



All-in-one solar charge inverter

SDPO 5kw 48v 220v pv 145v MPPT 80a



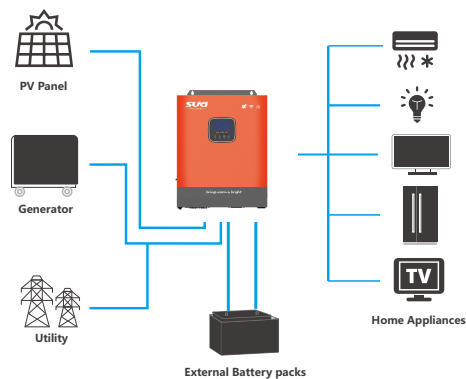
Performance characteristics

- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as Rs485 (GPRS,WiFi), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

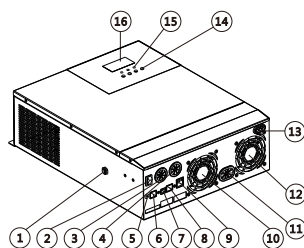
Application scenarios



Product connection diagram



Product characteristics



①	Overload protector	⑩	Dry contact por
②	ON/OFF rocker switch	⑪	Cooling fan
③	AC input port	⑫	Battery port
④	AC output port	⑬	Cooling fan
⑤	Grounding screw hold	⑭	PV port
⑥	RS485-2 communication port	⑮	Touch button
⑦	USB communication port	⑯	Indicator
⑧	RS485-1 communication port	⑰	LCD screen

Parameters

Models	SDPO-4kw 48v	SDPO-5kw 48v
AC mode		
Rated input voltage	220/230Vac	
Input voltage range	(170Vac~280Vac) ±2%/(90Vac-280Vac)±2%	
Frequency	50Hz/ 60Hz (Auto detection)	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Available	
Maximum bypass overload current	40A	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	4000	5000
Rated output power (W)	4000	5000
Power factor	1	
Rated output voltage (Vac)	230Vac	
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Maximum Efficiency	>92%	
Overload protection	(102% < load <125%) ±10%; report error and turn off the output after 5 minutes; (125% < load < 150%) ±10%; report error and turn off the output after 10 seconds; Load > 150% ±10%; report error and turn off the output after 5 seconds;	
Peak power	8000VA	10000VA
Loaded motor capability	3HP	4HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	48V (Minimum starting voltage 44V)	
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or Lithium battery	
Maximum charge current	60A	
Charge current error	± 5A _{dc}	
Charge voltage range	40V _{dc} ~58V _{dc}	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	145V _{dc}	
PV operating voltage range	60-145V _{dc}	
MPPT voltage range	60-115V _{dc}	
Battery voltage range	40-60V _{dc}	
Maximum output power	4200W	4200W
PV charging current range (can be set)	0-80A	0-80A
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
EMC certification level	EN61000, C2	
Operating temperature range	-15°C to 55°C	
Storage temperature range	-25°C ~ 60°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control	
Size (L*W*D)	426*322*124mm	
Weight (kg)	10.8	

All-in-one Solar Charge Inverter

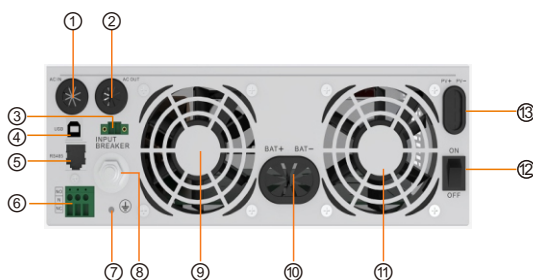
SDPO 3kw 24v 220v pv 500v mppt 80a



Performance characteristics

- Load friendly: Stable sine wave AC output via SPWM modulation
- Supports a wide range of battery technology: GEL, AGM, Flooded, LFP, and program.
- Dual LFP battery activation method: PV&mains
- Uninterrupted power supply: simultaneous connection to utility grid/generator and PV
- Intelligent programming: the priority of the output from different energy sources can be set
- High energy efficiency: up to 99.9% MPPT capture efficiency
- Instant viewing of operation: the LCD panel displays data and settings, while you can also be viewed using the app and webpage
- Power saving: power saving mode automatically reduces power consumption at zero-load
- Efficient heat dissipation: via intelligent adjustable speed fans
- Multiple safety protection functions: short circuit protection, overload protection, reverse polarity protection, and so on.
- under-voltage and over-voltage protection and reverse polarity protection.

Product characteristics



①	AC Input Port	⑨	Cooling Fan
②	AC Output Port	⑩	Battery Port
③	CAN Communication Port	⑪	Cooling Fan
④	USB Communication Port	⑫	ON/OFF Rocker Switch
⑤	RS485 Communication Port	⑬	PV Input Port
⑥	Dry Contact Port	⑭	Light Touch Button
⑦	Grounding Screw Hole	⑮	Indicator Light
⑧	Overload Protector	⑯	LCD Screen

Parameters

Model	SDPO 3kw 24v 220v	Adjustable
Battery Input		
Battery type	Sealed, Flood, GEL, LFP, Ternary	√
Rated Battery Input Voltage	24V (Minimum Startup Voltage 22V)	
Hybrid Charging Maximum Charging Current	80A	√
Battery Voltage Range	20Vdc~33Vdc ± 0.3Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)	√
Solar Input		
Maximum PV Open-circuit Voltage	500Vdc	
PV Working Voltage Range	120-500Vdc	
MPPT Voltage Range	120-450Vdc	
Maximum PV Input Current	13A	
Maximum PV Input Power	4000W	
Maximum PV Charging Current	80A	√
AC Input(generator/grid)		
Mains Maximum Charging Current	80A	√
Rated Input Voltage	220/230Vac	
Input Voltage Range	UPS Mains Mode : (170Vac~280Vac)±2% APL Generator Mode : (90Vac-280Vac)±2%	√
Frequency	50Hz/ 60Hz (Automatic Detection)	
Mains Charging Efficiency	>95%	
Switch Time (bypass and inverter)	10ms(Typical Value)	
Maximum Bypass Overload Current	30A	
AC Output		
Output Voltage Waveform	Pure Sine Wave	
Rated Output Voltage (Vac)	230Vac (200/208/220/240Vac)	√
Rated Output Power (VA)	3300 (2850/2950/3150/3000)	
Rated Output Power(W)	3300 (2850/2950/3150/3000)	
Peak Power	6000VA	
On-load Motor Capacity	2HP	
Output Frequency Range(Hz)	50Hz±0.3Hz/60Hz±0.3Hz	√
Maximum Efficiency	>92%	
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode : ≤25W (Manual Setup)	
General		
Certificate	CE(IEC 62109-1)	
EMC Certification Level	EN61000, C2	
Working Temperature Range	-10°C ~ 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95%(Conformal Coating Protection)	
Dimensions	378mm*280mm*103mm	
Weight (KG)	7.4	

All-in-one solar charge inverter

SDPO 3.5kw 48v 110v pv 145v MPPT 80a



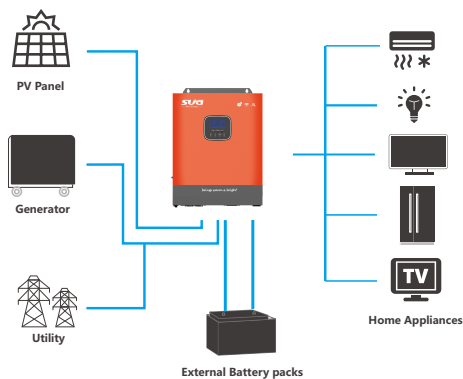
Performance characteristics

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- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485 (GPRS, WiFi), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

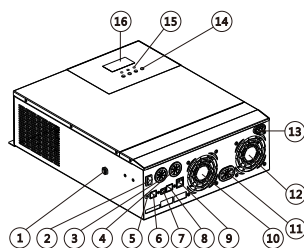
Application scenarios



Product connection diagram



Product characteristics



①	Overload protector	⑩	Dry contact port
②	ON/OFF rocker switch	⑪	Cooling fan
③	AC input port	⑫	Battery port
④	AC output port	⑬	Cooling fan
⑤	Grounding screw hold	⑭	PV port
⑥	RS485-2 communication port	⑮	Touch button
⑦	USB communication port	⑯	Indicator
⑧	RS485-1 communication port	⑰	LCD screen

Parameters

Models	SDPO-2.5kw 24v	SDPO-3kw 48v	SDPO-3.5kw 48v
AC mode			
Rated input voltage	110/120Vac		
Input voltage range	(90Vac~140Vac) ±2%		
Frequency	50Hz/ 60Hz (Auto detection)		
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);		
Overload/short circuit protection	Circuit breaker		
Efficiency	>95%		
Conversion time (bypass and inverter)	10ms (typical)		
AC reverse protection	Available		
Maximum bypass overload current	40A		
Inverter mode			
Output voltage waveform	Pure sine wave		
Rated output power (VA)	2500	3000	3500
Rated output power (W)	2500	3000	3500
Power factor	1		
Rated output voltage (Vac)	120Vac		
Output voltage error	±5%		
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		
Maximum Efficiency	>91%		
Overload protection	(102% < load < 110%) ±10%: report error and turn off the output after 5 minutes; (110% < load < 125%) ±10%: report error and turn off the output after 10 seconds; (Load > 125% ±10%): report error and turn off the output after 5 seconds;		
Peak power	4000VA	4500VA	5000VA
Loaded motor capability	1HP	2HP	2HP
Output short circuit protection	Circuit breaker		
Bypass breaker specifications	40A		
Rated battery input voltage	48V (Minimum starting voltage 44V)		
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)		
Power saving mode	Load ≤50W		
AC charging			
Battery type	Lead acid or Lithium battery		
Maximum charge current	40A		
Charge current error	± 5A/c		
Charge voltage range	40Vdc~60Vdc		
Short circuit protection	Circuit breaker and blown fuse		
Circuit breaker specifications	40A		
Overcharge protection	Alarm and turn off charging after 1 minute		
PV charging			
Maximum PV open circuit voltage	145Vdc		
PV operating voltage range	60-145Vdc		
MPPT voltage range	60-115Vdc		
Battery voltage range	40-60Vdc		
Maximum output power	4200W		4200W
PV charging current range (can be set)	0-80A		0-80A
Charging short circuit protection	Blown fuse		
Wiring protection	Reverse polarity protection		
Certified specifications			
Certification	CE(EN62109-1)		
EMC certification level	EN61000, C2		
Operating temperature range	-15°C to 55°C		
Storage temperature range	-25°C ~ 60°C		
Humidity range	5% to 95% (Conformal coating protection)		
Noise	≤60dB		
Heat dissipation	Forced air cooling, variable speed of fan		
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control		
Size (L*W*D)	426*322*124mm		
Weight (kg)	10.8		

All-in-one solar charge inverter

SDPO 3.5kw 110v 5kw 220v 48v pv 145v MPPT 80a with parallel



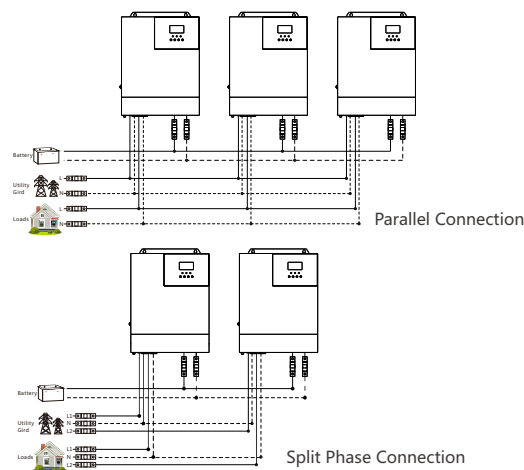
Performance characteristics

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- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.-Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.
- Available for 6 units parallel connection.
- Available for split phase connection.

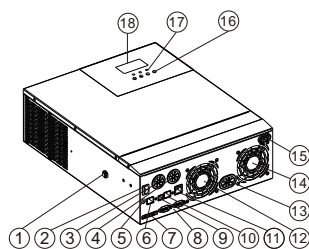
Application scenarios



Product connection diagram



Product characteristics



① Overload protector	⑩ RS485-1 communication port
② ON/OFF rocker switch	⑪ Dry contact port
③ AC input port	⑫ Cooling fan
④ AC output port	⑬ Battery port
⑤ Grounding screw hold	⑭ Cooling fan
⑥ RS485-2 communication port	⑮ PV PORT
⑦ Current sharing port (parallel module only)	⑯ Touch the key lightly
⑧ Parallel communication port (parallel module only)	⑰ Indicator light
⑨ USB communication port	⑱ LCD screen

Parameters

Models	SDPO 5kw 48v	SDPO 3.5kw 48v
AC mode		
Rated input voltage	220/230Vac	110/120Vac
Input voltage range	(170Vac~280Vac) ±2%/(90Vac-280Vac)±2%	(90Vac~140Vac) ±2%
Frequency	50Hz/ 60Hz(Auto detection)	
Parallelable/Split Phase units	Max. parallelable unit: 6pcs	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Available	
Maximum bypass overload current	40A	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	5000	3500
Rated output power (W)	5000	3500
Power factor	1	
Rated output voltage (Vac)	230Vac	120Vac
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Maximum Efficiency	>92%	>91%
Overload protection	(102% < load <125%) ±10%: report error and turn off the output after 5 minutes;(125% < load < 150%) ±10%: report error and turnoff the output after 10 seconds;Load > 150% ±10%: report error and turn off the output after 5 seconds;	(102% < load <110%) ±10%: report error and turn off the output after 5 minutes;(110% < load < 125%) ±10%: report error and turn off the output after 10 seconds;Load >125% ±10%): report error and turn off the output after 5 seconds;
Peak power	10000VA	6000VA
Loaded motor capability	4HP	2HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	48V (Minimum starting voltage 44V)	
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	60A	40A
Charge current error	± 5A _{dc}	
Charge voltage range	40V _{dc} ~58V _{dc}	40V _{dc} ~60V _{dc}
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	145V _{dc}	
PV operating voltage range	60-145V _{dc}	
MPPT voltage range	60-115V _{dc}	
Battery voltage range	40-60V _{dc}	
Maximum output power	4200W	
PV charging current range (can be set)	0-80A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62040-1)	
EMC certification level	EN62040-2, C2	
Operating temperature range	-15°C to 55°C	
Storage temperature range	-25°C ~ 60°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control	
Size (L*W*D)	426*322*124mm	
Weight (kg)	10.8	

All-in-one solar charge inverter

SDPO 3kw 24v 220v pv 100v MPPT 60a



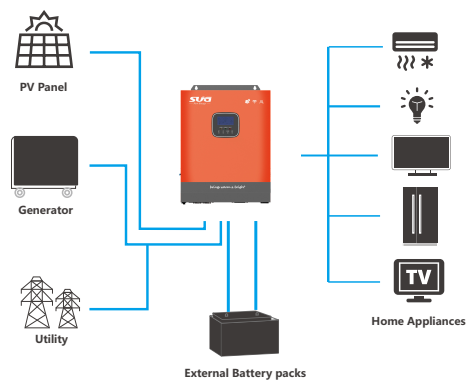
Performance characteristics

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- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energy storage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360° all-round protection with a number of protection functions. Such as overload, short circuit and over current.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS,WIFI), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.
- Lithium battery can be activated by both mains and PV.

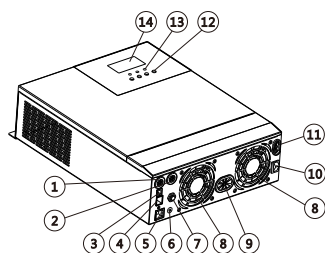
Application scenarios



Product connection diagram



Product characteristics



①	AC input port	⑩	Cooling fan
②	AC output port	⑪	Battery port
③	USB communication port	⑫	ON/OFF rocker switch
④	RS485 communication port	⑬	PV port
⑤	Dry node port	⑭	Touch button
⑥	Grounding screw hole	⑮	LED Indicator
⑦	AC input Overload protector	⑯	LCD screen

Parameters

Models	SDPO 2kw 24v	SDPO 3kw 24v
AC mode		
Rated input voltage	220/230Vac	
Input voltage range	(170Vac~280Vac) ±2% ; (90Vac-280Vac)±2%	
Frequency	50Hz/ 60Hz (Auto detection)	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Available	
Maximum bypass overload current	30A	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	2000	3000
Rated output power (W)	2000	3000
Power factor	1	
Rated output voltage (Vac)	230Vac	
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Efficiency	>92%	
Overload protection	(102% < load < 125%) ±10%; report error and turn off the output after 5 minutes; (125% < load < 150%) ± 10%; report error and turn off the output after 10 seconds; Load > 150% ±10%; report error and turn off the output after 5 seconds;	
Peak power	4000	6000
Loaded motor capability	1HP	2HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	30A	
Rated battery input voltage	24V (Minimum starting voltage 22V)	
Battery voltage range	20.0Vdc~33Vdc ± 0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm/overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	60A	80A
Charge current error	± 5A dc	
Charge voltage range	20.0Vdc~33Vdc	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	30A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	100Vdc	
PV operating voltage range	30-100Vdc	
MPPT voltage range	30-85Vdc	
Battery voltage range	20-33Vdc	
Maximum output power	1400W	
PV charging current range (can be set)	0-60A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
EMC certification level	EN61000, C2	
Operating temperature range	-15°C to 55°C	
Storage temperature range	-25°C ~ 60°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control	
Size (L*W*D)	378*280*103mm	
Weight (kg)	6.2	

All-in-one solar charge inverter

SDPO 3kw 24v 110v pv 100v MPPT 60a



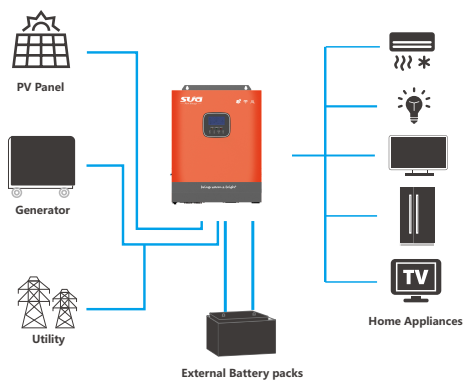
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- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energy storage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
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- 360° all-round protection with a number of protection functions. Such as overload, short circuit and over current.
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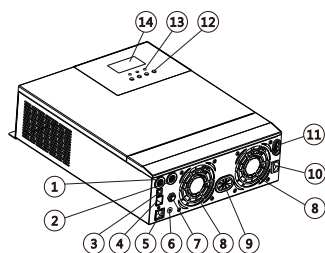
Application scenarios



Product connection diagram



Product characteristics



①	AC input port	⑩	Cooling fan
②	AC output port	⑪	Battery port
③	USB communication port	⑫	ON/OFF rocker switch
④	RS485 communication port	⑬	PV port
⑤	Dry node port	⑭	Touch button
⑥	Grounding screw hole	⑮	LED Indicator
⑦	AC input Overload protector	⑯	LCD screen

Parameters

Models	SDPO 2kw 24v	SDPO 3kw 24v
AC mode		
Rated input voltage	110/120Vac	
Input voltage range	(90Vac-140Vac)±2%	
Frequency	50Hz/ 60Hz (Auto detection)	
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);	
Overload/short circuit protection	Circuit breaker	
Efficiency	>95%	
Conversion time (bypass and inverter)	10ms (typical)	
AC reverse protection	Available	
Maximum bypass overload current	40A	
Inverter mode		
Output voltage waveform	Pure sine wave	
Rated output power (VA)	2000	3000
Rated output power (W)	2000	3000
Power factor	1	
Rated output voltage (Vac)	120Vac	
Output voltage error	±5%	
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz	
Efficiency	>92%	
Overload protection	(102% < load < 110%) ±10%; report error and turn off the output after 5 minutes; (110% < load < 125%) ± 10%; report error and turn off the output after 10 seconds; Load >125% ±10%; report error and turn off the output after 5 seconds;	
Peak power	3000	4500
Loaded motor capability	1HP	2HP
Output short circuit protection	Circuit breaker	
Bypass breaker specifications	40A	
Rated battery input voltage	24V (Minimum starting voltage 22V)	
Battery voltage range	;0.0Vdc~33Vdc ± 0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)	
Power saving mode	Load ≤50W	
AC charging		
Battery type	Lead acid or lithium battery	
Maximum charge current	40A	40A
Charge current error	± 5A _{dc}	
Charge voltage range	20.0Vdc~33Vdc	
Short circuit protection	Circuit breaker and blown fuse	
Circuit breaker specifications	40A	
Overcharge protection	Alarm and turn off charging after 1 minute	
PV charging		
Maximum PV open circuit voltage	100Vdc	
PV operating voltage range	30-100Vdc	
MPPT voltage range	30-85Vdc	
Battery voltage range	20-33Vdc	
Maximum output power	1400W	
PV charging current range (can be set)	0-60A	
Charging short circuit protection	Blown fuse	
Wiring protection	Reverse polarity protection	
Certified specifications		
Certification	CE(EN62109-1)	
EMC certification level	EN61000, C2	
Operating temperature range	-15°C to 55°C	
Storage temperature range	-25°C ~ 60°C	
Humidity range	5% to 95% (Conformal coating protection)	
Noise	≤60dB	
Heat dissipation	Forced air cooling, variable speed of fan	
Communication interface	USB/RS485(WiFi/GPRS)/Dry node control	
Size (L*W*D)	378*280*103mm	
Weight (kg)	6.8	

All-in-one solar charge inverter

SDPO 3kw 5kw 48v 220v pv 500v MPPT 60a

SDPO 5kw 48v 110v pv 500v MPPT 80a



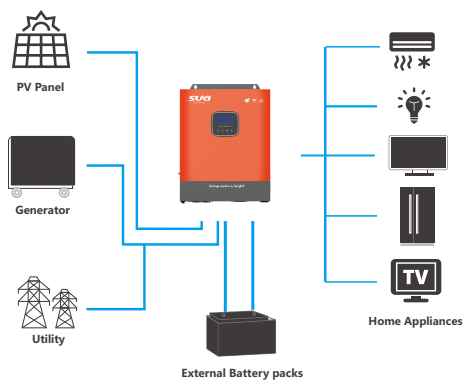
Performance characteristics

- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485 (GPRS, WiFi), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

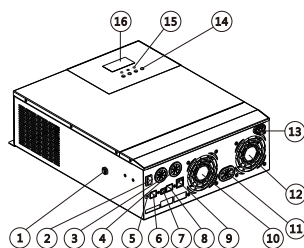
Application scenarios



Product connection diagram



Product characteristics



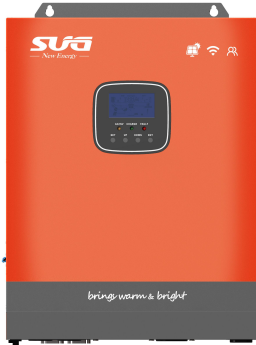
①	Overload protector	⑩	Dry contact port
②	ON/OFF rocker switch	⑪	Cooling fan
③	AC input port	⑫	Battery port
④	AC output port	⑬	Cooling fan
⑤	Grounding screw hold	⑭	PV port
⑥	RS485-2 communication port	⑮	Touch button
⑦	USB communication port	⑯	Indicator
⑧	RS485-1 communication port	⑰	LCD screen

Parameters

Model	SDPO 3kw 48v	SDPO 5kw 48v	SDPO 3.5kw 48v	SDPO 5kw 48v
AC mode				
Rated input voltage	220/230Vac		110/120Vac	
Input voltage range	(170Vac~280Vac) ±2% ; (90Vac~280Vac)±2%		(90Vac~140Vac)±2%	
Frequency	50Hz/ 60Hz (auto-sensing)			
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);			
Overload/short circuit protection	Breaker			
Efficiency	>95%			
Conversion time (bypass and inverter)	10ms (Typical value)			
AC reverse protection	Available			
Maximum bypass overload current	40A		63A	
Inverting mode				
Output voltage waveform	Pure sine wave			
Rated output power(VA)	3000 (2600/2700/3000)	5000 (4350/4500/4800/5000)	3500(2900/3000/3200)	5000(4100/4300/4500)
Rated output power(W)	3000 (2600/2700/3000)	5000 (4350/4500/4800/5000)	3500(2900/3000/3200)	5000(4100/4300/4500)
Power factor	1			
Rated output voltage (Vac)	230Vac (200/208/220/240Vac settable)		120Vac (100/105/110Vac settable)	
Output voltage error	±5%			
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz			
Efficiency	>90%			
Overload protection	(102%<load<125%) ±10%: reporting error and turn off the output after 5 minutes; (125%<load<150%) ±10%: reporting error and turn off the output after 10 seconds; Load>150% ±10%: reporting error and turn off the output after 5 seconds;		(102%<load<110%) ±10%: reporting error and turn off the output after 5 minutes; (110%<load<125%) ±10%: reporting error and turn off the output after 10 seconds; Load>125% ±10%: reporting error and turn off the output after 5 seconds;	
Peak power	6000VA	10000VA	5000VA	7000VA
Loaded motor capacity	2HP	4HP	2HP	3HP
Output short-circuit protection	Breaker			
Specification of bypass breaker	40A		63A	
Rated battery input voltage	48V (minimum start voltage 44V)			
Battery voltage range	40.0Vdc~60Vdc (undervoltage alarm/tumoff voltage/overvoltage alarm/overvoltage restoration...settable LCD screen)			
Power saving mode	Load ≤50W			
AC charge				
Battery type	Lead acid or lithium battery			
Maximum charge current	60A		40A	
Charge current error	± 5A dc			
Charge voltage range	40Vdc~60Vdc			
Short-circuit protection	Breaker and blown fuse			
Breaker specification	40A		63A	
Overcharge protection	Turn off charge after 1min alarm			
Solar charge				
Maximum PV opencircuit voltage	500Vdc		450Vdc	500Vdc
PV operation voltage range	120-500Vdc		120-450Vdc	120-500Vdc
MPPT voltage range	120-450Vdc		120-430Vdc	120-450Vdc
Battery voltage range	40-60Vdc			
Maximum output power	4200W	5000W	4200W	5000W
Charge current range of solar energy (settable)	0-60A	0-80A	0-60A	0-80A
Charge short-circuit protection	Blown fuse			
Wiring protection	Inverse wiring protection			
Authentication specification				
Specification authentication	CE(IEC62109), RoHS			
EMC authentication grade	EN61000			
Operation temperature range	-15°C to 55°C			
Storage temperature range	-25°C ~ 60°C			
Humidity range	5% to 95% (Conformal coating protection)			
Noise	≤60dB			
Thermal dissipation	Forced cooling with adjustable air speed			
Communication interface	USB/RS485 (WiFi/GPRS)/dry node control			
Dimension (L*W*D)	426*322*126mm			
Weight (kg)	10.9		11.6	

All-in-one Solar Charge Inverter

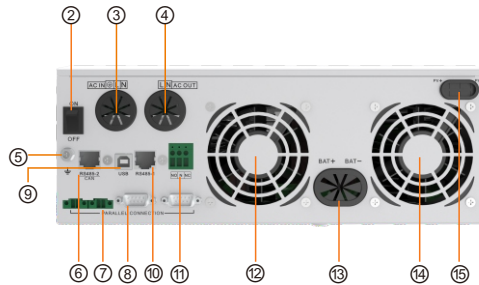
SDPO 5kw 48v 220v pv 500v with parallel MPPT 80a



Performance characteristics

- Load friendly: Stable sine wave AC output via SPWM modulation
- Supports a wide range of battery technology: GEL, AGM, Flooded, LFP, and program.
- Dual LFP battery activation method: PV&mains
- Uninterrupted power supply: simultaneous connection to utility grid/generator and PV .
- Intelligent programming: the priority of the output from different energy sources can be set.
- High energy efficiency: up to 99.9% MPPT capture efficiency.
- Instant viewing of operation: the LCD panel displays data and settings ,while you can also be viewed using the app and webpage.
- Power saving: power saving mode automatically reduces power consumption at zero-load.
- Efficient heat dissipation: via intelligent adjustable speed fans
- Multiple safety protection functions: short circuit protection, overload protection, reverse polarity protection, and so on.
- under-voltage and over-voltage protection and reverse polarity protection.
- Supports up to 6 devices of the same model connected in parallel (forming a single-phase,split-phase,three-phase electrical system)

Product characteristics



- | | |
|---|------------------------------|
| ① Overload Protector | ⑩ RS485-1 Communication Port |
| ② ON/OFF Rocker Switch | ⑪ Dry Contact Port |
| ③ AC Input Port | ⑫ Cooling Fan |
| ④ AC Output Port | ⑬ Battery Port |
| ⑤ Grounding Screw Hole | ⑭ Cooling Fan |
| ⑥ RS485-2 Communication Port (For BMS) | ⑮ PV Port |
| ⑦ Current Sharing Port (only apply to parallel modules) | ⑯ Light Touch Button |
| ⑧ Communication Port (only apply to parallel modules) | ⑰ Indicator Light |
| ⑨ USB Communication Port | ⑱ LCD Screen |



Parameters

Model	SDPO-5kw 48v	Adjustable
Battery Input		
Battery type	Sealed、Flood、GEL、LFP、Ternary	√
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)	
Hybrid Charging Maximum Charging Current	80A	√
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)	√
Solar Input		
Maximum PV Open-circuit Voltage	500Vdc	
PV Working Voltage Range	120-500Vdc	
MPPT Voltage Range	120-450Vdc	
Maximum PV Input Current	22A	
Maximum PV Input Power	5500W	
Maximum PV Charging Current	80A	√
AC Input (generator/grid)		
Mains Maximum Charging Current	60A	√
Rated Input Voltage	220/230Vac	
Input Voltage Range	UPS Mains Mode : (170Vac~280Vac)±2% APL Generator Mode : (90Vac~280Vac)±2%	√
Frequency	50Hz/ 60Hz (Automatic Detection)	
Mains Charging Efficiency	>95%	
Switch Time (bypass and inverter)	10ms(Typical Value)	
Maximum Bypass Overload Current	40A	
AC Output		
Output Voltage Waveform	Pure Sine Wave	
Rated Output Voltage (Vac)	230Vac (200/208/220/240Vac)	√
Rated Output Power (VA)	5000 (4350/4500/4750/5000)	
Rated Output Power(W)	5000 (4350/4500/4750/5000)	
Peak Power	10000VA	
On-load Motor Capacity	4HP	
Output Frequency Range(Hz)	50Hz±0.3Hz/60Hz±0.3Hz	√
Maximum Efficiency	>92%	
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode : ≤25W (Manual Setup)	
General		
Number of parallel/split phases	1-6PCS	
Certificate	CE(IEC62109-1)/CETL(UL 1741 C22.2 NO.107.1)	
EMC Certification Level	EN61000, C2	
Working Temperature Range	-10°C ~ 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95%(Conformal Coating Protection)	
Dimensions	426mm*322mm*124mm	
Weight (KG)	10.5	

SDPO 3kw 48v 220v pv145v mppt60a



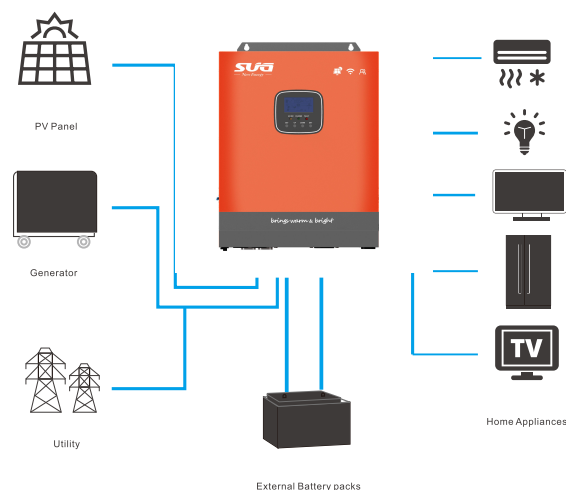
Product overview

HF series is a new all-in-one hybrid solar charge inverter, which integrates solar energy storage & means charging energy storage and AC sine wave output. Thanks to DSP control and advanced control algorithm, it has high response speed, high reliability and high industrial standard.

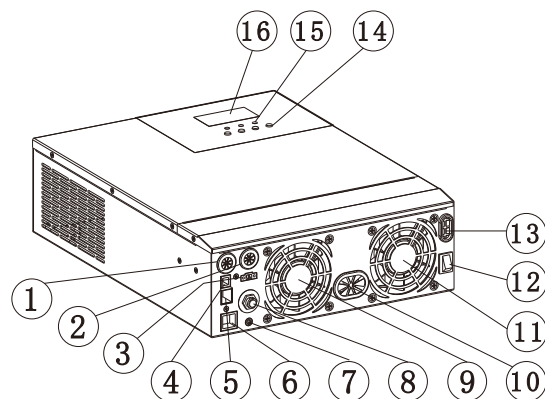
Performance characteristics

- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi, Bluetooth), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

Product connection diagram



Appearance



①	AC input port	⑨	Cooling fan
②	AC output port	⑩	Battery port
③	CAN communication port	⑪	Cooling fan
④	USB communication port	⑫	ON/OFF rocker switch
⑤	Rs485 communication port	⑬	PV port
⑥	Dry contact port	⑭	Touch button
⑦	Grounding screw hole	⑮	LED Indicator
⑧	Overload protector	⑯	LCD screen

Technical parameters >>>

Models	SDPO 3kw
AC mode	
Rated input voltage	220/230Vac
Input voltage range	(170Vac~280Vac) ±2%/(90Vac-280Vac)±2%
Frequency	50Hz/ 60Hz (Auto detection)
Frequency Range	47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);
Overload/short circuit protection	Circuit breaker
Efficiency	>95%
Conversion time (bypass and inverter)	10ms (typical)
AC reverse protection	Available
Maximum bypass overload current	30A
Inverter mode	
Output voltage waveform	Pure sine wave
Rated output power (VA)	3300
Rated output power (W)	3300
Power factor	1
Rated output voltage (Vac)	230Vac
Output voltage error	±5%
Output frequency range (Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz
Maximum Efficiency	>92%
Overload protection	(110% < load <125%) ±10%: report error and turn off the output after 5 minutes;(125% < load <150%) ± 10%: report error and turn off the output after 10 seconds;Load >150% ±10%: report error and turn off the output after 5 seconds;
Peak power	6000VA
Loaded motor capability	2HP
Output short circuit protection	Circuit breaker
Bypass breaker specifications	30A
Rated battery input voltage	48V (Minimum starting voltage 44V)
Battery voltage range	Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)
Power saving mode	Load ≤50W
AC charging	
Battery type	Lead acid or lithium battery
Maximum charge current	60A
Charge voltage range	40 ~58Vdc
Short circuit protection	Circuit breaker and blown fuse
Circuit breaker specifications	30A
Overcharge protection	Alarm and turn off charging after 1 minute
PV charging	
Maximum PV open circuit voltage	145Vdc
PV operating voltage range	60-145Vdc
MPPT voltage range	60-115Vdc
Battery voltage range	40-60Vdc
Maximum input power	3400W
PV charging current range (can be set)	0-60A
Charging short circuit protection	Blown fuse
Wiring protection	Reverse polarity protection
Certified specifications	
Certification	CE(IEC 62109-1)
EMC certification level	EN61000, C2
Operating temperature range	-15°C to 55°C
Storage temperature range	-25°C ~ 60°C
Humidity range	5% to 95% (Conformal coating protection)
Noise	≤60dB
Heat dissipation	Forced air cooling, variable speed of fan
Communication interface	CAN/USB/RS485(WIFI/GPRS)/Dry node control
Size (L*W*D)	378mm*280mm*103mm
Weight (kg)	6.2

SDPO 10kw 48v 120/240v pv 500v with mppt 200a

MODEL	SDPO 8kw	SDPO 10kw	CAN BE SET
INVERTER OUTPUT			
Rated Output Power	8,000W	10,000W	
Max.Peak Power	16,000W	20,000W	
Rated Output Voltage	120/240Vac (L1/L2/N/PE split phase)		✓
Load Capacity of Motors	5HP	6HP	
Rated AC Frequency	50/60Hz		✓
Waveform	Pure Sine Wave		
Switch Time	10ms (typical)		
Parallel capacity	/		
BATTERY			
Battery Type	Li-ion/Lead-Acid		✓
Rated Battery Voltage	48Vdc		
Voltage Range	40-60Vdc		✓
Max.MPPT Charging Current	200A		✓
Max.Mains/Generator Charging Current	100A	120A	✓
Max.Hybrid Charging Current	180A	200A	✓
PV INPUT			
Num. of MPP Trackers	2		
Max.PV array power	11,000W		
Max.input current	22/22A		
Max.Voltage of Open Circuit	500Vdc		
MPPT Voltage Range	125-425Vdc		
MAINS / GENERATOR INPUT			
Input Voltage Range	90-140Vac		
Frequency Range	50/60Hz		
Bypass Overload Current	63A		
EFFICIENCY			
MPPT Tracking Efficiency	99.9%		
Max. Battery Inverter Efficiency	92%		
GENERAL			
Dimensions	620*435*130mm (2*1.4*0.4ft)		
Weight	20kg (44lb)	21kg (46.3lb)	
Protection Degree	IP20, Indoor Only		
Operating Temperature Range	-15-55°C, >45°C derated (5-131°F, >113°F derated)		
Noise	<60dB		
Cooling Method	Internal Fan		
Warranty	2 Years		
COMMUNICATION			
Embedded Interfaces	RS485/CAN/USB/Dry contact		✓
CERIFICATION			
Safety	IEC62109-1, IEC62109-2, UL1741		
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B		
RoHS	Yes		