SUNTOP 2024 V1.0 US

SUNKET®

ONE-STOP SOLAR BIPV AND ESS SOLUTION PROVIDER

- 50 • Patents + certification
- 30 • Years power warranty
- 13 • Years of PV module manufacturing experience
- 5 • GW production capacity of a full range of PV modules
- 4 • Continents marketing service center
- 3 • Global manufacturing bases
- 2 • Billion investment amount
- 1 • Integrated and coordinated development

SOLAR PANEL
LITHIUM BATTERY

PRODUCT BROCHURE

Suntop Technology (Thailand) Co., Ltd.

Add : NO. 88/69 MOO 23, BANG PHLI YAI SUB-DISTRICT,
BANG PHLI DISTRICT, SAMUT PRAKAN PROVINCE
E-mail : info@suntop.co.th Website : www.suntop.co.th

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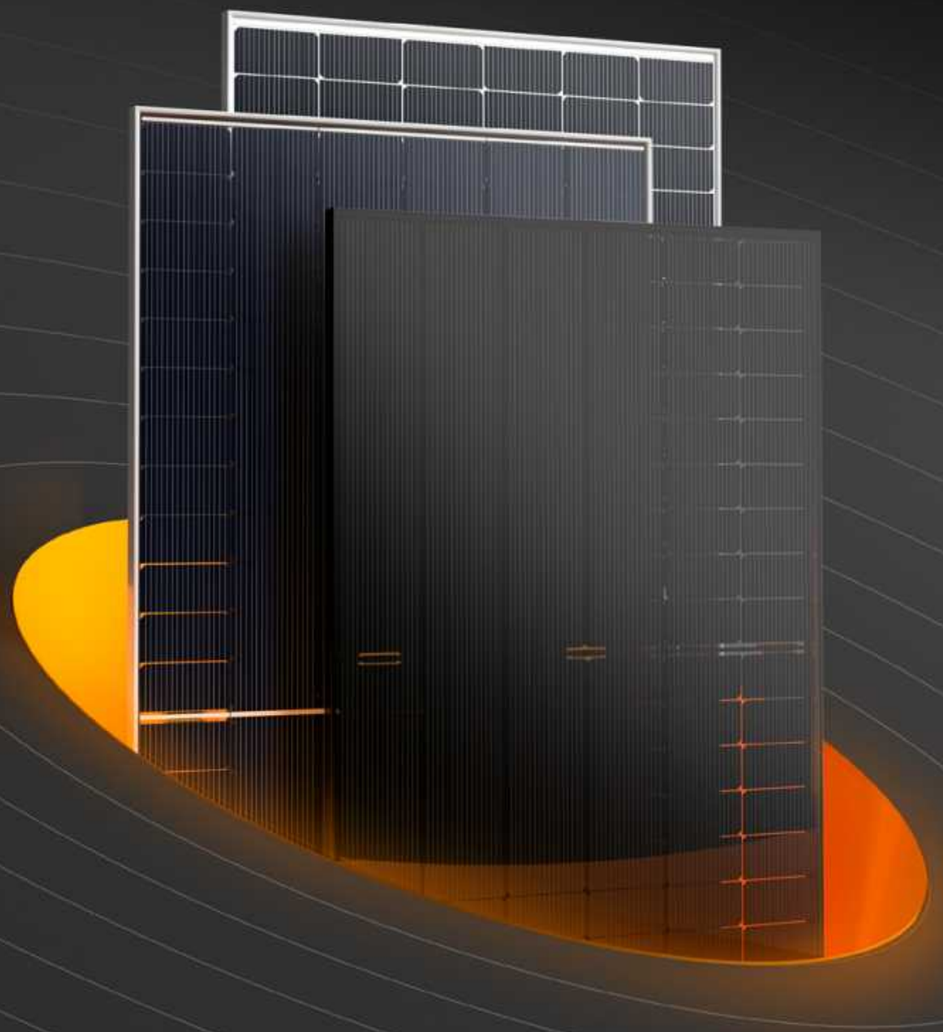


Contents

ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER

Global Layout

Suntop with advanced production equipment and high operational efficiency, cooperating with the international marketing team and after-sales network service, adhering to the service tenet of "Customer first, Quality first, Credit first", rapidly response to diversified markets and clients' demands, aim at to providing global customers with quality products and considerate services.

Thailand
Factory

Los Angeles
Warehouse

Netherlands
Warehouse

Germany
Office

ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER

UL

TUV

ISO

CSA

CE

ANTI PID

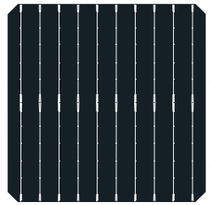
AMMONIA RESISTANCE TEST

SALT MIST RESISTANCE TEST

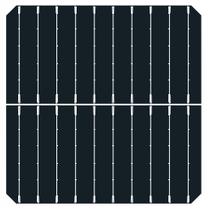
Qualification Certificates

Sunket High Efficiency Solar Panel | Advantages

Half-Cell PERC Solar Series



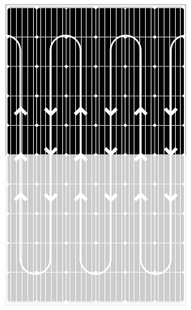
Whole solar cell:P=1^2R



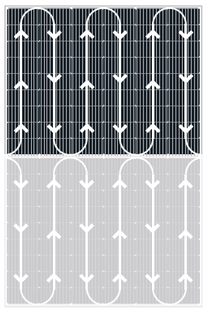
Half solar cell:P=(1/2)^2R

Half-Cell

- Current density reduced by 1/2
- Internal losses reduced to 1/4 of conventional Solar Panels
- Rated output power increased by 5-10W



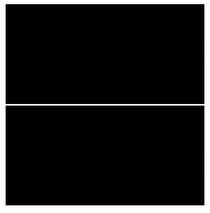
Whole solar cell:0 power output



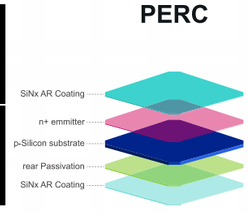
Half solar cell:50% power output

Shadow Occlusion Still Generates Electricity

- Design of Solar Panels connected in parallel up and down symmetrically
- Effectively reduce current mismatch caused by shading
- As shown in the figure below, half of the cover is covered, and the power generation output is increased from 0 to 50%



Non-destructive sectioning

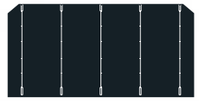


PERC

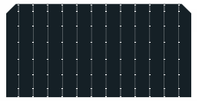
Lossless Scribing

- Non-destructive scribing technology, no mechanical damage
- Smooth cutting surface without burrs
- The risk of cell cracks is low, and micro cracks are reduced by more than 50%

ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER



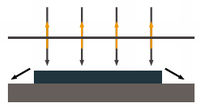
Conventional cells



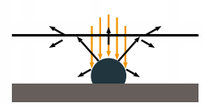
Multi-busbar cells

Multiple Busbars

- Dense grid lines, uniform force, multi-busbar design
- The output power is increased by more than 5W



Conventional cells



Multi-busbar cells

New Welding Wire

- Using round wire ribbon to reduce the shading area
- The incident light is reflected multiple times, increasing the power by 1-2W

PERC Bifacial

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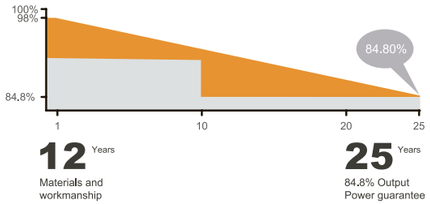
Learn more about the
production of 182mm
Mono PV Module

SKT385~410M10

385~410 Watt

182mm 108Cells All Black
Mono Half Cell PV Module Series

Sunket Linear Warranty



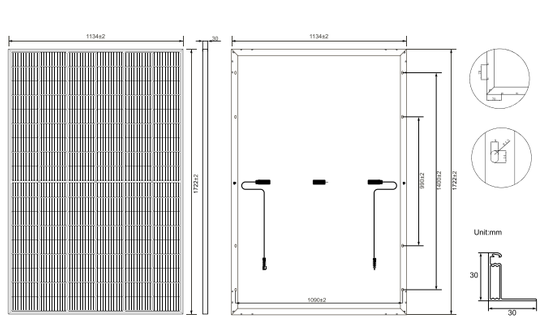
- MBB PERC Half Cut Cell
- Excellent Low-light Performance
- 100% Inspection Guarantee Reliability
- Anti PID
- Strengthened Mechanical Load
- High Density Packaging

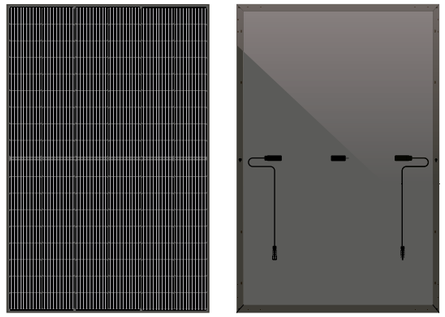
SUNKET® (Thailand)

SUNKET® (Thailand)

SKT385~410M10

182mm 108Cells All Black Mono Half Cell PV Module





All Dimensions in mm
The above drawing is a graphical representation of the product.
For engineering quality drawings please contact SUNKET.

Electrical Characteristics (STC/NOCT)

Module Type	SKT385M10		SKT390M10		SKT395M10		SKT400M10		SKT405M10		SKT410M10	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	385	290	390	294	395	298	400	302	405	306	410	310
Open Circuit Voltage - Voc(V)	36.76	34.49	36.85	34.62	36.98	34.75	37.07	34.88	37.23	35.12	37.32	35.23
Short- Circuit Current - Isc(A)	13.53	10.82	13.61	10.89	13.70	10.96	13.79	11.03	13.87	11.10	13.95	11.16
Voltage at Pmax -Vmp(V)	30.44	28.67	30.64	28.87	30.84	29.08	31.01	29.27	31.21	29.48	31.45	29.73
Current at Pmax - Imp(A)	12.65	10.12	12.73	10.19	12.81	10.25	12.90	10.32	12.98	10.38	13.04	10.43
Module Efficiency -ηm(%)	19.8	/	20.0	/	20.2	/	20.5	/	20.8	/	21.0	/
Power Tolerance(W)	(0，+4.99W)											
Maximum System Voltage(V)	1500Vdc (IEC / UL)											
Maximum Series Fuse Rating (A)	25A											

STC ： Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5　　NOCT： Irradiance 800W/m², Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	1722x1134x30mm
Weight	20.5kg
Solar Cells	Mono crystalline 182mm (2x54pcs)
Front Glass	AR Coated 3.2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68
Output Cables	4.0mm², 1200mm (+), 1200mm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

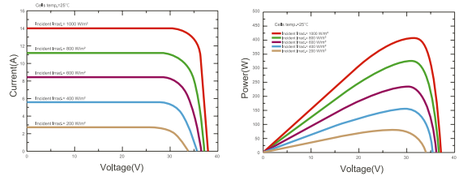
Packing Configuration

	1722x1134x30mm	
Container	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	6	26
Pieces per Container	216	936

Temperature Characteristics

Pmax Temperature Coefficient	-0.350%/°C
Voc Temperature Coefficient	-0.275%/°C
Isc Temperature Coefficient	+0.045%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Current-Voltage & Power-Voltage Curves (SKT410M10)



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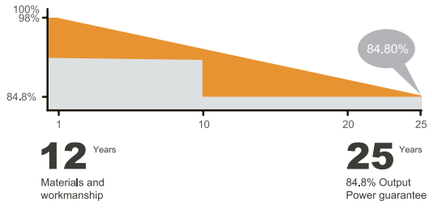
Learn more about the
production of 182mm
Mono PV Module

SKT530~555M10

530~555 Watt

182mm 144Cells Mono Half Cell PV Module Series

Sunket Linear Warranty



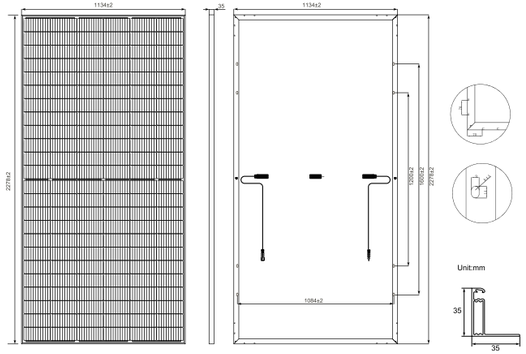
- MBB PERC Half Cut Cell
- Excellent Low-light Performance
- 100% Inspection Guarantee Reliability
- Anti PID
- Strengthened Mechanical Load
- High Density Packaging

SUNKET® (Thailand)

SUNKET® (Thailand)

SKT530~555M10

182mm 144Cells Mono Half Cell PV Module



All Dimensions in mm
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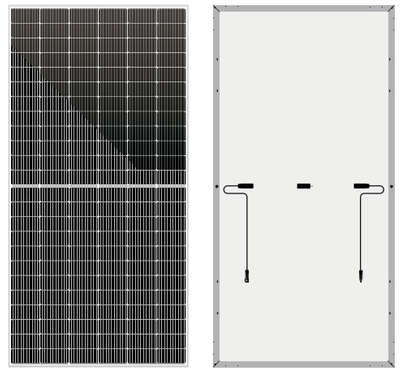
For engineering quality drawings please contact SUNKET.



Electrical Characteristics (STC/NOCT)

Module Type	SKT530M10		SKT535M10		SKT540M10		SKT545M10		SKT550M10		SKT555M10	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	530	396.2	535	399.9	540	403.6	545	407.4	550	411.1	555	414.8
Open Circuit Voltage - Voc(V)	49.20	46.26	49.35	46.40	49.50	46.54	49.65	46.68	49.80	46.82	49.95	46.97
Short- Circuit Current - Isc(A)	13.71	11.07	13.78	11.12	13.85	11.17	13.92	11.23	13.99	11.29	14.05	11.34
Voltage at Pmax -Vmp(V)	41.35	38.58	41.48	38.72	41.64	38.86	41.80	39.00	41.93	39.14	42.10	39.28
Current at Pmax - Imp(A)	12.83	10.27	12.90	10.33	12.97	10.39	13.04	10.45	13.12	10.51	13.19	10.56
Module Efficiency -ηm(%)	20.5	/	20.7	/	20.9	/	21.1	/	21.3	/	21.5	/
Power Tolerance(W)	(0, +4.99W)											
Maximum System Voltage(V)	1500Vdc (IEC / UL)											
Maximum Series Fuse Rating (A)	25A											

STC ： Irradiance 1000W/m²，Cell Temperature 25°C，Air Mass 1.5　　NOCT： Irradiance 800W/m²，Ambient Temperature 20°C，Air Mass1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	2278x1134x35mm
Weight	28.6kg
Solar Cells	Mono crystalline 182mm (2x72pcs)
Front Glass	AR Coated 3.2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68
Output Cables	4.0mm², 1200mm (+), 1200mm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

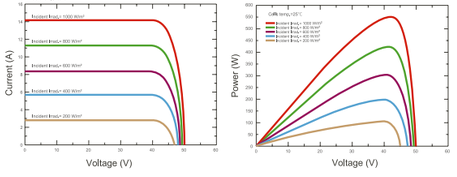
Packing Configuration

	2278x1134x35mm	
Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	4	20
Pieces per Container	124	620

Temperature Characteristics

Pmax Temperature Coefficient	-0.350%/°C
Voc Temperature Coefficient	-0.275%/°C
Isc Temperature Coefficient	+0.045%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

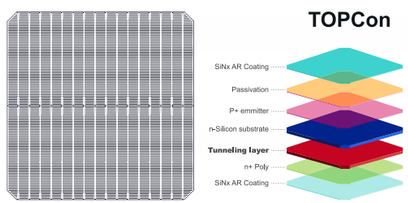
Current-Voltage & Power-Voltage Curves (SKT555M10)



Specifications are subject to change without further notification　　www.suntop.co.th　　info@suntop.co.th　　SKT-EN-2024V1.0 ©Copyright 2024 Suntop

Sunket High Efficiency N-Type TOPCon Solar Panel | Advantages

Half-Cell TOPCon Solar Series

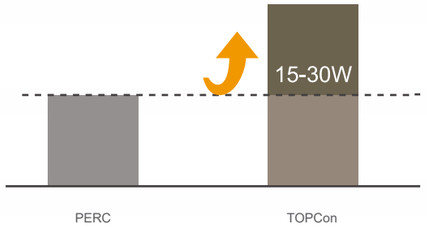


TOPCon SMBB

TOPCon

SMBB Technology

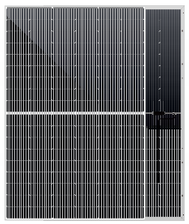
- Reduce the current transmission distance, reduce grid line shielding, and improve optical utilization
- SMBB technology combined with round wire ribbon can increase the utilization rate of incident light by 70%, and increase the power by 1-1.5%



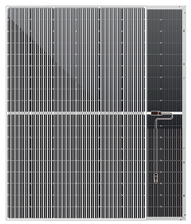
PERC TOPCon

Higher Power

- For the same solar panel type, the power of N-type solar panels is 15-30W higher than that of P-type solar panels



PERC 60%Bifaciality

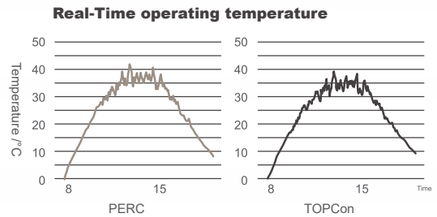


TOPCon(↗ 25%)85%Bifaciality

85%Bifaciality

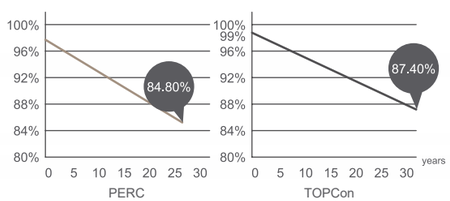
- For the same solar panel type, the double-sided rate of N-type solar panels is 25% higher than that of P-type solar panels

ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER



Lower Temperature Coefficient

- The temperature coefficient of P-type Solar panel is -0.35%/°C
- N-type solar panel optimized temperature coefficient to -0.29%/°C
- Power generation is particularly prominent in high temperature environments



Better Power Guarantee

- N-type solar panels decay 1% in the first year (P-type 2%)
- Power warranty for 30 years
- After 30 years, the output power is not lower than 87.4% of the initial power

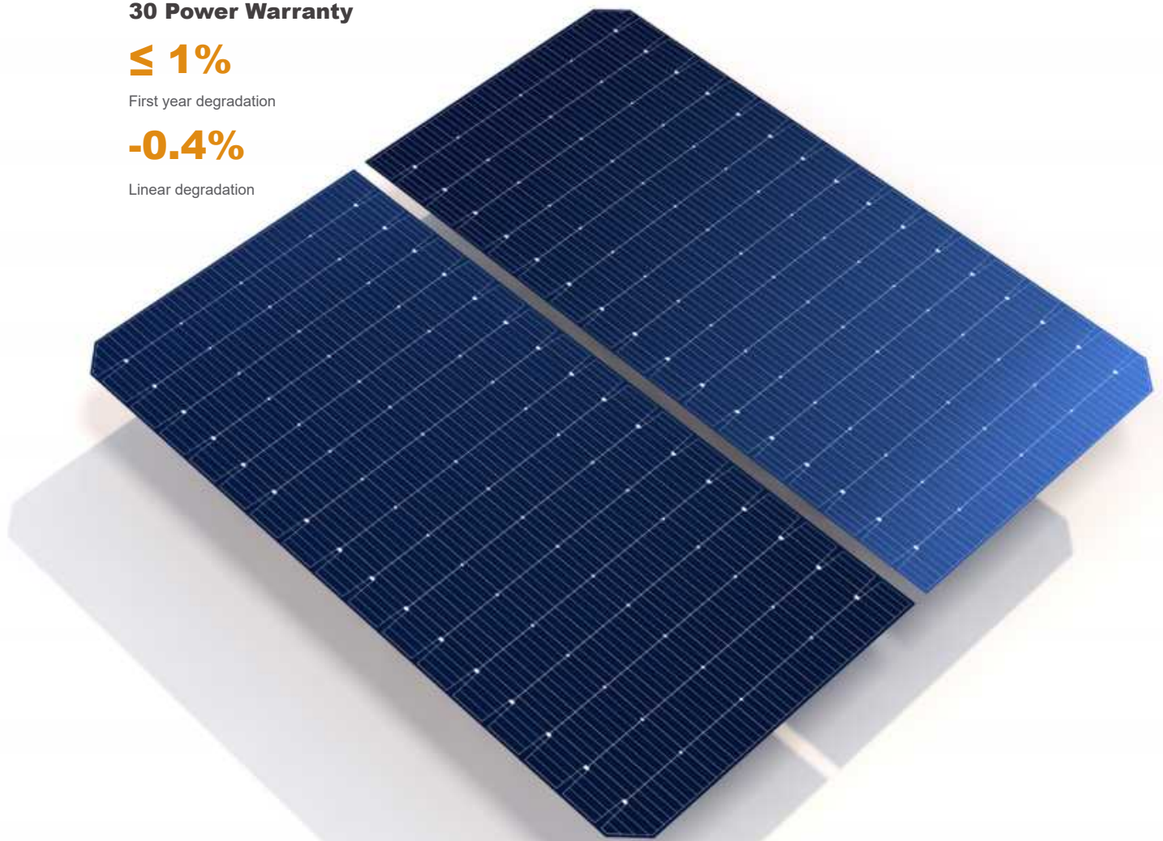
30 Power Warranty

≤ 1%

First year degradation

-0.4%

Linear degradation



TOPCon Bifacial

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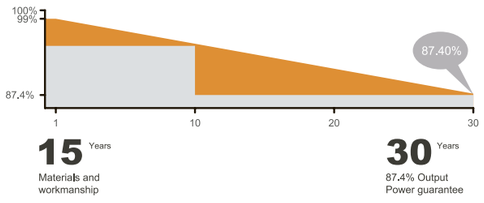
Learn more about the
production of 182mm
Mono PV Module

SKT410~430M10-108D4

410~430 Watt

182mm 16BB 108Cells All Black Double Glass Bifacial
TOPCon Mono Half Cell PV Module Series

Sunket TOPCon Linear Warranty



SMBB Technology
Half Cut TOPCon Cell

High Energy
Performance

100% Inspection
30years Guarantee

Fire Class A

Strengthened
Mechanical Load

Advanced Bifacial
Efficiency

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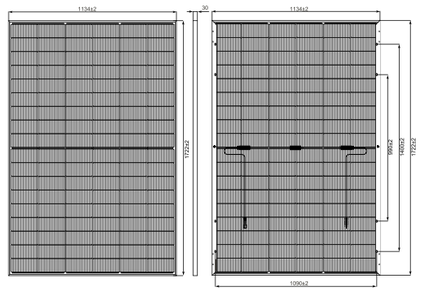
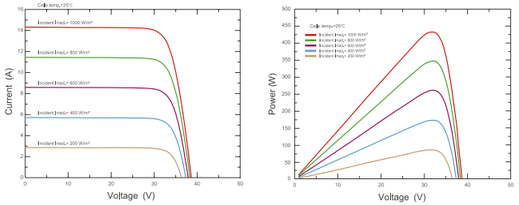
SKT410~430M10-108D4

182mm 16BB 108Cells All Black Double Glass Bifacial
TOPCon Mono Half Cell PV Module



Current-Voltage & Power-Voltage Curves (SKT430M10-108D4)



All Dimensions in mm
The above drawing is a graphical representation of the product.
For engineering quality drawings please contact SUNKET.

Electrical Characteristics (STC/NOCT)

Module Type	SKT410M10-108D4		SKT415M10-108D4		SKT420M10-108D4		SKT425M10-108D4		SKT430M10-108D4	
Front Side	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	410	313.7	415	317.3	420	321.1	425	325.0	430	328.7
Open Circuit Voltage - Voc(V)	38.20	36.30	38.33	36.40	38.46	36.50	38.59	36.60	38.72	36.80
Short- Circuit Current - Isc(A)	13.93	11.23	14.01	11.30	14.09	11.36	14.17	11.42	14.25	11.49
Voltage at Pmax -Vmp(V)	31.60	29.60	31.79	29.71	31.97	29.90	32.15	30.01	32.34	30.19
Current at Pmax - Imp(A)	12.98	10.60	13.06	10.68	13.14	10.74	13.22	10.83	13.30	10.89
Module Efficiency -ηm(%)	21.00	/	21.30	/	21.50	/	21.80	/	22.00	/
Power Tolerance(W)	(0，+4.99W)									
Maximum System Voltage(V)	1500Vdc (IEC / UL)									
Maximum Series Fuse Rating (A)	30A									

STC ： Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5　　NOCT： Irradiance 800W/m², Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	1722x1134x30mm
Weight	23.4kg
Solar Cells	N-Type 16BB 182mm (2x54pcs)
Front Glass	AR Coated 2+2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68
Output Cables	4.0mm², 1200mm (+),1200mm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

Bifacial Output Rear Side Power Gain

Power Gain	5%	15%	25%
Maximum Power- Pmax(W)	441.0	483.0	525.0
Open Circuit Voltage - Voc(V)	38.50	38.50	38.60
Short- Circuit Current - Isc(A)	14.79	16.20	17.61
Voltage at Pmax -Vmp(V)	32.00	32.00	32.10
Current at Pmax - Imp(A)	13.79	15.10	16.36

Temperature Characteristics

Pmax Temperature Coefficient	-0.290%/°C
Voc Temperature Coefficient	-0.250%/°C
Isc Temperature Coefficient	+0.045%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Packing Configuration

	1722x1134x30mm	
Container	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	6	26
Pieces per Container	216	936

Specifications are subject to change without further notification　www.suntop.co.th　info@suntop.co.th　SKT-EN-2024V1.0 ©Copyright 2024 Suntop

TOPCon Bifacial

SCAN CODE TO
WATCH VIDEO

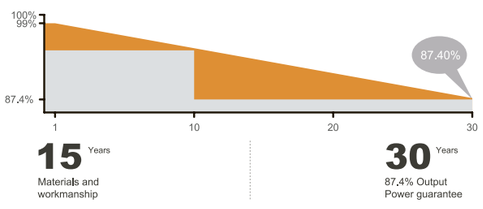
Learn more about the
production of 182mm
Mono PV Module

SKT460~480M10-120D4

460~480 Watt

182mm 16BB 120Cells Double Glass Bifacial
TOPCon Mono Half Cell PV Module Series

Sunket Topcon Linear Warranty



SMBB Technology
Half Cut TOPCon Cell

High Energy
Performance

100% Inspection
30years Guarantee

Fire Class A

5400Pa
Strengthened
Mechanical Load

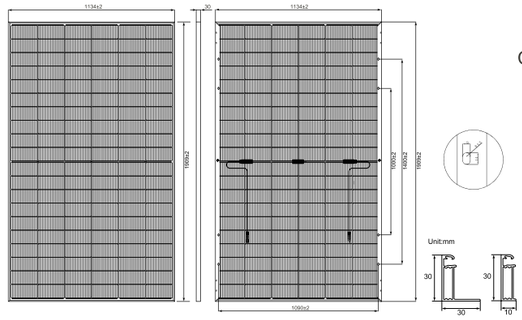
Advanced Bifacial
Efficiency

SUNKET® (Thailand)

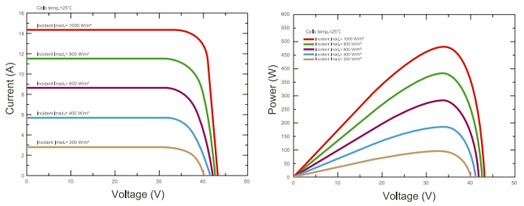
SUNKET® (Thailand)

SKT460~480M10-120D4

182mm 16BB 120Cells Double Glass Bifacial
TOPCon Mono Half Cell PV Module



Current-Voltage & Power-Voltage Curves (SKT480M10-120D4)



All Dimensions in mm
The above drawing is a graphical representation of the product.
For engineering quality drawings please contact SUNKET.

Electrical Characteristics (STC/NOCT)

Module Type	SKT460M10-120D4		SKT465M10-120D4		SKT470M10-120D4		SKT475M10-120D4		SKT480M10-120D4	
Front Side	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	460	346	465	350	470	353	475	357	480	361
Open Circuit Voltage - Voc(V)	42.05	39.94	42.22	40.10	42.38	40.25	42.54	40.41	42.71	40.57
Short- Circuit Current - Isc(A)	13.99	11.29	14.07	11.36	14.15	11.42	14.23	11.49	14.31	11.55
Voltage at Pmax -Vmp(V)	34.73	32.62	34.89	32.78	35.06	32.93	35.22	33.09	35.38	33.28
Current at Pmax - Imp(A)	13.25	10.61	13.33	10.68	13.41	10.72	13.49	10.79	13.57	10.85
Module Efficiency -ηm(%)	21.32	/	21.55	/	21.78	/	22.01	/	22.24	/
Power Tolerance(W)	(0，+4.99W)									
Maximum System Voltage(V)	1500Vdc (IEC / UL)									
Maximum Series Fuse Rating (A)	30A									

STC ： Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5 NOCT： Irradiance 800W/m², Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	1909x1134x30mm
Weight	25.5kg
Solar Cells	N-Type 16BB 182mm (2x60pcs)
Front Glass	AR Coated 2+2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68
Output Cables	4.0mm², 1200mm (+),1200mm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

Bifacial Output Rear Side Power Gain

Power Gain	5%	15%	25%
Maximum Power- Pmax(W)	493.5	540.5	587.5
Open Circuit Voltage - Voc(V)	42.52	42.54	42.55
Short- Circuit Current - Isc(A)	14.81	16.21	17.61
Voltage at Pmax -Vmp(V)	35.20	35.21	35.22
Current at Pmax - Imp(A)	14.02	15.35	16.69

Temperature Characteristics

Pmax Temperature Coefficient	-0.290%/°C
Voc Temperature Coefficient	-0.250%/°C
Isc Temperature Coefficient	+0.045%/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature(NOCT)	45±2°C

Packing Configuration

	1909x1134x30mm	
Container	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	5	24
Pieces per Container	216	864

Specifications are subject to change without further notification

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TOPCon Bifacial

SCAN CODE TO
WATCH VIDEO

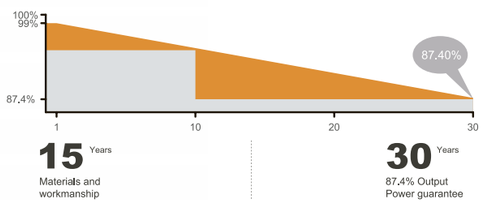
Learn more about the
production of 182mm
Mono PV Module

SKT545~580M10-144D4

545~580 Watt

182mm 16BB 144Cells Double Glass Bifacial
TOPCon Mono Half Cell PV Module Series

Sunket TOPCon Linear Warranty



SMBB Technology
Half Cut Topcon Cell

High Energy
Performance

100% Inspection
30years Guarantee

Fire Class A

Strengthened
Mechanical Load

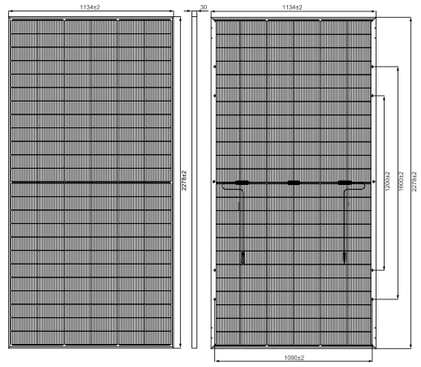
Advanced Bifacial
Efficiency

SUNKET® (Thailand)

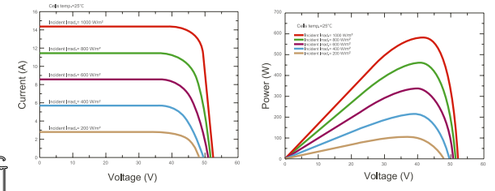
SUNKET® (Thailand)

SKT545~580M10-144D4

182mm 16BB 144Cells Double Glass Bifacial
TOPCon Mono Half Cell PV Module



Current-Voltage & Power-Voltage Curves (SKT580M10-144D4)



All Dimensions in mm
The above drawing is a graphical representation of the product.
For engineering quality drawings please contact SUNKET.

Electrical Characteristics (STC/NOCT)

Module Type	SKT545M10-144D4		SKT550M10-144D4		SKT555M10-144D4		SKT560M10-144D4		SKT565M10-144D4		SKT570M10-144D4		SKT575M10-144D4		SKT580M10-144D4	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power- Pmax(W)	545	408	550	412	555	416	560	421	565	425	570	429	575	432	580	436
Open Circuit Voltage - Voc(V)	50.04	47.53	50.18	47.66	50.32	47.79	50.67	48.13	50.87	48.32	51.07	48.51	51.27	48.70	51.47	48.89
Short- Circuit Current - Isc(A)	13.90	11.16	13.98	11.25	14.06	11.32	14.13	11.41	14.19	11.46	14.25	11.50	14.31	11.55	14.37	11.60
Voltage at Pmax -Vmp(V)	41.32	38.91	41.48	39.02	41.64	39.15	41.96	39.39	42.14	39.54	42.30	39.65	42.44	39.78	42.60	39.86
Current at Pmax - Imp(A)	13.19	10.49	13.26	10.56	13.33	10.63	13.35	10.69	13.41	10.75	13.48	10.82	13.55	10.86	13.62	10.94
Module Efficiency -ηm(%)	21.10	/	21.29	/	21.48	/	21.68	/	21.87	/	22.07	/	22.26	/	22.45	/
Power Tolerance(W)	(0，+4.99W)															
Maximum System Voltage(V)	1500Vdc (IEC / UL)															
Maximum Series Fuse Rating (A)	30A															

STC ： Irradiance 1000W/m², Cell Temperature 25℃, Air Mass 1.5　　NOCT： Irradiance 800W/m², Ambient Temperature 20℃, Air Mass1.5, Wind Speed 1m/s

Mechanical Specifications

External Dimensions	2278x1134x30mm
Weight	32kg
Solar Cells	N-Type 16BB 182mm (2x72pcs)
Front Glass	AR Coated 2+2 mm tempered glass
Frame	Anodized aluminum alloy
Junction Box	IP68
Output Cables	4.0mm²,1200mm (+), 1200mm (-), length can be customized
Connector	MC4 Compatible
Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

Bifacial Output Rear Side Power Gain

Power Gain	5%	15%	25%
Maximum Power- Pmax(W)	588.0	644.0	700.0
Open Circuit Voltage - Voc(V)	50.77	50.79	50.80
Short- Circuit Current - Isc(A)	14.81	16.21	17.62
Voltage at Pmax -Vmp(V)	42.05	42.08	42.09
Current at Pmax - Imp(A)	13.99	15.31	16.64

Temperature Characteristics

Pmax Temperature Coefficient	-0.290%/℃
Voc Temperature Coefficient	-0.250%/℃
Isc Temperature Coefficient	+0.045%/℃
Operating Temperature	-40~+85℃
Nominal Operating Cell Temperature(NOCT)	45±2℃

Packing Configuration

	2278x1134x30mm	
Container	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	4	20
Pieces per Container	144	720

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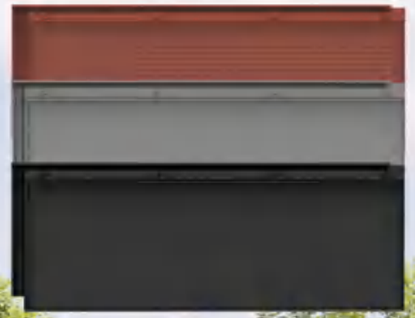


Solar Tile Series

ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER

BIPV Series

T-Max Tile_R Series

SUNKET® (Thailand)

Solar roofing system

- Solar Roof Tile as the New Type of Building Materials Provide Green Energy for You
- One-Stop Solution Home Usings, Roof Tile and Solar Energy Intergrate Design

Innovative

Cloud shape | High compression resistance | Same life span as the building

Widely Used

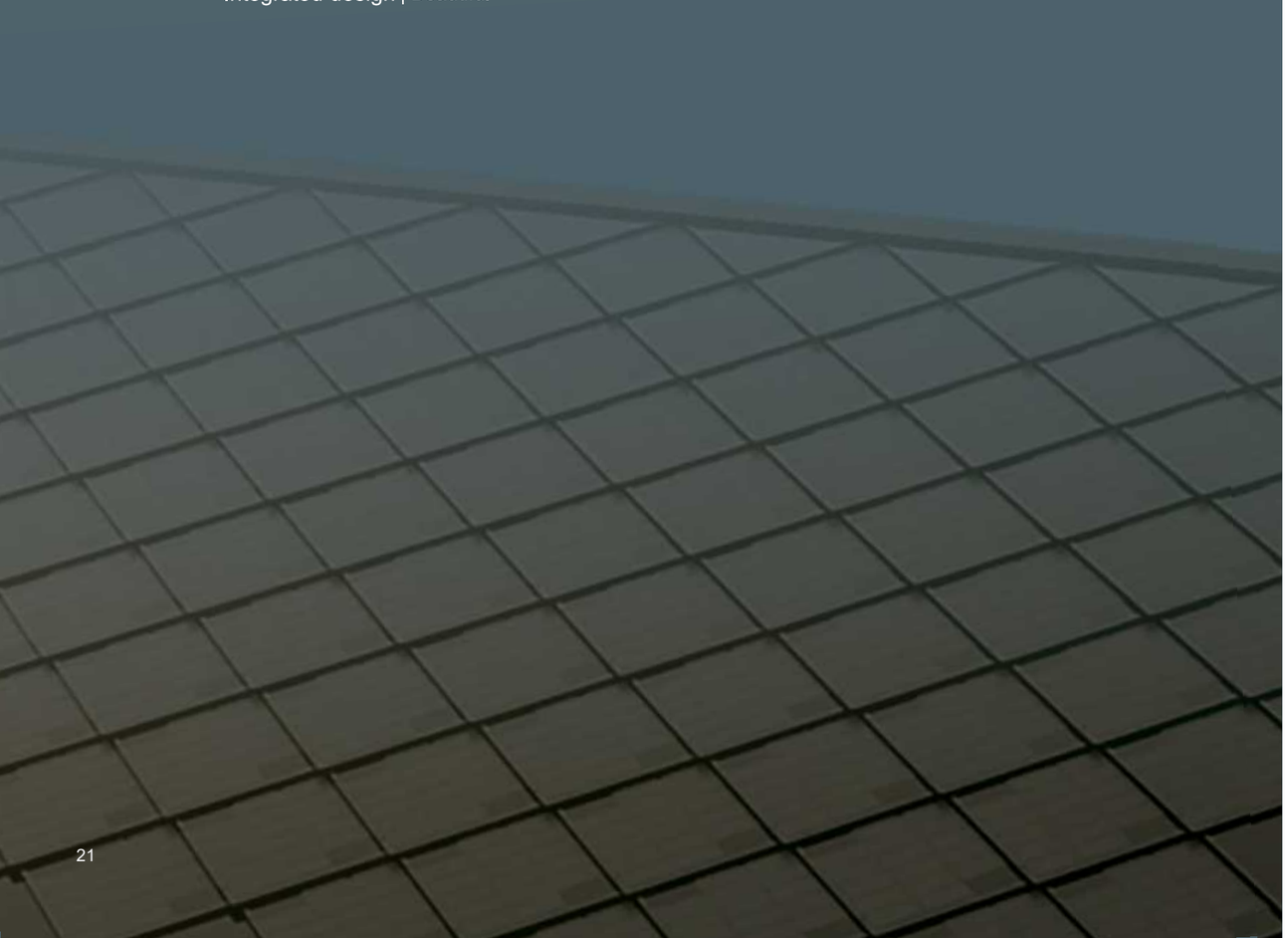
Facade and rooftop solution | Increasing electricity generation

Waterproof Structure

Triple Waterproof Structure | GB/T 36584-2018 5.1

Fashion & Beauty

Integrated design | Beautiful



T-Max Tile_R Series

PHYSICAL PARAMETERS

Product model	JS55DG-8e 1/2
Dimensions	700*700mm
Weight	10.5kg
Glass (material/thickness)	Tempered glass/3.2mm+3.2mm
Cell	182*91mm
Junction box	⩾IP67
Cable type	500mm / 4mm²
Plug connector	MC4
Life span	>30years

ELECTRICAL PARAMETERS(STC)

Solar cells	Monocrystalline
Power output (P_{max})	55W
Module efficiency (%)	15.4%
Voltage at Pmax (V_{mpp})	8.90V
Current at Pmax (I_{mpp})	6.18A
Open-circuit current (V_{oc})	10.59V
Short-circuit current (I_{sc})	6.54A

STC: 1000W/㎡irradiance , 25 degree cell temperature, AM1.5g.

PERFORMANCE GRADE

Color	Black
Load grade	2400Pa
Fireproofing grade	ClassA
Anti-hail grade	Φ25mm/23m/s
Operating temperature	-40°C~+85°C
Operating humidity	0-80%

OPERATING CONDITIONS

Max. system voltage	1500V_{DC}
Max. series fuse rating	20A
Operating temperature range	-40°C~+85°C
Max. static load, front (e.g., snow)	5400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

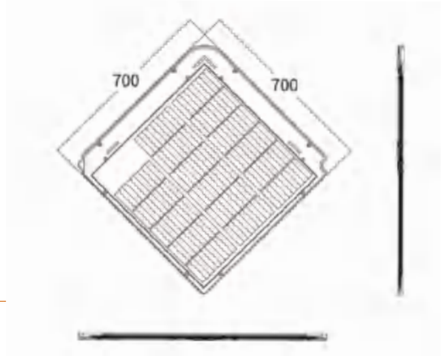
THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	℃	45 ± 2
Temperature coefficient of P_{max}	γ	%/°C	-0.36
Temperature coefficient of V_{oc}	β_{Voc}	%/°C	-0.30
Temperature coefficient of I_{sc}	α_{Isc}	%/°C	0.05

Due to continuous innovation, research and product improvement, the specifications in this product information sheet are subject to change without prior notice. The specifications may deviate slightly and are not guaranteed. The data do not refer to a single module and they are not part of the offer, they only serve for comparison to different module types.

DIMENSIONS

Unit： mm



PRODUCT PICTURE

INSTALL

QUALIFICATIONS AND CERTIFICATIONS

IEC 61215, IEC 61730, 3C, ISO 9001:2015, ISO 14001:2015, ISO 45001: 2018.

T-Max Tile_O Series

SUNKET® (Thailand)

Solar roofing system

- Solar Roof Tile as the New Type of Building Materials Provide Green Energy for You
- One-Stop Solution Home Usings, Roof Tile and Solar Energy Intergrate Design

Security and Reliable

Fireproof class A | High compression resistance | Same life span as the building

High Efficiency

Integrated roof design | More installation capacity | More power generation

Waterproof Structure

Triple waterproof structure | GB/T 36584-2018 5.1

Easy Maintenance

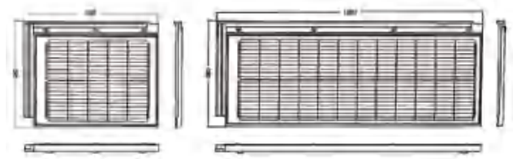
Compound integrated design for drainage | Ventilation and heat dissipation | Easy Maintenance

T-Max Tile_O Series

PRODUCT PICTURE

DIMENSIONS

Unit： mm



PHYSICAL PARAMETERS

Color	Black		Red(JSA10-202)		Grey(JSA10-102)	
Product model	JS38DG-5e 1/2	JS90DG-12e 1/2	JS31DG-5e 1/2	JS75DG-12e 1/2	JS32DG-5e 1/2	JS78DG-12e 1/2
Dimensions	630*480mm	1260*480mm	630*480mm	1260*480mm	630*480mm	1260*480mm
Weight	7.5kg	15.5kg	7.5kg	15.5kg	7.5kg	15.5kg
Cell (material / dimensions)	182*91mm (2*5)	182*91mm (2*12)	182*91mm (2*5)	182*91mm (2*12)	182*91mm (2*5)	182*91mm (2*12)
Junction box	⩾IP67	⩾IP67	⩾IP67	⩾IP67	⩾IP67	⩾IP67
Cable type	450mm / 4mm²	900mm / 4mm²	450mm / 4mm²	900mm / 4mm²	450mm / 4mm²	900mm / 4mm²
Glass (material/thickness)	Tempered glass/3.2mm+3.2mm					
Plug connector	MC4					
Life span	>30years					

ELECTRICAL PARAMETERS(STC)

Solar cells	Monocrystalline					
Power output (P_{max})	38W	90W	31W	75W	32W	78W
Module efficiency (%)	17.3%	18.9%	14.1%	15.8%	14.5%	16.4%
Voltage at Pmax (V_{mpp})	5.71V	13.7V	5.58V	13.4V	5.63V	13.5V
Current at Pmax (I_{mpp})	6.65A	6.57A	5.56A	5.59A	5.68A	5.78A
Open-circuit current (V_{oc})	6.79V	16.3V	6.71V	16.1V	6.76V	16.2V
Short-circuit current (I_{sc})	6.97A	6.89A	5.89A	5.93A	5.96A	6.07A

STC: 1000W/㎡irradiance , 25 degree cell temperature, AM1.5g.

PERFORMANCE GRADE

Load grade	2400Pa
Fireproofing grade	ClassA
Anti-hail grade	Φ25mm/23m/s
Operating temperature	-40℃~+85℃
Operating humidity	0-80%

OPERATING CONDITIONS

Max. system voltage	1500V_{DC}
Max. series fuse rating	16A
Operating temperature range	-40℃~+85℃
Max. static load, front (e.g., snow)	5400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	℃	45 ± 2
Temperature coefficient of P_{max}	γ	%/℃	-0.36
Temperature coefficient of V_{oc}	β_{Voc}	%/℃	-0.30
Temperature coefficient of I_{sc}	α_{Isc}	%/℃	0.05

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QUALIFICATIONS AND CERTIFICATIONS

IEC 61215, IEC 61730, 3C, ISO 9001:2015, ISO 14001:2015, ISO 45001: 2018.

Colored Glaze · Crystal Clear

SUNKET® (Thailand)

Crystalline Silicon Photovoltaic Building Materials (BIPV)

Replace traditional glass curtain wall for building facade

Light transmittance customized

Excellent light transmission performance

Customization: Size and shape can be customized

High-efficiency: Highest efficiency cells, more power generation

Energy-saving, clean and environmentally-friendly

Energy-saving: Reduce building energy consumption

Energy generation: Solar power generation for clean energy to support carbon neutral

Environmentally-friendly: No noise, no radiation, no light pollution, non-toxic and harmless

Same life span as building

Construction encapsulant, more than 40 certification, same life as the building

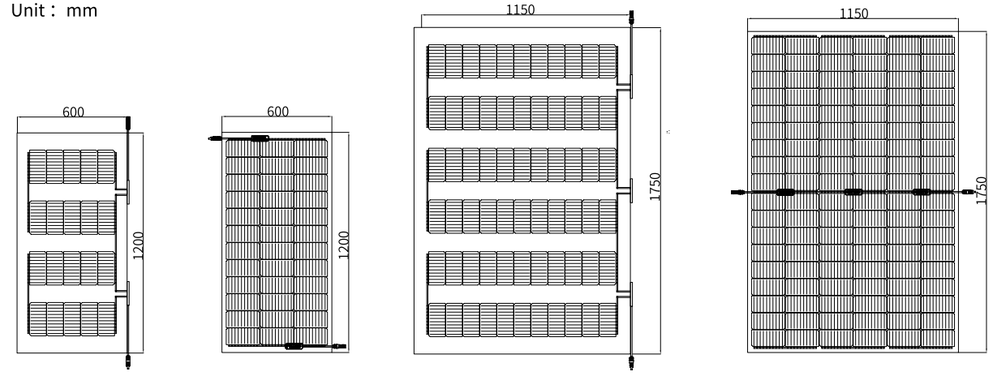
GB/T35684 waterproof test, Class A fireproof, wind resistancel

High quality: High strenght, corrosion resistance, high temperature and humidity resistance

COLORED GLAZE · CRYSTAL CLEAR

DIMENSIONS

Unit： mm



ELECTRICAL PARAMETERS(STC)

Module type	JS73DG-10e 1/2	JS125DG-18e 1/2	JS230DG-33e 1/2	JS125DG-18e 1/2
Power output （P_{max}）	73W	125W	230W	380W
Power output tolerances （ΔP_{max}）	±5W	±5W	±5W	±5W
Module efficiency (η_m)	10.1%	17.4%	11.4%	18.9%
Voltage at Pmax (V_{mpp})	11.6V	20.9V	38.4V	31.4V
Current at Pmax （I_{mpp}）	6.29A	5.98A	5.99A	12.1A
Open-circuit current （V_{oc}）	14.1V	25.3V	46.5V	38.0V
Short-circuit current （I_{sc}）	6.61A	6.28A	6.29A	12.7A

STC：1000W/m2 irradiance , 25 degree cell temperature, AM1.5g.

CONSTRUCTION MATERIALS

Product type	JS73DG-10e 1/2	JS125DG-18e 1/2	JS230G-33e 1/2	JS380DG-27e 1/2
Glass (material / thickness)	6mm+6mm (3.2mm Optional)			
Baseplate (material)	PVB			
Junction box (protection degree)	≥IP67			
Cable (length / cross-sectional area)	300mm / 4mm² / Customizable			
Plug connector (type / protection degree)	MC4 / IP67			
Packing	A pallets or wooden box			
Dimensions (L / W / TH)	1200*600mm	1200*600mm	1750*1150mm	1750*1150mm
Dimensions of cell	182*91mm			
Cell layout	4*5 (50%)	3*12 (≈10%)	6*11 (50%)	2-6*9 (≈10%)
Weight	24kg	24kg	67kg	67kg

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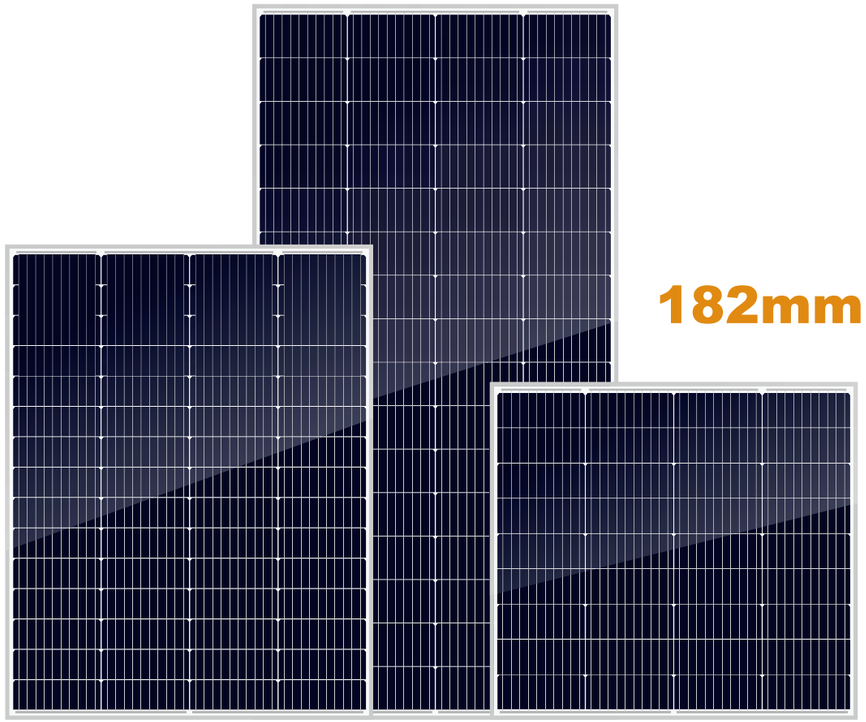
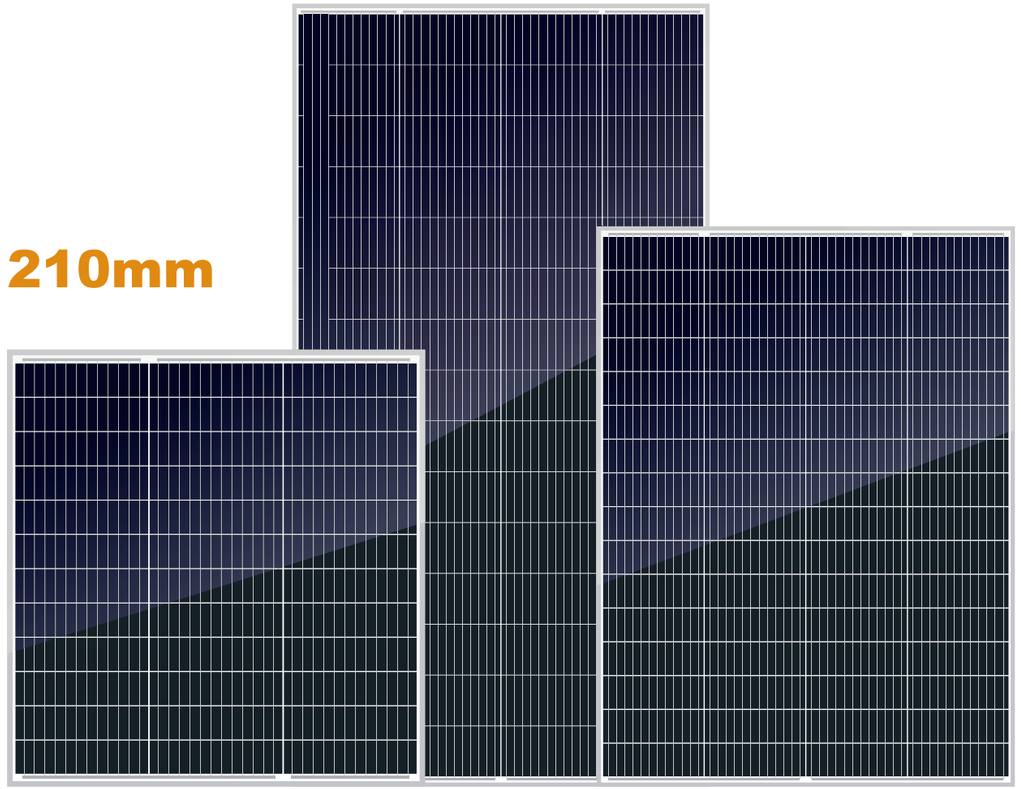
QUALIFICATIONS AND CERTIFICATIONS

IEC 61215, IEC 61730, 3C, ISO 9001:2015, ISO 14001:2015, ISO 45001: 2018.

Customized Series



182mm-M10	Pmax	Voc	Isc	Vmp	Imp	Eff	Dimension	Weight
SKT 40M10	40	19.12	2.55	16.53	2.42	17.46	580*395*25mm	2.55kg
SKT 50M10	50	19.12	3.18	16.53	3.02	17.83	710*395*25mm	3.09kg
SKT 60M10	60	23.18	3.16	20.00	3.00	17.77	855*395*25mm	3.69kg
SKT 70M10	70	20.42	4.20	17.59	3.98	17.99	985*395*30mm	4.24kg
SKT 80M10	80	19.12	5.09	16.53	4.84	18.35	570*765*30mm	4.67kg
SKT 90M10	90	21.80	5.03	18.79	4.79	18.24	645*765*30mm	5.25kg
SKT 100M10	100	24.47	5.02	21.03	4.76	18.16	720*765*30mm	5.83kg
SKT 110M10	110	21.71	6.25	18.60	5.91	18.20	790*765*30mm	6.37kg
SKT 120M10	120	22.03	6.54	19.28	6.22	19.86	790*765*30mm	6.37kg
SKT 130M10	130	24.58	6.44	21.25	6.12	19.20	885*765*30mm	7.10kg
SKT 140M10	140	20.42	8.40	17.58	7.96	18.67	980*765*30mm	7.55kg
SKT 150M10	150	20.59	8.82	17.87	8.39	20.01	980*765*30mm	7.55kg
SKT 160M10	160	23.18	8.43	19.99	8.00	18.93	1105*765*30mm	9.11kg
SKT 170M10	170	23.34	8.82	20.26	8.39	20.11	1105*765*30mm	9.11kg
SKT 180M10 18V	180	21.80	10.10	18.79	9.58	18.90	1245*765*30mm	9.87kg
SKT 180M10 36V	180	43.60	5.05	37.58	4.79	18.90	1245*765*30mm	9.87kg
SKT 190M10 18V	190	21.96	10.48	19.06	9.97	19.95	1245*765*30mm	9.87kg
SKT 190M10 36V	190	43.92	5.24	38.12	4.98	19.95	1245*765*30mm	9.87kg
SKT 200M10 18V	200	21.79	11.24	18.76	10.66	19.01	1375*765*30mm	10.87kg
SKT 200M10 36V	200	43.57	5.62	37.52	5.33	19.01	1375*765*30mm	10.87kg
SKT 210M10 18V	210	21.96	11.58	19.06	11.02	19.96	1375*765*30mm	10.87kg
SKT 210M10 36V	210	43.92	5.79	38.12	5.51	19.96	1375*765*30mm	10.87kg
SKT 220M10 18V	220	21.71	12.50	18.60	11.83	18.73	1535*765*30mm	12.39kg
SKT 220M10 36V	220	43.42	6.25	37.2	5.92	18.73	1535*765*30mm	12.39kg
SKT 230M10 18V	230	21.71	12.50	18.60	11.83	18.73	1535*765*30mm	12.39kg
SKT 230M10 36V	230	43.66	6.43	37.7	6.10	19.59	1535*765*30mm	12.39kg
SKT 240M10 18V	240	21.96	13.23	19.06	12.59	20.44	1535*765*30mm	12.39kg
SKT 240M10 36V	240	43.92	6.62	38.12	6.30	20.44	1535*765*30mm	12.39kg



210mm-G12	Pmax	Voc	Isc	Vmp	Imp	Eff	Dimension	Weight
SKT 60G12	60	21.34	3.47	18.27	3.28	17.78	750*450*30mm	3.68kg
SKT 70G12	70	20.01	4.32	17.13	4.09	17.98	865*450*30mm	4.22kg
SKT 80G12	80	22.28	4.42	19.01	4.21	18.51	645*670*30mm	4.63kg
SKT 90G12	90	24.44	4.52	20.84	4.32	19.19	700*670*30mm	5.00kg
SKT 100G12	100	21.34	5.79	18.27	5.47	18.29	625*875*30mm	5.80kg
SKT 110G12	110	22.41	6.02	19.11	5.76	19.55	840*670*30mm	5.95kg
SKT 120G12	120	21.34	6.95	18.27	6.57	18.66	735*875*30mm	6.76kg
SKT 130G12	130	21.73	7.34	18.53	7.02	20.21	735*875*30mm	6.76kg
SKT 140G12	140	19.8	8.74	17.1	8.19	18.66	1120*670*30mm	7.85kg
SKT 150G12	150	20.34	9.07	17.31	8.67	19.99	1120*670*30mm	7.85kg
SKT 160G12	160	22.54	9.15	18.37	8.71	20.21	905*875*30mm	8.25kg
SKT 170G12	170	24.01	8.75	20.56	8.27	19.24	1010*875*30mm	9.69kg
SKT 180G12	180	24.37	9.1	20.77	8.67	20.37	1010*875*30mm	9.69kg
SKT 190G12	190	24.55	9.48	20.95	9.07	21.5	1010*875*30mm	9.69kg
SKT 200G12	200	21.34	11.58	18.27	10.95	19.29	1190*875*30mm	10.70kg
SKT 210G12	210	21.73	11.86	18.53	11.33	20.25	1190*875*30mm	10.70kg
SKT 220G12	220	21.86	12.33	18.62	11.82	21.22	1190*875*30mm	10.70kg
SKT 230G12	230	40.02	7.1	34.26	6.71	19.69	1335*875*30mm	12.58kg
SKT 240G12	240	40.62	7.28	34.62	6.93	20.55	1335*875*30mm	12.58kg
SKT 250G12	250	40.92	7.48	34.92	7.16	21.4	1335*875*30mm	12.58kg
SKT 260G12	260	45.7	7.01	38.96	6.67	19.68	1510*875*30mm	13.84kg
SKT 270G12	270	46.1	7.2	39.3	6.87	20.44	1510*875*30mm	13.84kg
SKT 280G12	280	40.02	8.64	34.26	8.17	19.34	1655*875*30mm	15.13kg
SKT 290G12	290	40.32	8.86	34.38	8.44	20.03	1655*875*30mm	15.13kg
SKT 300G12	300	40.62	9.1	34.62	8.67	20.72	1655*875*30mm	15.13kg
SKT 310G12	310	43.01	8.88	36.67	8.45	20.13	1760*875*30mm	16.06kg
SKT 320G12	320	43.46	9.03	37.06	8.63	20.78	1760*875*30mm	16.06kg

Smart Energy Storage Battery

Residential Energy Storage Battery Series

LFP5000 LV | LFP5-10kWh LV | LFP9-30kWh HV

Use safe and reliable LFP battery cells

Complete range of high voltage and low voltage products to meet diverse needs

Battery capacity is expandable,
Possess BMS battery management system

LFP 3000 / HV

57.6V 50Ah Each block

LiFePO4 BATTERY

- High inverter compatibility
- Home Automation
- >15 Years life span
- Reliable LFP cells
- WiFi Communication
- Cells cycle times 6000 cycles
- CANbus standard connection
- IP54 Rating Triple hardware protection
- Smart BMS system to optimize the performance

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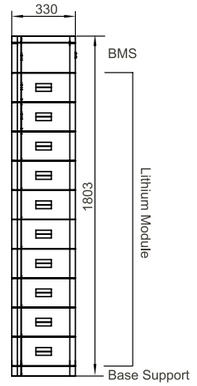
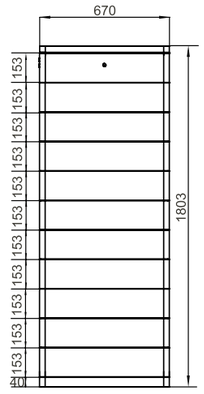
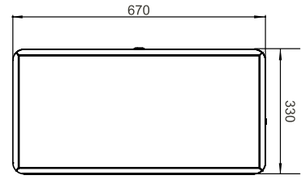
LFP 3000 / HV
57.6V 50Ah







Min Capacity: 3 Lithium Modules & BMS
Max Capacity: 10 Lithium Modules & BMS

Electrical Characteristics

Module Type	LFP 9kWh/HV	LFP 12kWh/HV	LFP 15kWh/HV	LFP 18kWh/HV	LFP 21kWh/HV	LFP 24kWh/HV	LFP 27kWh/HV	LFP 30kWh/HV
Usable Energy*	8.64kWh	11.52kWh	14.40kWh	17.28kWh	20.16kWh	23.04kWh	25.92kWh	28.80kWh
Battery Module	LFP 3000 / HV : 57.6V 50Ah							
Number of Modules	3	4	5	6	7	8	9	10
Nominal Voltage	172.8V	230.4V	288V	345.6V	403.2V	460.6V	518.4V	576V
Operating Voltage Ranges	135-197.1V	180-262.8V	225-328.5V	270-394.2V	315-459.9V	360-525.6V	405-591.3V	450-657V
Nominal Dis-/Charge Current	50 / 25A							
Max. Charge Voltage	197.1V	262.8V	328.5V	394.2V	459.9V	525.6V	591.3V	657V
Weight	102kg	131kg	160kg	189kg	218kg	247kg	276kg	305kg
Dimension(mm)	670*330*697	670*330*855	670*330*1013	670*330*1171	670*330*1329	670*330*1487	670*330*1645	670*330*1803
Safety	UL,UN38.3,IEC62619,IEC63056,IEC62477							

Max.recommended DOD	90%
Operating Condition	Indoor or outdoor
Operating Temperature Charge	0~55℃
Operating Temperature Discharge	-20~55℃
Humidity	0~95% (No condensed water)
Pollution Degree	3
Over Voltage Category	II
Cooling Type	Natural cooling
Case Material	Metal+Plastic
IP Rating	IP 54
Protective Class	I
Warranty	10 years
Life Span	>15 years
Communication	CAN/WIFI
Protection Mode	Triple hardware protection
Battery Protection	Over-current/Over-voltage/Short-circuit/Under-voltage
Hazardous Material Classification	9

Cooperation Partners

PHYLION · HiGEE · solis · GOODWE · sunways · MEGAREVO · SOFAR SOLAR · GROWATT · SOLINTEG · ESS-Ark · ThinkPower

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LFP 5-10KWH / LV

51.2V 100/200Ah

LiFePO4 BATTERY

- High inverter compatibility
- Natural cooling system
- >15 Years life span
- Reliable LFP cells
- Scalable up to 160kWh 16 (Parallel)
- Cells cycle times 6000 cycles
- CANbus standard connection
- IP65 Rating Triple hardware protection
- Smart BMS system to optimize the performance

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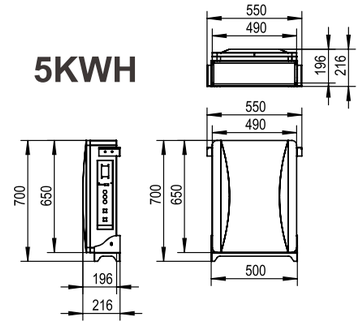
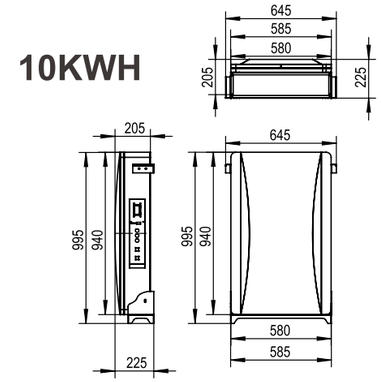
SUNKET-ESS®

LFP 5-10KWH / LV
51.2V 100/200Ah





Electrical Characteristics

Module Type	LFP 5kWh/LV	LFP 10kWh/LV
Nominal Capacitance	100Ah	200Ah
Total Energy*	5.12kWh	10.24kWh
Usable Energy(DC)*	4.6kWh	9.2kWh
Nominal Dis-/Charge Power	2.5kW	5kW
Peak Power(Only Discharge)	2.9kW for 3 seconds	5.8kW for 3 seconds
Constant Current(Only Discharge)	50A	100A
Voltage	43.2~58.4Vd.c	43.2~58.4Vd.c
Nominal Voltage	51.2Vd.c	51.2Vd.c
Max. Charge Voltage	58.4Vd.c	58.4Vd.c
Weight	58kg	109kg
Dimension(mm)	490(550)*650(700)*196(216)mm	585(645)*940(995)*205(225)mm
Safety	UL,UN38.3,IEC62619,IEC63056	UL,UN38.3,IEC62619,IEC63056

Max.recommended DOD	90%
Operating Condition	Indoor or outdoor
Operating Temperature Charge	From 0~45℃
Operating Temperature Discharge	From -10~50℃
Humidity	4~100%（No condensed water）
Pollution Degree	3
Over Voltage Category	II
Cooling Type	Natural cooling
Case Material	Metal+Plastic
IP rating	IP 65
Protective Class	I
Max. Number of Parallel	16
Warranty	10 years
Life Span	>15 years
Communication	CAN/RS485
Protection Mode	Triple hardware protection
Battery Protection	Over-current/Over-voltage/Short circuit/ Under-voltage
Hazardous Material Classification	9

Compatible Inverters

victron energy · GOODWE · Growatt · LUXPOWER · SOL-ARK · solis · SOFAR SOLAR · Voltronic Power

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LFP 5000

51.2V 100Ah

LiFePO4 BATTERY

- High inverter compatibility
- Natural cooling system
- >15 Years life span
- Reliable LFP cells
- Scalable up to 80kWh 16 (Parallel)
- Cells cycle times 6000 cycles
- CANbus standard connection
- IP20 Rating Triple hardware protection
- Smart BMS system to optimize the performance

UL MSDS UN 38.3 ISO

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LFP 5000
51.2V 100Ah

Electrical Characteristics

Module Type	LFP 5000
Total Energy*	5.12kWh
Usable Energy(DC)*	4.6kWh
Nominal Dis-/Charge Power	2.5kW
Peak Power(Only Discharge)	2.9kw for 3 second
Constant Current(Only Discharge)	50A
Voltage	43.2~58.4Vd.c
Nominal Voltage	51.2Vd.c
Nominal Current	50A
Max. Charge Current	50A
Max. Discharge Current	50A
Max. Charge Voltage	58.4Vd.c
Weight	49.5kg
Dimension(mm)	453×433×177mm
Safety	UL,UN38.3,IEC62619,IEC63056

Max.recommended DOD		90%
Operating Condition		Indoor
Operating Temperature	Charge	From 0~45℃
	Discharge	From -10~50℃
Storage Temperature		From -20~50℃
Humidity		4~100% (No condensed water)
Pollution Degree		3
Over Voltage Category		II
Cooling Type		Natural cooling
Case Material		Metal
IP rating		IP20
Protective Class		I
Max. Number of Parallel		16
Warranty		10 years
Life Span		>15 years
Communication		CAN/RS485
Protection Mode		Triple hardware protection
Battery Protection		Over-current/Over-voltage/Short circuit/ Under-voltage
Hazardous Material Classification		9

Compatible Inverters

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Split Energy Storage System

6-12kW / 9-30kWh HV

Electrical Characteristics（Inverter）

Technical specification	R6KH1NA	R8KH1NA	R10KH1NA	R12KH1NA
Input (PV)				
Max. power (kW)	7.8	10.4	13	15.6
Max. DC voltage (V)		500		
MPPT voltage range (V)		125 - 500		
Max. Input current of single MPPT (A)		12		
MPPT tracker/strings		4/1		
AC output				
Rated output power (kVA)	6	8	10	12
Max. output current (A)	27.3	36.4	45.4	50
Grid voltage/range (V)		240/211~264		
Frequency (Hz)		50/60		
PF		0.8lagging-0.8leading		
THDi		< 3%		
AC output topology		L+N+PE		
EPS output				
Rated power (kVA)	6	8	10	12
Rated output voltage (V)		220-240 /110-120		
Rated frequency (Hz)		50/60		
Automatic switching time (ms)		<20		
THDu		< 2%		
Overload capacity		110%,30S/120%,10S/150%,0.02S		

SUNKET-ESS®

General data				
Max. efficiency		≥98.2%		
CECefficiency		≥97.2%		
Ingress protection		IP65/NEMA 3R		
Noise emission (dB)	<25	<25	<29	<29
Operation temperature		-25°C ~ +60°C		
Cooling		Natural		
Relative humidity		0 ~95%(non-condensing)		
Altitude		2000m>(2,000 Derating)		
Weight (kg)		32		
Dimensions W*D*H (mm)		530* 200* 660		
Display and communication				
Display		LCD		
Interface:RS485/Wifi/4G/CAN/DRM		Yes / Opt / Opt / Yes / Yes		
Standby power consumption at night (W)		< 2.5 (With the battery < 5)		
Isolation transformer		Yes		
Safety standard		UL1741SA all options, UL1699B, CSA 22.2		
EMC		FCC Part 15, Class B		
On-grid		IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III		

Electrical Characteristics（Battery）

Module Type	LFP 9kWh/HV	LFP 12kWh/HV	LFP 15kWh/HV	LFP 18kWh/HV	LFP 21kWh/HV	LFP 24kWh/HV	LFP 27kWh/HV	LFP 30kWh/HV
Usable Energy*	8.64kWh	11.52kWh	14.40kWh	17.28kWh	20.16kWh	23.04kWh	25.92kWh	28.80kWh
Battery Module	LFP 3000 / HV : 57.6V 50Ah							
Number of Modules	3	4	5	6	7	8	9	10
Nominal Voltage	172.8V	230.4V	288V	345.6V	403.2V	460.6V	518.4V	576V
Operating Voltage Ranges	135-197.1V	180-262.8V	225-328.5V	270-394.2V	315-459.9V	360-525.6V	405-591.3V	450-657V
Nominal Dis-/Charge Current	50 / 25A							
Max. Charge Voltage	197.1V	262.8V	328.5V	394.2V	459.9V	525.6V	591.3V	657V
Weight	102kg	131kg	160kg	189kg	218kg	247kg	276kg	305kg
Dimension(mm)	670*330*697	670*330*855	670*330*1013	670*330*1171	670*330*1329	670*330*1487	670*330*1645	670*330*1803
Safety	UL,UN38.3,IEC62619,IEC63056,IEC62477							
Max.recommended DOD	90%							
Operating Condition	Indoor or outdoor							
Operating Charge	0~55℃							
Temperature Discharge	-20~55℃							
Humidity	0~95% (No condensed water)							
Pollution Degree	3							
Over Voltage Category	II							
Cooling Type	Natural cooling							
Case Material	Metal+Plastic							
IP Rating	IP 54							
Protective Class	I							
Warranty	10 years							
Communication	CAN/WIFI							
Protection Mode	Triple hardware protection							
Battery Protection	Over-current/Over-voltage/Short-circuit/Under-voltage							
Hazardous Material Classification	9							

Split Energy Storage System

5-10kW / 5-10kWh LV

Electrical Characteristics（Inverter）

Technical specification	R5KLNA	R6KLNA	R8KLNA	R10KLNA
Input (PV)				
Max. power (kW)	7.5	9	12	13
Max. DC voltage (V)		500		
MPPT voltage range (V)		125~500		
Max. Input current of single MPPT (A)		12		
MPPT tracker/strings		4/1		
AC output				
Rated output power (kVA)	5	6	8	10
Max. output current (A)	24	28.8	38.3	47.8
Ac output voltage (V)		120/240(split phase), 208(2/3 phase),230 (single phase)		
Frequency (Hz)		50/60		
PF		0.8lagging-0.8leading		
THDi		< 3%		
Ac output voltage(V)		Split phase, 2/3 phase, single phase		
EPS output				
Rated power (kVA)	5	6	8	10
Rated output voltage (V)		120/240 (split phase), 208 (2/3 phase),230 (single phase)		
Rated output current (A)	24	28.8	38.3	47.8
Rated frequency (Hz)		50/60		
Automatic switching time (ms)		< 20		
THDu		< 2%		
Overload capacity		125%,60S/150%,1S		

SUNKET-ESS®

General data				
Max. efficiency		≥98.2%		
North american efficiency		≥97.2%		
Ingress protection		IP65/NEMA 3R		
Noise emission (dB)	<25	<29	<29	<29
Operation temperature		-25°C ~ +60°C		
Cooling		Natural		
Relative humidity		0 ~95%(non-condensing)		
Altitude		2000m(>2,000 Derating)		
Dimensions W*D*H (mm)		430* 220* 710		
Weight (kg)		41		
Isolation transformer		No		
Self-consumption (W)		<3		
Display and communication				
Display		LCD, touch screen		
Interface:RS485/Wifi/4G/CAN/DRM		Yes		
Safety standard		UL1741SA all options, UL1699B, CSA 22.2		
EMC		FCC Part 15, Class B		
On-grid		IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III		

Electrical Characteristics（Battery）

Module Type	LFP 5kWh/LV	LFP 10kWh/LV
Nominal Capacitance	100Ah	200Ah
Total Energy*	5.12kWh	10.24kWh
Usable Energy(DC)*	4.6kWh	9.2kWh
Nominal Dis-/Charge Power	2.5kW	5kW
Peak Power(Only Discharge)	2.9kW for 3 seconds	5.8kW for 3 seconds
Constant Current(Only Discharge)	50A	100A
Voltage	43.2~58.4Vd.c	43.2~58.4Vd.c
Nominal Voltage	51.2Vd.c	51.2Vd.c
Max. Charge Voltage	58.4Vd.c	58.4Vd.c
Weight	58kg	109kg
Dimension(mm)	490(550)*650(700)*196(216)mm	585(645)*940(995)*205(225)mm
Safety	UL,UN38.3,IEC62619,IEC63056	UL,UN38.3,IEC62619,IEC63056

Max.recommended DOD	90%	
Operating Condition	Indoor or outdoor	
Operating Temperature	Charge	From 0~45℃
	Discharge	From -10~50℃
Humidity	4~100%（No condensed water）	
Pollution Degree	3	
Over Voltage Category	II	
Cooling Type	Natural cooling	
Case Material	Metal+Plastic	
IP rating	IP 65	
Protective Class	I	
Max. Number of Parallel	16	
Warranty	10 years	
Life Span	>15 years	
Communication	CAN/RS485	
Protection Mode	Triple hardware protection	
Battery Protection	Over-current/Over-voltage/Short circuit/ Under-voltage	
Hazardous Material Classification	9	

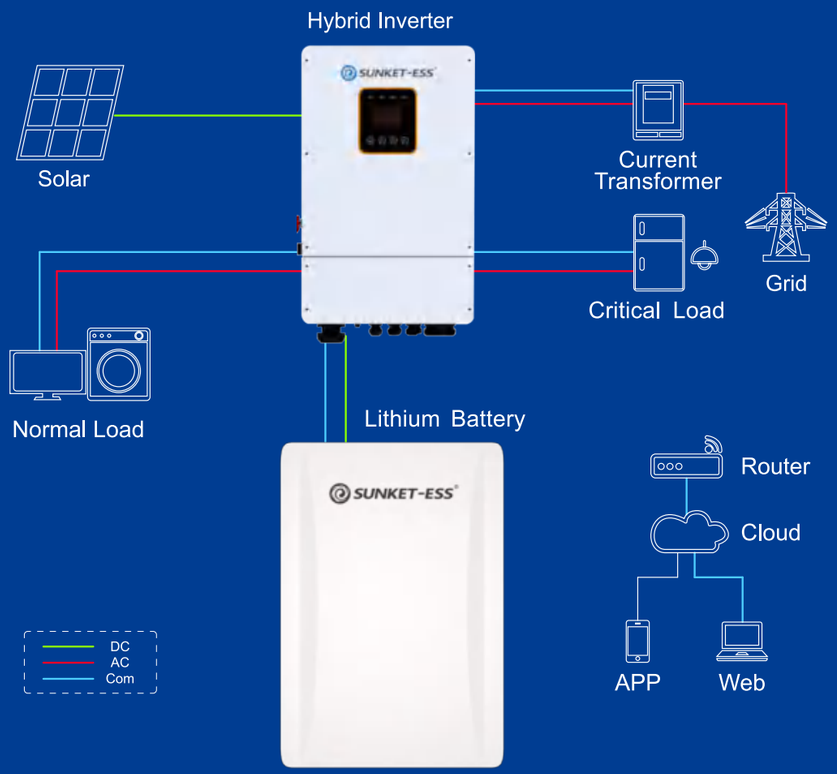
One-Stop Energy Storage System Solution

Residential Energy Storage Battery Series

On-Grid Solar System Hybrid Solar System

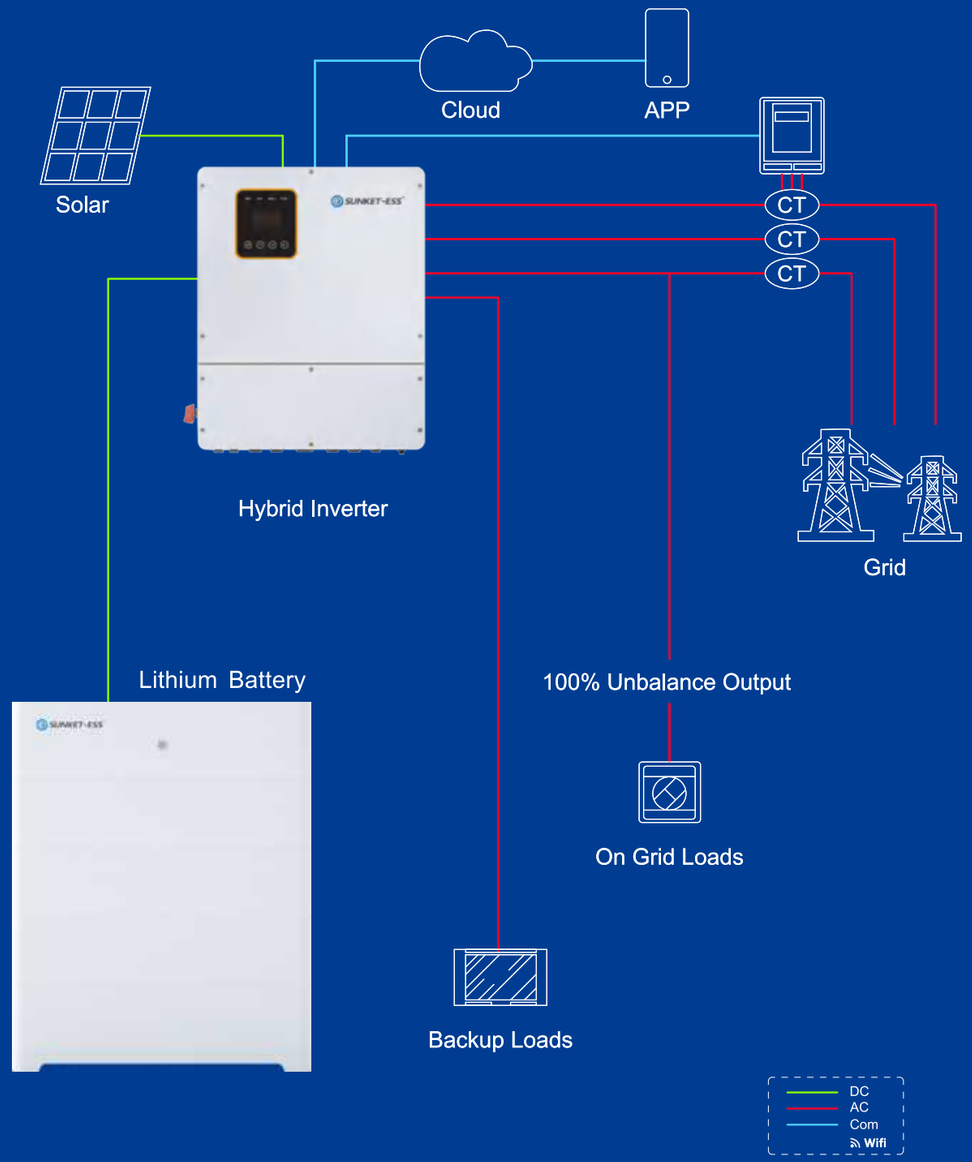
- Professional R&D team design system
- On-grid, off-grid, and hybrid solar systems
- One-stop solution, 24-hour professional service
- High level of intelligent management to ensure system security

Low Voltage 5kW Hybrid PV System



ONE-STOP SOLAR BIPV & ESS SOLUTION PROVIDER

High Voltage 12kW Hybrid PV System



Suntop Global Projects






Note