

Anern® 亚能  
ANERN QUALITY BETTER THE WORLD



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SOLAR ENERGY  
STORAGE SERIES



### MEGA PROJECTS

>>> Anern have successfully completed hundreds of mega government projects in more than 100 countries in the past 10 years.



### PRODUCTION LINE

>>> Anern has specialized production lines, through international standard management and strict quality control to ensure the stable-performance and high-quality solar products.



### HONOR & CERTIFICATES

>>> Anern has been awarded with many honors since its establishment, and owns over 20 patents for self-developed products.



# TABLE OF CONTENT

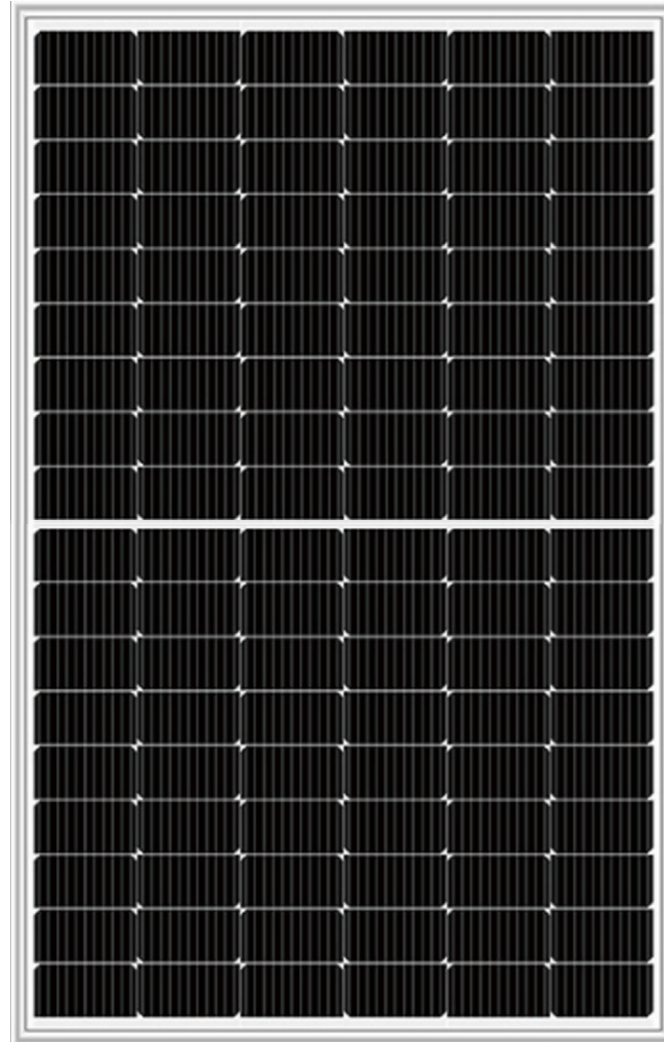
- >>> Solar Panel
- >>> Hybrid Solar Inverter
- >>> Low Frequency Solar Inverter
- >>> Solar Controller
- >>> Solar Battery





# HALF CELL MONO PERC SOLAR PANEL

(390W-410W)

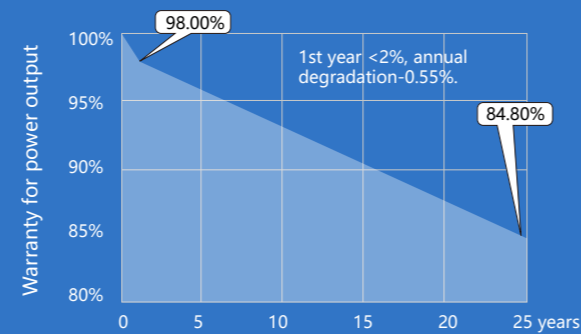


## Features of Module

- Multiple Busbars (MBB)**  
 Densely distributed grid lines, uniform load, multi-busbars design. Output power increased by more than 5W.
- Lossless cut**  
 Lossless cutting technology, no mechanical damage, smooth cutting surface without burrs. Low cell cracking risks, micro-cracking is reduced by more than 50%.
- Half-cut**  
 Current density is reduced by 1/2, Internal power loss reduced to 1/4 of conventional modules. Rated output power increased by 5~10W.
- New Welding Wire**  
 Adopt round wire solder ribbon, low shading area. Multiple reflections of incident light, power increased by 1-2W.
- Shading, not compromising energy**  
 Up-down symmetrical parallel module design. Effectively reduce current mismatch due to shading.
- High-Density Encapsulation Technology**  
 Adopts advanced high-density encapsulation technology to ensure the perfect balance of efficiency and reliability. Module efficiency increased by more than 0.15%.

## Linear Power Output Warranty

**15** 15-year warranty for materials. **25** 25-year warranty for linear power output.



## Quality Management System and Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt), IEC62716 (Ammonia), IEC60068-2-68(Sand)  
 ISO 9001:2015/quality management system  
 ISO 14001:2015/ environmental management system  
 ISO 45001:2018/occupation health safety management system  
 ISO 50001:2011/ energy management system  
 IEC TS 62941—2016/ PV industry quality management system



## Product Data Sheet

### ELECTRICAL CHARACTERISTICS (STC)

Module Number: ANM10-54PH	390	395	400	405	410
Maximum Power Pmax (W)	390	395	400	405	410
Open circuit voltage · Voc (V)	36.7	36.8	37.0	37.1	37.3
Short circuit current Isc (A)	13.40	13.50	13.60	13.70	13.79
Voltage at Maximum Power Vmp (V)	30.7	30.9	31.0	31.2	31.3
Current at Maximum Power Imp (A)	12.71	12.81	12.91	13.01	13.10
Module efficiency-η (%)	20.0	20.2	20.5	20.7	21.0

### ELECTRICAL CHARACTERISTICS (NMOT)

Maximum power ·Pm (W)	292	296	300	304	308
Open circuit voltage ·Voc (V)	33.7	33.8	34.0	34.1	34.3
Short circuit current Isc (A)	10.93	11.01	11.10	11.18	11.27
Voltage at maximum power point·Vm (V)	27.9	28.0	28.2	28.3	28.5
Current at maximum power point·Im (A)	10.48	10.56	10.65	10.73	10.82

\* STC: Irradiation 1000W/m<sup>2</sup>; AM1.5; environmental temperature 25°C; tested according to EN 60904-3;  
 \* NMOT: irradiation 800W/m<sup>2</sup>; wind speed 1m/s; environmental temperature 20°C  
 \* Pm tolerance: 0~+5W; power test uncertainty: ±3%; Voc[V], Isc[A], Vm[V] and Im[A] test tolerance: +3%

### MECHANICAL PARAMETERS

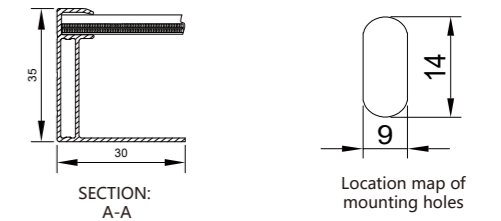
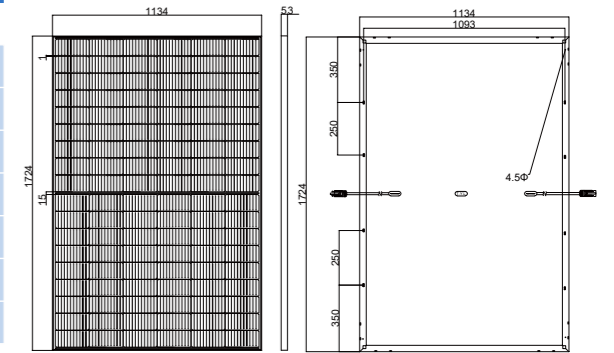
Size	1724x1134x35mm (LxWxH)
Weight	22.0kg
Front glass	3.2mm toughened glass
Cell	Monocrystalline PERC 182x182mm
Backplate	High weather resistance
Frame	Anodic alumina profile
Junction box	IP68, TUV, 3diodes
Cable	4mm <sup>2</sup> , +400, -200/ ± 1400mm Wire length can be customized
Connector	MC4 compatible/original EVO2
Packaging mode	31pcs/pack;806pcs/40HQ

### TEMPERATURE PARAMETERS

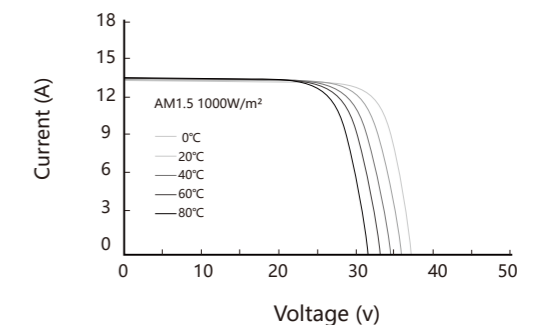
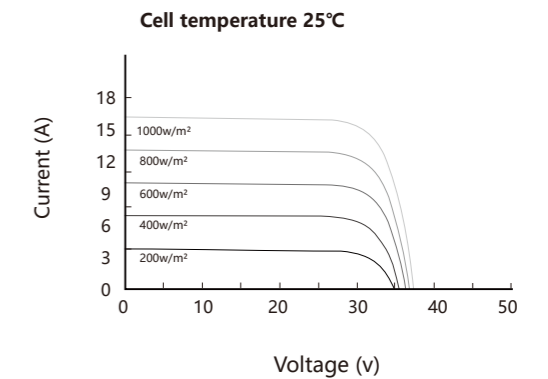
NMOT	42.30 °C (±2°C)
Open circuit voltage temperature coefficient	-0.27%/°C
Short circuit current temperature coefficient	+0.04%/°C
Maximum power temperature coefficient	-0.34%/°C

### MAXIMUM RATED PARAMETERS

Maximum system voltage (V)	DC1500/1000 (IEC)
Maximum fuse rated current (A)	20
Maximum front static load (Pa)	5400
Working temperature (°C)	-40~+85
Hail resistance	Maximum diameter 25mm, impact speed 23m/s

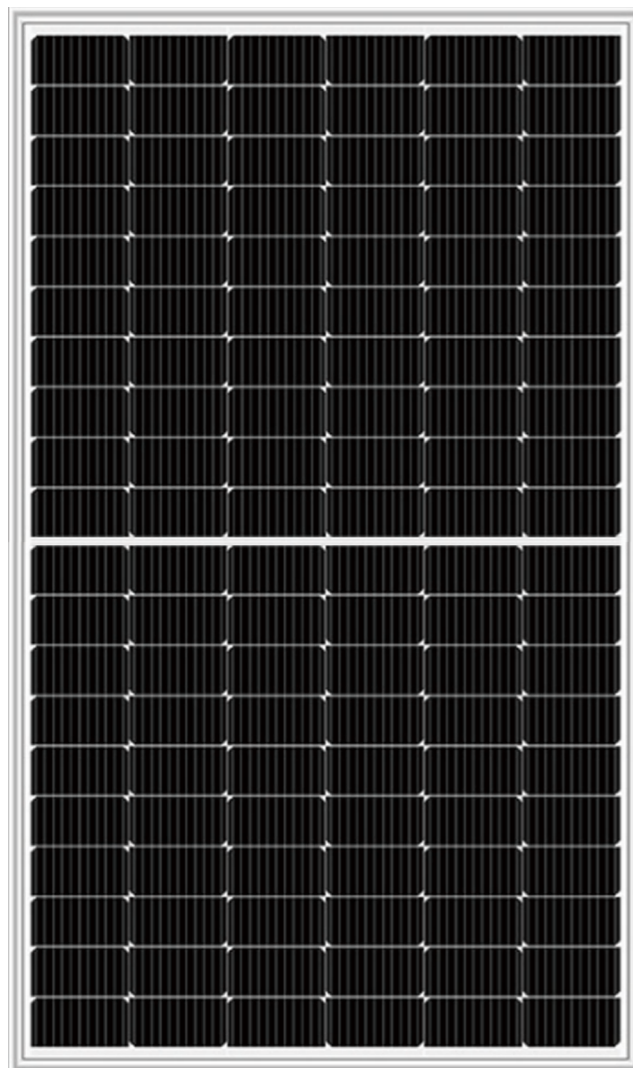


## I-V Curve



# HALF CELL MONO PERC SOLAR PANEL

(430W-450W)

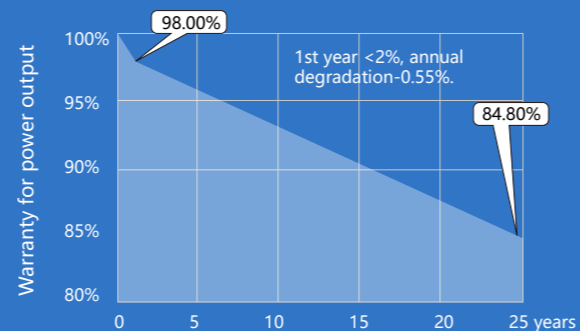


## Features of Module

- Multiple Busbars (MBB)**  
 Densely distributed grid lines, uniform load, multi-busbars design. Output power increased by more than 5W.
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 Adopt round wire solder ribbon, low shading area. Multiple reflections of incident light, power increased by 1-2W.
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 Up-down symmetrical parallel module design. Effectively reduce current mismatch due to shading.
- High-Density Encapsulation Technology**  
 Adopts advanced high-density encapsulation technology to ensure the perfect balance of efficiency and reliability. Module efficiency increased by more than 0.15%.

## Linear Power Output Warranty

**15** 15-year warranty for materials.      **25** 25-year warranty for linear power output.



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IEC61215/61730, IEC62804(PID), IEC61701(Salt), IEC62716 (Ammonia), IEC60068-2-68(Sand)  
 ISO 9001:2015/quality management system  
 ISO 14001:2015/ environmental management system  
 ISO 45001:2018/occupation health safety management system  
 ISO 50001:2011/ energy management system  
 IEC TS 62941—2016/ PV industry quality management system



## Product Data Sheet

### ELECTRICAL CHARACTERISTICS (STC)

Module Number: ANM10-60PH	430	435	440	445	450
Maximum Power Pmax (W)	430	435	440	445	450
Open circuit voltage · Voc (V)	40.7	40.8	41.0	41.1	41.3
Short circuit current Isc (A)	13.59	13.67	13.74	13.82	13.89
Voltage at Maximum Power Vmp (V)	33.9	34.1	34.3	34.5	34.7
Current at Maximum Power Imp (A)	12.69	12.77	12.84	12.91	12.98
Module efficiency-η (%)	19.9	20.1	20.3	20.6	20.8

### ELECTRICAL CHARACTERISTICS (NMOT)

Maximum power ·Pm (W)	327	330	333	336	340
Open circuit voltage ·Voc (V)	38.2	38.3	38.4	38.5	38.7
Short circuit current Isc (A)	10.91	10.95	10.99	11.03	11.08
Voltage at maximum power point·Vm (V)	31.9	32.1	32.2	32.4	32.5
Current at maximum power point·Im (A)	10.26	10.30	10.35	10.40	10.46

\* STC: Irradiation 1000W/m<sup>2</sup>; AM1.5; environmental temperature 25°C; tested according to EN 60904-3;  
 \* NMOT: irradiation 800W/m<sup>2</sup>; wind speed 1m/s; environmental temperature 20°C  
 \* Pm tolerance: 0~+5W; power test uncertainty: ±3%; Voc[V], Isc[A], Vm[V] and Im[A] test tolerance: +3%

### MECHANICAL PARAMETERS

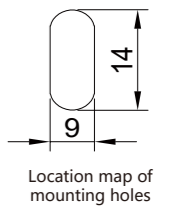
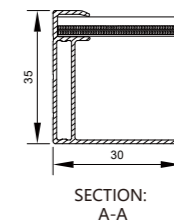
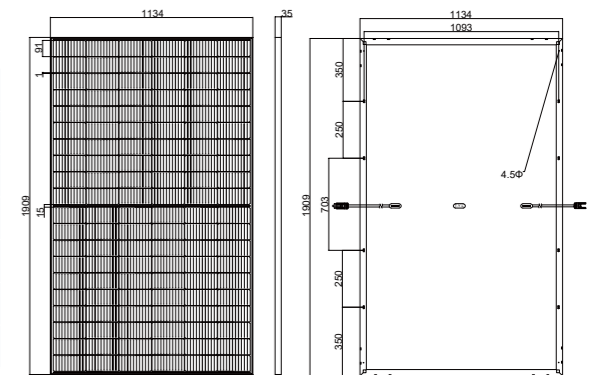
Size	1909x1134x35mm (LxWxH)
Weight	23.1kg
Front glass	3.2mm toughened glass
Cell	Monocrystalline PERC 182x182mm
Backplate	High weather resistance
Frame	Anodic alumina profile
Junction box	IP68, TUV, 3diodes
Cable	4mm <sup>2</sup> , +400, -200/ ± 1400mm Wire length can be customized
Connector	MC4 compatible/original EVO2
Packaging mode	31pcs/pack;744pcs/40HQ

### TEMPERATURE PARAMETERS

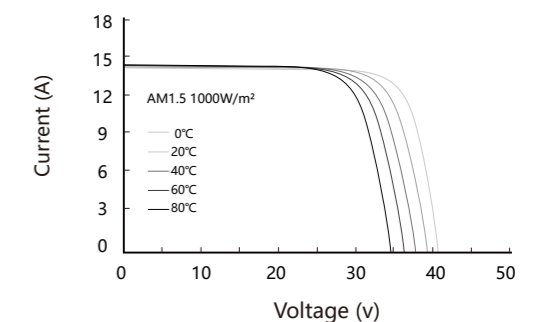
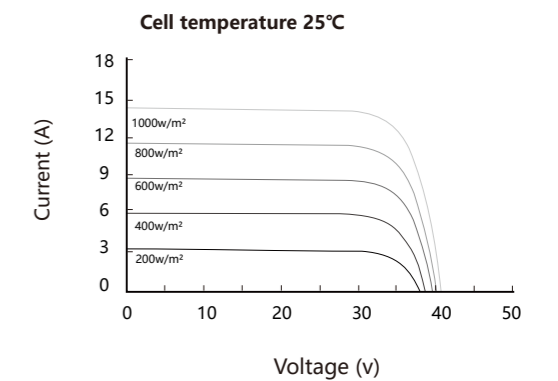
NMOT	42.30 °C (±2°C)
Open circuit voltage temperature coefficient	-0.27%/°C
Short circuit current temperature coefficient	+0.04%/°C
Maximum power temperature coefficient	-0.34%/°C

### MAXIMUM RATED PARAMETERS

Maximum system voltage (V)	DC1500/1000 (IEC)
Maximum fuse rated current (A)	20
Maximum front static load (Pa)	5400
Working temperature (°C)	-40~+85
Hail resistance	Maximum diameter 25mm, impact speed 23m/s

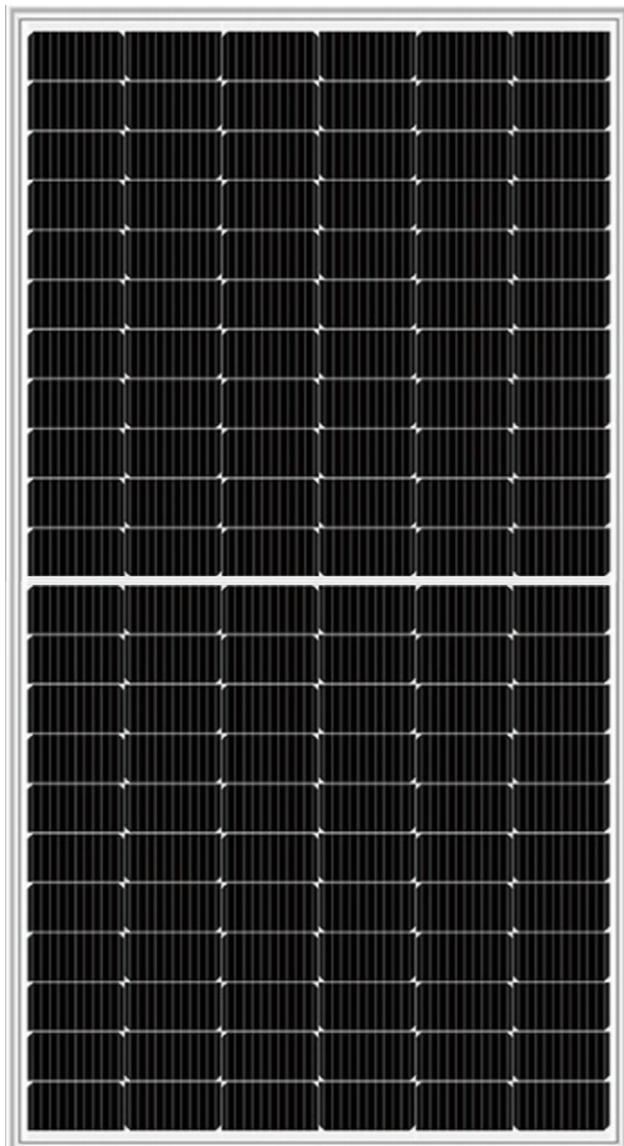


## I-V Curve



# HALF CELL MONO PERC SOLAR PANEL

(490W-510W)

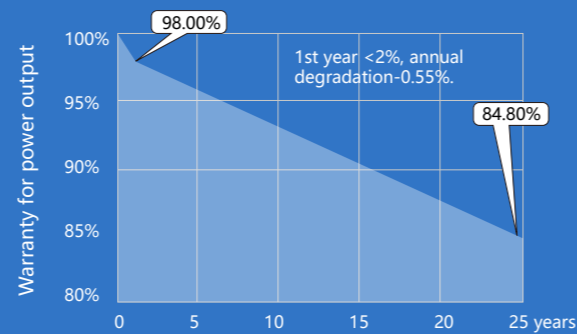


## Features of Module

- Multiple Busbars (MBB)**  
 Densely distributed grid lines, uniform load, multi-busbars design. Output power increased by more than 5W.
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 Adopts advanced high-density encapsulation technology to ensure the perfect balance of efficiency and reliability. Module efficiency increased by more than 0.15%.

## Linear Power Output Warranty

**15** 15-year warranty for materials.      **25** 25-year warranty for linear power output.



## Quality Management System and Product Certification

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 ISO 9001:2015/quality management system  
 ISO 14001:2015/ environmental management system  
 ISO 45001:2018/occupation health safety management system  
 ISO 50001:2011/ energy management system  
 IEC TS 62941—2016/ PV industry quality management system



## Product Data Sheet

### ELECTRICAL CHARACTERISTICS (STC)

Module Number: ANM10-66PH	490	495	500	505	510
Maximum Power Pmax (W)	490	495	500	505	510
Open circuit voltage · Voc (V)	45.3	45.5	45.7	45.8	45.9
Short circuit current Isc (A)	13.79	13.86	13.92	13.99	14.04
Voltage at Maximum Power Vmp (V)	38.0	38.2	38.3	38.5	38.7
Current at Maximum Power Imp (A)	12.89	12.97	13.05	13.12	13.18
Module efficiency-η (%)	20.6	20.8	21.1	21.3	21.7

### ELECTRICAL CHARACTERISTICS (NMOT)

Maximum power ·Pm (W)	370	373	377	381	385
Open circuit voltage ·Voc (V)	42.5	42.6	42.8	42.9	43.0
Short circuit current Isc (A)	11.12	11.19	11.26	11.33	11.37
Voltage at maximum power point·Vm (V)	35.7	35.9	36.0	36.1	36.3
Current at maximum power point·Im (A)	10.36	10.41	10.48	10.56	10.61

\* STC: Irradiation 1000W/m<sup>2</sup>; AM1.5; environmental temperature 25°C; tested according to EN 60904-3;  
 \* NMOT: irradiation 800W/m<sup>2</sup>; wind speed 1m/s; environmental temperature 20°C  
 \* Pm tolerance: 0~+5W; power test uncertainty: ±3%; Voc[V], Isc[A], Vm[V] and Im[A] test tolerance: +3%

### MECHANICAL PARAMETERS

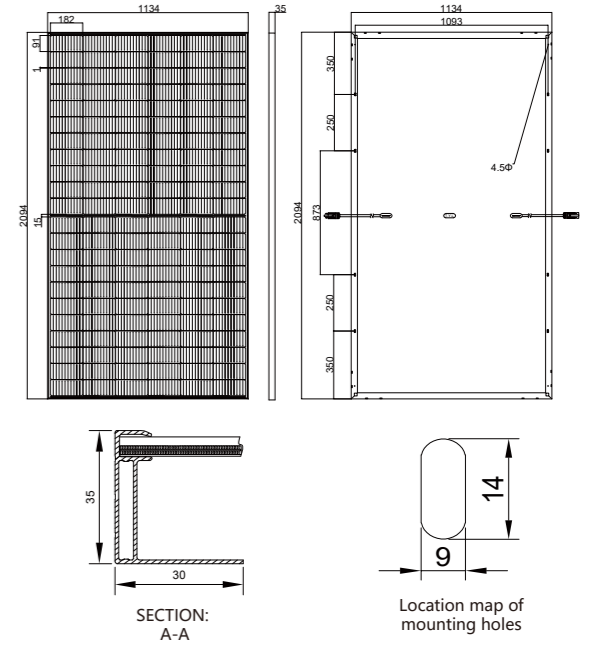
Size	2094x1134x35mm (LxWxH)
Weight	25.1kg
Front glass	3.2mm toughened glass
Cell	Monocrystalline PERC 182x182mm
Backplate	High weather resistance
Frame	Anodic alumina profile
Junction box	IP68, TUV, 3diodes
Cable	4mm <sup>2</sup> , +400, -200/ ± 1400mm Wire length can be customized
Connector	MC4 compatible/original EVO2
Packaging mode	31pcs/pack;682pcs/40HQ

### TEMPERATURE PARAMETERS

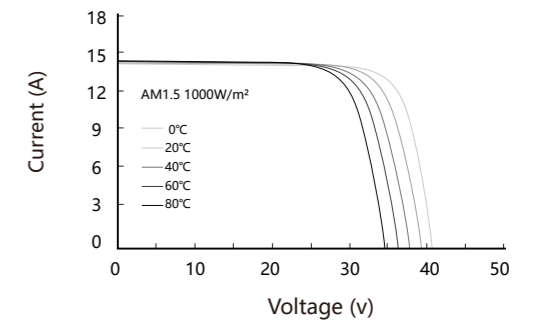
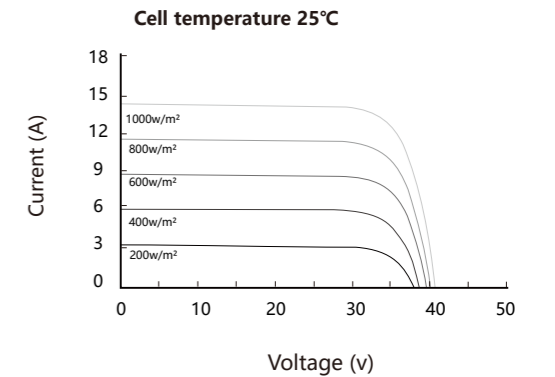
NMOT	42.30 °C (±2°C)
Open circuit voltage temperature coefficient	-0.27%/°C
Short circuit current temperature coefficient	+0.04%/°C
Maximum power temperature coefficient	-0.34%/°C

### MAXIMUM RATED PARAMETERS

Maximum system voltage (V)	DC1500/1000 (IEC)
Maximum fuse rated current (A)	20
Maximum front static load (Pa)	5400
Working temperature (°C)	-40~+85
Hail resistance	Maximum diameter 25mm, impact speed 23m/s



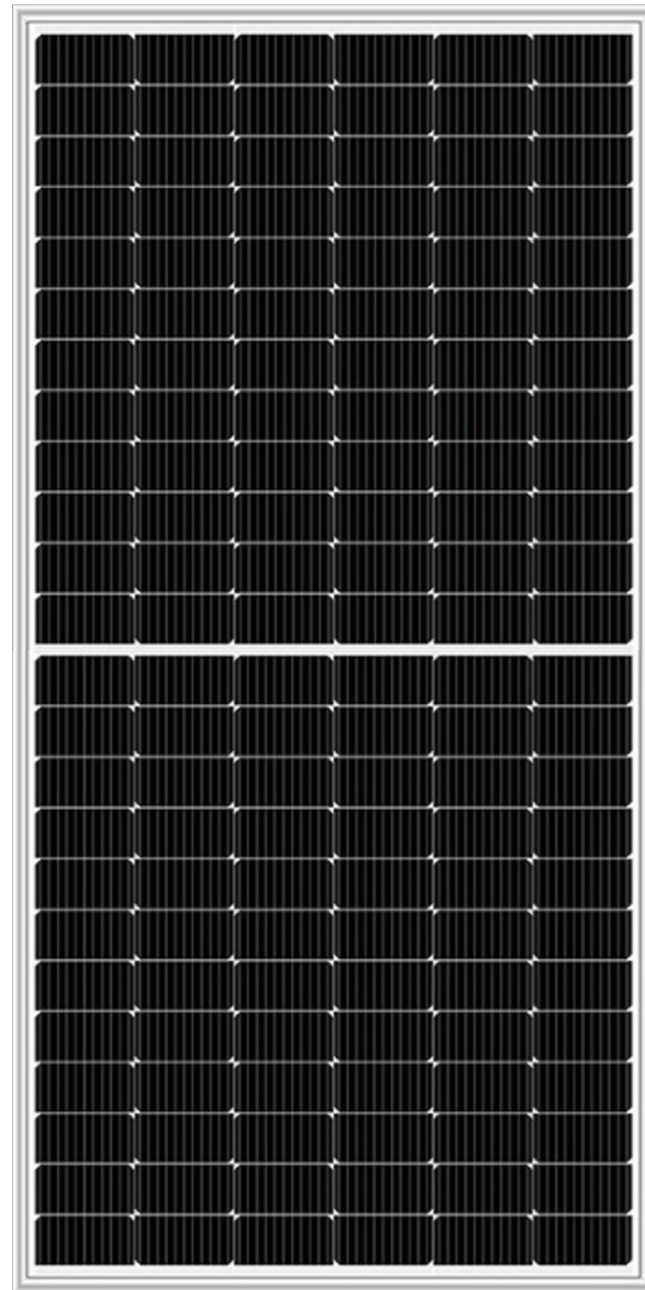
## I-V Curve





# HALF CELL MONO PERC SOLAR PANEL

(535W-555W)

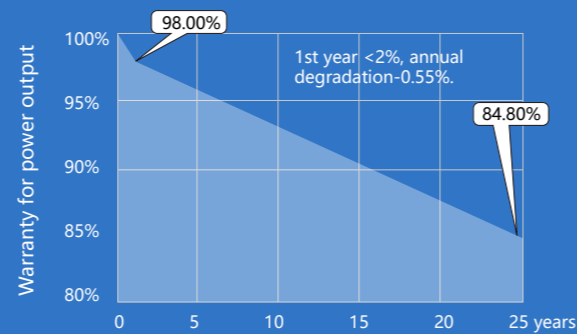


## Features of Module

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- New Welding Wire**  
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 ISO 14001:2015/ environmental management system  
 ISO 45001:2018/occupation health safety management system  
 ISO 50001:2011/ energy management system  
 IEC TS 62941—2016/ PV industry quality management system



## Product Data Sheet

### ELECTRICAL CHARACTERISTICS (STC)

Module Number: ANM10-72PH	535	540	545	550	550
Maximum Power Pmax (W)	535	540	545	550	550
Open circuit voltage · Voc (V)	49.4	49.5	49.7	49.8	50.0
Short circuit current Isc (A)	13.78	13.85	13.92	13.98	14.04
Voltage at Maximum Power Vmp (V)	41.5	41.7	41.8	42.0	42.1
Current at Maximum Power Imp (A)	12.90	12.97	13.04	13.12	13.19
Module efficiency-η (%)	20.9	21.1	21.3	21.5	21.7

### ELECTRICAL CHARACTERISTICS (NMOT)

Maximum power ·Pm (W)	400	404	407	411	415
Open circuit voltage ·Voc (V)	46.4	46.5	46.7	46.8	47.0
Short circuit current Isc (A)	11.14	11.20	11.25	11.31	11.35
Voltage at maximum power point·Vm (V)	38.6	38.7	38.8	39.0	39.1
Current at maximum power point·Im (A)	10.38	10.43	10.49	10.56	10.61

\* STC: Irradiation 1000W/m<sup>2</sup>; AM1.5; environmental temperature 25°C tested according to EN 60904-3;  
 \* NMOT: irradiation 800W/m<sup>2</sup>; wind speed 1m/s; environmental temperature 20°C  
 \* Pm tolerance: 0~+5W; power test uncertainty: ±3%; Voc[V], Isc[A], Vm[V] and Im[A] test tolerance: +3%

### MECHANICAL PARAMETERS

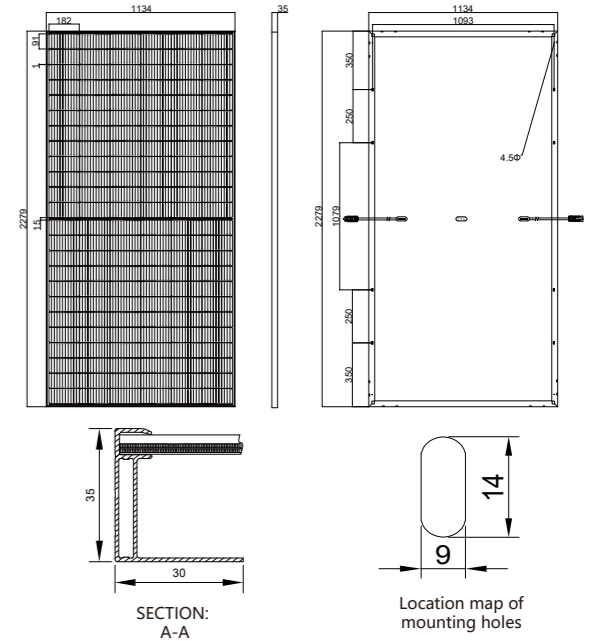
Size	2279x1134x35mm (LxWxH)
Weight	27.4kg
Front glass	3.2mm toughened glass
Cell	Monocrystalline PERC 182x182mm
Backplate	High weather resistance
Frame	Anodic alumina profile
Junction box	IP68, TUV, 3diodes
Cable	4mm <sup>2</sup> , +400, -200/ ± 1400mm Wire length can be customized
Connector	MC4 compatible/original EVO2
Packaging mode	31pcs/pack;620pcs/40HQ

### TEMPERATURE PARAMETERS

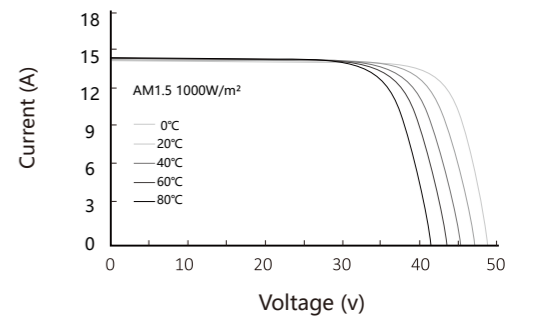
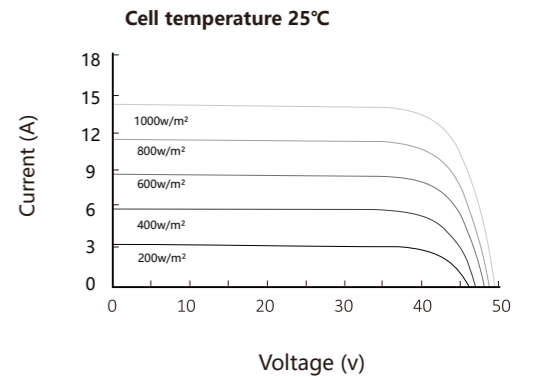
NMOT	42.30 °C (±2°C)
Open circuit voltage temperature coefficient	-0.27%/°C
Short circuit current temperature coefficient	+0.04%/°C
Maximum power temperature coefficient	-0.34%/°C

### MAXIMUM RATED PARAMETERS

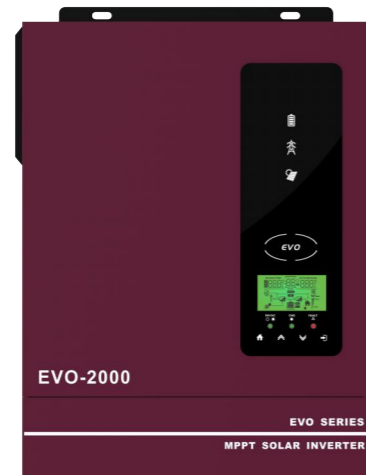
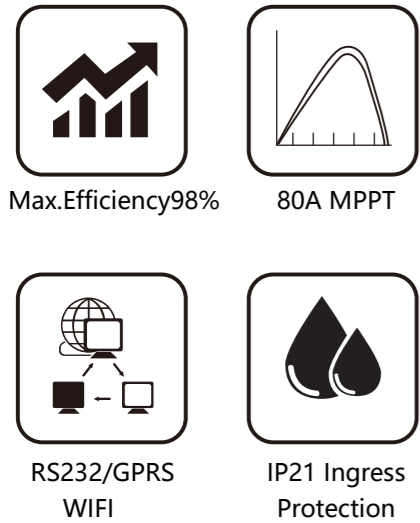
Maximum system voltage (V)	DC1500/1000 (IEC)
Maximum fuse rated current (A)	20
Maximum front static load (Pa)	5400
Working temperature (°C)	-40~+85
Hail resistance	Maximum diameter 25mm, impact speed 23m/s



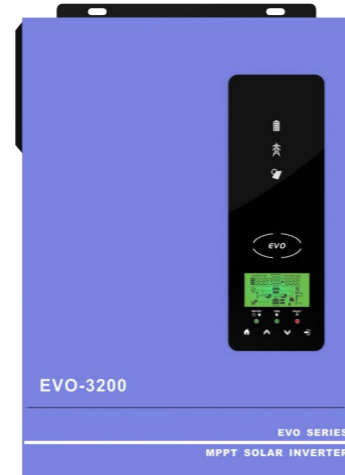
## I-V Curve



# HYBRID SOLAR INVERTER (EVO SERIES)



**AN-SCI-EVO-2000**



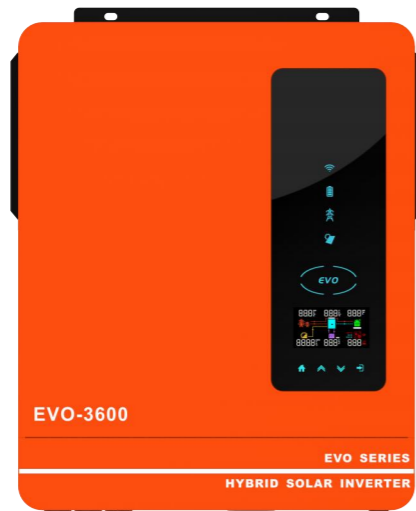
**AN-SCI-EVO-3200**

## Features of Module

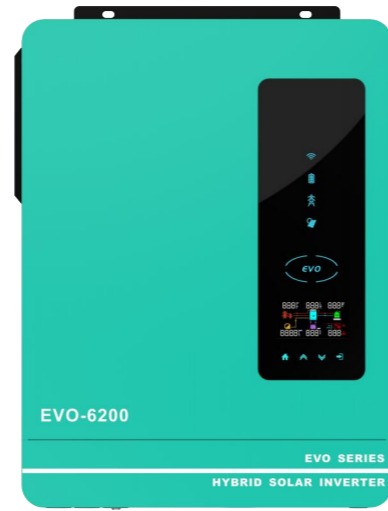
- Pure sine wave solar inverter
- Output power factor 1.0
- Built-in 80A MPPT solar controller
- Max 2000W(for 2000KVA) & 3000W(for 3200KVA) solar charge
- High PV input voltage range(30-400VDC)
- Built-in anti-dusk kit for harsh environment
- Smart battery charge design to optimize battery life
- Compatible with lithium battery
- WIFI available for IOS and Android

Model	AN-SCI-EVO-2000	AN-SCI-EVO-3200
RATED POWER	2000KVA/1600W	3200KVA/3000W
<b>AC INPUT</b>		
Voltage	230VAC	
Selectable Voltage Range	170-280 VAC (For Personal Computers) 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
<b>AC OUTPUT</b>		
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%	
Surge Power	4000VA	6400VA
Efficiency (Peak) PV to INV.	98%	
Efficiency (Peak) Battery to INV.	94%	
Transfer Time	10 ms (For Personal Computers); 20 ms (For Home Appliances)	
Waveform	Pure Sine Wave	
<b>BATTERY &amp; AC CHARGER</b>		
Battery Voltage	12VDC	24VDC
Floating Charge Voltage	13.5VDC	27VDC
Overcharge Protection	16VDC	33VDC
Maximum AC Charge Current	60A	
<b>SOLAR CHARGER</b>		
Maximum PV Array Power	2000W	3000W
MPPT Range @ Operating Voltage	30-400VDC	
Maximum PV Array Open Circuit Voltage	400VDC	
Maximum Charging Current	80A	
<b>PHYSICAL</b>		
Dimension, D x W x H (mm)	360*270*100mm	
Net Weight (kg)	4.4	5.4
<b>INTERFACE</b>		
Communication Interface	WIFI	
<b>OPERATING ENVIRONMENT</b>		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C - 50°C	
Storage Temperature	-15°C - 60°C	

# HYBRID SOLAR INVERTER (EVO SERIES)



**AN-SCI-EVO-3600**



**AN-SCI-EVO-6200**

## Features of Module

- Pure sine wave solar inverter
- Self-consumption and feed-in to the grid
- Inverter running without battery
- One-key restoration to factory settings
- Built-in Lithium battery automatic activation
- Built-in 120A MPPT solar controller
- Max 6200W(for 3.6KW) & 6500W(for 6.2KW) solar charge
- High PV input voltage range(90-450VDC)
- Built-in anti-dusk kit for harsh environment
- Smart battery charge design to optimize battery life
- Dual output
- WIFI available for IOS and Android

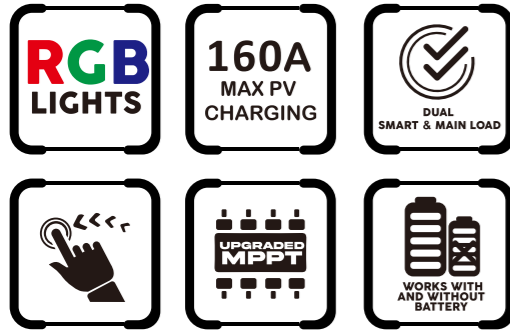
Model	AN-SCI-EVO-3600	AN-SCI-EVO-6200
RATED POWER	3600W	6200W
Maximum PV Input Power	6200W	6500W
<b>GRID-TIE OPERATION PV INPUT (DC)</b>		
Nominal DC Voltage/Maximum DC Voltage	360VDC/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
Maximum DC Voltage	90-450VDC	
Number of MPPT Trackers/Maximum Input Current	1/27A	
<b>GRID OUTPUT (AC)</b>		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195.5-253VAC	
Nominal Output Current	15.7A	27.0A
Power Factor	>0.99	
Feed-in Grid Frequency Range	49-51±1Hz/59-61±1Hz	
<b>EFFICIENCY</b>		
Maximum Conversion Efficiency(Solar to AC)	98%	
<b>TWO-LOAD OUTPUT POWER</b>		
Full Load	3600W	6200W
Maximum Main Load	3600W	6200W
Maximum Second Load(battery mode)	1200W	2067W
Main Load Cut-Off Voltage	22VDC	44VDC
Main Load Return Voltage	26VDC	52VDC
<b>OFF-GRID OPERATION AC INPUT</b>		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90-280VAC or 170-280VAC	
Maximum AC Input Current	30A	40A
Nominal Operating Frequency	50/60Hz	
Surge Power	7200W	12400W
<b>BATTERY MODE OUTPUT(AC)</b>		
Nominal Output Voltage	220/230/240VAC	
Output Waveform	Pure Sine Wave	
Efficiency(DC to AC)	94%	
<b>BATTERY &amp; CHARGER</b>		
Nominal DC Voltage	24VDC	48VDC
Maximum Charging Current(Solar to AC)	120A	
Maximum AC Charging Current	100A	
<b>GENERAL PHYSICAL</b>		
Dimension, D x W x H (mm)	450*350*110mm	
Net Weight (kgs)	9	10
<b>INTERFACE</b>		
Communication Interface	WIFI	
<b>OPERATING ENVIRONMENT</b>		
Humidity	5% to 95% Relative Humidity(Non-condensing)	
Operating Temperature	-10°C - 50°C	
Storage Temperature	-15°C - 60°C	



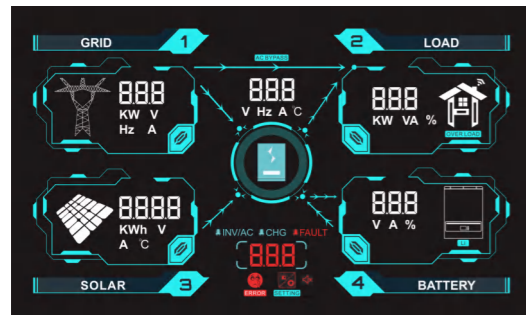
# HYBRID SOLAR INVERTER (EVO SERIES)

## Features of Module

- Pure sine wave solar inverter
- Self-consumption and feed-in to the grid.
- Inverter running without battery.
- One-key restoration to factory settings.
- Built-in lithium battery automatic activation.
- Built-in 160A MPPT solar controller (for 8.2KW,10.2KW), 140A(for 7.2KW)
- High PV input voltage range(90-450VDC).
- Built-in anti-dusk kit for harsh environment.
- Smart battery charge design to optimize battery life.
- Dual output
- Touch button
- WIFI available for IOS and Android.



## LCD Display



## WIFI&GPRS Available for IOS and Android



## RGB LIGHT

### RGB lighting for different working modes

RGB automatically switches under different working modes of inverter:

- Battery mode: red;
- Utility mode: blue;
- PV mode: purple;



Model	AN-SCI-EVO-7200	AN-SCI-EVO-8200	AN-SCI-EVO-10200
RATED POWER	7200W	8200W	10200W
Maximum PV Input Power	8200W	8200W	10200W
<b>GRID-TIE OPERATION</b>			
<b>PV INPUT (DC)</b>			
Nominal DC Voltage/Maximum DC Voltage	360VDC/500VDC		
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC		
Maximum DC Voltage	90-450VDC		
Number of MPPT Trackers/Maximum Input Current	1/27A	2/18A	
<b>GRID OUTPUT (AC)</b>			
Nominal Output Voltage	220/230/240VAC		
Output Voltage Range	195.5-253VAC		
Nominal Output Current	31.3A	35.6A	44.3A
Power Factor	>0.99		
Feed-in Grid Frequency Range	49-51±1Hz/59-61±1Hz		
<b>EFFICIENCY</b>			
Maximum Conversion Efficiency(Solar to AC)	98%		
<b>TWO-LOAD OUTPUT POWER</b>			
Full Load	7200W	8200W	10200W
Maximum Main Load	7200W	8200W	10200W
Maximum Second Load(battery mode)	2400W	2733W	3400W
Main Load Cut-Off Voltage	44VDC	44VDC	44VDC
Main Load Return Voltage	48VDC	48VDC	48VDC
<b>OFF-GRID OPERATION</b>			
<b>AC INPUT</b>			
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC		
Acceptable Input Voltage Range	90-280VAC or 170-280VAC		
Maximum AC Input Current	40A	40A	50A
Nominal Operating Frequency	50/60Hz		
Surge Power	14400W	16400W	20400W
<b>BATTERY MODE OUTPUT(AC)</b>			
Nominal Output Voltage	220/230/240VAC		
Output Waveform	Pure Sine Wave		
Efficiency(DC to AC)	94%		
<b>BATTERY &amp; CHARGER</b>			
Nominal DC Voltage	48VDC	48VDC	48VDC
Maximum Charging Current(Solar to AC)	140A	160A	160A
Maximum AC Charging Current	120A	140A	160A
<b>GENERAL PHYSICAL</b>			
Dimension, D x W x H (mm)	500*390*130mm	500*390*130mm	530*390*130mm
Net Weight (kgs)	14.2kg	14.2kg	14.5kg
<b>INTERFACE</b>			
Communication Interface	WIFI		
<b>OPERATING ENVIRONMENT</b>			
Humidity	5% to 95% Relative Humidity(Non-condensing)		
Operating Temperature	-10°C - 50°C		
Storage Temperature	-15°C - 60°C		



# HYBRID SOLAR INVERTER (AN-SCI02 PLUS SERIES)



## Features of Module

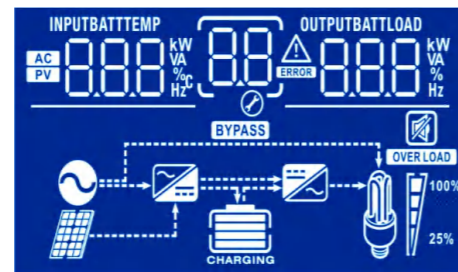
- Pure sine wave solar inverter
- Output power factor 1.0
- Wifi&GPRS available for IOS and android
- Inverter can run without battery
- Built-in 100A MPPT solar charger
- High PV input voltage range(120~500VDC)
- Built-in anti-dust kit for harsh environment
- Smart battery charge design to optimize battery life



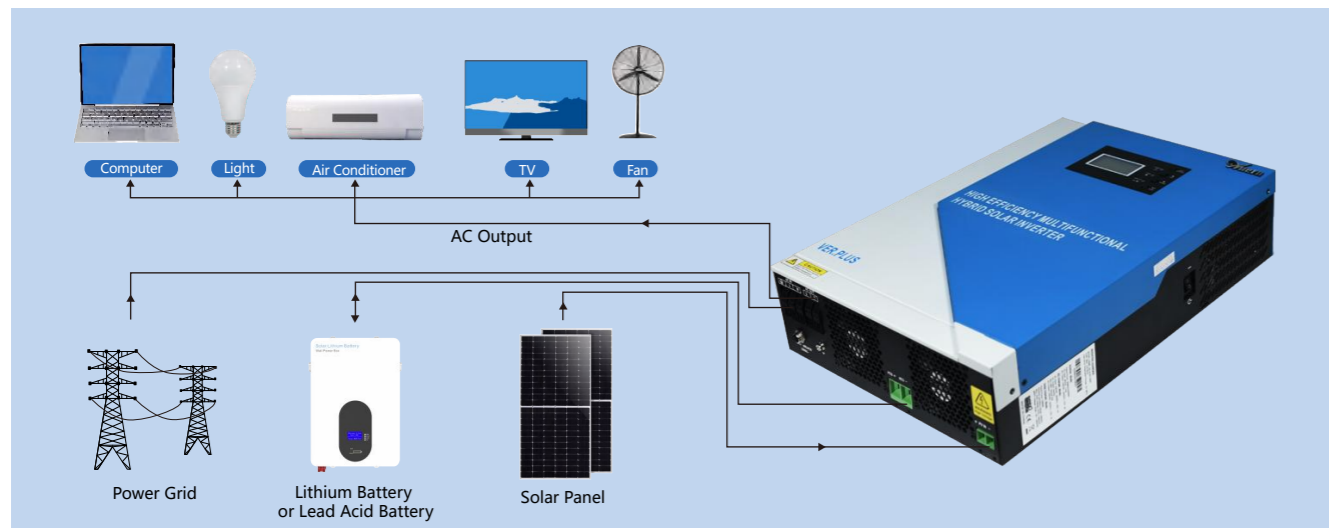
## WIFI&GPRS Available for IOS and Android



## LCD Display



## Product Topology



Model	AN-SCI02-PLUS-3500	AN-SCI02-PLUS-5500
Rated Power	3500VA/3500W	5500VA/5500W

### INPUT

Voltage	230VAC	
Selectable Voltage Range	170-280VAC(For Personal Computers)	
	90-280VAC(For Home Appliances)	
Frequency Range	50 Hz/60Hz(Auto sensing)	

### OUTPUT

AC Voltage Regulation(Batt.Mode)	230VAC±5%	
Surge Power	7000VA	11000VA
Efficiency(Peak)PV to INV	97%	
Efficiency(Peak)Battery to INV	94%	
Transfer Time	10 ms (For Personal Computers);20 ms (For Home Appliances)	

### BATTERY & AC CHARGER

Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
Maximum Charge Current	80A	80A

### SOLAR CHARGER

Maximum PV Array Power	5000W	6000W
MPPT Range @ Operating Voltage	120-450VDC	
Maximum PV Array Open Circuit Voltage	500VDC	
Maximum Charging Current	100A	100A
Maximum Efficiency	98%	

### PHYSICAL

Dimension,D*W*H(mm)	100*300*440	
Cartoon Dimension,D*W*H(mm)	590*390*208	
Net Weight(kgs)	10	11
Gross Weight(kgs)	11	12
Communication interface	USB/RS232/GPRS/WIFI	

### OPERATING ENVIRONMENT

Humidity	5% to 95% Relative Humidity(Non~condensing)	
Operating Temperature	10°C~50°C	



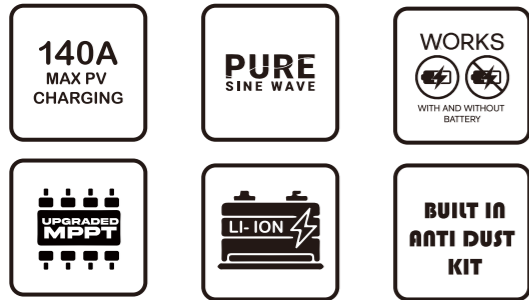


# HYBRID SOLAR INVERTER (AN-SCI02 PRO SERIES)



## Features of Module

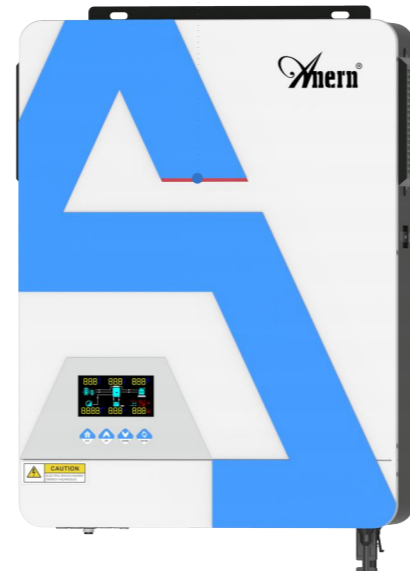
- Pure sine wave solar inverter(on/off Grid)
- Output power factor 1.0
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- One-key restoration to factory settings
- Built-in lithium battery automatic activation
- Built-in 120A(for 3.6KW/6.2KW)/140A(for 4.2KW)
- MPPT: Max 6200w(for 3.6kw/4.2kw),max 6500w (for 6.2kw) solar charge
- High PV input voltage range(90-500VDC)
- Built-in anti-dust kit for harsh environment
- Smart battery charge design to optimize battery life



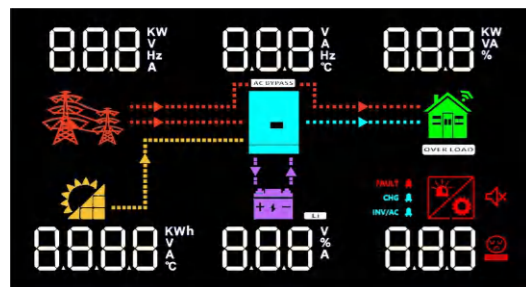
## RGB LIGHT

RGB lighting for different working modes

RGB automatically switches under different working modes  
 Battery mode: red;  
 Utility mode: blue;  
 PV mode: purple;



## LCD Display



## WIFI&GPRS Available for IOS and Android



Model	AN-SCI02-Pro-3600	AN-SCI02-Pro-4200	AN-SCI02-Pro-6200
Phase	1-phase		
Maximum PV Input Power	6200W	6200W	6500W
Rated Output Power	3600W	4200W	6200W
Maximum Solar Charging Current	120A	140A	120A

### GRID-TIE OPERATION

#### PV Input(DC)

Nominal DC Voltage/Maximum DC Voltage	360VDC/500VDC		
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC		
MPPT Voltage Range	90-450VDC		
Number of MPPT Trackers/Maximum Input Current	1/27A		

#### GRID OUTPUT(AC)

Nominal Output Voltage	200/230/240VAC		
Output Voltage Range	195.5~253VAC		
Nominal Output Current	15.7A	18.2A	27.0A
Power Factor	>0.99		
Feed-in Grid Frequency Range	49-51±1Hz		

#### EFFICIENCY

Maximum Conversion Efficiency( Solar to AC)	98%		
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### OFF-GRID OPERATION

#### AC INPUT

AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC		
Acceptable Input Voltage Range	90-280VAC or 170-280VAC		
Maximum AC Input Current	30A	30A	40A
Nominal operating frequency	50/60Hz		
Surge power	7200W	8400W	12400W

#### BATTERY MODE OUTPUT(AC)

Nominal Output Voltage	24VDC	24VDC	48VDC
Output Waveform	Pure sine wave		
Efficiency(DC to AC)	94%		

#### BATTERY & CHARGER

Nominal DC Voltage	24VDC	24VDC	48VDC
Maximum Charging Current (Solar to AC)	120A	140A	120A
Maximum AC Charging Current	100A		

#### GENERAL PHYSICAL

Dimension,D*W*H(mm)	420*310*110		
Cartoon Dimension,D*W *H(mm)	590*390*208		
Net Weight(kgs)	8.8	9.3	9.8
Gross Weight(kgs)	10	11	11

#### INTERFACE

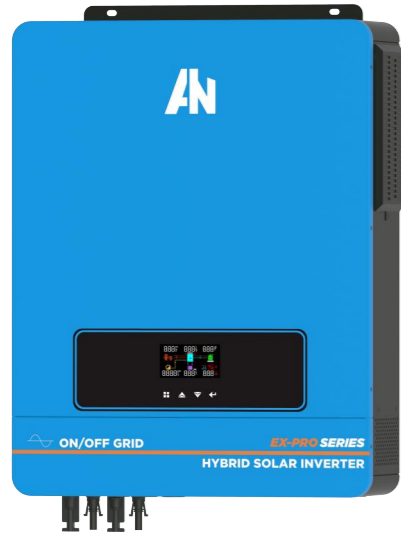
Communication Port	RS232/WIFI/GPRS		
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#### ENVIRONMENT

Operating Temperature	-10-50°C		
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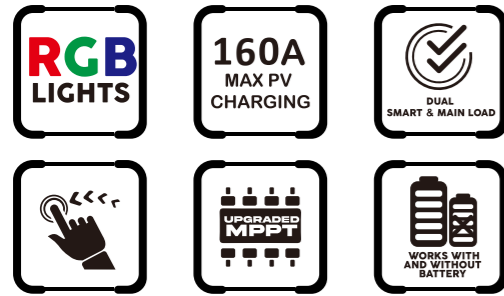


# HYBRID SOLAR INVERTER (AN-EX-PRO SERIES)



## Features of Module

- Pure sine wave solar inverter(on/off Grid)
- Output power factor 1.0
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- One-key restoration to factory settings
- Built-in lithium battery automatic activation
- Built-in 160A MPPT solar charger (for 8.2kw, 10.2kw), 140A(for 7.2kw)
- High PV input voltage range(90~500VDC)
- Built-in anti-dust kit for harsh environment
- Smart battery charge design to optimize battery life
- Dual output
- Touch button

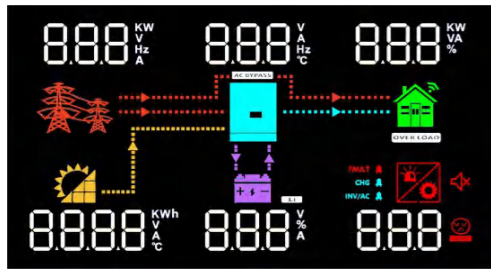


## RGB LIGHT

RGB lighting for different working modes  
RGB automatically switches under different working modes of inverter:  
Battery mode: red;  
Utility mode: blue;  
PV mode: purple;



## LCD Display



## WIFI&GPRS Available for IOS and Android



Model	EX-Pro-7200	EX-Pro-8200	EX-Pro-10200
Maximum PV Input Power	8200W	8200W	10200W
Rated Output Power	7200W	8200W	10200W
Maximum Solar Charging Current	140A	160A	160A

### GRID-TIE OPERATION

#### PV INPUT(DC)

Nominal DC Voltage/Maximum DC Voltage	360VDC/500VDC		
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC		
MPPT Voltage Range	90VDC-450VDC		
Number of MPPT Trackers/Maximum Input Current	1/27A		

#### GRID OUTPUT(AC)

Nominal Output Voltage	220/230/240VAC		
Output Voltage Range	195-253VAC		
Nominal Output Current	31.3A	35.6A	44.3A
Power Factor	>0.99		
Feed-in Grid Frequency Range	49~51±1Hz		

### EFFICIENCY

Maximum Conversion Efficiency(DC/AC)	98%		
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### TWO LOAD OUTPUT POWER

Full Load	7200W	8200W	10200W
Maximum Main Load	7200W	8200W	10200W
Maximum Second Load(battery mode)	2400W	2733W	3400W
Main Load Cut Off Voltage	44VDC	44VDC	44VDC
Main Load Return Voltage	52VDC	52VDC	52VDC

### OFF-GRID OPERATION

#### AC INPUT

AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC		
Acceptable Input Voltage Range	90-280VAC or 170-280VAC		
Maximum AC Input Current	40A	40A	50A
Nominal Operating Frequency	50/60Hz		
Surge Power	14400W	16400W	20400W

#### BATTERY MODE OUTPUT

Nominal Output Voltage	220/230/240VAC		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	94%		

#### BATTERY & CHARGER

Nominal DC Voltage	48VDC	48VDC	48VDC
Maximum Solar Charging Current	140A	160A	160A
Maximum AC Charging Current	120A	140A	160A

#### PHYSICAL

Dimension, D x W x H (mm)	420*310*110		
Carton Dimension, D X W XH(mm)	588*463*205		
Net Weight (kgs)	13.1	14.2	14.5
Gross Weight(kgs)	14.1	15.7	16.0
Communication Port	RS232/WIFL/Remove LCD/GPRS		
Operating Temperature	-10~50°C		





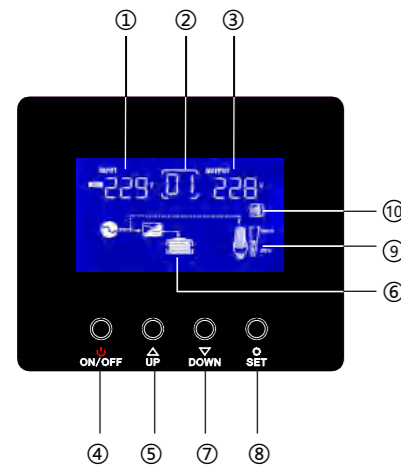
# LOW FREQUENCY INVERTER (AN-WSPI SERIES)



## Features of Module

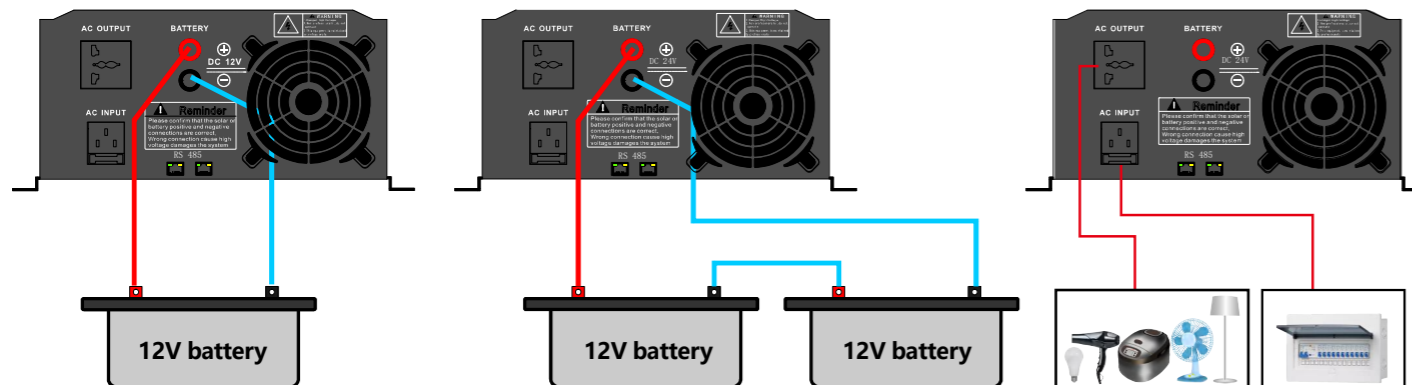
- Pure sine wave output
- With UPS automatic switching function, grid power charging function
- It has perfect protection functions such as overload high voltage, low voltage, short circuit, etc.
- DSP Intelligent Chip Control, Excellent Performance
- Strong inverting capability, one-time soft start, triple output peak power, with all inductive loads
- Smart LCD display and setting(Working modes, Charge Current, Charge Voltage, charging on/of switch, AC range input, battery voltage, battery low voltage shutdown etc.)
- Full personalized LCD display, inverters can display various data information
- Mains priority mode, Battery priority mode, energy saving priority generator mode, mains priority unattended mode, Battery priority unattended mode, can be set freely to meet different occasions
- WIFI/RS485 remote monitoring communication (Optional)

## LCD Display Information



NO	LCD Display	Contents Descriptions
①	INPUTAC	Input
②	(01)	Working mode code
③	OUTPUT	AC Output
④	⏻	ON/OFF button
⑤	⬆	UP button
⑥	BATT	battery capacity
⑦	⬇	DOWN button
⑧	⚙	SET button
⑨	LOAD 25%--100%	Load output percentage
⑩	🔇	Mute

## Solar System Connection



Model	AN-WSPI-500W	AN-WSPI-700W	AN-WSPI-1000W	AN-WSPI-1200W	AN-WSPI-1500W
<b>Inverter Output</b>					
Rated power	500W	700W	1000W	1200W	1500W
Surge rating(20MS)	1500W	2100W	3000W	3600W	4500W
Capable of starting electric Motor	150W	200W	300W	400W	500W
Wave form	Pure sine wave				
Power factor	1				
Output voltage RMS	110VAC/120VAC ;220VAC/230VAC/240VAC±10 %				
Output frequency	50Hz or 60Hz ( ±0.3Hz )				
Inverter efficiency (peak)	>85%				
Line mode efficiency	>95%				
Overload	120%<Load<130% ±10:Fault(Turnoff output after 60seconds) 130%<Load<150% ±10:Fault(Turnoff output after 10seconds) 150%<load±10:Fault(Turnoff output after 10seconds)				

<b>Battery</b>		
Battery voltage	12VDC/24VDC	24VDC
Minimum start voltage	(9.5V-12.5V adjustable)+0.5V for 12VDC mode (*2 for 24VDC)	
Low battery voltage cut of	(9.5V-12.5V adjustable), 10V(default) for 12VDC mode (*2 for 24VDC)	
Low battery voltage alarm	(9.5V-12.5V adjustable)+0.5V,10.5V(default) for 12VDC mode (*2 for 24VDC)	
High battery voltage alarm	16V for 12VDC mode (*2 for 24VDC)	
High Battery Voltage Recover	15.5V for 12VDC mode (*2 for 24VDC)	
Battery type	AGM,Lead Acid,Lithium, Ternary	

<b>AC Input Mode</b>	
Input wave form	Pure sine wave
AC input voltage	110V/120VAC±20% ;220/230/240VAC±20%
Low input voltage	110/120VAC:70-90VAC(adjustable),80VAC(default) ; 220/240VAC:140-180VAC(adjustable),140VAC(default)
Max input voltage	110/120VAC:130-145VAC(adjustable),137VAC(default) ; 220/240VAC:260-290VAC(adjustable),275VAC(default)
Input frequency	50Hz/60Hz (auto sensing)
Efficiency (AC mode)	>95% (load, full battery)
Transfer time AC to DC	8ms(Max)

<b>AC Charge Current (Max)</b>					
12V	10A	20A	30A	30A	/
24V	5A	10A	20A	20A	30A
Min charge current 5A, Change by every 5A					

<b>Dimensions</b>					
Mounting	Wall Mount				
Dimensions (W*H*D)	470*390*210mm				
Ship Dimensions (W*H*D)	580*380*270mm(2pcs / Carton)				
Net Weight (Solar CHG)(kg)	7.5	8.5	10.5	11	12
Shipping Weight (Solar CHG)(kg)	15	17	21	22	24
Overload Warranty	1 year				



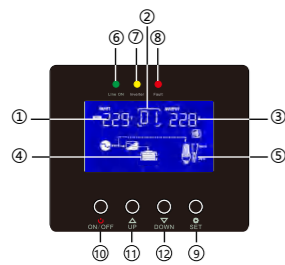
# LOW FREQUENCY INVERTER (AN-SPI SERIES)



## Features of Module

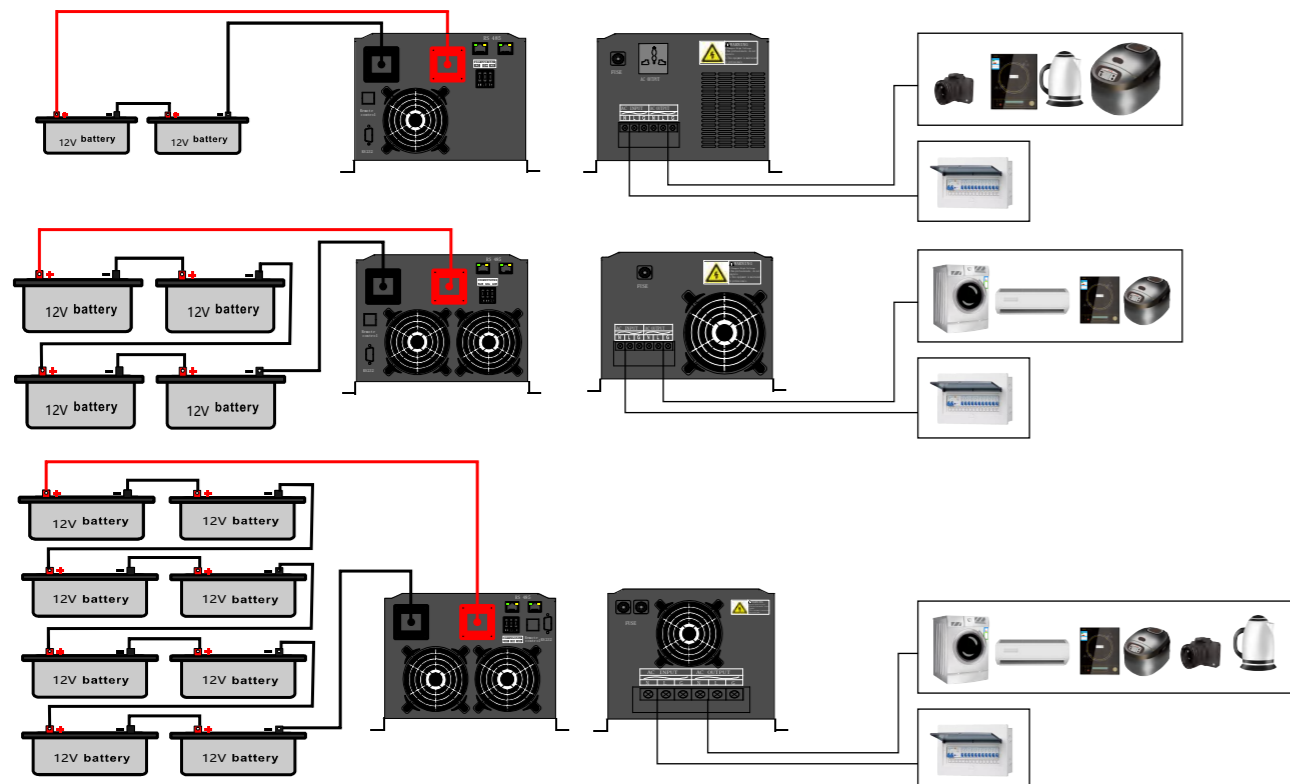
- Pure sine wave output
- With UPS automatic switching function, grid power charging function
- It has perfect protection functions such as overload high voltage, low voltage, short circuit, etc.
- DSP Intelligent Chip Control, Excellent Performance
- Strong inverting capability, one-time soft start, triple output peak power, with all inductive loads
- Smart LCD display and setting(Working modes, Charge Current, Charge Voltage, charging on/of switch, AC range input, battery voltage, battery low voltage shutdown etc.)
- Full personalized LCD display, inverters can display various data information
- Mains priority mode, Battery priority mode, Energy saving priority Generator mode, mains priority unattended mode, Battery priority unattended mode, can be set freely to meet different occasions
- WIFI/RS485 remote monitoring communication (Optional)

## LCD Display Information



NO	LCD Display	Contents Descriptions
①	Inputac	AC Input
②	(01)	Working mode code
③	Output	AC Output
④	Battery	Battery capacity
⑤	LOAD 25%--100%	Load output percentage
⑥	Line ON	AC indicator
⑦	Inverter	Inverter indicator
⑧	Fault	Fault indicator
⑨	⊕	SET button
⑩	⊖	ON/OFF button
⑪	⬆	UP button
⑫	⬇	DOWN button

## Solar System Connection



Model	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
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### Inverter Output

Rated power	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Surge rating(20MS)	6000W	9000W	12000W	15000W	18000W	24000W	30000W	36000W
Capable of starting electric Motor	1P	1.5P	2P	3P	3.5P	4P	5P	6P
Wave form	Pure sine wave							
Power factor	1							
Output voltage RMS	110VAC/120VAC;220VAC/230VAC/240VAC				220VAC/230VAC/240VAC			
Output frequency	50Hz or 60Hz (±0.3Hz)							
Inverter efficiency (peak)	>85%							
Line mode efficiency	>95%							
Overload	120%<Load<130% ±10:Fault(Turnoff output after 60seconds)							
	130%<Load<150% ±10:Fault(Turnoff output after 10seconds)							
	150%<Load±10:Fault(Turnoff output after 10seconds)							

### Battery

Battery voltage	24VDC/48VDC	48VDC/96VDC
Minimum start voltage	(9.5V-12.5V adjustable)+0.5V for 12VDC mode (*2 for 24VDC, *4 for 48VDC, *8 for 96VDC)	
Low battery voltage cut of	(9.5V-12.5V adjustable), 10V(default) for 12VDC mode (*2 for 24VDC, *4 for 48VDC, *8 for 96VDC)	
Low battery voltage alarm	(9.5V-12.5V adjustable)+0.5V,10.5V(default) for 12VDC mode (*2 for 24VDC,*4 for 48VDC, *8 for 96VDC)	
High battery voltage alarm	16V for 12VDC mode (*2 for 24VDC, *4 for 48VDC,*8 for 96VDC)	
High Battery Voltage Recover	15.5V for 12VDC mode (*2 for 24VDC,*4 for 48VDC, *8 for 96VDC)	
Battery type	AGM,Lead Acid,Lithium, Ternary	

### AC Input Mode

Input wave form	Pure sine wave
AC input voltage	110V/120VAC±25%;220/230/240VAC±25%
Low input voltage	110/120VAC:70-90VAC(adjustable),80VAC(default) ; 220/240VAC:140-180VAC(adjustable),160VAC(default)
Max input voltage	110/120VAC:130-145VAC(adjustable),137VAC(default) ; 220/240VAC:260-290VAC(adjustable),275VAC(default)
Input frequency	50Hz/60Hz (auto sensing)
Efficiency (AC mode)	>95% (load, full battery)
Transfer time AC to DC	8ms(Max)

### AC Charge Current (Max)

24V	40A	40A	50A	/	/	/	/	/
20A	20A	30A	40A	50A	50A	50A	50A	50A
96V	/	/	/	20A	20A	30A	30A	30A
Min charge current 5A, Change by every 5A								

### Dimensions

Mounting	Wall Mount							
Dimensions (W*H*D)	480*280*200mm		640*280*200mm		760*320*240mm			
Ship Dimensions (W*H*D)	565*350*255mm		750*370*270mm		840*405*320mm			
Net Weight (Solar CHG)(kg)	19	21	29	31	33	53	55	60
Shipping Weight (Solar CHG)(kg)	21	23	31	33	35	58	60	65
Warranty	1 year							



# MPPT SOLAR CONTROLLER (AN-MPJ SERIES)



## Features of Module

The solar charge controller is a multi-level maximum power point tracking (MPPT) photovoltaic battery charge controller with its own technology. Compared with the PWM controller, the MPPT can improve the control accuracy and the output power of the solar panel can be increased by 5%-30%.

## Specification Characteristics



Rated Charge Current	10A-60A
Rated Voltage	12V/24V
System Voltage	100V



Protections



Parameters Adjustable



Battery Type



Rs485/RJ45 Port (Optional)



Temperature Compensation



Class V-0 Flame Retardant Enclosure

Model	AN-MPJ20	AN-MPJ40	AN-MPJ60
<b>Input</b>			
Maximum PV open circuit voltage	100V (at the lowest temperature) 92V (at a standard temperature of 25°C)		
Minimum PV voltage	20V/40V/60V/80V		
Rated Charge Current	20A	40A	60A
<b>Output</b>			
System voltage	12V/24V Auto		
Rated Discharge Current	10A	20A	30A
Own consumption	<50mA		
MPPT highest accuracy	99%		
Maximum charging efficiency	97%		
Charging control mode	Multi-stage(MPPT, Absorption, Float,Equalization,CV)		
Float charge	13.8V/27.6V		
Absorption charge	14.4V/28.8V		
Equalization charge	14.6V/29.2V		
Load disconnection(LVD)	10.8V/21.6V		
Load reconnection(LVR)	12.6V/25.2V		
Load control mode	Normal, light control, light and timing control, timing control, reverse light control		
Light control point voltage	5V/10V/15V/20V		
Battery Type	GEL, SLD,FLD and USR(default),Lithium batteries customization 3series 3.7V, 4 series 3.7V, 4series 3.2V, 5series 3.2V		

### Other

Human interface	LCD with backlight, 2 buttons		
Cooling mode	AL alloy heat sink		
Wiring	High current copper terminals16 mm <sup>2</sup> (3AWG)		
Temperature probe	built-in		
Communication mode	RS485,RJ45 port		
Working temperature range	-20~+55°C		
Storage temperature range	-30~+80°C		
Humidity	10%~90% No condensation		

### Dimensions

	AN-MPJ20	AN-MPJ40	AN-MPJ60
Product size	175 x 145 x 47mm	215 x 145 x 75mm	260 x 190 x 85mm
Mounting hole spacing	108*120mm-Φ5	130*130mm-Φ5	180*214mm-Φ5
N.W	0.6Kg	1.3Kg	2.3Kg
G.W	0.65Kg	1.5Kg	2.5Kg

Note: Please operate at the ambient temperature allowed by the controller. If the ambient temperature exceeds the allowable range of the controller, please derate it



# MPPT SOLAR CONTROLLER (AN-MPK2 SERIES)



## Features of Module

The solar charge controller is a multi-level maximum power point tracking (MPPT) photovoltaic battery charge controller with its own technology. Compared with the PWM controller, the MPPT can improve the control accuracy and the output power of the solar panel can be increased by 5%-30%.

## Specification Characteristics



Rated Charge Current	30A-100A
Rated Voltage	12V/24V/36V/48V
System Voltage	150V



Protections



Parameters Adjustable



Battery Type



Rs485/RJ45 Port (Optional)



Class V-0 Flame Retardant Enclosure



Model	AN-MPK2-40	AN-MPK2-60	AN-MPK2-80	AN-MPK2-100		
<b>Input</b>						
Maximum PV open circuit voltage	150V (at the lowest temperature) 138V (at a standard temperature of 25°C)					
Minimum PV voltage	20V/40V/60V/80V					
Rated Charge Current	30A	40A	50A	60A	80A	100A
<b>Output</b>						
System voltage	12V/24V/36V/48V/ Auto					
Rated Discharge Current	15A	20A	25A	30A	40A	50A
Own consumption	<35mA(48V)					
MPPT highest accuracy	99%					
Maximum charging efficiency	97%					
Charging control mode	Multi-stage(MPPT, Absorption, Float,Equalization,CV)					
Float charge	13.8V/27.6V/41.4V/55.2V					
Absorption charge	14.4V/28.8V/43.2V/57.6V					
Equalization charge	14.6V/29.2V/43.8V/58.4V					
Load disconnection(LVD)	10.8V/21.6V/32.4V/43.2V					
Load reconnection(LVR)	12.6V/25.2V/37.8V/50.4V					
Load control mode	Normal, light control, light and timing control, timing control, reverse light control					
Light control point voltage	5V/10V/15V/20V					
Battery Type	GEL, SLD,FLD and USR(default),Lithium batteries customization 3series 3.7V, 4 series 3.7V, 4series 3.2V, 5series 3.2V					

### Other

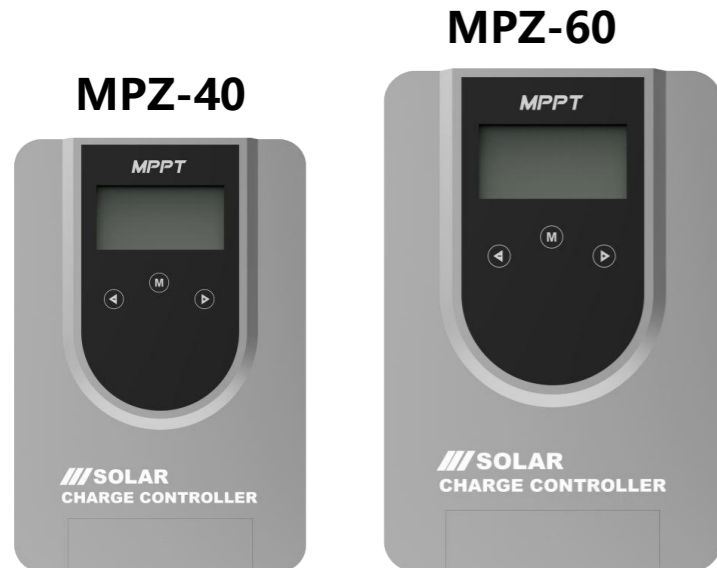
Human interface	Color LCD with backlight, 3 buttons
Cooling mode	AL alloy heat sink and cooling fan
Wiring	High current copper terminal≤25 mm <sup>2</sup> (3AWG)
Temperature probe	line length 3 meters
Communication mode	RS485,RJ45 port
Working temperature range	-20~+55°C
Storage temperature range	-30~+80°C
Humidity	10%~90% No condensation

### Dimensions

Product size	250 x 190 x 95mm	280 x 210 x 100mm	350 x 230 x 112mm	/
Mounting hole spacing	120mm-Φ5	140mm-Φ5	170mm-Φ5	/
N.W	2.3Kg	3.5Kg	4.6Kg	/
G.W	2.6Kg	4Kg	5.2Kg	/

Note: Please operate at the ambient temperature allowed by the controller. If the ambient temperature exceeds the allowable range of the controller, please derate it

# MPPT SOLAR CONTROLLER (AN-MPZ SERIES)

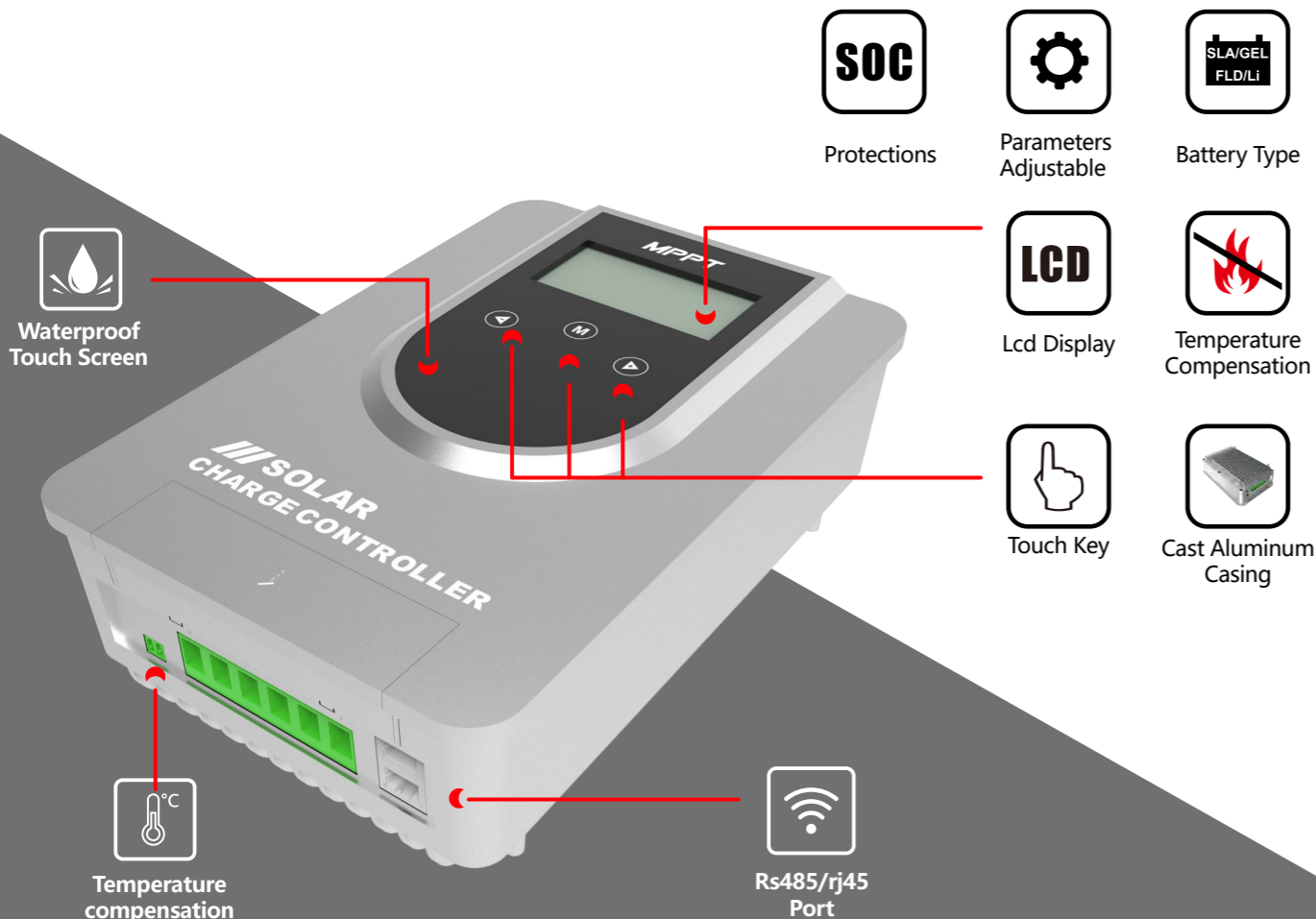


## Features of Module

The solar charge controller is a multi-level maximum power point tracking (MPPT) photovoltaic battery charge controller with its own technology. Compared with the PWM controller, the MPPT can improve the control accuracy and the output power of the solar panel can be increased by 5%-30%.

Rated Charge Current	30A-100A
Rated Voltage	12V/24V/36V/48V
System Voltage	150V

## Function Introduction



Model	AN-MPZ40		AN-MPZ60	
<b>Input</b>				
Maximum PV open circuit voltage	150V (at the lowest temperature), 138V (at a standard temperature of 25°C)			
Minimum PV voltage	20V/40V/60V/80V			
Rated Charge Current	30A	40A	50A	60A
<b>Output</b>				
System voltage	12V/24V/36V/48V/ Auto			
Rated Discharge Current	15A	20A	25A	30A
Own consumption	<35mA(48V)			
MPPT highest accuracy	99%			
Maximum charging efficiency	97%			
Charging control mode	Multi-stage(MPPT, Absorption, Float,Equalization,CV)			
Float charge	13.8V/27.6V/41.4V/55.2V			
Absorption charge	14.4V/28.8V/43.2V/57.6V			
Equalization charge	14.6V/29.2V/43.8V/58.4V			
Load disconnection(LVD)	10.8V/21.6V/32.4V/43.2V			
Load reconnection(LVR)	12.6V/25.2V/37.8V/50.4V			
Load control mode	Normal, light control, light and timing control, timing control, reverse light control			
Light control point voltage	5V/10V/15V/20V			
Battery Type	GEL, SLD,FLD and USR(default),Lithium batteries customization 3series 3.7V, 4 series 3.7V, 4series 3.2V, 5series 3.2V			

<b>Other</b>	
Human interface	Color LCD with backlight, touch button
Cooling mode	Cast aluminum casing
Wiring	High current copper terminal≤25 mm <sup>2</sup> (3AWG)
Temperature probe	line length 3 meters
Communication mode	RS485,RJ45 port
Working temperature range	-20~+55°C
Storage temperature range	-30~+80°C
Humidity	10%~90% No condensation

<b>Dimensions</b>		
Product size	168 x 248 x 94mm	188 x 280 x 94mm
Mounting hole spacing	138 x 180mm-Φ5	154 x 206mm-Φ5

Note: Please operate at the ambient temperature allowed by the controller. If the ambient temperature exceeds the allowable range of the controller, please derate it





# PORTABLE SOLAR GENERATOR (AN-MPSG-N)

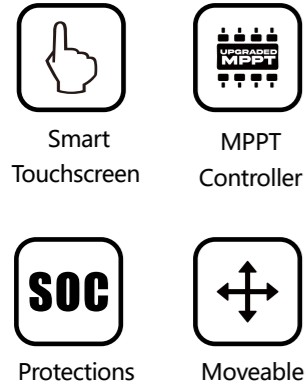


## Key Features

- Dual CPU intelligent control with excellent performance technology
- Built-in LiFePo4 lithium battery
- The mains supply mode/energy-saving mode/battery mode can be set flexibly
- Convenient and practical 5VDC-USB output port and 12VDC output port
- MPPT controller greatly improving the charging efficiency to more than 20%
- Overcharge and overdischarge protections to get a longer battery life
- Safe and reliable intelligent exhaust fan control
- Overall automatic protection and alarms including AC output overload protection, short circuit protection, etc

Model	AN-MPSG-N500	AN-MPSG-N1000
Rated Power	500W	1000W
Surge Power	1500W(1 second); 650W(10 second); 550W(60 second);	3000W(1 second); 1300W(10 second); 1100W(60 second);
Commercial Power Range	110/120/220/230/240VAC(Optional)	
AC Frequency Range	45-65Hz	
AVR Voltage Range	110/120/220/230/240VAC±10%(Auto-sensing)	
Output Frequency Range(AC mode)	Tracking automatically / shared frequency with the commercial inversion state: 50/60±0.5Hz	
Output Wave Form	Pure Sine Wave	
Output Overload	105%<Load<110%±10%: Fault(Turn off output after 60 seconds) 110%<Load<130%±10%: Fault(Turn off output after 10 seconds) 150%<Load±10%: Fault(Turn off output after 1 second)	
Max Solar Charger Current	20A	20A
PV Voltage Input Range	15-90VDC(MPPT)	30-90VDC(MPPT)
Max PV Power Input	240W	480W
Battery Type	LiFePO4 lithium battery	
Battery DC Voltage	12VDC	24VDC
Battery Capacity	600WH	1200WH
DC Output	USB-5VDC 2.4A/2 units 12VDC Ports/2 units	
Transfer Time	Typical: 5-8ms(Including detection time)	
Thermal Method	Cooling Fan	
Communication Port	RS485/WIFI(Optional)	
Operating Temperature	-10°C-+50°C	
Operating Humidity	10%-90%	
Short Circuit Protection	Software Protection	
External Size	410*210*300mm	410*210*300mm

# LITHIUM BATTERY SOLAR SYSTEM (AN-MPSG-T)



## Key Features

- Dual CPU intelligent control with excellent performance technology
- The mains supply mode/energy-saving mode/battery mode can be set flexibly
- Convenient and practical 5VDC-USB output port and 12VDC output port
- MPPT controller greatly improving the charging efficiency to more than 20%
- Overcharge and overdischarge protections to get a longer battery life
- Safe and reliable intelligent exhaust fan control
- Convenient Touch screen to view system data
- Overall automatic protection and alarms including AC output overload protection, short circuit protection, etc

Model	AN-MPSG-T-S3000	AN-MPSG-T-S5000	AN-MPSG-T-D5000
Rated Power	3000W	5000W	5000W
Surge Power	6000W	10000W	10000W
Commercial Power Range	110/120/220/230/240VAC(Optional)		
AC Frequency Range	45-65Hz		
AVR Voltage Range	110/120/220/230/240VAC±10%(Auto-sensing)		
Output Frequency Range(AC mode)	Tracking automatically / shared frequency with the commercial inversion state: 50/60±0.5Hz		
Output Wave Form	Pure Sine Wave		
Output Overload	105%<Load<110%±10%: Fault(Turn off output after 60 seconds) 110%<Load<130%±10%: Fault(Turn off output after 10 seconds) 150%<Load±10%: Fault(Turn off output after 1 seconds)		
Max Solar Charger Current	60A	30A	60A
PV Voltage Input Range	34-150VDC(MPPT)	65-150VDC(MPPT)	65-150VDC(MPPT)
Max PV Power Input	1500W	1500W	3000W
Battery Type	Li-ion lithium battery		
Battery DC Voltage	22.2VDC	44.4VDC	44.4VDC
Battery Capacity	2700WH	4500WH	9000WH
DC Output	TYPE C-PD60 USB QC3.0 USB-5VDC 2.4A/2 units		
Transfer Time	Typical: 5-8ms(Including detection time)		
Thermal Method	Cooling Fan		
Communication Port	RS485/WIFI(Optional)		
Operating Temperature	-20°C-+50°C		
Operating Humidity	10%-90%		
Short Circuit Protection	Software Protection		
External Size	536*480*505mm	536*480*505mm	536*480*735mm

# LIFEPO4 LITHIUM SOLAR BATTERY (AN-LPB-T)



## Key Features

- Long service life over 5 years
- Modular design, small size, and lightweight
- One key switch machine, the operation is more convenient
- Suitable for long-term charge and discharge cycles
- Adopt multi-level energy consumption management
- Multiple parallel machines, automatic address acquisition without manual operation
- Support high-current charging and discharging
- Front operation and front wiring are convenient for installation and maintenance
- Adopt high-performance processor, international brand devices, high reliability
- Multiple communication interfaces: RS485, RS232, CAN
- Highly compatible BMS, seamless connection with energy storage inverter
- Perfectly compatible with our inverter
- Safety certification: CE, ROHS, UN38.3, MSDS, etc

Model	AN-LPB-T-24100	AN-LPB-T-24200	AN-LPB-T-48100	AN-LPB-T-48200	AN-LPB-T-48300
Battery Type	LiFePO4				
Rating Voltage	25.6V	25.6V	48V	48V	48V
Capacity	100AH	200AH	100AH	200AH	300AH
Charge Voltage	29.2V	29.2V	54.75V	54.75V	54.75V
Charge Current	100A	100A	100A	100A	200A
Impedance	≤30mΩ (Max)				
Charging Mode	CC/CV				
Charging Method	Standard Charging 0.2C(Charging Current :20A); Fast Charging 0.5C(Charging Current :50A)				
Rated Discharge Current	≤100A,Maximum discharge current 120A				≤200A,Maximum discharge current 200A
Over Current	130A	130A	130A	130A	200A
Short Circuit	Recover after removing the short circuit load				
Operating Consumption Current	50mA (Max)				
Operating Temperature	Charge: 0-+55°C; Discharge: -20-+60°C				
Storage Temperature	-20-+40°C				
Cycle Life	2000 cycle@Percentage of recoverable capacity 80%				
Dimensions	410*370*155mm	570*410*165mm	570*410*165mm	860*485*155mm	570*420*740mm
Weight	28kg	45kg	45kg	89kg	146kg
Communication Mode	RS232、CAN、RS485				
Shipped Product Charge	50%-60% battery volume delivery				
Protection & Alarm	Over temperature, overcurrent, short circuit, overcharge, overdischarge, etc.				
Cooling Method	Natural cooling				
Certification	CE, ROHS, UN38.3, MSDS				
IP Grade	IP54				



# LIFEPO4 LITHIUM SOLAR BATTERY (AN-LPB-N)



## Key Features

- Long service life over 8 years
- RGB indicator
- Modular design, small size, and lightweight
- One key switch machine, the operation is more convenient
- Suitable for long-term charge and discharge cycles
- Adopt multi-level energy consumption management
- Multiple parallel machines, automatic address acquisition without manual operation
- Support high-current charging and discharging
- Front operation and front wiring are convenient for installation and maintenance
- Adopt high-performance processor, international brand devices, high reliability
- Multiple communication interfaces: RS485, RS232, CAN
- Highly compatible BMS, seamless connection with energy storage inverter
- Perfectly compatible with our inverter
- Safety certification: CE, ROHS, UN38.3, MSDS, etc

Model	AN-LPB-N-48100	AN-LPB-N-48200
Battery Type	LiFePO4	
Rating Voltage	48V	48V
Capacity	100AH	200AH
Charge Voltage	54.75V	54.75V
Charge Current	100A	100A
Impedance	≤30mΩ (Max)	
Charging Mode	CC/CV	
Charging Method	Standard Charging 0.2C(Charging Current :20A); Fast Charging 0.5C(Charging Current :50A)	
Rated Discharge Current	≤100A,Maximum discharge current 120A	
Over Current	130A	130A
Short Circuit	Recover after removing the short circuit load	
Operating Consumption Current	50mA (Max)	
Operating Temperature	Charge: 0-+55°C; Discharge: -20-+60°C	
Storage Temperature	-20-+40°C	
Cycle Life	4000 cycle@Percentage of recoverable capacity 80%	
Dimensions	570*410*155mm	860*485*155mm
Weight	42.5kg	88kg
Communication Mode	RS232、CAN、RS485	
Shipped Product Charge	50%-60% battery volume delivery	
Protection & Alarm	Over temperature, overcurrent, short circuit, overcharge, overdischarge, etc.	
Cooling Method	Natural cooling	
Certification	CE, ROHS, UN38.3, MSDS	
IP Grade	IP54	



## DEEP CYCLE GEL SOLAR BATTERY (AN-GEL12 SERIES)



### Features and Benefits

- This energy storage battery utilizes gel electrolyte technology. The uniformly distributed gel electrolyte is made by mixing sulfuric acid with silica fume.
- The electrolyte can hold the battery plates securely in an immobile gel
- Radial grid design offers this power storage device excellent discharge performance
- Due to 4BS lead paste technology, our deep cycle gel battery provides long-lasting service life
- Employing unique grid alloy, special gel formulation and distinct positive and negative lead paste ratio, the maintenance free battery boasts outstanding deep cycle service performance and over-discharge recovery ability.
- Completely manufactured from high purity raw materials, Anern deep cycle gel battery has extremely low self-discharge
- Gas recombination technology ensures excellent seal reaction efficiency, thus delivering no pollution such as acid mist to the environment
- The gel VRLA battery boasts reliable sealing technology which enables security seal performance

Battery Type	Voltage (V)	Capacity (10HR)	Dimensions-Millimeters (±2mm)				ApproxWeight (Kg)	Internal Resistance 25°C
			L	W	H	TH		
AN-GEL12-2.6	12	2.6	71	47	96	102	0.80	56mΩ
AN-GEL12-3	12	3	91	71	100	106	1.25	50mΩ
AN-GEL12-3.5	12	3.5	91	71	100	106	1.32	45mΩ
AN-GEL12-4	12	4	91	71	100	106	1.38	41mΩ
AN-GEL12-4.5	12	4.5	91	71	100	106	1.44	40mΩ
AN-GEL12-5	12	5	91	71	100	106	1.48	39mΩ
AN-GEL12-5.5	12	5.5	91	71	100	106	1.62	37mΩ
AN-GEL12-6	12	6	149	65	96	102	1.90	21.3mΩ
AN-GEL12-7	12	7	149	65	96	102	2.02	21.3mΩ
AN-GEL12-7.5	12	7.5	149	65	96	102	2.13	21.0mΩ
AN-GEL12-9	12	9	149	65	96	102	2.38	19.8mΩ
AN-GEL12-12	12	12	150	98	97	102	3.22	20mΩ
AN-GEL12-17	12	17	181	77	167	-	4.96	18mΩ
AN-GEL12-18	12	18	181	77	167	-	5.25	17mΩ
AN-GEL12-24Y	12	26	165	175	124	-	7.50	13mΩ
AN-GEL12-24P	12	24	166	125	175	-	8.10	13mΩ
AN-GEL12-33	12	32	195	130	156	168	9.70	11mΩ
AN-GEL12-40	12	40	197	165	175	-	12.50	9mΩ
AN-GEL12-50	12	50	228	138	211	215	16.20	8mΩ
AN-GEL12-55	12	55	228	138	211	215	16.90	7mΩ
AN-GEL12-65	12	65	350	166	180	-	20.20	6mΩ
AN-GEL12-80	12	80	258	168	210	214	23.50	5.6mΩ
AN-GEL12-100	12	100	327	172	211	215	26.20	5.0mΩ
AN-GEL12-120	12	120	406	174	210	234	32.90	4.3mΩ
AN-GEL12-150	12	150	484	171	240	-	38.00	3.8mΩ
AN-GEL12-200	12	200	524	238	220	224	55.50	3.2mΩ
AN-GEL12-250	12	250	520	268	219	223	65.50	2.5mΩ