



MakeSkyBlue is a professional company of MPPT solar controller and MPPT solar inverter, which focus on MPPT technology.

Established since 2015, our headquarters is in Shenzhen regarded as China Silicon Valley. Our company is growing rapidly and is developing a series of reliable MPPT Controller and Inverter to help clients save cost and electricity bill, even to protect our blue sky. The most of products are selling to United States, Europe, Australia, South Africa and we are honored to get the great feedback from our professional customers.

As a 15-year technology team in MPPT and solar field, we will continue to research new generation of solar products to face the environmental and manufacturing

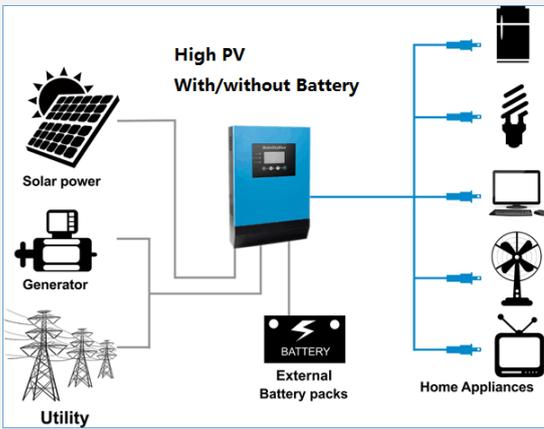
cost challenges.

MakeSkyBlue is not only a solar company, but also is an idea to "Make Sky Blue". Just do something and we'll have a blue sky.

Don't let the shadows of yesterday hide the sunshine of tomorrow.

----- Nandina Morris

Solar On&Off Grid MPPT Charger&Inverter



Main Features

This is multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterrupted power support with portable size.

Its comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current.

- Pure sine wave inverter
- 120A MPPT solar charger for Max 7000W PV power
- 120V-500VDC wide range input PV voltage
- AC/Solar charger priority, battery charging/cut-off voltage, acceptable input voltage based on different applications.
- work without battery, inverter can generate power from solar panels directly to load appliances

PV INPUT

	AIO3K24V	AIO4K48V	AIO5K48V	AIO6K648V
MPPT Range @ Operating Voltage	120-450VDC	120-450VDC	150-450VDC	150-450VDC
PV Over voltage Protection Open Circuit Voltage	500VDC	500VDC	500VDC	500VDC
Maximum PV Array Power	3000W	4000W	5000W	7000W
Maximum Solar Charge Current	100A	100A	100A	120A

AC INPUT

AC Voltage	220Vac	220Vac	220Vac	220Vac
Selectable Voltage Range	170-270Vac (UPS) , 90-280Vac(APL)			
Max AC Voltage	280VAC	280VAC	280VAC	280VAC
Frequency	50Hz/60Hz(Auto)	50Hz/60Hz(Auto)	50Hz/60Hz(Auto)	50Hz/60Hz(Auto)
Frequency Range	40-65Hz	40-65Hz	40-65Hz	40-65Hz
Transfer Time	10ms(UPS) 20ms(APL)	10ms(UPS) 20ms(APL)	10ms(UPS) 20ms(APL)	10ms(UPS) 20ms(APL)
Maximum AC Charge Current	30A	30A	30A	30A

BATTERY

Type	Lead-acid/Lithium	Lead-acid/Lithium	Lead-acid/Lithium	Lead-acid/Lithium
Battery Voltage	24VDC	48VDC	48VDC	48VDC

Battery Voltage Range	20.4-29.2V(Lithium) , 20-30V(Lead-Acid)	46.4-58.8V(Lithium) , 38.4-60V(Lead-Acid)	46.4-58.8V(Lithium) , 38.4-60V(Lead-Acid)	46.4-58.8V(Lithium) , 38.4-60V(Lead-Acid)
Max Charge current	100A	130A	130A	130A
Floating Charge Voltage	27.6V (Lead-Acid), Defined by user for Lithium	53.5V(Lead-Acid), Defined by user for Lithium	53.5V(Lead-Acid), Defined by user for Lithium	53.5V(Lead-Acid), Defined by user for Lithium
highest constant voltage	28.8V (Lead-Acid), Defined by user for Lithium	56.5V(Lead-Acid), Defined by user for Lithium	56.5V(Lead-Acid), Defined by user for Lithium	56.5V(Lead-Acid), Defined by user for Lithium

Inverter

RATED POWER	3KW	4KW	5KW	6.6KW
Output voltage	220VAC/208VAC/240VAC	220VAC/208VAC/240VAC	220VAC/208VAC/240VAC	220VAC/208VAC/240VAC
Voltage accuracy	±5%	±5%	±5%	±5%
Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Frequency accuracy	±2%	±2%	±2%	±2%
Total harmonic distortion (THD)	≤3% (100% Linear Load)	≤3% (100% Linear Load)	≤3% (100% Linear Load)	≤3% (100% Linear Load)
PF	1.0	1.0	1.0	1.0
Max efficiency	95.5%(PV360V@1/2load)	95.1%(PV360V@1/2load)	97.5%(PV360V@1/2load)	96.5%(PV360V@1/2load)
Over-load	110%<Load<150% (±10%):	110%< Load <150% (±10%):	110%< Load <150% (±10%):	110%< Load <150% (±10%):
	Shutdown after 10 seconds	Shutdown after 10 seconds	Shutdown after 10 seconds	Shutdown after 10 seconds
	150%<load<200% (±10%): Shutdown after 5 seconds	150%<load<200% (±10%): Shutdown after 5 seconds	150%<load<200% (±10%): Shutdown after 5 seconds	150%<load<200% (±10%): Shutdown after 5 seconds
	200%<load (±10%):	200%<load (±10%):	200%<load (±10%):	200%<load (±10%):
	Shutdown immediately	Shutdown immediately	Shutdown immediately	Shutdown immediately

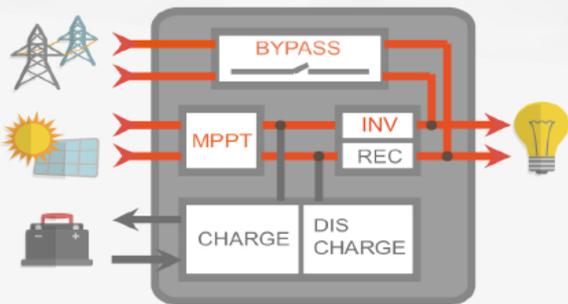
Protection

Battery over voltage protection	Yes	Yes	Yes	Yes
Battery low voltage protection	Yes	Yes	Yes	Yes
Over-load protection	Yes	Yes	Yes	Yes
Output short circuit protection	Yes	Yes	Yes	Yes
Over-temperature protection	Yes	Yes	Yes	Yes

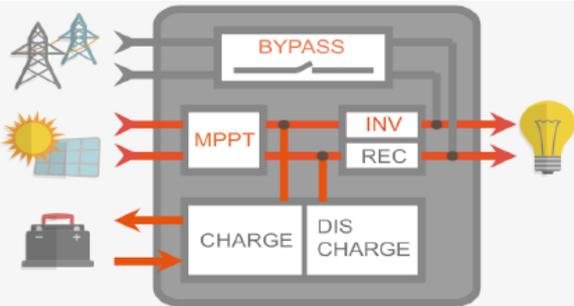
PHYSICAL

Dimension(L/W/H)	350/300/100mm	350/300/100mm	350/300/100mm	350/300/100mm
Weight	8kg	9kg	9kg	9kg
Noise	≤48dB	≤48dB	≤48dB	≤48dB
Operating Temperature	-10°C~+55°C	-10°C~+55°C	-10°C~+55°C	-10°C~+55°C
Storage Temperature	-15°C~+60°C	-15°C~+65°C	-15°C~+65°C	-15°C~+65°C
Humidity (Noncondensing)	0~90%	0~90%	0~90%	0~90%
Altitude	≤6000m	≤6000m	≤6000m	≤6000m

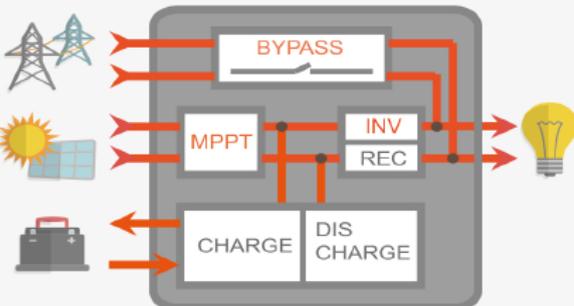
Please contact us for 120V version



It can be running without batteries, energy shared from utility and solar to loads at the same time or alternatively. Without batteries, it can help clients to reduce the whole solar system cost and save electricity fee.



It combines a wide PV input range MPPT controller, can convert solar energy from PV to loads directly and the remaining solar energy converted to batteries synchronously.



When PV output is reduced by clouds or at night, resulting in no surplus PV power available, loads powered by utility, batteries are charged, when utility outage, batteries are discharged.