SpolarPV

Easy Invest, More Returns

Balcony PV System

An Accessible and Efficient Way to Generate Renewable Energy at Home

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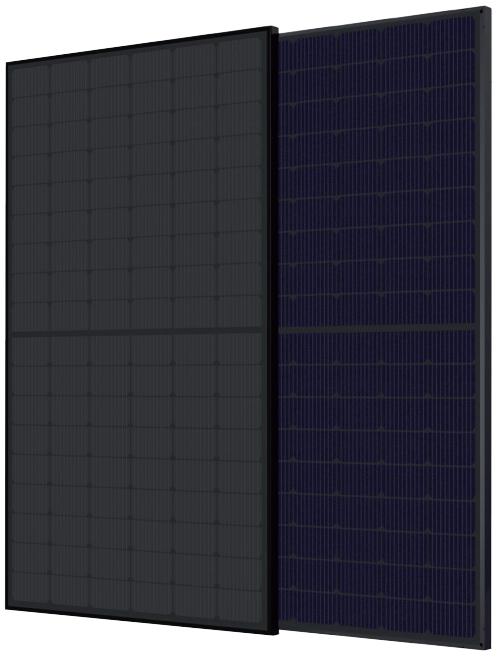
An Accessible and Efficient Way to Generate Renewable Energy at Home

Balcony PV systems offer a practical and sustainable solution for homeowners looking to generate renewable energy. These systems are designed to be easily installed on balconies or other small outdoor spaces, making them ideal for residential use. By capturing sunlight and converting it into electricity, a balcony PV system allows households to reduce their energy bills, lower reliance on the grid, and contribute to a more sustainable future. With minimal installation requirements and low maintenance, these systems provide an efficient way to harness solar power without the need for extensive rooftop space. Whether you're in a suburban home or a small apartment, a balcony PV system can help you take a step toward energy independence and environmental responsibility.



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Module efficiency
22.01 %

Highest power output
430 W

12 years
Product warranty

30 years
Linear power warranty

SPV430-TM10-108BD

High Efficiency and Lower Temperature Cofficient

Higher power conversion efficiency and lower temperature cofficient benefited from advanced Tunnel Oxide Passivating Contacts （TOPCon） technology.

Anti-reflection

Less than 20% reflectivity with minimum glare.

Good Mechanical Load Performance

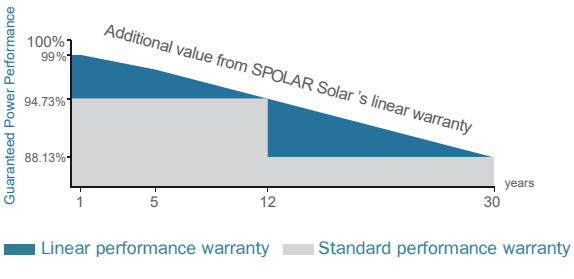
Certified to withstand: wind load (2400 Pa), snow load and hail strike(5400 Pa) .

Low Light Performance Resilience

Advanced glass and cell surface texture designs ensure excellent performance in low light environment.

Durability Against Extreme Environmental Conditions

Good performance of Anti-PID, Ammonia and Salt mist certified by 2 PfG 2387/01.18, IEC61716 and IEC61701.

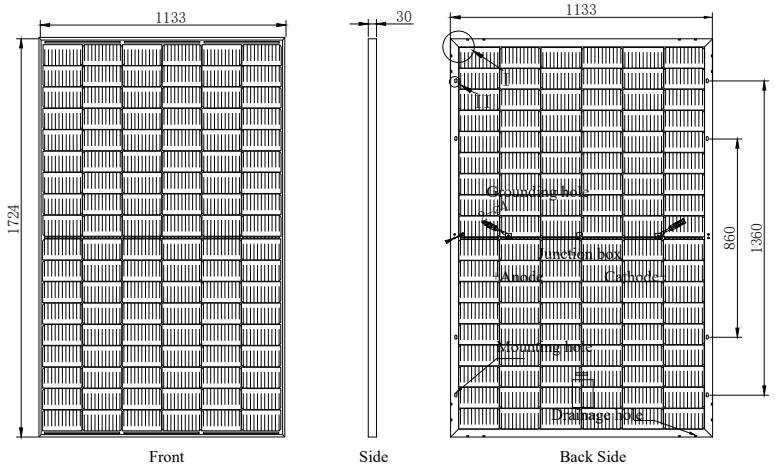


Electrical Characteristics at Standard Test Conditions (STC)

Module Type	SPV425-TM10-108BD	SPV430-TM10-108BD
Maximum Power - Pmax (W)	425	430
Maximum Power Voltage - Vmp (V)	32.26	32.44
Maximum Power Current - Imp (A)	13.18	13.25
Open-circuit Voltage - Voc (V)	38.08	38.26
Short-circuit Current - Isc (A)	14.10	14.17
Module Efficiency STC (%)	21.76 %	22.01 %

Mechanical Characteristics

Cell Type	Mono-crystalline TOPCon 182x91 mm
No. of Cells	108 (6x18)
Dimensions	1724x1133x30 mm
Weight	23.5 kg
Glass	Dual Glass 2.0mm Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, MC4 Compatible, 3 Bypass Diode
Output Cables	1x4.0 mm², Length: 300 mm or Customized Length
Packaging Configuration	74pcs/stack, 962pcs/40'HQContainer (Two pallets=One stack)



IISO9001:2016 ISO14001:2016
OHSAS18001:2011 certified factory.
IEC61215 IEC61730 certified products.

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Microinverter

SUN-M60/80/100G4-EU-Q0

- 2 MPP tracker, module level monitoring
- IP67 protection degree
- WIFI communication
- Rapid shutdown function
- Easy installation, suitable for quick-plug balcony PV system
- <100ms AC fast discharge, compliant with new required standard DIN VDE 0620-1 (<200ms) to protect human safety
- Complete NS protection with self-check function
- External relay advantage with low temperature, long life, easier maintenance
- 25 years design lifetime and 15 years warranty
- With integrate WIFI

Technical Data

Model	SUN-M60G4-EU-Q0	SUN-M80 G4-EU-Q0	SUN-M100 G4-EU-Q0
PV String Input Data			
Max. PV Input Power (W)	210-420(2 Pieces)	210-560(2 Pieces)	210-700(2 Pieces)
Max. PV Input Voltage (V)	60		
Start-up Voltage (V)	20		
MPPT Voltage Range (V)	25-55		
Rated PV Input Voltage (V)	42.5		
Max. Operating PV Input Current (A)	13+13		
Max. Input Short Circuit Current (A)	19.5+19.5		
No. of MPPT Trackers/ No. of Strings per MPPT	2/1		
AC Output Data			
Rated AC Output Active Power(W)	600	800	1000
Max.AC Output Apparent Power(VA)	600	800	1000
Rated AC Output current (A)	2.8/2.7	3.7/3.5	4.6/4.4
Max.AC Output Current(A)	2.8/2.7	3.7/3.5	4.6/4.4
Rated Output voltage/range (V)	220/230 0.85Un-1.1Un		
Grid Connection Form	L/N/PE		
Rated Output Grid Frequency/range(Hz)	50/45-55, 60/55-65		
Max. unit per branch	8	6	5
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Total Current Harmonic Distortion THDi	<3%		
DC Injection Current	<0.5%In		
Efficiency			
Max. Efficiency	96.5%		
Euro Efficiency	96.0%		
MPPT Efficiency	>99		
Equipment Protection			
DC Polarity Reverse Connection Protection	Yes		
AC Output Overcurrent Protection	Yes		
AC Output Overvoltage Protection	Yes		
AC Output Short Circuit Protection	Yes		
Thermal Protection	Yes		
DC Terminal Insulation Impedance	Yes		
Monitoring Power Network Monitoring	Yes		
Island Protection Monitoring	Yes		
Earth Fault Detection	Yes		
Overvoltage Load Drop Protection	Yes		
Interface			
Communication Interface	WiFi		
General Data			
Operating Temperature Range (°C)	-25 to +65°C, >45°C Derating		
Permissible Ambient Humidity	0-100%		
Permissible Altitude (m)	2000m		
Noise (dB)	≤25 dB		
Ingress Protection(IP) Rating	IP 67		
Inverter Topology	Isolated		
Over Voltage Category	OVC II(DC), OVC III(AC)		
Cabinet Size (WxHxD mm)	280.5×190×40 (Excluding Connectors and Brackets)		
Weight (kg)	3		
Warranty	15 Years		
Type of Cooling	Natural Cooling		
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105		
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		

NEO 600-1000M-X (WiFi)

- 2 independent MPP trackers
- Reactive power control
- Rapid shutdown function
- IP67 protection degree
- Support WiFi communication

POWER-ING TOMO-RROW

GROWATT

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Datasheet	NEO 600M-X (WiFi)	NEO 800M-X (WiFi)	NEO 1000M-X (WiFi)
Input data (DC)			
Recommended PV module power(STC) range	240W to 405W+	320W to 540W+	400W to 670W+
Max. DC voltage	60V		
Start voltage	16V		
Nominal voltage	16-60V		
MPP voltage range	28V-60V		
No. of MPP trackers	2		
No. of PV strings per MPP tracker	1/1		
Max. input current per MPP tracker	18A		
Max. short-circuit current per MPP tracker	23A		
Output data (AC)			
AC nominal power	600W	800W	1000W
Max. AC apparent power	600VA	800VA	1000VA
Nominal AC voltage/range	230V (180-253V)		
Adjustable output voltage range	170V-278V		
AC grid frequency	50/60 Hz		
Adjustable output frequency range	45~55Hz/55-65 Hz		
Rated output current	2.61A	3.48A	4.35A
Power factor	0.8 leading ... 0.8 lagging		
THDi	<3%		
AC grid connection type	Single phase		
Maximum units per 12AWG branch*[1]	5	5	5
Maximum units per 10AWG branch*[1]	5	5	5
Efficiency			
Max.efficiency	97.3%		
MPPT efficiency	99.5%		
Night power consumption	30mW		
Protection devices			
DC reverse polarity protection	Yes		
AC surge protection	Type III		
AC short-circuit protection	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Anti-islanding protection	Yes		
Insulation resistance monitoring	Yes		
General data			
Dimensions (W / H / D)	270/252/41.5mm		
Weight	3.1kg		
Operating temperature range	-40°C ... +65°C		
Altitude	4000m		
Topology	High frequency transformers, Galvanically isolated		
Cooling	Natural convection-No Fans		
Protection degree	IP67		
Relative humidity	0~100%		
DC connection	MC4 & equivalent		
AC connection	plug and play		
Interfaces			
Display	LED+APP		
Monitoring	WiFi		
Warranty	12 years		
	CE, N 4105, EN 50549-1, UNE 217002, NTS Type A, C10/C11, CEI 0-21, G98, IEC 61727&IEC 62116		

* 1 Refer to local requirements for exact number of microinverters per branch.
* The AC Voltage and Frequency Range may vary depending on specific country grid standard.
All specifications are subject to change without notice.

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Photovoltaic Racking

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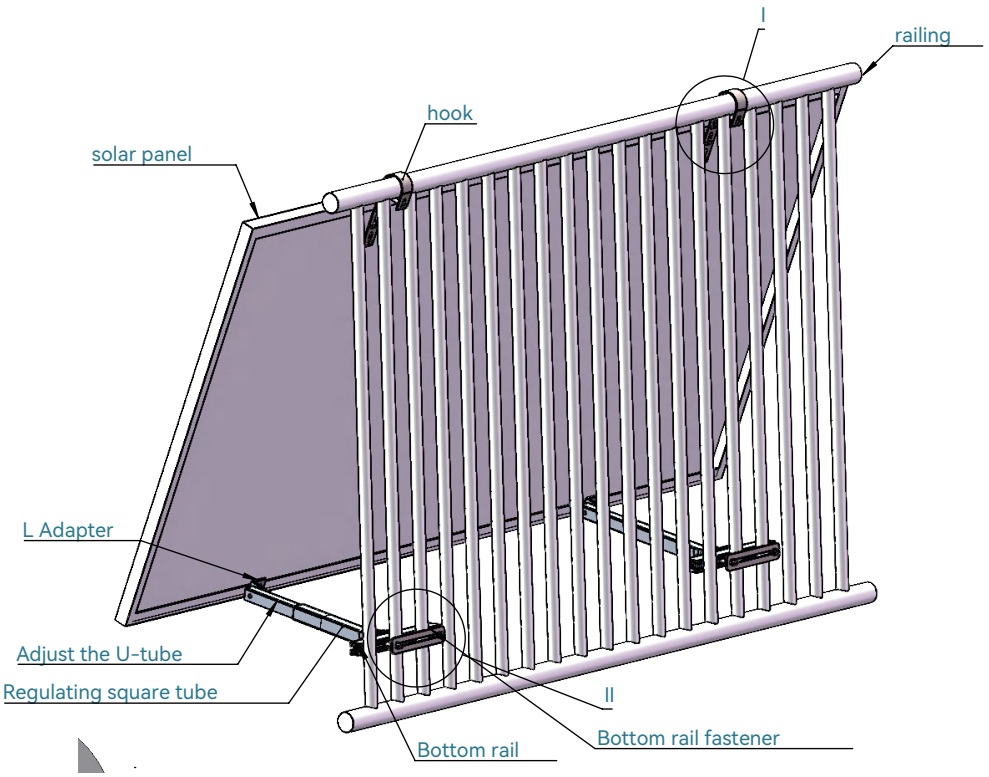

I

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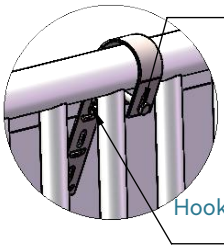
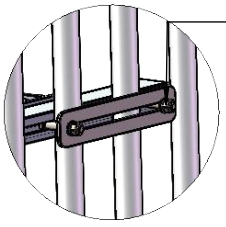


Hook fixing bolt M8*90 external hexagon bolt
With 2 flat, 1 bullet and 1 nut

Hook fixing assembly bolt M8*20 outer hexagon bolt
With 2 flat, 1 bullet and 1 nut

II

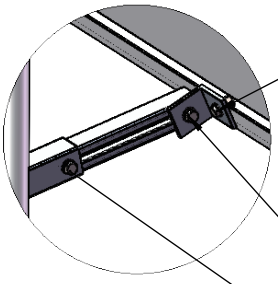
1 : 5



Two sets of M8*50 outer hexagon bolts are used to fix
the bottom rail and the bottom rail fasteners
One flat, one bullet and one nut

III

1 : 5



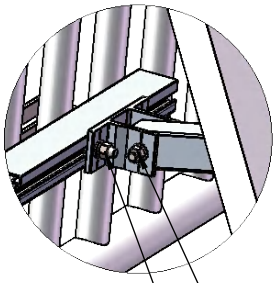
1 set of M8*20 outer hexagon bolts
with 2 flat, 1 bullet and 1 nut
(L Adapter for fixing components)

1 set of M8*40 outer hexagon bolts with 1
flat, 1 bullet and 1 flange nut
(L adapter fixed U-shaped pipe)

1 set of M8*20 outer hexagon bolts with 1
flat, 1 bullet and 1 flange nut
(Square pipe fixed U-shaped pipe)

IV

1 : 4



Bolts for fixing the adjusting square pipe in the base
M8*60 outer hexagon with 1 flat, 1 bullet and 1 nut

Base bolts for securing the bottom rail
M8*25 outer hexagon with 1 flat, 1 bullet and 1 nut

URA-MESS1 (Optional)

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Balcony Energy Storage System

URA-MESS1 is an energy storage system specially designed for the balcony solar system. The intelligent control system can control the discharge duration and ensure that the energy can be stored simultaneously. The solar power is converted to AC power through a micro-inverter to provide power for your home appliances such as Wi-Fi routers, lighting fixtures, and laptops. The excess energy is intelligently stored in the battery for night use, saving up to 30% of annual electricity bills.

Highlight Features

- Expandable Capacity
  2240Wh~6720Wh
- High Power Performance
  1000W PV Input/800W DC Output
- Diy Installation
  Plug-And-Play
- Long Lifespan
  Over10 Years Lifecycle 6000+Times

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Technical Specification

Battery	
Capacity	2240Wh, expanded to 6720Wh for 3 units
Nominal Voltage	44.8 VDC
Cell Type	LFP
Life Cycles	6000+ @25°C
BMS	OVP, UVP, SOC,SOH, OTP,UTP, etc
DOD	95%
Input	
PV Input Power	500W*2
PV Input Voltage	12-59 VDC
Output	
DC Output Power	400W*2 Max
DC Output Voltage	42~50.4 VDC
DC Output Nominal Votage	44.8 VDC
Mechanical	
Dimension(W*H*D)(mm)	298*175*353
Net Weight (kg)	18.7
IP Protection	IP65
Environmental	
Operating temperature	-10°C~50°C
Storage temperature	-10°C~55°C