APEX SOLAR

Live in a Better World

BY AVT NEW ENERGY Co., Ltd.

PRODUCT LIST

COMPANY PROFILE

AVT New Energy, headquartered in Shenzhen, is a leading innovator in the field of sustainable renewable energy. Established with a vision to revolutionize the energy sector, we specialize in the research, development, and production of advanced solar inverter including micro, off-grid, hybrid inverters, as well as household energy storage systems. Our state-of-the-art lab in Shenzhen houses a dedicated R&D team, which is committed to creating high-quality, cutting-edge products that cater to the evolving needs of the global energy market.

MISSION

At AVT New Energy, our mission is to provide customers in the world with high-quality green energy solutions. As a company, we are driven by the goal of creating a greener, and a more sustainable future with renewable energy. We are not just a business; we are a team of passionate individuals dedicated to making a significant difference in the world through our innovative green energy solutions.

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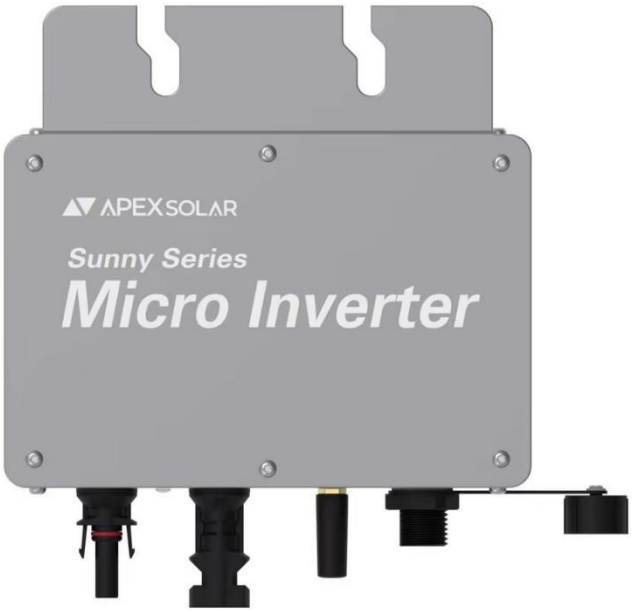

Micro Inverter

Sunny 300
Sunny 350
Sunny 400

Description

With the output power up to 400VA, AVT New Energy micro inverter Sunny series 1P rank the highest in the field of 1-in-1 micro inverters. Each micro inverter is able to connect to 1 panel, with independent MPPT which can maximize the power efficiency up to 99.8%.

The integrated 2.4G wireless solution provides easier communication with the cloud to monitor the system working status and offer remote firmware upgrade.

Features

- ☺ Maximum power output up to 400 VA in a single unit
- ☺ Compliance with: EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011
- ☺ High reliability: NEMA 3R (IP65) enclosure; 6000V surge protection
- ☺ Independent MPPT and monitoring ensure high power transfer efficiency and easier maintenance
- ☺ 4-in-1 design brings faster installation and reduces system cost
- ☺ 2.4G wireless solution provides easier communication for system monitoring and setting

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Technical Specification

Model	Sunny 300	Sunny 350	Sunny 400
DC INPUT			
Maximum input power (W)	375	435	500
Maximum input voltage (V)	60		
MPPT input range (V)	30 to 60		
Inverter starting voltage (V)	22		
Maximum input current (A)	13.7	16	18
Maximum input short circuit current (A)	15	18	20
Number of MPPT	1		
AC OUTPUT			
Maximum output power (VA)	300	250	400
Rated output current (A)	@120V 2.5A @230V 1.3A	@120V 2.9A @230V 1.5A	@120V 3.3A @230V 1.7A
Nominal Output Voltage Range (V)	85-160 for 120V AC (Application area: such as Japan, North America, etc.) or 180-265 for 230V AC (Application area: such as Europe)		
Nominal Frequency Range (Hz)	48 to 51 for grid with 50Hz 58 to 61 for grid with 60Hz		
Power Factor	> 0.99 default 0.95 leading...0.95 lagging		
Total harmonic distortion (THD)	<3%		
Maximum number of connections per branch	@120V 15PCs @230V 25Pcs	@120V 15PCs @230V 25Pcs	@120V 15PCs @230V 25Pcs
Efficiency			
CEC peak efficiency	92.50%		
Nominal MPPT efficiency	99.80%		
Night power consumption (mW)	0		
Mechanical Data			
Ambient temperature range (℃)	-40 to +60		
Dimensions (L × W × H mm)	165×176×38		
Weight (kg)	0.9		
Waterproof level	Outdoor NEMA 3R (IP65)		
Cooling	Natural convection (no fans)		
Features			
Communication connectivity	Wifi 2.4G		
Power delivery mode	Reverse transmission, load priority		
Monitoring	Cloud Intelligence		
Compliance	EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011		
Warranty	5 years		

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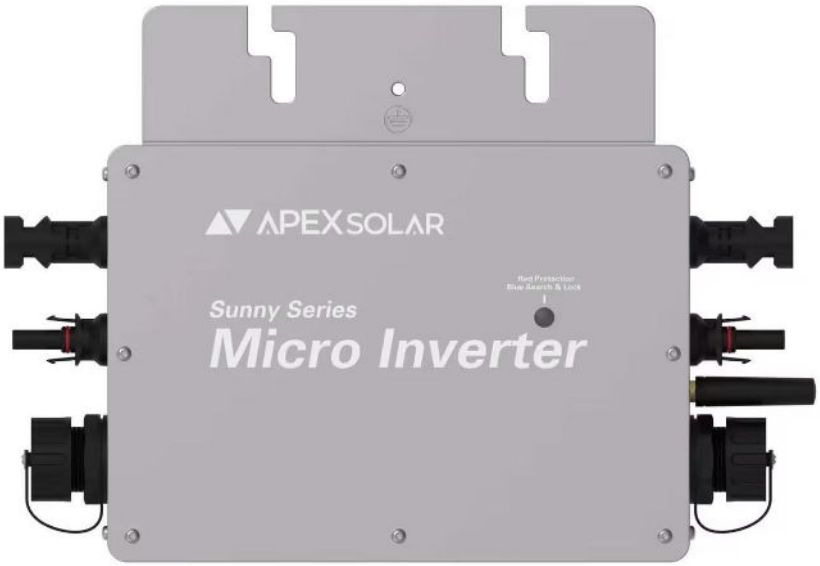

Micro Inverter

Sunny-600
Sunny-700
Sunny-800

Description

With the output power up to 700VA, AVT New Energy microinverter Sunny series rank the highest in the field of 2-in-1 microinverters. Each microinverter is able to connect up to 2 panels, with independent MPPT which can maximize the power efficiency up to 99.8%.

The integrated 2.4G wireless solution provides easier communication with the cloud to monitor the system working status and offer remoted firmware upgrade.

Features

- ☺ Maximum power output up to 2800 VA in a single unit
- ☺ 2-in-1 design brings faster installation and reduces system cost
- ☺ Independent MPPT and monitoring ensure high power transfer efficiency and easier maintenance
- ☺ High reliability: NEMA 3R (IP65) enclosure; 6000V surge protection
- ☺ 2.4G wireless solution provides easier communication for system monitoring and setting
- ☺ Compliance with: EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011

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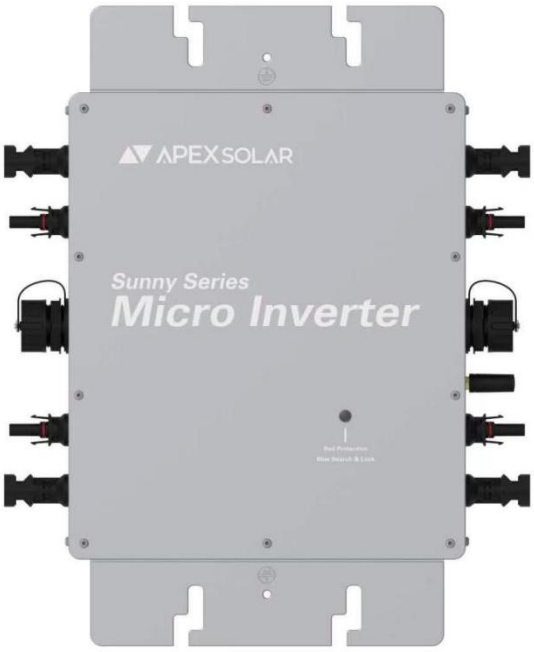
Technical Specification

Model	Sunny-600	Sunny-700	Sunny-800
DC INPUT			
Maximum input power (W)	2*325	2*435	2*500
Maximum input voltage (V)	60		
MPPT input range (V)	16 to 60		
Inverter starting voltage (V)	22		
Maximum input current (A)	2*14	2*16	2*18
Maximum input short circuit current (A)	2*16	2*18	2*20
Number of MPPT	2		
AC OUTPUT			
Maximum output power (VA)	600	700	800
Rated output current (A)	@120V 5A @230V 2.6A	@120V 5.9A @230V 3.1A	@120V 6.6A @230V 3.5A
Nominal Output Voltage Range (V)	100-135 for 120V AC (Application area: such as Japan, North America, etc.) or 180-275 for 230V AC (Application area: such as Europe)		
Nominal Frequency Range (Hz)	48 to 51 for grid with 50Hz 58 to 61 for grid with 60Hz		
Power Factor	> 0.99 default 0.95 leading...0.95 lagging		
Total harmonic distortion (THD)	<3%		
Maximum number of connections per branch	@120V 6PCs @230V 12Pcs		
Efficiency			
CEC peak efficiency	92.5%		
Nominal MPPT efficiency	99.8%		
Night power consumption (mW)	50		
Mechanical Data			
Ambient temperature range (℃)	-20 to+50		
Dimensions (L × W × H mm)	283×200×41.6		
Weight (kg)	1.46		
Waterproof level	Outdoor NEMA 3R (IP65)		
Cooling	Natural convection (no fans)		
Features			
Communication connectivity	Wifi 2.4G		
Power delivery mode	Reverse transmission, load priority		
Monitoring	Cloud Intelligence		
Compliance	EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011		
Warranty	5 years		



Micro Inverter

Sunny 2000
Sunny 2400
Sunny 2800

Description

With the output power up to 2800VA, AVT New Energy micro inverter Sunny series rank the highest in the field of 4-in-1 micro inverters. Each micro inverter is able to connect up to 4 panels, with independent MPPT which can maximize the power efficiency up to 99.8%.

The integrated 2.4G wireless solution provides easier communication with the cloud to monitor the system working status and offer remote firmware upgrade.

Features

- ☺ Maximum power output up to 2800 VA in a single unit
- ☺ Compliance with: EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011
- ☺ High reliability: NEMA 3R (IP65) enclosure: 6000V surge protection
- ☺ Independent MPPT and monitoring ensure high power transfer efficiency and easier maintenance
- ☺ 4-in-1 design brings faster installation and reduces system cost
- ☺ 2.4G wireless solution provides easier communication for system monitoring and setting

Technical Specification

Model	Sunny 2000	Sunny 2400	Sunny 2800
DC INPUT			
Maximum input power (W)	4*625	4*750	4*875
Maximum input voltage (V)	65		
MPPT input range (V)	16 to 60		
Inverter starting voltage (V)	22		
Maximum input current (A)	4*20	4*23	4*27
Maximum input short circuit current (A)	4*23	4*28	4*32
Number of MPPT	4		
AC OUTPUT			
Maximum output power (VA)	2000	2400	2800
Rated output current (A)	@120V 16.6A @230V 8.7A	@120V 20A @230V 10.5A	@120V 23.5A @230V 12.2A
Nominal Output Voltage Range (V)	100-135 for 120V AC (Application area: such as Japan, North America, etc.) or 180-275 for 230V AC (Application area: such as Europe)		
Nominal Frequency Range (Hz)	45 to 55 for grid with 50Hz 55 to 60 for grid with 60Hz		
Power Factor	> 0.99 default 0.95 leading...0.95 lagging		
Total harmonic distortion (THD)	<3%		
Maximum number of connections per branch	@120V 3PCs @230V 6Pcs	@120V 2 PCs @230V 4Pcs	@120V 2 PCs @230V 4Pcs
Efficiency			
CEC peak efficiency	95.7%		
Nominal MPPT efficiency	99.8%		
Night power consumption (mW)	50		
Mechanical Data			
Ambient temperature range (℃)	-40 to +60		
Dimensions (L × W × H mm)	370×300×41.6		
Weight (kg)	3.16		
Waterproof level	Outdoor NEMA 3R (IP65)		
Cooling	Natural convection (no fans)		
Features			
Communication connectivity	Wifi 2.4G		
Power delivery mode	Reverse transmission, load priority		
Monitoring	Tuya Cloud		
Compliance	EN 50549-1: 2019, EN 50549-2: 2019, EN61000-6-1:2007, EN61000-6-3:2007+A1:2011+AC2012, IEC/EN 62109-1/2010, IEC/EN 62109-2/2011		
Warranty	5 years		

Off-grid Inverter

Sunshine 3KW
Sunshine 4KW
Sunshine 5KW

Description

Sunshine 3/4/5KW is a multi-function inverter and charger, with functions of inverter, solar charger and battery charger in a single unit to offer uninterruptible power delivery. Through its large LCD display screen and 4 soft buttons, it is easy to configure system parameters such as battery charging current, AC/solar charger priority, and appropriate input voltage etc. based on different applications.

The optional WIFI solution provides easier communication for remote system monitoring and firmware upgrade.

Features:

- ☺ Pure sine wave solar inverter with power output up to 5000 VA in a single unit
- ☺ Smart battery charger design for optimized battery performance
- ☺ Overload/ Over temperature/ short circuit protection
- ☺ Integrated MPPT controller ensures high power transfer efficiency
- ☺ Configurable solar or grid input priority via LCD setting
- ☺ Optional WIFI for remote system monitoring and setting

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Technical Specification

Model	Sunshine 3KW	Sunshine 4KW	Sunshine 5KW
Battery Type	Lithium or Lead-acid		
Battery Voltage	48VDC		
INVERTER OUTPUT			
Rated Power	3000W/3000VA	4000W/4000VA	5000W/5000VA
Surge Power	6000W/6000VA	8000W/8000VA	10000W/10000VA
AC Voltage Regulation (Battery)	230VAC±5% @50Hz		
Output Voltage Waveform	Pure sine wave		
Peak Efficiency	94%		
Transfer Time	10ms typical, 20ms maximum		
SOLAR CHARGER			
Maximum PV Array Power	3500W	4500W	5500W
PV Array MPPT Voltage Range	120 to 450VDC		
Max. PV Array Open Circuit Voltage	495VDC		
Max Charging Current	60A	60A	80A
AC CHARGER			
AC Input Voltage	230VAC		
Charge Current	60A	60A	80A
Frequency Range	50Hz/60Hz (auto sensing)		
MECHANICAL DATA			
Dimensions (D × W × H)	120 x 300 x 420mm		
Net Weight	9kg	9kg	10kg
Protect Level	IP20		
Operation Environment			
Ambient temperature range	-10°C to 50°C		
Storage temperature	-15°C to 60°C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Safety Certification	CE		
Cooling	Fans (automatic operation)		
Other Features			
Communication connectivity	WIFI		
Compliance			
Warranty	3 years		

Off-grid Inverter

Sunshine 8KW

Description

Sunshine 8KW is a multi-function inverter and charger, with functions of inverter, solar charger and battery charger in a single unit to offer uninterruptible power delivery. Through its large LCD display screen and 4 soft buttons, it is easy to configure system parameters such as battery charging current, AC or battery to support load priority, and appropriate input voltage etc. based on different applications.

The optional WIFI solution provides easier communication for remote system monitoring and firmware upgrade.

Features

- ☺ Pure sine wave solar inverter with power output up to 8000 VA in a single unit
- ☺ Smart battery charger design for optimized battery performance
- ☺ Work with or without battery
- ☺ Reserved communication for BMS
- ☺ Integrated MPPT controller ensures high power transfer efficiency
- ☺ Configurable AC or battery to support load priority via LCD setting
- ☺ Optional WIFI for remote system monitoring and setting

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Technical Specification

Model	Sunshine 8KW
Battery Type	Lithium or Lead-acid
Battery Voltage	48VDC
INVERTER OUTPUT	
Rated Power	8000VA/8000W
Surge Power	16000VA
AC Voltage Regulation (Battery)	230VAC±5% @50Hz
Output Voltage Waveform	Pure sine wave
Peak Efficiency	93%
Transfer Time	15ms typical, 20ms maximum
SOLAR CHARGER	
Maximum PV Array Power	8000W
PV Array MPPT Voltage Range	120 to 450VDC
Max. PV Array Open Circuit Voltage	495VDC
Max Charging Current	150A
AC CHARGER	
AC Input Voltage	230VAC
Charge Current	120A
Frequency Range	50Hz/60Hz (auto sensing)
MECHANICAL DATA	
Dimensions (D × W × H)	150 x 552 x 420mm
Net Weight	18kg
Protect Level	IP20
Operation Environment	
Ambient temperature range	-10°C to 50°C
Storage temperature	-15°C to 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Safety Certification	CE
Cooling	Fans (automatic operation)
Other Features	
Communication connectivity	WIFI
Compliance	
Warranty	3 years

Hybrid Inverter

Sunseeker 5KW

Description

Sunseeker 5KW is a multi-function inverter and charger, with functions of inverter, solar charger and battery charger in a single unit to offer uninterruptible power delivery. It can work in both on-grid mode and off-grid mode and work with or without battery. It is parallelable up to 6 pcs. Through its large LCD display screen and 4 soft buttons, it is easy to configure system parameters such as battery charging current, AC or battery to support load priority, etc.

The optional WIFI solution provides easier communication for remote system monitoring and firmware upgrade.

Features

- ☺ Pure sine wave solar inverter with power output up to 5000 VA in a single unit
- ☺ Smart battery charger design for optimized battery performance
- ☺ Work with or without battery
- ☺ Reserved communication for BMS
- ☺ Integrated MPPT controller ensures high power transfer efficiency
- ☺ Configurable AC or battery to support load priority via LCD setting
- ☺ Optional WIFI for remote system monitoring and setting
- ☺ Lead-acid or lithium battery compatible

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Technical Specification

Model	Sunseeker 5KW
Battery Type	Lithium or Lead-acid
Battery Voltage	48VDC
INVERTER OUTPUT	
Rated Power	5000VA/5000W
Surge Power	10000VA
AC Voltage Regulation (Battery)	230VAC±5% @50Hz
Output Voltage Waveform	Pure sine wave
Peak Efficiency	93%
Transfer Time	15ms typical, 20ms maximum
SOLAR CHARGER	
Maximum PV Array Power	5000W
PV Array MPPT Voltage Range	120 to 450VDC
Max. PV Array Open Circuit Voltage	495VDC
Max Charging Current	80A
AC CHARGER	
AC Input Voltage	230VAC
Charge Current	80A
Frequency Range	50Hz/60Hz (auto sensing)
MECHANICAL DATA	
Dimensions (D × W × H)	150 x 312 x 460mm
Net Weight	11kg
Protect Level	IP20
Operation Environment	
Ambient temperature range	-10°C to 50°C
Storage temperature	-15°C to 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Safety Certification	CE
Cooling	Fans (automatic operation)
Other Features	
Communication connectivity	WIFI
Compliance	
Warranty	3 years

Hybrid Inverter

Sunseeker 6KW

Description

Sunseeker 6KW is a multi-function inverter and charger, with functions of inverter, solar charger and battery charger in a single unit to offer uninterruptible power delivery. It can work in both on-grid mode and off-grid mode and work with or without battery. It is parallelable up to 6 pcs. Through its large LCD display screen and 4 soft buttons, it is easy to configure system parameters such as battery charging current, AC or battery to support load priority, etc.

The optional WIFI solution provides easier communication for remote system monitoring and firmware upgrade.

Features

- ☺ Pure sine wave solar inverter with power output up to 6000 VA in a single unit
- ☺ Smart battery charger design for optimized battery performance
- ☺ Work with or without battery
- ☺ Reserved communication for BMS
- ☺ Integrated MPPT controller ensures high power transfer efficiency
- ☺ Configurable AC or battery to support load priority via LCD setting
- ☺ Optional WIFI for remote system monitoring and setting
- ☺ Lead-acid or lithium battery compatible

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Technical Specification

Model	Sunseeker 6KW
Battery Type	Lithium or Lead-acid
Battery Voltage	48VDC
INVERTER OUTPUT	
Rated Power	6000VA/6000W
Surge Power	12000VA
AC Voltage Regulation (Battery)	230VAC±5% @50Hz
Output Voltage Waveform	Pure sine wave
Peak Efficiency	93%
Transfer Time	15ms typical, 20ms maximum
SOLAR CHARGER	
Maximum PV Array Power	8000W
PV Array MPPT Voltage Range	120 to 450VDC
Max. PV Array Open Circuit Voltage	495VDC
Max Charging Current	120A
AC CHARGER	
AC Input Voltage	230VAC
Charge Current	120A
Frequency Range	50Hz/60Hz (auto sensing)
MECHANICAL DATA	
Dimensions (D × W × H)	150 x 352 x 480mm
Net Weight	14kg
Protect Level	IP20
Operation Environment	
Ambient temperature range	-10°C to 50°C
Storage temperature	-15°C to 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Safety Certification	CE
Cooling	Fans (automatic operation)
Other Features	
Communication connectivity	WIFI
Compliance	
Warranty	3 years

Hybrid Inverter

Sunseeker 8KW

Description

Sunseeker 8KW is a multi-function inverter and charger, with functions of inverter, solar charger and battery charger in a single unit to offer uninterruptible power delivery. It can work in both on-grid mode and off-grid mode and work with or without battery. It is parallelable up to 6 pcs. Through its large LCD display screen and 4 soft buttons, it is easy to configure system parameters such as battery charging current, AC or battery to support load priority, etc.

The optional WIFI solution provides easier communication for remote system monitoring and firmware upgrade.

Features

- ☺ Pure sine wave solar inverter with power output up to 8000 VA in a single unit
- ☺ Smart battery charger design for optimized battery performance
- ☺ Work with or without battery
- ☺ Reserved communication for BMS
- ☺ Integrated MPPT controller ensures high power transfer efficiency
- ☺ Configurable AC or battery to support load priority via LCD setting
- ☺ Optional WIFI for remote system monitoring and setting
- ☺ Lead-acid or lithium battery compatible

Technical Specification

Model	Sunshine 8KW
Battery Type	Lithium or Lead-acid
Battery Voltage	48VDC
INVERTER OUTPUT	
Rated Power	8000VA/8000W
Surge Power	16000VA
AC Voltage Regulation (Battery)	230VAC±5% @50Hz
Output Voltage Waveform	Pure sine wave
Peak Efficiency	93%
Transfer Time	15ms typical, 20ms maximum
SOLAR CHARGER	
Maximum PV Array Power	8000W
PV Array MPPT Voltage Range	120 to 450VDC
Max. PV Array Open Circuit Voltage	495VDC
Max Charging Current	120A
AC CHARGER	
AC Input Voltage	230VAC
Charge Current	120A
Frequency Range	50Hz/60Hz (auto sensing)
MECHANICAL DATA	
Dimensions (D × W × H)	150 x 552 x 420mm
Net Weight	18kg
Protect Level	IP20
Operation Environment	
Ambient temperature range	-10°C to 50°C
Storage temperature	-15°C to 60°C
Humidity	5% to 95% Relative Humidity (Non-condensing)
Safety Certification	CE
Cooling	Fans (automatic operation)
Other Features	
Communication connectivity	WIFI
Compliance	
Warranty	3 years

Household Energy Storage System

Star 5KW+ 5KWH
Star 5KW+ 10KWH
Star 5KW+ 15KWH
Star 5KW+ 20KWH

Description

The all-in-one ESS is hybrid inverter and low-voltage batteries integrated to help you reduce your electricity bills while maximize energy independence from the grid. Besides the benefit of greater energy harvest from PV modules, its compact design saves your space, and flexible configuration makes the system scalable. It is easily to select and seamlessly switch into normal, off-grid, on-grid or other working modes. Additionally, plug & play and free online monitoring enable faster installations, quicker site mapping to the monitoring platform and easier maintenance with minimized efforts.

Features

- ☺ All in one system
- ☺ In-built 51.2V lithium battery module
- ☺ 6kw hybrid solar inverter
- ☺ In-built Solar/AC Charger
- ☺ Modular & Stacked Design for easy installation and expansion
- ☺ With all around protection
- ☺ DOD 80%, warranty 5 years, 10+ years life design
- ☺ Smart in-built BMS with communication protocol
- ☺ LiFPO4 cells with cycle up to 6000 times
- ☺ With 120A MPPT Solar charging and AC Charging function

Technical Specification

Model	STAR 5KW+5KWH	STAR 5KW+10KWH	STAR 5KW+15KWH	STAR 5KW+20KWH
INVERTER / CHARGER				
Inverter Type	5KW 48V Hybrid	5KW 48V Hybrid	5KW 48V Hybrid	5KW 48V Hybrid
Rated Output Power	5KW	5KW	5KW	5KW
Output Voltage Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Output Voltage	230VAC 50HZ	230VAC 50HZ	230VAC 50HZ	230VAC 50HZ
Low DC Warning Voltage	45.8Vdc	45.8Vdc	45.8Vdc	45.8Vdc
Low DC Cut-off Voltage	44.8Vdc	44.8Vdc	44.8Vdc	44.8Vdc
Low DC Warning Return Voltage	46.8Vdc	46.8Vdc	46.8Vdc	46.8Vdc
Total Charging Current (Grid+solar)	120A Max.	120A Max.	120A Max.	120A Max.
Bulk Charging Voltage	57.6Vdc	57.6Vdc	57.6Vdc	57.6Vdc
Float Charging Voltage	56.0Vdc	56.0Vdc	56.0Vdc	56.0Vdc
LITHIUM IRON BATTERY				
Normal Battery Modular	51.2V100Ah*1	51.2V100Ah*2	51.2V100Ah*3	51.2V100Ah*4
Normal Capacity(25°C, 0.2C）	5.12Wh	10.24KWh	15.36KWh	20.48KWh
Nominal Battery Voltage	51.2Vdc	51.2Vdc	51.2Vdc	51.2Vdc
Nominal Capacity	100A	200A	300A	400A
Max.Charge Current	150A 1Sec.	300A 1Sec.	450A 1Sec.	600A 1Sec.
Max.DischargeCurrent	50A	100A	150A	200A
OperationVoltageRange	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc
OperationTemperature	-10℃～ +50℃	-10℃～ +50℃	-10℃～ +50℃	-10℃～ +50℃
AC INPUT				
Nominal Input Voltage	230Vac			
Low Loss Voltage	170Vac ± 7(UPS),90Vac ± 7(Appliances)			
Low Loss Return Voltage	180Vac ± 7(UPS),100Vac ± 7(Appliances)			
High Loss Voltage	280Vac ± 7			
High Loss Return Voltage	270Vac ± 7			
Max. AC Input Voltage	300Vac			
Nominal Input Frequency	50HZ / 60HZ(Auto detection)			
AC Charging Current	120A Max.			
SOLAR INPUT				
Nominal PV Voltage	360Vdc			
PV Array MPPT Voltage Range	120Vdc~450Vdc			
Max. PV Array Open Circuit Voltage	500Vdc			
Solar Charging Current	120A Max.			
PROTECTION				
Protection	Overcharge, Overdischarge, Overcurrent, Shortcircuit, Overtemperature protection			
AMBIENT				
Noise(dB)	< 30°C < 40dB (1 meter)			
Working Temperature	-10℃～ +50℃			
Humidity	0~95% (no condensation)			
Sea Level(m)	≤1500			

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Household Energy Storage System

Star 6KW+ 5KWH
Star 6KW+ 10KWH
Star 6KW+ 15KWH
Star 6KW+ 20KWH

Description

The all-in-one ESS is hybrid inverter and low-voltage batteries integrated to help you reduce your electricity bills while maximize energy independence from the grid. Besides the benefit of greater energy harvest from PV modules, its compact design saves your space, and flexible configuration makes the system scalable. It is easily to select and seamlessly switch into normal, off-grid, on-grid or other working modes. Additionally, plug & play and free online monitoring enable faster installations, quicker site mapping to the monitoring platform and easier maintenance with minimized efforts.

Feature

- ☺ All in one system
- ☺ In-built 51.2V lithium battery module
- ☺ 6kw hybrid solar inverter
- ☺ In-built Solar/AC Charger
- ☺ Modular & Stacked Design for easy installation and expansion
- ☺ With 120A MPPT Solar charging and AC Charging function
- ☺ With all around protection
- ☺ DOD 80%, warranty 5 years, 10+ years life design
- ☺ Smart in-built BMS with communication protocol
- ☺ LiFPO4 cells with cycle up to 6000 times

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Technical Specification

Model	STAR 6KW/5KWH	STAR 6KW/10KWH	STAR 6KW/15KWH	STAR 6KW/20KWH
INVERTER / CHARGER				
Inverter Type	6KW/48V Hybrid	6KW/48V Hybrid	6KW/48V Hybrid	6KW/48V Hybrid
Rated Output Power	6KW	6KW	6KW	6KW
Output Voltage Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Output Voltage	230VAC 50HZ	230VAC 50HZ	230VAC 50HZ	230VAC 50HZ
Low DC Warning Voltage	45.8Vdc	45.8Vdc	45.8Vdc	45.8Vdc
Low DC Cut-off Voltage	44.8Vdc	44.8Vdc	44.8Vdc	44.8Vdc
Low DC Warning Return Voltage	46.8Vdc	46.8Vdc	46.8Vdc	46.8Vdc
Total Charging Current (Grid+solar)	120A Max.	120A Max.	120A Max.	120A Max.
Bulk Charging Voltage	57.6Vdc	57.6Vdc	57.6Vdc	57.6Vdc
Float Charging Voltage	56.0Vdc	56.0Vdc	56.0Vdc	56.0Vdc
LITHIUM IRON BATTERY				
Normal Battery Modular	51.2V100Ah*1	51.2V100Ah*2	51.2V100Ah*3	51.2V100Ah*4
Normal Capacity(25℃, 0.2C）	5.12Wh	10.24KWh	15.36KWh	20.48KWh
Nominal Battery Voltage	51.2Vdc	51.2Vdc	51.2Vdc	51.2Vdc
Nominal Capacity	100A	200A	300A	400A
Max.Charge Current	150A 1Sec.	300A 1Sec.	450A 1Sec.	600A 1Sec.
Max.DischargeCurrent	50A	100A	150A	200A
OperationVoltageRange	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc	44.8Vdc ～ 58.4Vdc
OperationTemperature	-10℃～ +50℃	-10℃～ +50℃	-10℃～ +50℃	-10℃～ +50℃
AC INPUT				
Nominal Input Voltage	230Vac			
Low Loss Voltage	170Vac ± 7(UPS),90Vac ± 7(Appliances)			
Low Loss Returm Voltage	180Vac ± 7(UPS),100Vac ± 7(Appliances)			
High Loss Voltage	280Vac ± 7			
High Loss Returm Voltage	270Vac ± 7			
Max. AC Input Voltage	300Vac			
Nominal Input Frequency	50HZ / 60HZ(Auto detection)			
AC Charging Current	120A Max.			
SOLAR INPUT				
Nominal PV Voltage	360Vdc			
PV Array MPPT Voltage Range	120Vdc~450Vdc			
Max. PV Array Open Circuit Voltage	500Vdc			
Solar Charging Current	120A Max.			
PROTECTION				
Protection	Overcharge, Overdischarge, Overcurrent, Shortcircuit, Overtemperature protection			
AMBIENT				
Noise(dB)	< 30°C < 40dB (1 meter)			
Working Temperature	-10℃～ +50℃			
Humidity	0~95% (no condensation)			
Sea Level(m)	≤1500			

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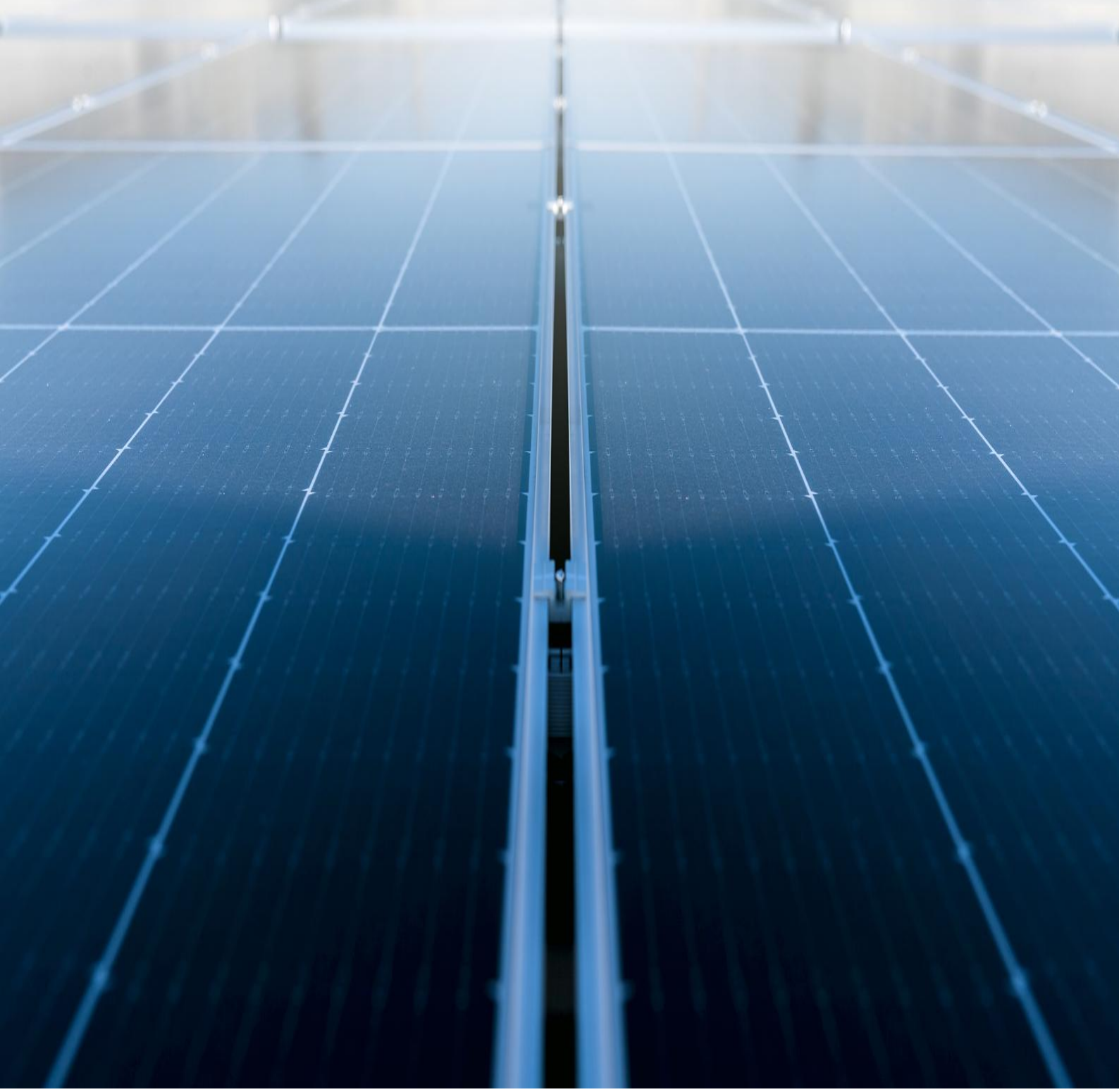

APEX SOLAR

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