LIGHT RIGHT WHERE IT'S NEEDED

15 Years of Excellence: Your Premier BIPV Solution Provider.

UPBEST · China

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SOLAR, RIGHT WHERE LIGHT IS NEEDED

XIAMEN UPBEST ENERGY TECHNOLOGY CO., LTD

DIRECTORY

A

B

C

Enterprise

Products

Application

ENTERPRISE INTRODUCTION

A

UPEEST
SOLAR,RIGHT WHERE LIGHT IS NEEDED

ABOUT US

We are going through an era of rapid technological development,
We have the privilege of being a part of it and witnessing it

... ...

From domestic to overseas,

We are moving towards a more diversified future... ...

2008 ● START

Started as a factory for solar systems

2017 ● DEVELOPMENT

Started solar battery branch

2018 ● BRAND

Created our brand to the world

2019 ● SPEED UP

Factory expending to 5 locations, 150,000 ㎡

2021 ● LEAP

Started Domestic Solar EPC company

2022 ● SOLAR TILE

Set up a department for solar tile

2023 ● UPBEST

Founded UPBEST for BIPV business

2024 ● NEXT

Launching series of targeted BIPV products and solutions

BIPV SYSTEMATIC ENERGY SOLUTION

ENERGY STORAGE BATTERY SERIES

Capacity: 6100Wh

Color: White

Modular design, flexible scalability

Plug and play, reducing operating and maintenance costs

S-51.2 PLUS SERIES

S-51.2 SERIES

Capacity: 2560/4400/5120Wh

Color: White/Orange/Green

Easy to install

Flexible switching between RS232/RS485/CAN

ENERGY STORAGE BATTERY SERIES

Flexible selection of capacity

Excellent security performance

Easy to install

>4000 cycle life

Strong energy-saving ability

Whole house integrated design

Windproof, waterproof, and dustproof

51.2V 50Ah

51.2V 100Ah

51.2V 82Ah

CERTIFICATIONS

Utility model patent certificate

Multiple other patent certificates

Actively participate in discussions and drafting local regulations related to the integration of optoelectronic buildings in Fujian Province with relevant institutions such as the Fujian Construction Industry Association and the Fujian Institute of Building Science Co., Ltd.

System certification (fully implementing the ISO system)

ISO9001 Quality Management System

Product certification (IEC61215/61730 international certification)

PRODUCT INTRODUCTION

B

Sliding solar tile

Overlap solar tile

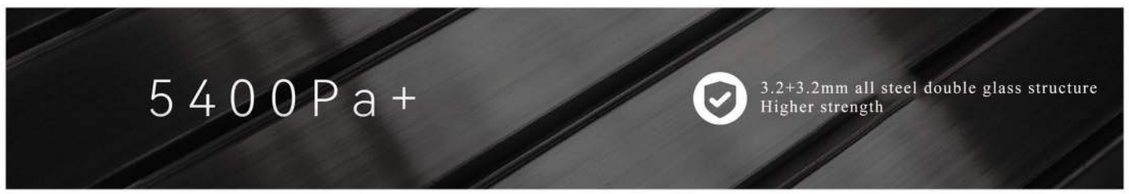
Scale solar tile

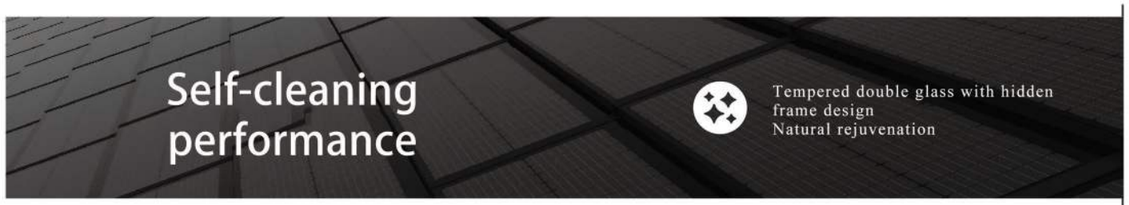
Balcony photovoltaic system

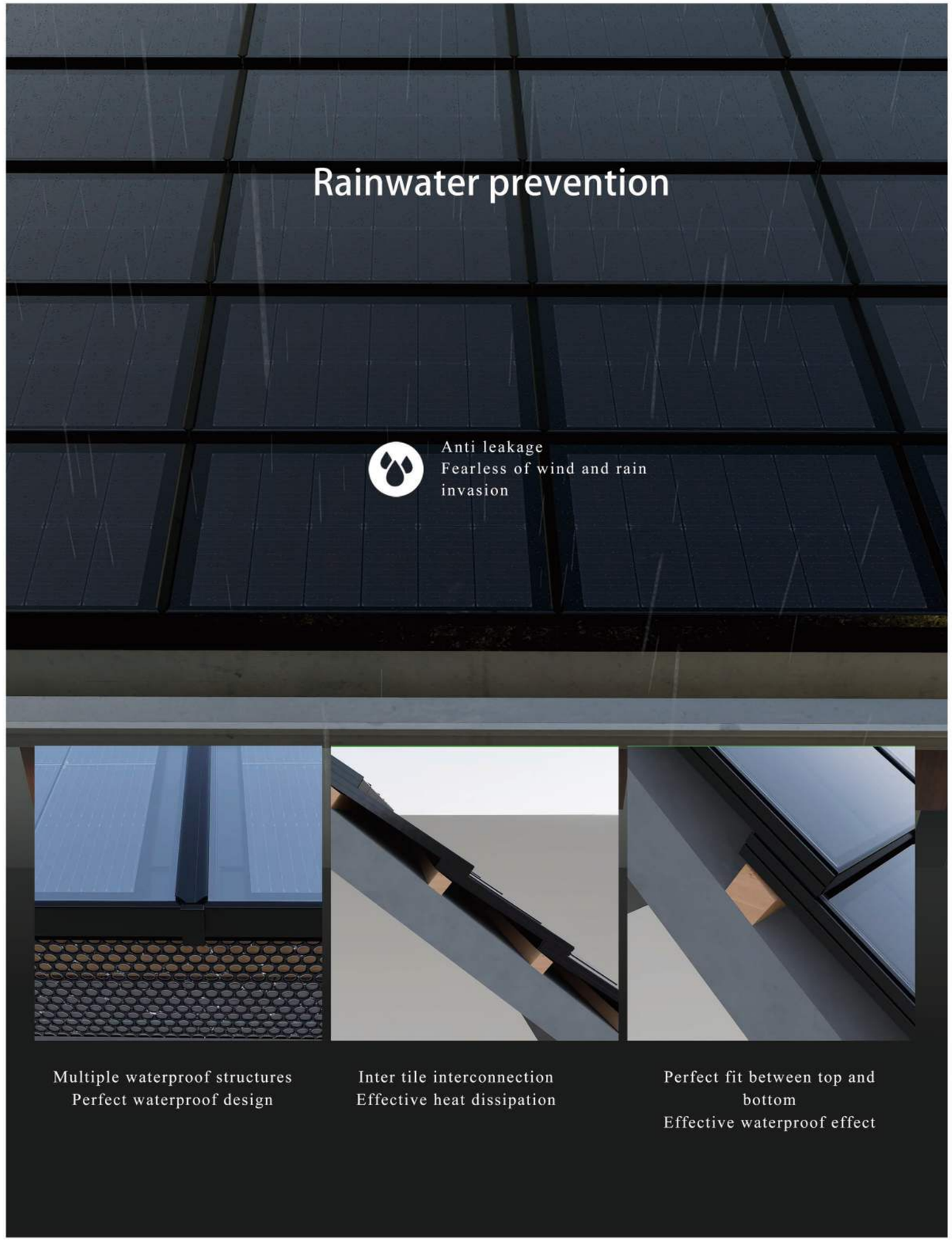
Solar floor tile

UPEEST
SOLAR,RIGHT WHERE LIGHT IS NEEDED

CORE COMPETENCY







SLIDING SOLAR TILE

UPB-RTSL-022W

UPB-RTSL-044W

Complies with mandatory certification standards for building materials

Structural wind resistance

Lightweight Convenient construction

Strong impact resistance Same lifespan as the building

Structural Waterproof and heat dissipation

Adapt to various traditional tiles

Self cleaning and flat design

Low reflectivity panel

PARAMETERS	22W	44W
Model	UPB-RTSL-022W	UPB-RTSL-044W
Dimension (mm)	330*530*35	652*530*35
Weight (kg)	3	5.5
Dimension of Cell (mm)	182*92 Perc monocrystal, 6 pcs	182*92 Perc monocrystal, 12pcs

PERFORMANCE CHARACTERISTICS

Junction Box	IP67, one diode	
Safety Level	Class II	
Fire-rating	Class C	
Hail-rating	Class 3 (25.4 mm/1 in. in diameter)	
Agency Approval	IEC 61215, IEC 61730,TUV CE, MCS	
STC (Irradiance of 1000 W/m2, AM 1.5 spectrum, and a cell temperature of 25 °C or 77 °F)		
Voc (V)	4.13	8.26
Isc (A)	6.75	6.75
Vmp (V)	3.55	7.1
Imp (A)	6.45	6.45
Pmax (W)	22	44

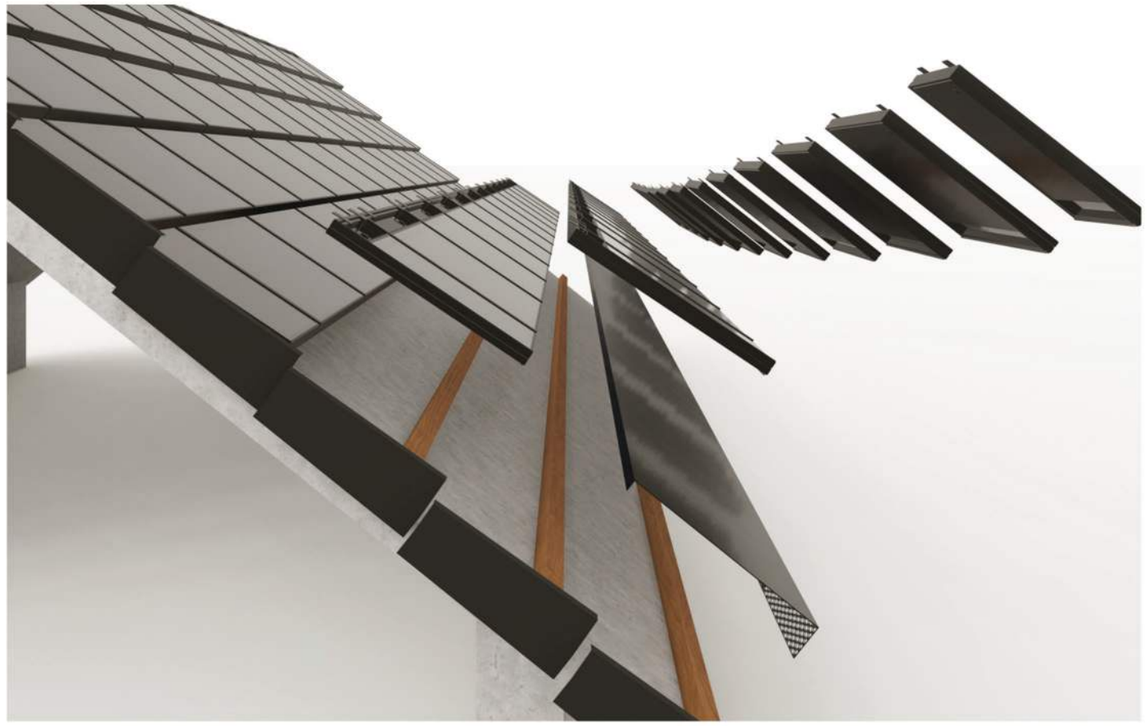
ELECTRICAL CHARACTERISTICS

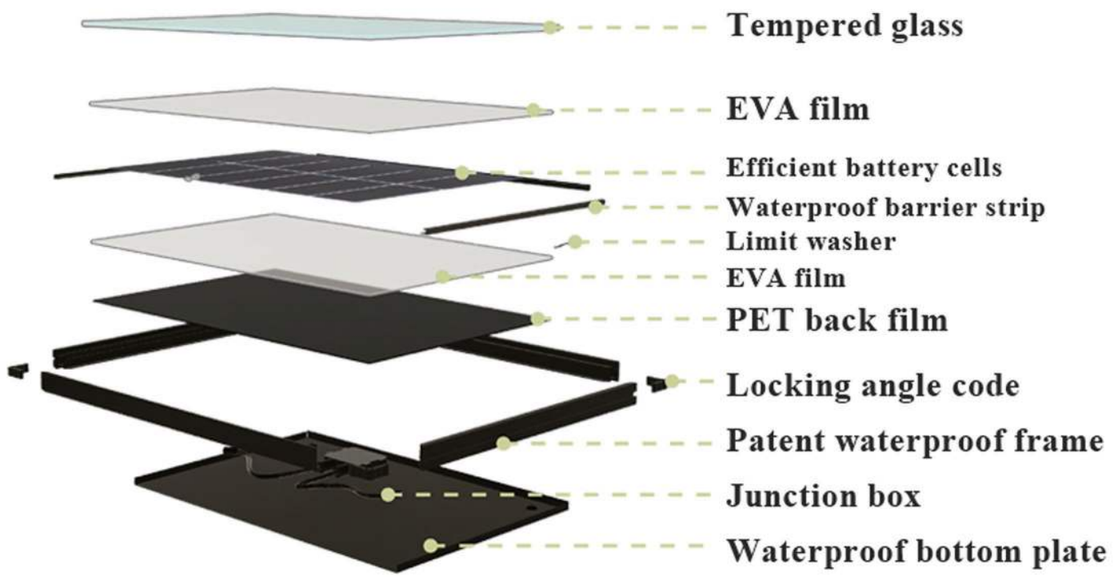
Max series fuse rating (A)	15
Max system voltage (V)	1000
Maxistatic load (front, Pa)	5400
Maxi static load (back, Pa)	2800
Working Temp	−40℃+85℃
Current/Voltage Tolerance	±4%/±3%

PACKAGE CHARACTERISTICS

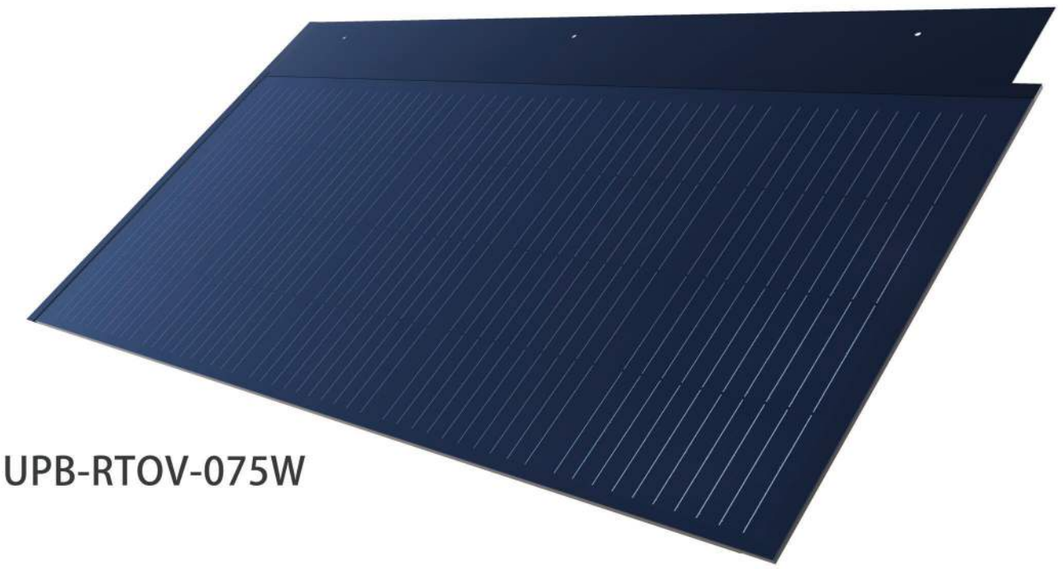
Single Carton (pcs/kg)	50/150	25/138
Single Container (pcs)	6000	3000

SLIDING SOLAR TILE



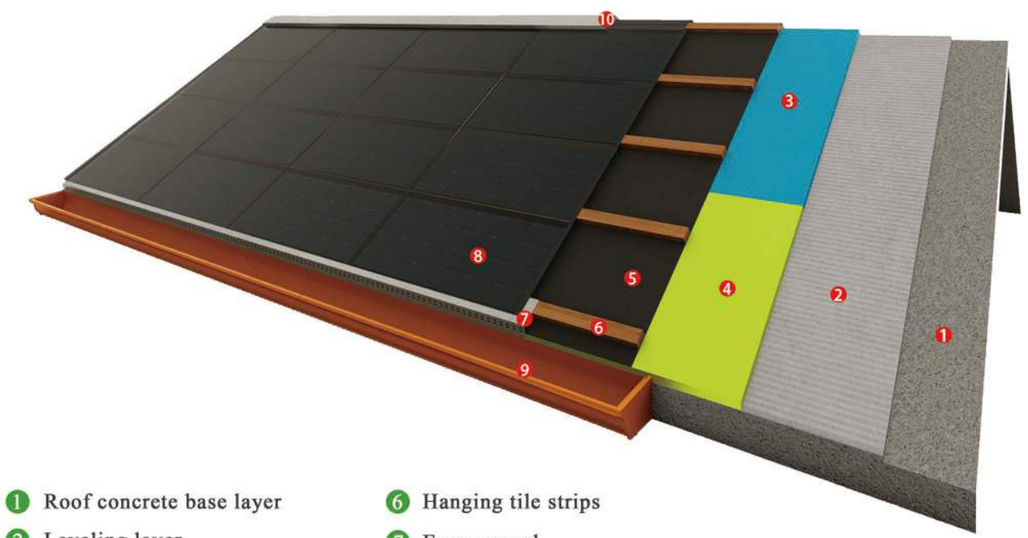


OVERLAP SOLAR TILE



UPB-RTOV-075W

Exploded view of roof effect



1. Roof concrete base layer
2. Leveling layer
3. Insulation board
4. Thermal insulation and flame-retardant isolation tape
5. Waterproof layer
6. Hanging tile strips
7. Eaves guard
8. Photovoltage
9. Drainage trough
10. Ridge roof tiles

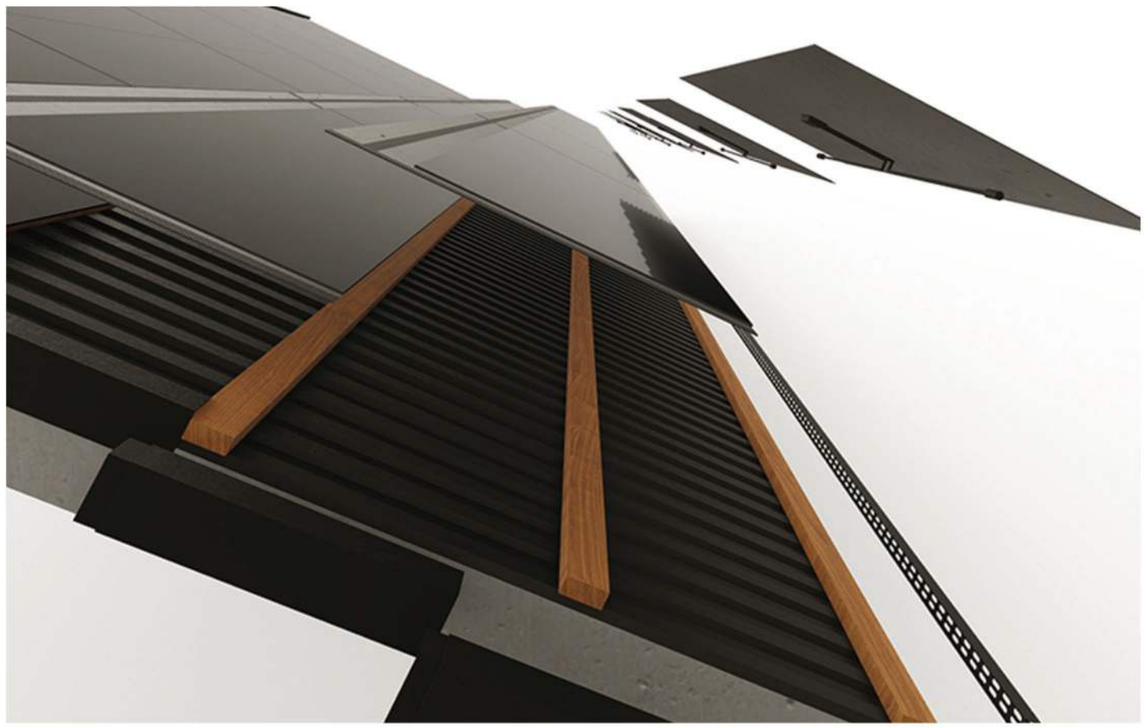
PARAMETERS	75W
Model	UPB-RTOV-075W
Dimension (mm)	973*500*8.6
Weight (kg)	9.3
Dimension of Cell (mm)	182*92 Perc monocrystal, 20 pcs

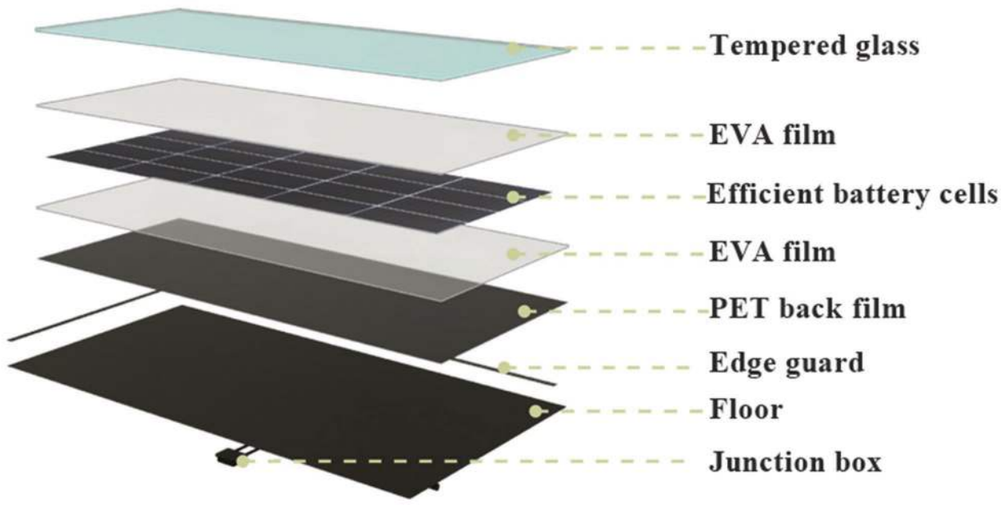
PERFORMANCE CHARACTERISTICS	
Junction Box	IP67, one diode
Safety Level	Class II
Fire-rating	Class C
Hail-rating	Class 3 (25.4 mm/1 in. in diameter)
Agency Approval	IEC 61215, IEC 61730,TUV CE, MCS
STC (Irradiance of 1000 W/m2, AM 1.5 spectrum, and a cell temperature of 25 °C or 77 °F)	
Voc (V)	13.78
Isc (A)	6.75
Vmp (V)	11.8
Imp (A)	6.45
Pmax (W)	75

ELECTRICAL CHARACTERISTICS	
Max series fuse rating (A)	15
Max system voltage (V)	1000
Maxistatic load (front, Pa)	5400
Maxi static load (back, Pa)	2800
Working Temp	−40℃+85℃
Current/Voltage Tolerance	±4%/±3%

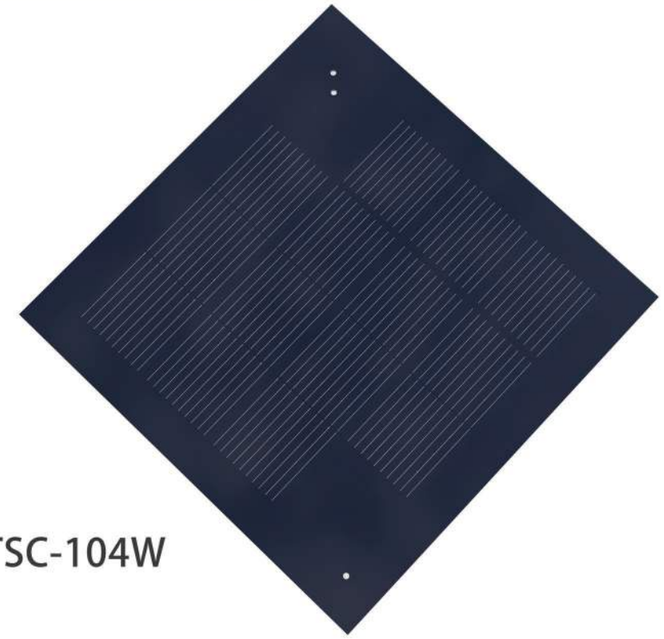
PACKAGE CHARACTERISTICS	
Single Carton (pcs/kg)	54/216
Single Container (pcs)	4752

OVERLAP SOLAR TILE





SCALE SOLAR TILE



UPB-RTSC-104W

Exploded view of roof effect

1. Supporting non power generation tiles
2. Borderless photovoltaic tile
3. Purlins
4. Anti nail puncture strong self-adhesive roll material
5. B-grade extruded insulation board
6. Anti nail puncture strong self-adhesive roll material
7. Interface agent
8. cement mortar
9. Concrete roof

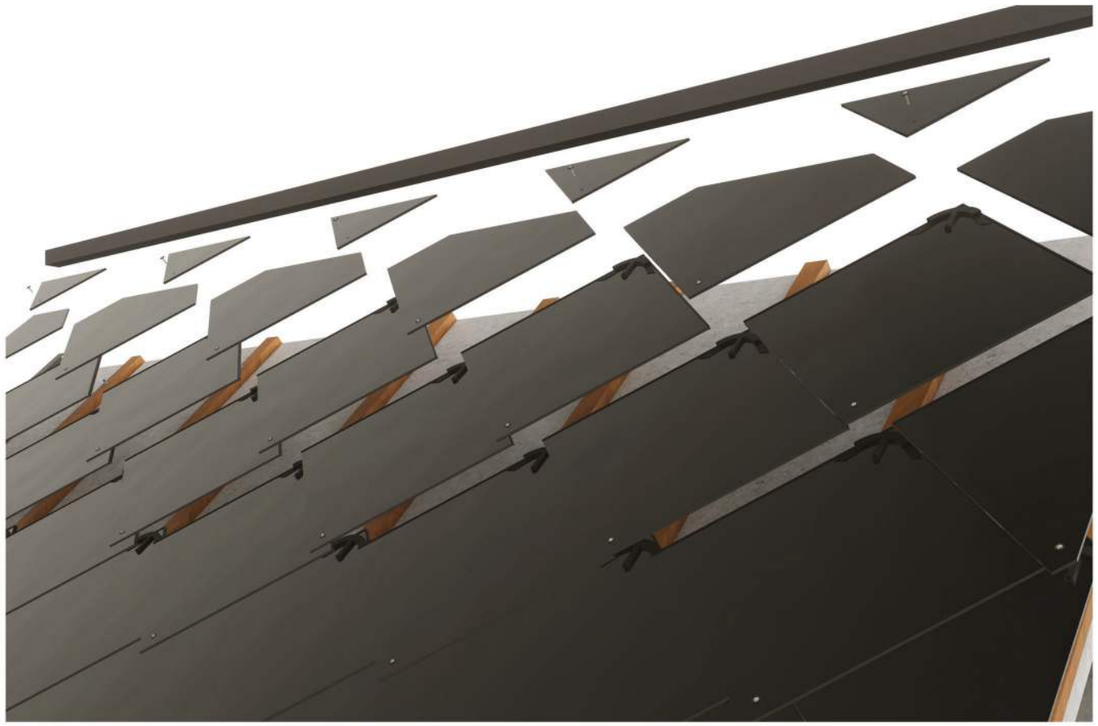
PARAMETERS	104W
Model	UPB-RTSC-104W
Dimension (mm)	900*900*11.4
Weight (kg)	10
Dimension of Cell (mm)	182*182 Perc monocrystal, 14 pcs

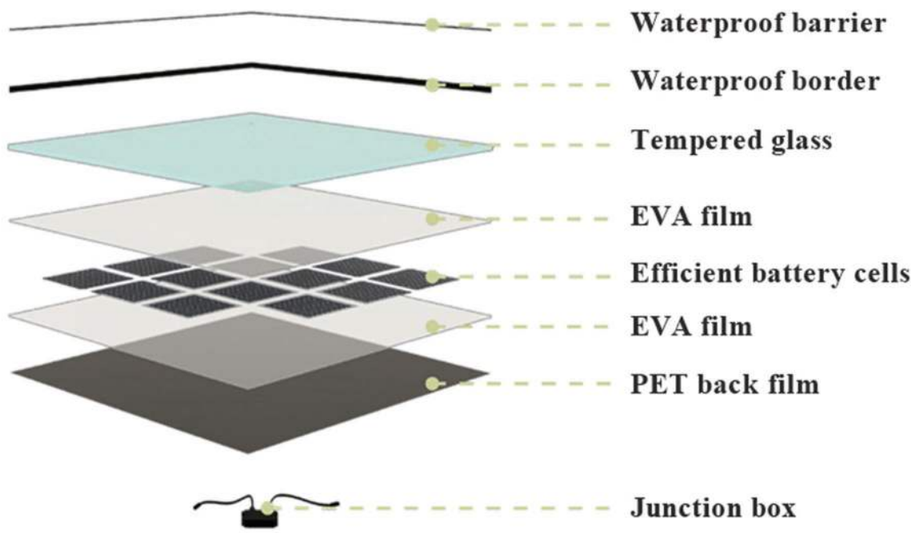
PERFORMANCE CHARACTERISTICS	
Junction Box	IP67, one diode
Safety Level	Class II
Fire-rating	Class C
Hail-rating	Class 3 (25.4 mm/1 in. in diameter)
Agency Approval	IEC 61215, IEC 61730,TUV CE, MCS
STC (Irradiance of 1000 W/m2, AM 1.5 spectrum, and a cell temperature of 25 °C or 77 °F)	
Voc (V)	9.5
Isc (A)	13.39
Vmp (V)	8.2
Imp (A)	12.76
Pmax (W)	104

ELECTRICAL CHARACTERISTICS	
Max series fuse rating (A)	15
Max system voltage (V)	1000
Maxistatic load (front, Pa)	5400
Maxi static load (back, Pa)	2800
Working Temp	−40℃+85℃
Current/Voltage Tolerance	±4%/±3%

PACKAGE CHARACTERISTICS	
Single Carton (pcs/kg)	30/300
Single Container (pcs)	3960

SCALE SOLAR TILE





BALCONY PHOTOVOLTAIC SYSTEM

UPB-M10/108-RT 395-420w

UPB-M10/108-RT 395-420w

Electrical performance parameters of photovoltaic modules

Max power test tolerance

Component model	395W		400W		405W		410W		415W		420W	
testing environment	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power [Pmax/W]	395	298	400	302	405	306	410	310	415	314	420	318
Maximum power voltage [Vmp/V]	30.84	34.75	31.02	34.88	31.23	35.12	31.45	35.23	31.64	35.37	31.82	35.50
Maximum power current [Imp/A]	12.81	29.08	12.90	29.26	12.97	29.47	13.04	29.72	13.12	29.89	13.02	30.09
Open circuit voltage [Voc/V]	36.98	10.96	37.07	11.03	37.19	11.10	37.32	11.16	37.45	11.22	37.58	11.29
Short circuit current [Isc/A]	13.70	10.25	13.79	10.32	13.87	10.38	13.95	10.43	14.02	10.05	14.10	10.57
Component efficiency [%]	20.23		20.48		20.74		21.00		21.25		21.51	

Mechanical and operating parameters of photovoltaic modules

Number of battery cells	108 (6 × 18)
Junction box	IP68, three diodes
Output cable	4mm ², Length 300mm,Customizable length
glass	3.2mm single-layer coated tempered glass
frame	Anodized aluminum alloy frame
weight	21.5kg ± 3%
size	1722 x 1134 x 30mm
packing	36 pieces/tray 936 pieces/40'HC
working temperature	-40 ° C~+85 ° C
Power tolerance	0~+5 W
Current and voltage tolerance	± 4%/± 3%
Maximum system voltage	DC1500V (IEC)
Maximum rated current of fuse	25A
Nominal operating battery temperature	45 ± 2 ° C
Security level	Class II
Fire rating	Class C

AC output working parameters of micro inverters

Maximum continuous output power	600/660VA
Maximum continuous output current	2.87A.a.c
output voltage	230V a.c
output frequency	50Hz
Rated power factor/adjustable range	0.99/0.90 leading 0.90 lag
Peak conversion efficiency	96.5%
working temperature	-40~+65 ℃,>50 ℃ Derating
Waterproof level	IP67

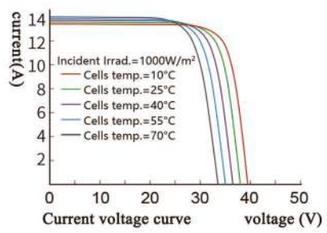
Temperature coefficient (STC)

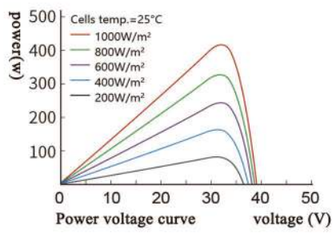
Short circuit current temperature coefficient	+0.048%/°C
Open circuit voltage temperature coefficient	-0.270%/°C
Maximum power temperature coefficient	-0.350%/°C

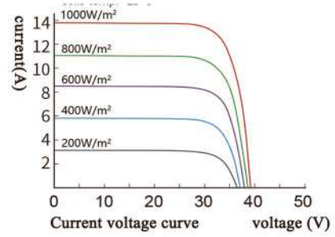
Mechanical load

Maximum static load on the front side	5400Pa
Maximum static load on the back	2400Pa
Hail test	25mm hail, impact at a speed of 23 meters per second

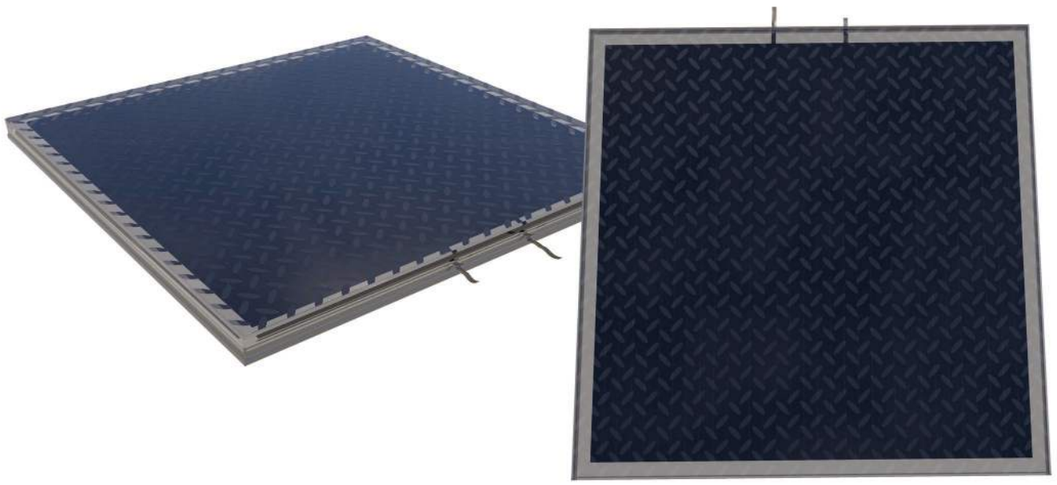
I-V curve (UPB-M10/108-RT-410W)







SOLAR FLOOR TILE



Product application effect display

POWER GENERATION GLASS PARAMETERS

Component configuration	6mm ultra white tempered anti slip glass+1.52PVB+3.2mmCdTe+1.52PVB +6mm ultra white steel Vitrification
Chip transmittance	Transparent 0%

ELECTRICAL PERFORMANCE PARAMETERS (STC)

Model	1#
Maximum power Pm (W) (± 5%)	8
Maximum operating point voltage Vmpp (V)	20.5
Maximum operating point current Impp (A)	0.4
Open circuit voltage Voc (V) (± 5%)	26.1
Short circuit current Isc (A) (± 5%)	0.46

Note: Standard test conditions (STC): irradiance 1000W/ ㎡ , battery temperature 25 ℃, spectral AM1.5; The electrical performance data of customized products are only theoretical estimates, and there may be deviations in actual data. The actual measurement of the sample shall prevail

TEMPERATURE COEFFICIENT

Peak power temperature coefficient γ_ Pm (%/℃)	-0.29
Open circuit voltage temperature coefficient β_ Voc (%/℃)	-0.28
Short circuit current temperature coefficient α_ Isc (%/℃)	0.04

STRUCTURAL PARAMETERS

Length (mm) (± 1)	300
Width (mm) (± 1)	300
Component thickness (mm) (excluding junction box)	18.2
Component weight (kg) (± 2)	3.45
Component area (m^2)	0.09

TERMINAL BOX PARAMETERS

Type of junction box	Side junction box
Thickness of junction box (mm)	11
Length of outgoing line from junction box (mm)	(+160)/(-160)
Output terminal type	MC4

PRODUCT APPLICATION

C

Villa

Residential

Hotel

Community

Commercial street

Parking shed

SOLAR,RIGHT WHERE LIGHT IS NEEDED

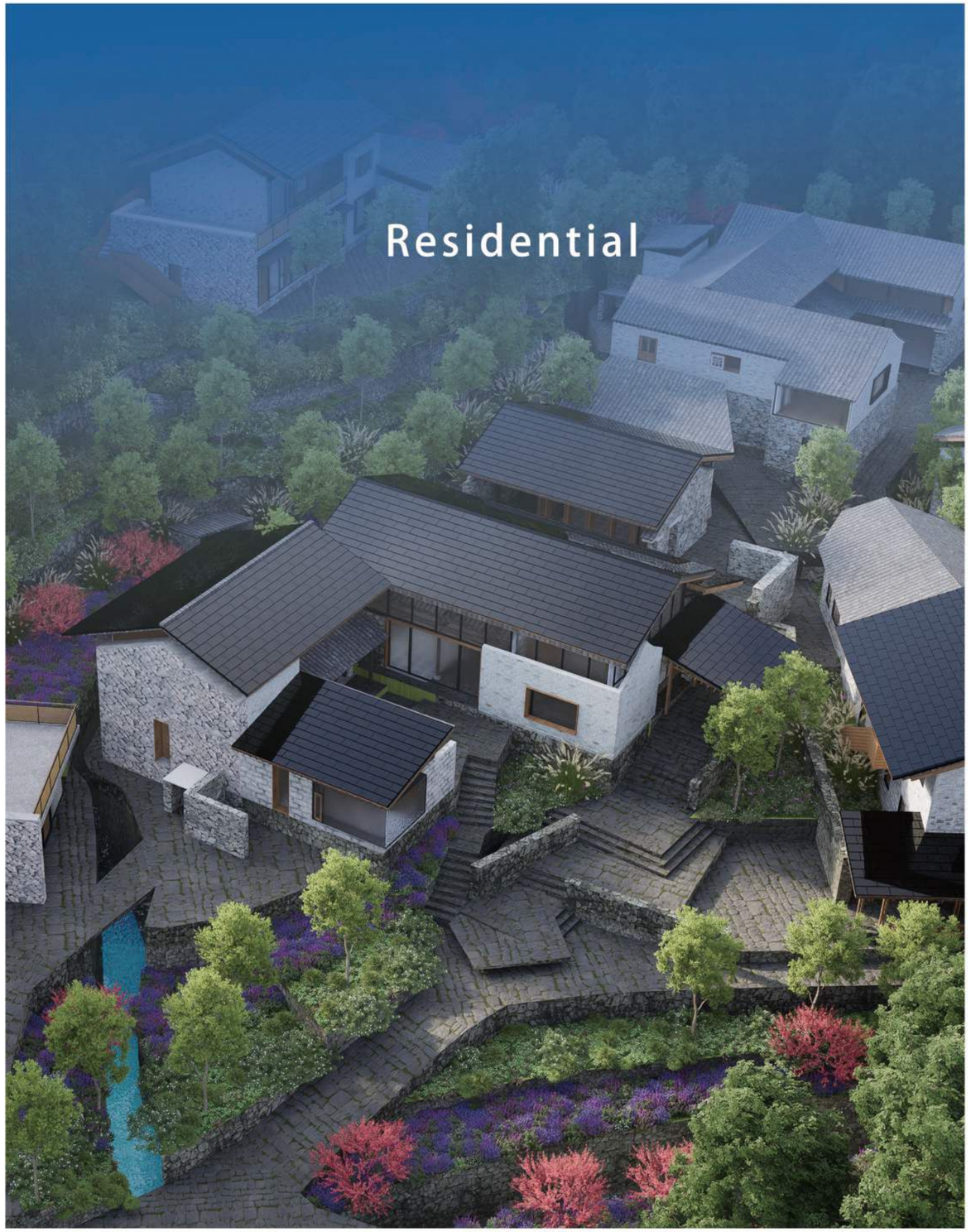
TYPICAL APPLICATION SCENARIOS

Structural ventilation and heat dissipation
Make the space more free

Efficient and clean energy
Better electricity consumption

Active safety
Intelligent control

Innovative roof system
Empowering comprehensively



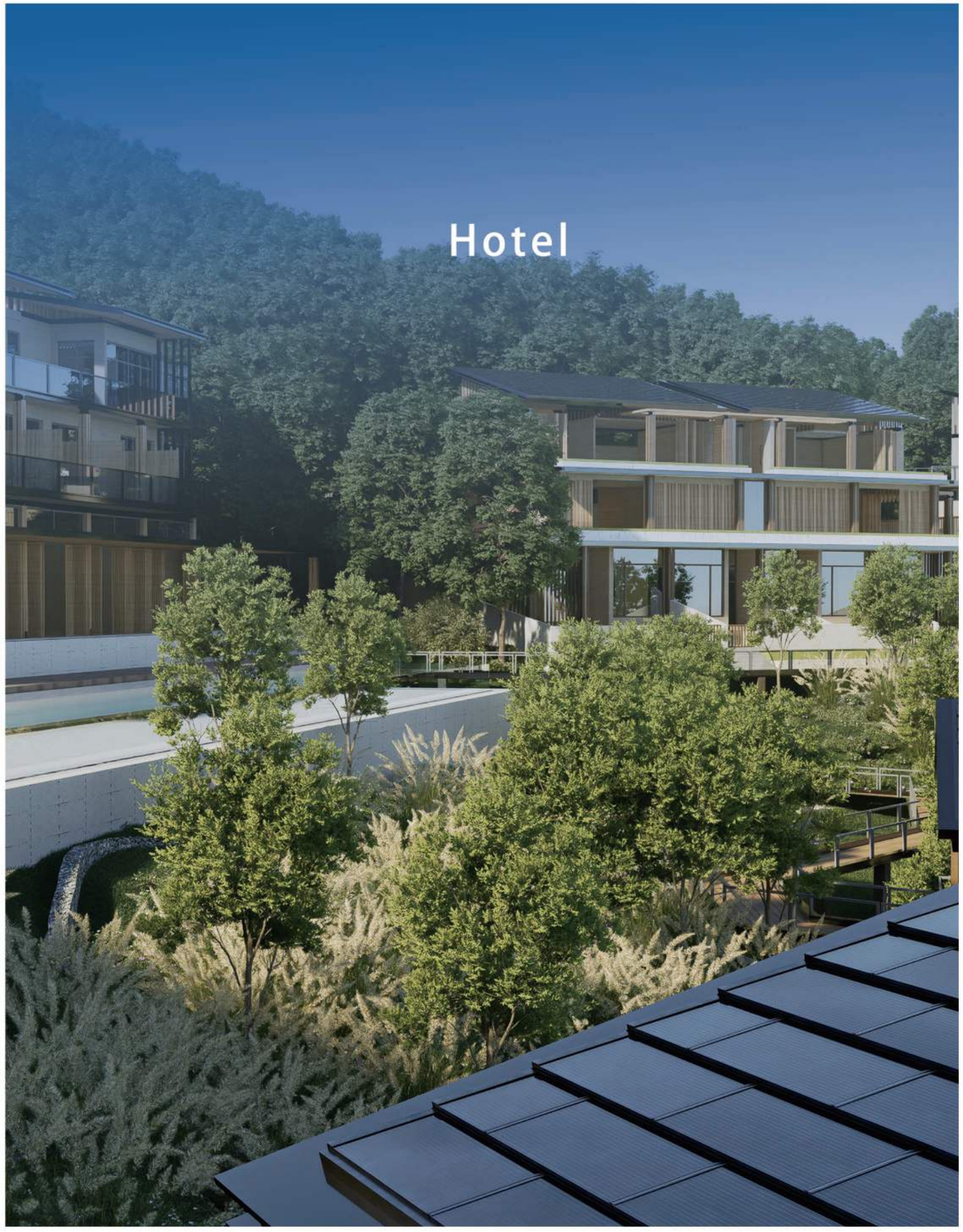
Mimetic design
Green and more energy-efficient

Environmentally friendly clean energy
sustainable development

Technology oriented roof
Empowering architecture

Returning to the Design Basis
Balance function and aesthetics

TYPICAL APPLICATION SCENARIOS



Smart energy management
Green energy applications

Supporting energy storage system
Emergency power supply

Green electricity empowerment
Energy conservation and emission reduction

Green production capacity
Ecological development

30 years
Continuous power generation

Specialization
Conceptual design

Waterproof and fireproof
Safe and durable

Green buildings
Suitable for promotion

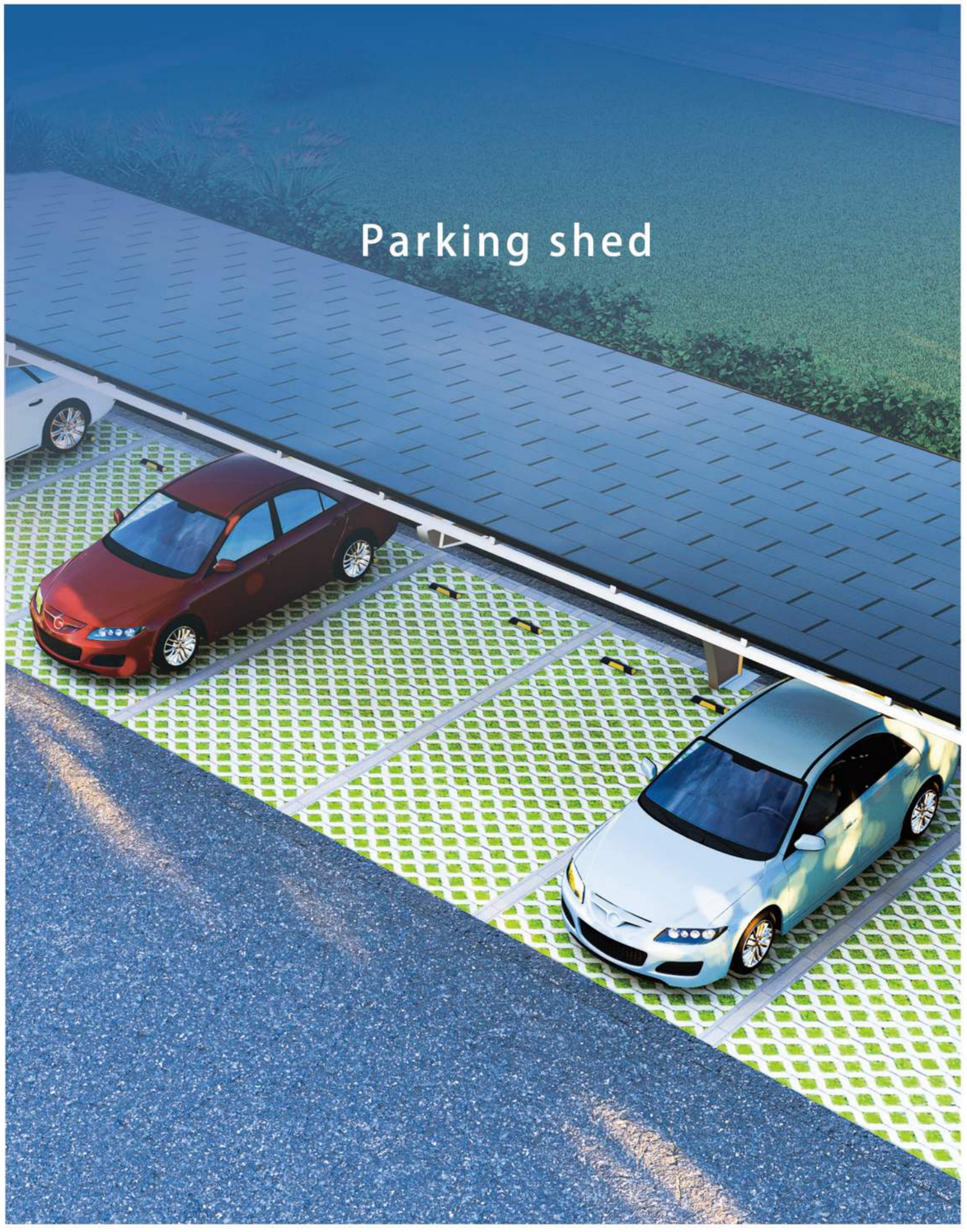
TYPICAL APPLICATION SCENARIOS

Intelligent minimalist design
Opening up natural spaces

Full set customization
Recyclable

Initiative concept
Technical support

Smart energy
Efficient utilization



Modular packaging
Strong wind and water resistance

Integrated optical storage and charging
Efficient utilization

Mode switching automatic
Multi scenario intelligence

Self cleaning panel
Fearless of sand and dust