TYPE

FAERS



COMPARATIVE TABLE: BAPV VS BIPV VS STANDARD FACADE MATERIALS

PARAMETER	BAPV (BUILDING APPLIED PHOTOVOLTAICS)	BIPV (BUILDING INTEGRATED PHOTOVOLTAICS)
Integration Type	Mounted on top of existing facade	Integrated into facade as structural element
Construction Role	Add-on solar energy system	Dual role: facade material + power generator
Installation	Fast retrofit, minimal intervention	Installed during construction or renovation
Cost	Moderate investment, quick ROI	Higher initial cost, long-term payback
Weight	Mounted on top of existing facade	Integrated into facade as structural element
Aesthetic Appearance	Add-on solar energy system	Dual role: facade material + power generator
Thermal & Acoustic Insulation	Moderate — air gap adds insulation	Excellent — full integration improves insulation
Maintenance	Easy cleaning and replacement	Minimal maintenance; long-lasting finish
Durability	25–35 years lifespa	Up to 45 years lifespan
Sustainability	Produces renewable energy	Replaces materials + generates power
Fire Safety	Non-combustible glass surface	Fully non-combustible (A2-s1,d0)
Customization	Available in various colors and dimensions	Full customization in shape, color, and transparency
Overall Performance	Cost-effective and upgradeable	Premium integrated facade solution

SUSTAINABILITY IMPACT & GREEN VISION

SUSTAINABILITY COMMITMENT

Dedicated to advancing clean energy transition through eco-efficient technologies

CARBON REDUCTION

Each installed MW prevents over 900 tons of CO_2 emissions annually

MATERIAL RECYCLING

Panels designed for recyclability of up to 95% of materials

ENVIRONMENTAL FOCUS

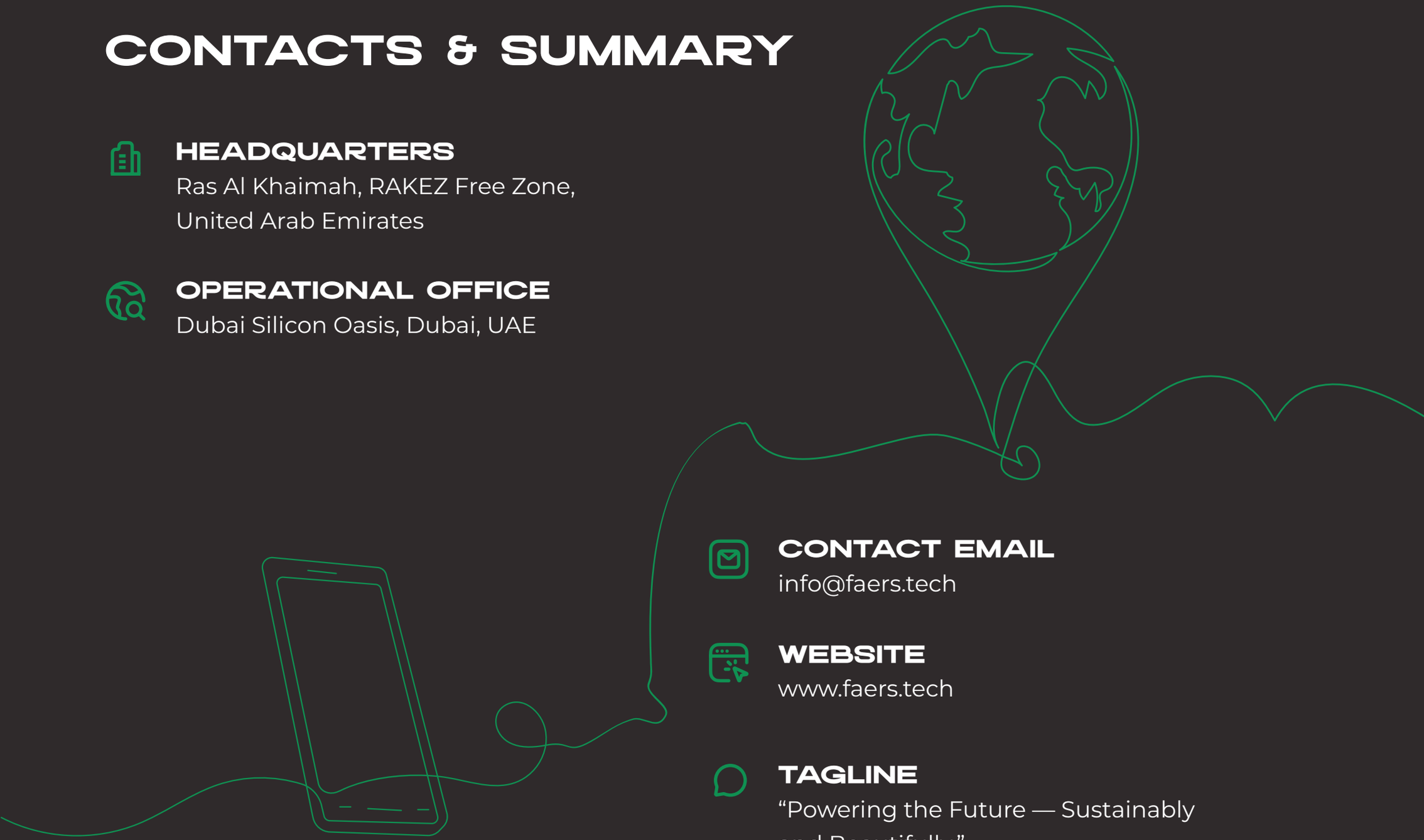
Using low-carbon glass, non-toxic encapsulants, and zero-lead soldering

VISION STATEMENT

“Empowering the world to build sustainably — where architecture meets energy.”

FAERO

CONTACTS & SUMMARY



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TAGLINE
“Powering the Future — Sustainably and Beautifully.”

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