



HIMMEL
PRIVATE LIMITED

Solmade

OFF GRID SOLAR INVERTOR

Sm-3kw Series

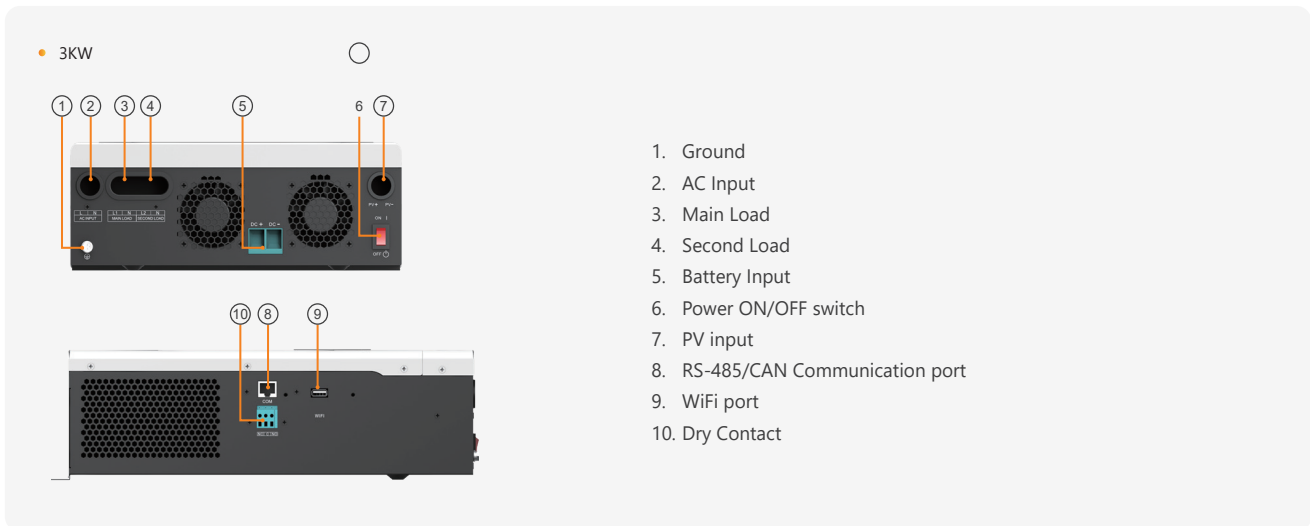


3KW | Dual output

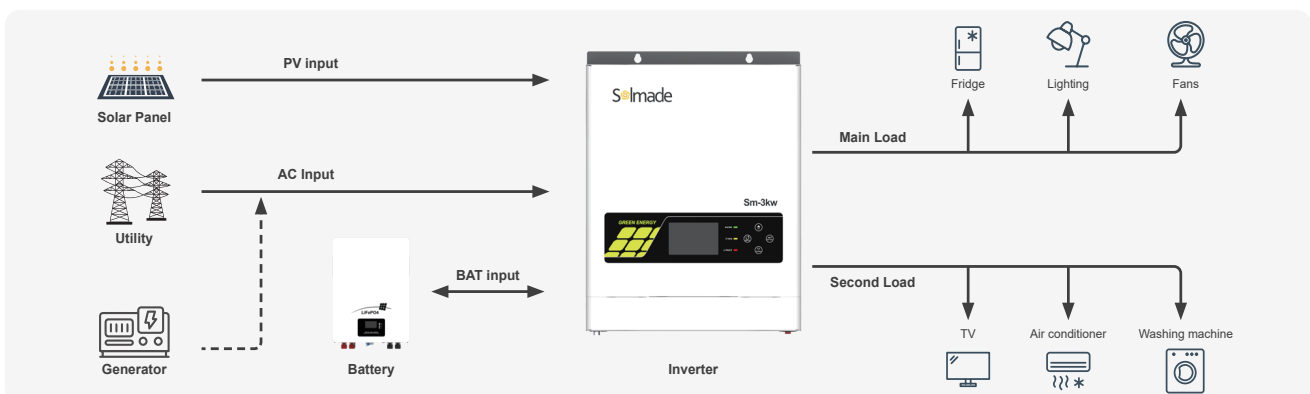
Sm-3kw is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. Sm-3kw Series can run without battery. The Maximum PV input voltage can reach 400V, which can help customers make full use of solar energy.

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- Wide PV input voltage range
- Can provide the power to the load without battery
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support RS485,CAN monitoring function
- Dual outputs for smart load management
- Can communicate with lithium batteries (CAN port)

Back panel description



Solar system connection



MODEL	Sm-3kw
Nominal Battery System Voltage	24VDC
INVERTER OUTPUT	
Rated Power (Main+Second Load)	3000VA/3000W
Battery Mode (Main+Second Load)	3000VA/3000W
Surge Power	6000W
Waveform	Pure sine wave
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)
Inverter Efficiency(Peak)	90~93%
Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)
AC INPUT	
Voltage	230VAC±5%
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)
Frequency Range	50Hz / 60Hz(Auto sensing)
BATTERY	
Normal voltage	24VDC
Floating Charge Voltage	27.4VDC
Overcharge Protection	30VDC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Open Circuit Voltage	400VDC
Maximum PV Input Current	18A
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)
Maximum PV Array Power	4000W
PV Array MPPT Voltage Range(Typ.)	30~320VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	60A
Maximum Charge Current	100A
MECHANICAL SPECIFICATIONS	
Machine Dimension (W*H*D)(mm)	367.4*290*111
Package Dimension (W*H*D)(mm)	426*394*187
N.W (kg)	6.2
G.W (kg)	7.2
OTHER	
Humidity	5% to 95% Relative humidity (Non-condensing)
Operating Temperature	-10°C~50°C
Storage Temperature	-15°C~60°C
Communication Interface	USB/WIFI/RS-485/CAN
Warranty	1 year
CERTIFICATION & STANDARDS	

HYBRID SOLAR INVERTOR

Sm-4kw Series



4KW | 500V | WiFi | Dual output

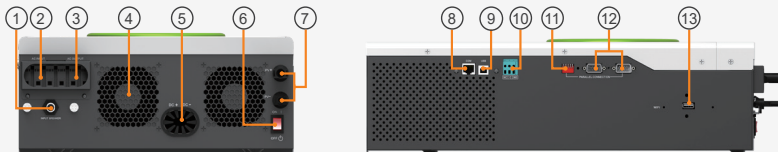
Sm-4kw is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. Sm-4kw Series can run without battery. The Maximum PV array open circuit voltage can reach 500V and MPPT voltage is 90~430V, which can help customers make full use of solar energy.



- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- MAX PV Array Open Circuit Voltage: 500V
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- Parallel operation with up to 3 units
- WIFI remote monitoring (optional)
- With BMS lithium battery communication function
- With AC/PV lithium battery activation function
- Dual outputs for smart load management

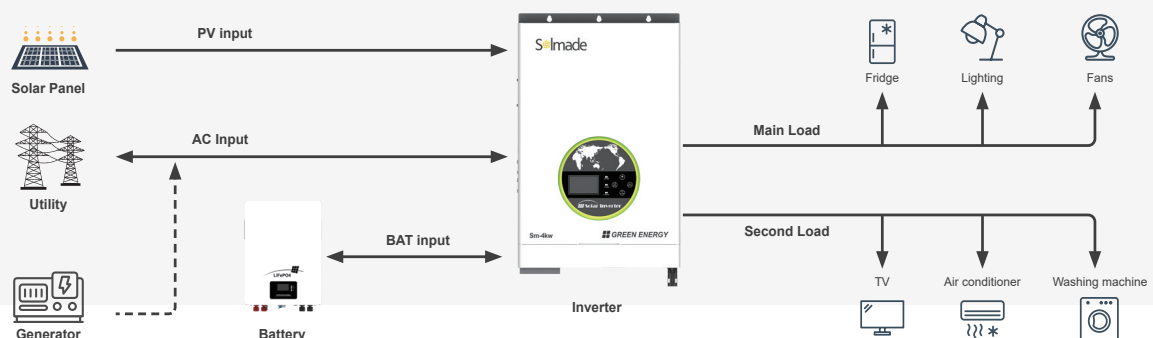
Back panel description

• 4KW



- | | | |
|--------------------|----------------------------------|---|
| 1. Circuit breaker | 6. Power On/Off Switch | 10. Dry Contact |
| 2. AC Input | 7. PV Input | 11. Parallel switch (only for parallel model) |
| 3. AC Output | 8. RS-485/CAN Communication port | 12. Parallel communication port (only for parallel model) |
| 4. FAN | 9. USB | 13. Wifi port |
| 5. Battery Input | | |

Solar system connection



MODEL	Sm-4kw
Nominal Battery System Voltage	24VDC
INVERTER OUTPUT	
Rated Power	4000VA/4000W
Surge Power	8000W
Waveform	Pure sine wave
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)
Inverter Efficiency(Peak)	90%
Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)
AC INPUT	
Voltage	230VAC±5%
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)
Frequency Range	50Hz / 60Hz(Auto sensing)
BATTERY	
Normal voltage	24VDC
Floating Charge Voltage	27.4VDC
Overcharge Protection	30VDC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Open Circuit Voltage	500VDC
Maximum PV input Current	18A
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)
Maximum PV Array Power	5000W
PV Array MPPT Voltage Range	90~430 VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	80A
Maximum Charge Current	100A
MECHANICAL SPECIFICATIONS	
Machine Dimension (W*H*D)(mm)	322*486*134
Package Dimension (W*H*D)(mm)	600*230*420
N.W(kg)	10.6
G.W(kg)	12
OTHER	
Humidity	5% to 95% Relative humidity (Non-condensing)
Operating Temperature	0°C~50°C
Storage Temperature	-15℃ ~60℃
CERTIFICATION & STANDARDS	

CE

HYBRID SOLAR INVERTOR

Sm-6kw Series



6KW | 500V | WiFi | Dual output

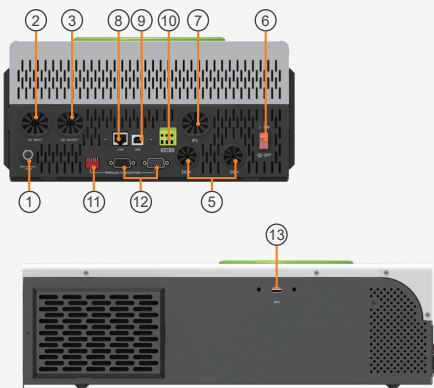
Sm-6kw is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterruptible power support in portable size. Sm-6kw Series can run without battery. The Maximum PV array open circuit voltage can reach 500V and MPPT voltage is 90~430V, which can help customers make full use of solar energy.



- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc).
- Built-in MPPT solar charge controller
- MAX PV Array Open Circuit Voltage: 500V
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Support USB, RS485 monitoring function
- Parallel operation with up to 3 units
- WIFI remote monitoring (optional)
- With BMS lithium battery communication function
- With AC/PV lithium battery activation function
- Dual outputs for smart load management

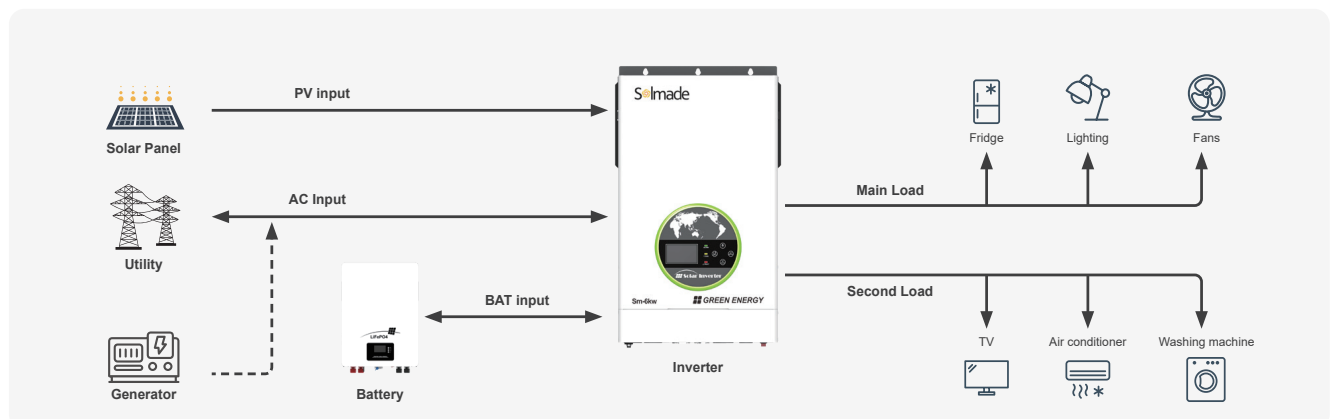
Back panel description

• 6KW



1. Circuit breaker
2. AC Input
3. AC Output
4. FAN
5. Battery Input
6. Power On/Off Switch
7. PV Input
8. RS-485/CAN Communication port
9. USB
10. Dry Contact
11. Parallel switch (only for parallel model)
12. Parallel communication port (only for parallel model)
13. Wifi port

Solar system connection



MODEL	Sm-6kw
Nominal Battery System Voltage	48VDC
INVERTER OUTPUT	
Rated Power	6000VA/6000W
Surge Power	12000W
Waveform	Pure sine wave
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)
Inverter Efficiency(Peak)	90%
Transfer Time	10ms (UPS / VDE4105) / 20ms (APL)
AC INPUT	
Voltage	230VAC±5%
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VED4105)
Frequency Range	50Hz / 60Hz(Auto sensing)
BATTERY	
Normal voltage	48VDC
Floating Charge Voltage	54.8VDC
Overcharge Protection	60VDC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Open Circuit Voltage	500VDC
Maximum PV input Current	27A
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)
Maximum PV Array Power	6000W
PV Array MPPT Voltage Range	120~430 VDC
Maximum Solar Charge Current	120A
Maximum AC Charge Current	100A
Maximum Charge Current	120A
MECHANICAL SPECIFICATIONS	
Machine Dimension (W*H*D)(mm)	309*505*147
Package Dimension (W*H*D)(mm)	603*260*400
N.W(kg)	12.9
G.W(kg)	13.8
OTHER	
Humidity	5% to 95% Relative humidity (Non-condensing)
Operating Temperature	0°C~50°C
Storage Temperature	-15℃ ~60℃
CERTIFICATION & STANDARDS	
CE	

HYBRID SOLAR INVERTOR

Sm-10kw Series



10KW | PV500V | 120A~150A | Dual output

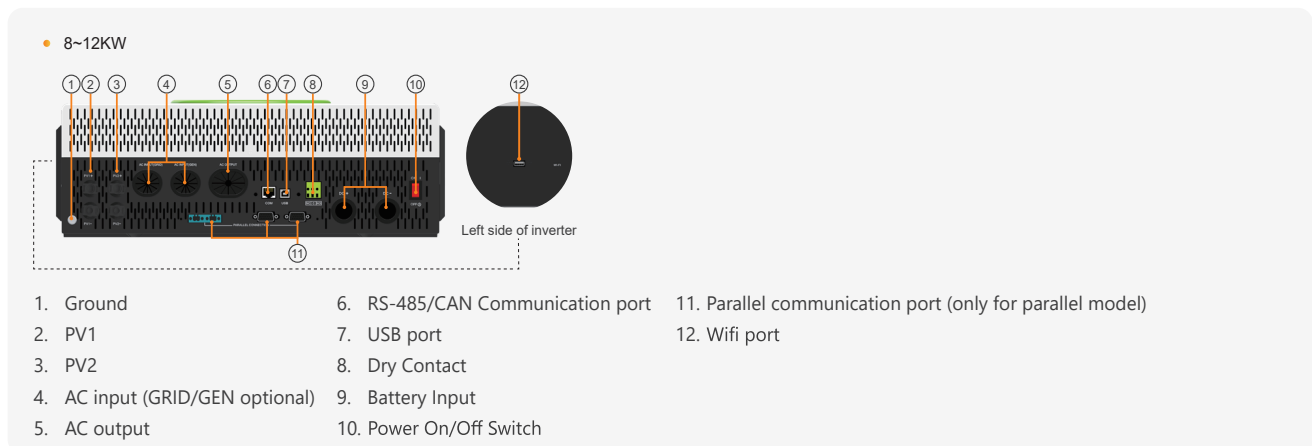
Sm-10kw is a multi-function inverter/charger, combining functions of inverter, MPPT solar charger and battery charger to offer uninterrupted power support in portable size. Sm-10kw Series can run without battery.

The Maximum PV input voltage can reach 500V and MPPT voltage range is 90~450Vdc, built-in two MPPTs solar charge controller, which can help customers make full use of solar energy.

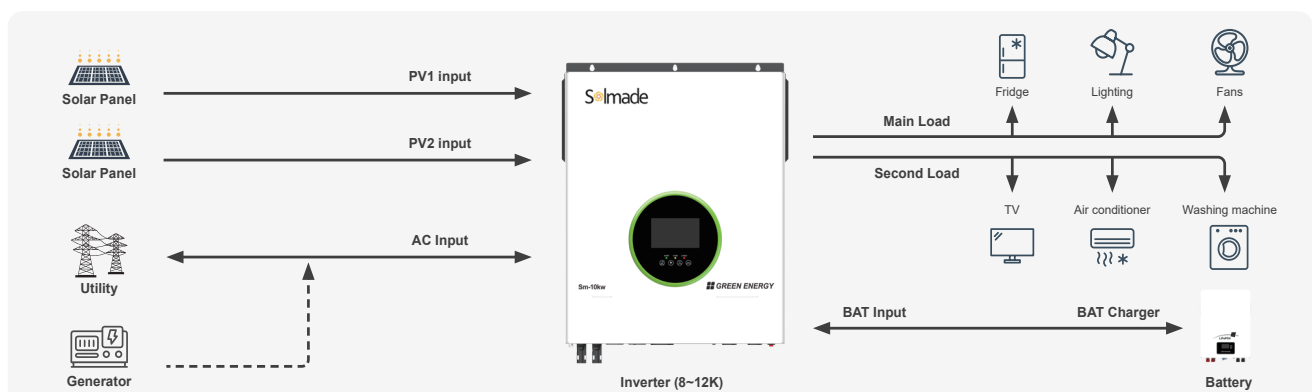


- Dual output for smart load management
- Smart color LCD setting (Working modes, Charge Current, Charge Voltage, etc.)
- Built-in Two MPPTs solar charge controller
- Wide MPPT voltage range is 90~450V, the maximum PV input voltage can reach 500V (450V for parallel)
- Can provide the power to the load without battery
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- With BMS lithium battery communication function
- With AC/PV lithium battery activation function
- Support USB, RS485 monitoring function
- Parallel operation up to 6 units
- WIFI remote monitoring

Back panel description



Solar system connection



MODEL	Sm-10kw
Default Battery System Voltage	48VDC
INVERTER OUTPUT	
Rated Power	10000VA/10000W
Surge Power	20000W
Waveform	Pure Sine Wave
AC Voltage Regulation (Batt.Mode)	230VAC±5%(Setting)
Inverter Efficiency(Peak)	92%
Transfer Time	10ms(UPS / VDE4105) / 20ms(APL)
AC INPUT	
Voltage	230VAC
Max AC Input Voltage	300VAC
Selectable Voltage Range	170~280VAC(UPS) / 90~280VAC(APL) / 184~253VAC(VDE)
Frequency Range	50Hz / 60Hz (Auto sensing)
BATTERY	
Normal voltage	48VDC
Floating Charge Voltage	54.8VDC
Overcharge Protection	60VDC
SOLAR CHARGER & AC CHARGER	
Maximum PV Array Open Circuit Voltage	500VDC (450V for parallel)
Charging Algorithm	3-Step (Flooded Battery, AGM / GEL / LEAD Battery), 4-Step (Li)
Maximum PV Array Power	5000W*2
Maximum PV Input Current	27A*2(40A max)
PV Array MPPT Voltage Range	90~450VDC (90~430VDC for parallel)
Min Battery Voltage For PV charge	34VDC
Maximum Solar Charge Current	150A
Maximum AC Charge Current	150A
Maximum Charge Current	150A
MECHANICAL SPECIFICATIONS	
Machine Dimension (W*H*D)	425*527*145mm
Package Dimension (W*H*D)	548*632*257mm
N.W (kg)	17.4
G.W (kg)	20
OTHER	
Humidity	5% to 95% Relativ Humidity (Non-condensing)
Operating Temperature Range	0°C~50°C
Storage Temperature Range	-15°C~60°C
Warranty	1 year
CERTIFICATION & STANDARDS	
CE	