



ZECONEX GROUP LIMITED

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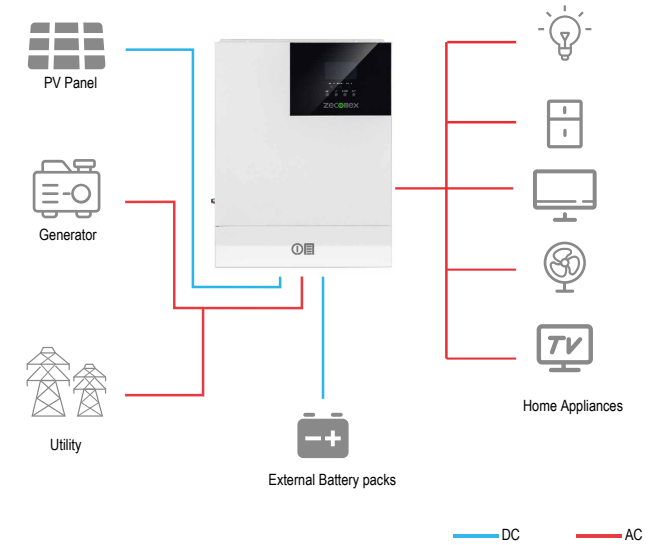
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EXPERTS IN PV ENERGY STORAGE
MANAGEMENT AND CONTROL



- Household photovoltaic power supply system
- All-in-one solar charge inverter system



Company Introduction

Zeconex is the leading manufacturer of electric vehicle charging systems, and battery energy storage system with solar inverters integrated in the global market, headquartered in Shenzhen, China.

Our wide range of new energy products are manufactured in-house, so we control all aspects of quality and functionality. We can tailor-make ev charger, battery energy storage system and solar inverter to suit your energy projects helping you realize your clean energy ideas.

Our product portfolio consists of Portable Charger, AC Charger, DC Charger, Power Module and Cloud Management System and Mobile APP, Battery Energy Storage System, Portable Power Station, Home Energy Storage System and Inverters, all independently developed by ourselves. We exported to more than 30 countries and regions since 2012.

Our team of ev charger, battery energy storage and inverters manufacturing experts is adept at understanding your energy needs and translating them into ev charger and battery energy storage that will fit right in and last for ages. We use only high-quality and other raw materials to ensure our ev charger, battery energy storage system and inverters are the best in the market.

Our top R&D team both in China and abroad, with rich experience in international protocol, which support us to offer OEM/ODM service for our clients all over the world. Welcome to be our partners.



Enterprise Vision

Committed to becoming the world's leading off-grid photovoltaic application system technology provider!



Enterprise Mission

"Put a chip on the sun", promote the application of photovoltaic energy, and make green energy change life.



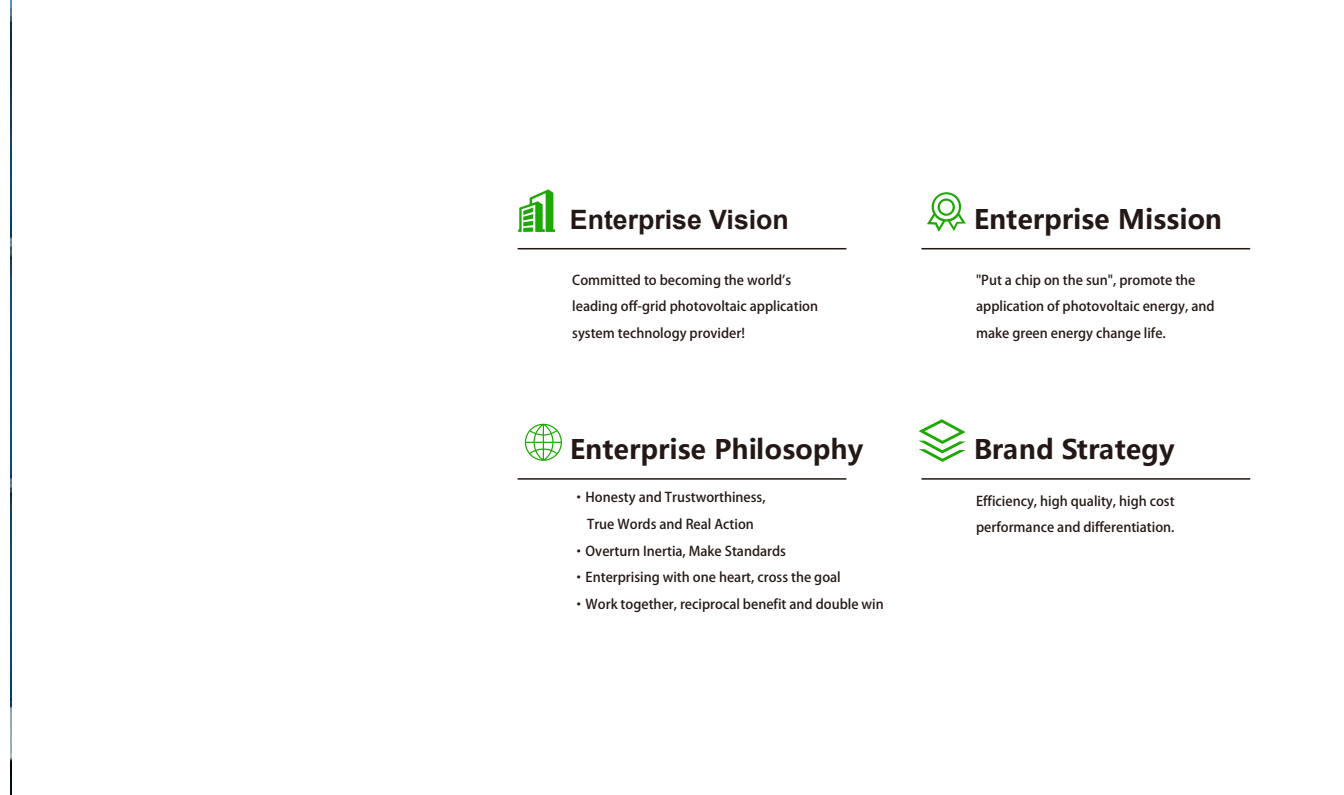
Enterprise Philosophy

- Honesty and Trustworthiness, True Words and Real Action
- Overturn Inertia, Make Standards
- Enterprising with one heart, cross the goal
- Work together, reciprocal benefit and double win



Brand Strategy

Efficiency, high quality, high cost performance and differentiation.





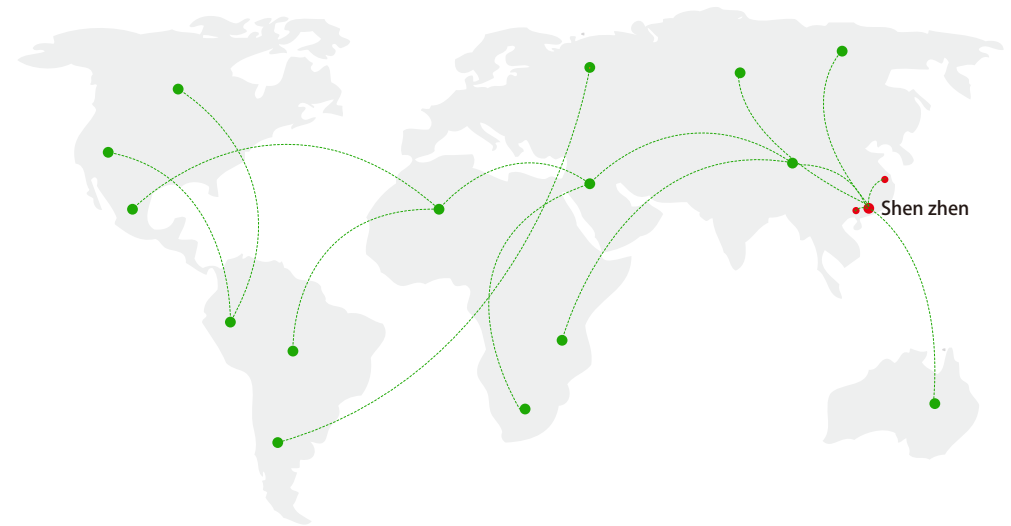
COMPANY HONOR

At present, it has won 110+ industry-related patents, and established a patent attack and defense system

Patent	Utility Model	Appearance Patent	Software Copyright
13+	50+	30+	20+



BUSINESS SCOPE



GLOBAL PARTNERS



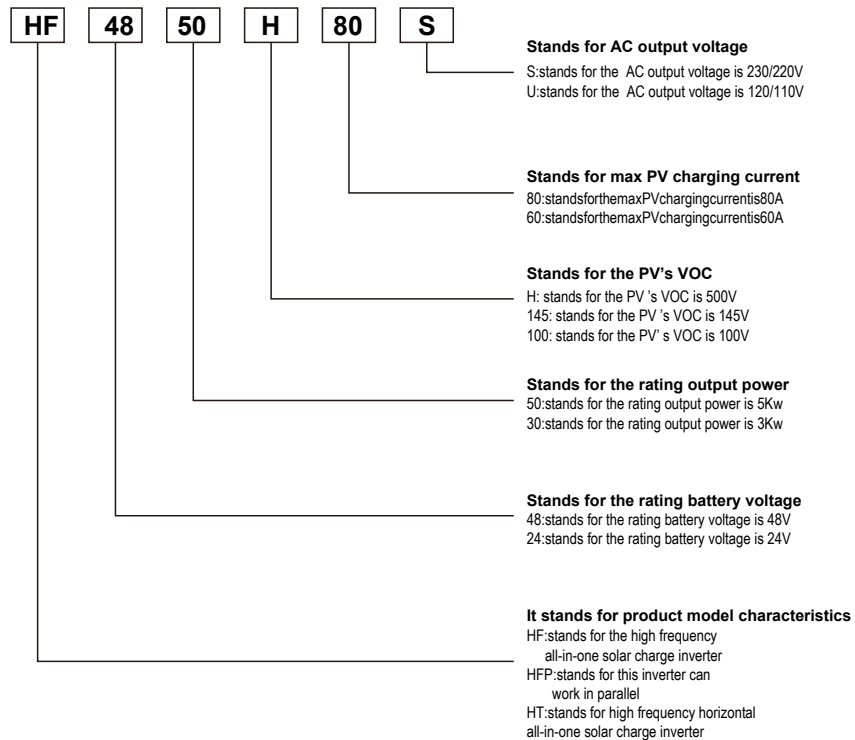
- Dongguan Branch
- Zhongshan Office
- Ningbo Office
- Yangzhou Office

The business scope of Shuori continues to expand, covering the world territory, the global service network throughout the Middle East, Africa, Europe, America, Australia, Asia, Southeast Asia, Canada, New Zealand, Japan, Korea and so on.

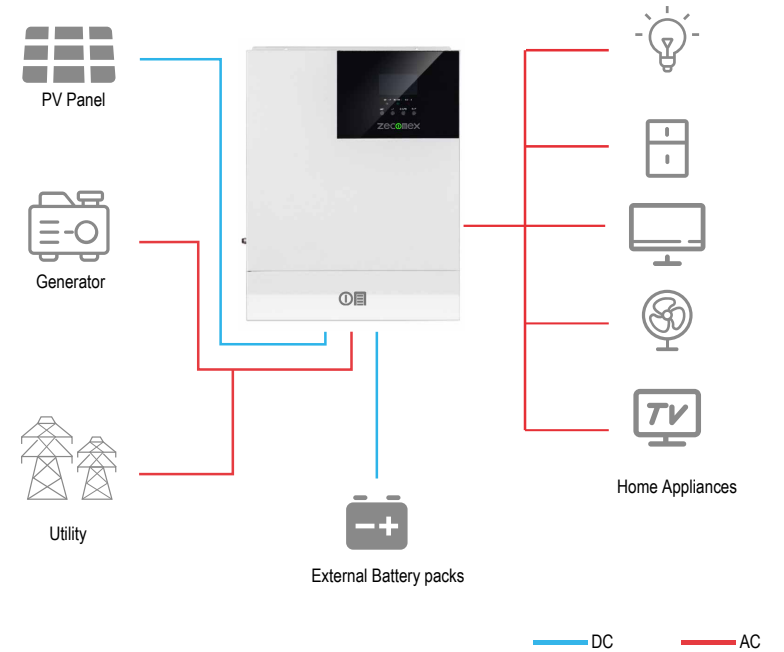
RELEVANT CERTIFICATION



NAMING CONVENTION



PRODUCT SCHEMATIC



APPLICATION SCENARIOS





All-in-one Solar Charge Inverter

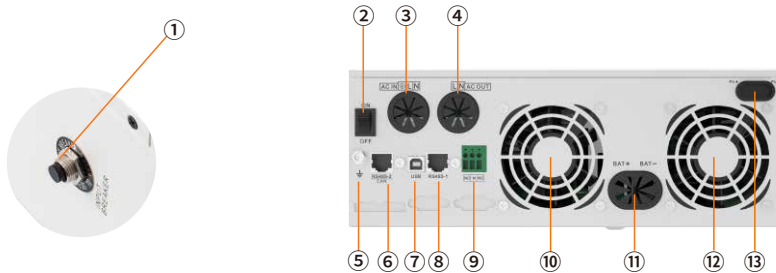
HF48V Low Voltage Series (Max.Voc: 145V; Rated input voltage: 220/230V)



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

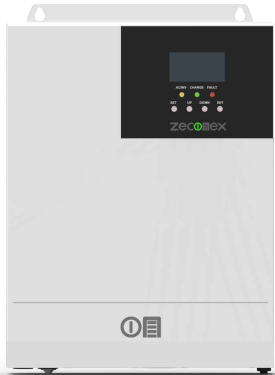


Parameters

Model	ZECO-HF485014580 -S	Adjustable
Battery Input		
Battery type	Sealed Flood GEL LFP Ternary	✓
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)	
Hybrid Charging Maximum Charging Current	140A	✓
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)	✓
Solar Input		
Maximum PV Open-circuit Voltage	145vdc	
PV Working Voltage Range	60-145Vdc	
MPPT Voltage Range	60-115Vdc	
Maximum PV Input Current	50A	
Maximum PV Input Power	4400W	
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	230 (200/208/220/240Vac)	✓
Rated Output Power	5000(4350/4500/4750/5000VA)	
Rated Output Power	5000(4350/4500/4750/5000W)	
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		
Certificate	CE(IEC 62109-1)	
EMC Certification Level	EN61000, C2	
Working Temperature Range	-15°C ~ 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95%(Conformal Coating Protection)	
Dimensions	426mm*322mm*124mm	
Weight	10.8 KG	

All-in-one Solar Charge Inverter

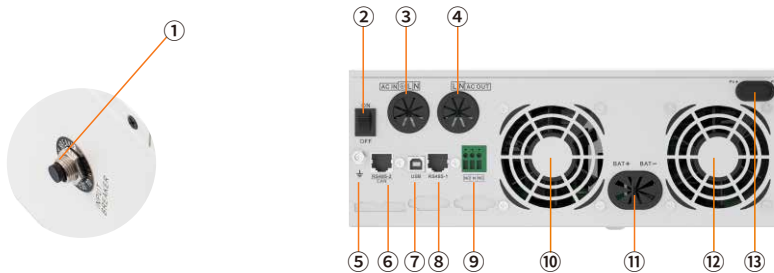
HF48V Low Voltage Series (Max.Voc: 145V; Rated input voltage: 110/120V)



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



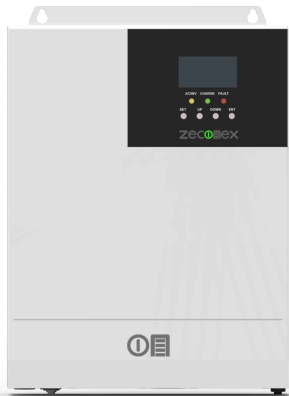
Parameters

Model	ZECO-HF483514580-U	Adjustable
Battery Input		
Battery type	Sealed Flood GEL LFP Ternary	✓
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)	
Hybrid Charging Maximum Charging Current	120A	✓
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)	✓
Solar Input		
Maximum PV Open-circuit Voltage	145vdc	
PV Working Voltage Range	60-145Vdc	
MPPT Voltage Range	60-115Vdc	
Maximum PV Input Current	50A	
Maximum PV Input Power	4400W	
Maximum PV Charging Current	80A	✓
AC Input (generator/grid)		
Mains Maximum Charging Current	40A	✓
Rated Input Voltage	110/120Vac	
Input Voltage Range	(90Vac-140Vac)±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	120 (100/105/110Vac)	✓
Rated Output Power	3500 (2900/3050/3200VA)	
Rated Output Power	3500 (2900/3050/3200W)	
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	-15°C ~ 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95%(Conformal Coating Protection)	
Dimensions	426mm*322mm*124mm	
Weight	10.8 KG	

All-in-one Solar Charge Inverter

HFP48V parallel connection Series(Max.Voc: 145V; Rated input voltage: 220/230V)

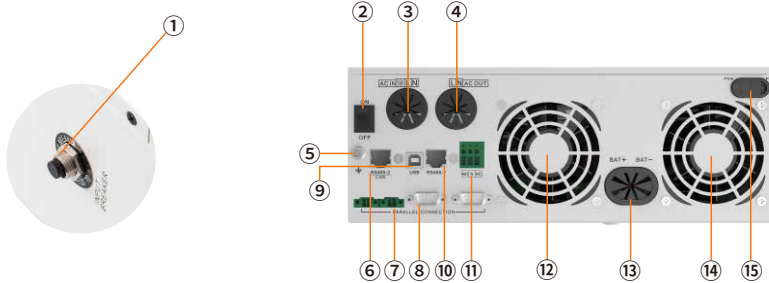
HFP48V parallel connection Series(Max.Voc: 145V; Rated input voltage: 110/120V)



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



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|---|------------------------------|
| 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	ZECO-HFP485014580-S	ZECO-HFP483514580-U	Adjustable
Battery Input			
Battery type	Sealed, Flood, GEL, LFP, Ternary		✓
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)		
Hybrid Charging Maximum Charging Current	140A	120A	✓
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)		✓
Solar Input			
Maximum PV Open-circuit Voltage	145vdc		
PV Working Voltage Range	60-145Vdc		
MPPT Voltage Range	60-115Vdc		
Maximum PV Input Current	50A		
Maximum PV Input Power	4400W		
Maximum PV Charging Current	80A		✓
AC Input (generator/grid)			
Mains Maximum Charging Current	60A	40A	✓
Rated Input Voltage	220/230Vac	110/120Vac	
Input Voltage Range	UPS Mains Mode: (170Vac~280Vac)±2% APL Generator Mode: (90Vac~280Vac)±2%	(90Vac-140Vac)±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	230 (200/208/220/240Vac)	120 (100/105/110Vac)	✓
Rated Output Power	5000 (4350/4500/4750/5000VA)	3500 (2900/3050/3200VA)	
Rated Output Power	5000 (4350/4500/4750/5000W)	3500 (2900/3050/3200W)	
Peak Power	10000VA	6000VA	
On-load Motor Capacity	4HP	2HP	
Output Frequency Range(Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		✓
Maximum Efficiency	>92%		>91%
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode: ≤25W (Manual Setup)		
General			
Number of parallel/split phases	1-6PCS		
Certificate	CE(IEC 62109-1)	CE(IEC 62109-1)/ CETL(UL 1741/ CSA C22.2 NO.107.1)	
EMC Certification Level	EN61000, C2		
Working Temperature Range	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Dimensions	426mm*322mm*124mm		
Weight	10.8 KG		

All-in-one Solar Charge Inverter

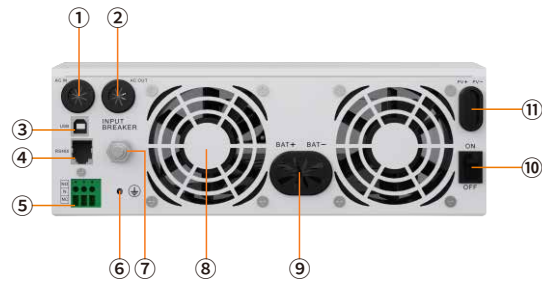
HF24V Low Voltage Series(Max.Voc 100V Rated input voltage 220/230V)



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

Parameters

Model	ZECO-HF242010060-S	ZECO-HF243010060-S	Adjustable
Battery Input			
Battery type	Sealed, FLOOD, GEL, LFP, Ternary		✓
Rated Battery Input Voltage	24V (Minimum Startup Voltage 22V)		
Hybrid Charging Maximum Charging Current	120A	140A	✓
Battery Voltage Range	20Vdc~33Vdc ± 0.3Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)		✓
Solar Input			
Maximum PV Open-circuit Voltage	100vdc		
PV Working Voltage Range	30-100Vdc		
MPPT Voltage Range	30-85Vdc		
Maximum PV Input Current	40A		
Maximum PV Input Power	1600W		
Maximum PV Charging Current	60A		✓
AC Input (generator/grid)			
Mains Maximum Charging Current	60A	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	230 (200/208/220/240Vac)		✓
Rated Output Power	2000 (1750/1800/1900/2000VA)	3000 (2600/2700/2850/3000VA)	
Rated Output Power	2000 (1750/1800/1900/2000W)	3000 (2600/2700/2850/3000W)	
Peak Power	4000VA	6000VA	
On-load Motor Capacity	1HP	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	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Dimensions	378mm*280mm*103mm		
Weight	6.2 KG		

All-in-one Solar Charge Inverter

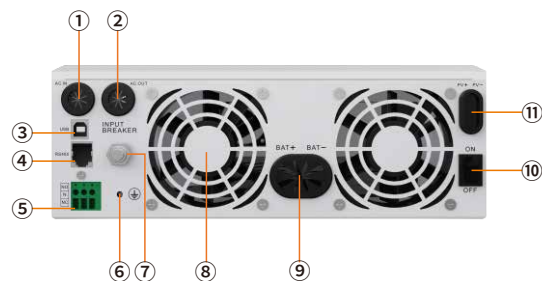
HF24V Low Voltage Series(Max.Voc 100V Rated input voltage 110/120V)



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

Parameters

Model	ZECO-HF242010060-U	ZECO-HF243010060-U	Adjustable
Battery Input			
Battery type	Sealed, FLOOD, GEL, LFP, Ternary		✓
Rated Battery Input Voltage	24V (Minimum Startup Voltage 22V)		
Hybrid Charging Maximum Charging Current			✓
Battery Voltage Range	20Vdc~33Vdc ± 0.3Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)		✓
Solar Input			
Maximum PV Open-circuit Voltage	100Vdc		
PV Working Voltage Range	30-100Vdc		
MPPT Voltage Range	30-85Vdc		
Maximum PV Input Current	40A		
Maximum PV Input Power	1600W		
Maximum PV Charging Current	60A		✓
AC Input (generator/grid)			
Mains Maximum Charging Current	40A		✓
Rated Input Voltage	110/120Vac		
Input Voltage Range	(90Vac-140Vac)±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	120 (100/105/110Vac)		✓
Rated Output Power	2000 (1650/1750/1800VA)	3000 (2500/2625/2750VA)	
Rated Output Power	2000 (1650/1750/1800W)	3000 (2500/2625/2750W)	
Peak Power	4000VA	6000VA	
On-load Motor Capacity	1HP	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)/CETL(UL 1741/ CSA C22.2 NO.107.1)		
EMC Certification Level	EN61000, C2		
Working Temperature Range	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Noise	<60db		
Dimensions	378mm*280mm*103mm		
Weight	6.8 KG		

All-in-one Solar Charge Inverter

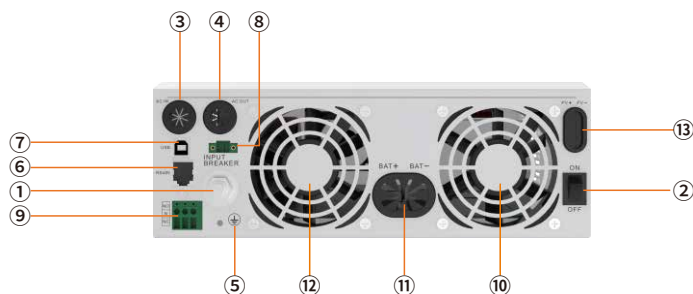
HF24V Low Voltage Series(Max.Voc 100V Rated input voltage 110/120V)



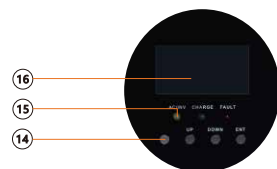
Performance characteristics

- Load friendly: Stable sine wave AC output via SPWM modulation
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Product characteristics



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



Parameters

Model	ZECO-HF2430H80-S	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 ± 0.6Vdc(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	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	230 (200/208/220/240Vac)	✓
Rated Output Power	3300 (2850/2950/3150/3300VA)	
Rated Output Power	3300 (2850/2950/3150/3300W)	
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	-15°C ~ 55°C	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	5% to 95%(Conformal Coating Protection)	
Dimensions	378mm*280mm*103mm	
Weight	6.9 KG	

All-in-one Solar Charge Inverter

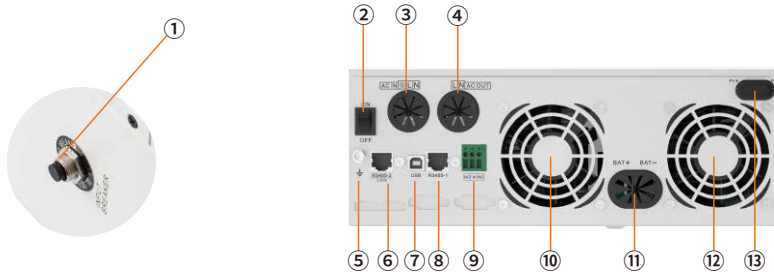
HF48V-H Higher PV Voltage Series(Max.Voc: 500V; Rated input voltage: 220/230V)



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



Parameters

Model	ZECO-HF4830H60-S	ZECO-HF4850H80-S	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	18A		
Maximum PV Input Power	4400W	5200W	
Maximum PV Charging Current	60A	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	230 (200/208/220/240Vac)		✓
Rated Output Power	3000 (2600/2700/2850/3000VA)	5000 (4350/4500/4800/5000VA)	
Rated Output Power	3000 (2600/2700/2850/3000W)	5000 (4350/4500/4800/5000W)	
Peak Power	6000VA	10000VA	
On-load Motor Capacity	2HP	4HP	
Output Frequency Range(Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		✓
Maximum Efficiency	>90%		
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode: ≤25W (Manual Setup)		
General			
Certificate	CE(IEC 62109-1)		
EMC Certification Level	EN61000		
Working Temperature Range	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Dimensions	426mm*322mm*126mm		
Weight (KG)	10.9KG		

All-in-one Solar Charge Inverter

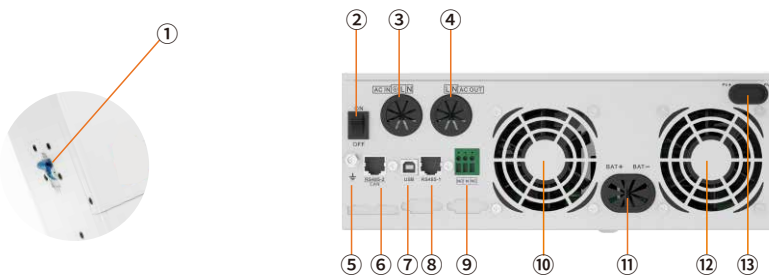
HF48V-H High Voltage Series(Max.Voc: 500V; Rated input voltage: 110/120V)



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.
- Working without battery under special conditions.

Product characteristics



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



Parameters

Model	ZECO-HF4835H60-U	ZZECO-HF4850H80-U	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	450vdc	500vdc	
PV Working Voltage Range	120-500Vdc	120-500Vdc	
MPPT Voltage Range	120-430Vdc	120-450Vdc	
Maximum PV Input Current	18A		
Maximum PV Input Power	4400W	5200W	
Maximum PV Charging Current	60A	80A	✓
AC Input (generator/grid)			
Mains Maximum Charging Current	40A		✓
Rated Input Voltage	110/120Vac		
Input Voltage Range	(90Vac~140Vac)±2%		✓
Frequency	50Hz/ 60Hz (Automatic Detection)		
Mains Charging Efficiency	>95%		
Switch Time (bypass and inverter)	10ms(Typical Value)		
Maximum Bypass Overload Current	40A	63A	
AC Output			
Output Voltage Waveform	Pure Sine Wave		
Rated Output Voltage	120 (100/105/110Vac)		✓
Rated Output Power	3500 (2900/3050/3200VA)	5000 (4100/4300/4500VA)	
Rated Output Power	3500 (2900/3050/3200W)	5000 (4100/4300/4500W)	
Peak Power	7000VA	10000VA	
On-load Motor Capacity	2HP	4HP	
Output Frequency Range(Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		✓
Maximum Efficiency	>90%		
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode: ≤25W (Manual Setup)		
General			
Certificate	CE(IEC62109-1)/CETL(UL 1741 CSA C22.2 NO.107.1)		
EMC Certification Level	EN61000		
Working Temperature Range	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Dimensions	426mm*322mm*126mm		
Weight (KG)	10.9KG	11.6KG	

Solar Hybrid Inverter - IP65

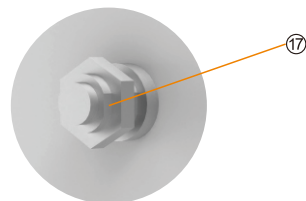
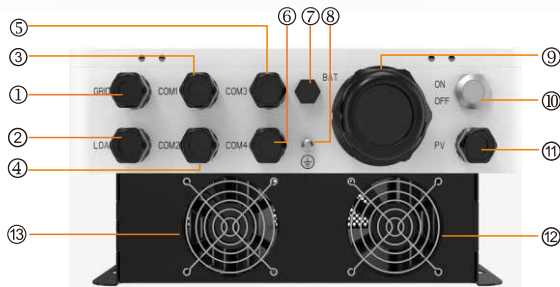
HES48V-H High Voltage Series(Max.Voc: 500V; Rated input voltage: 220/230V)



Performance characteristics

- It has the function of segmented charging and discharging.
- Backflow prevention and grid connection function.
- Insulation resistance and leakage current detection function.
- Working without battery under special conditions.
- Lithium battery activation function, which can be triggered by mains or PV.
- Power saving mode, reduce no-load loss.
- Four charging modes: PV Only, Mains Priority, PV Priority and PV&Mains hybrid charging.
- Two output modes: mains bypass and inverter output, with UPS function.
- 360° all-round protection.
- Allow lead-acid battery and lithium battery access.
- ON/OFF switch controls the inverter AC output
- Grid-connected mode can be set.
- Adopting full-digital double closed loop control, combined with advanced SPWM technology and pure sine wave output.
- Advanced MPPT technology with efficiency of 99.9%. LCD screen and three LED indicator lights can clearly indicate the status and data.
- Intelligent and variable-speed fan, efficiently dissipate heat and extend system life.
- Multiple safety protection functions: short circuit protection, overload protection, reverse polarity protection and soon.

Product characteristics



① AC Input Port	⑩ On/off switch
② AC Input Port	⑪ pv port
③ Communication Port 1	⑫ Cooling fan
④ Communication Port 2	⑬ Cooling fan
⑤ Communication Port 3	⑭ Light Touch Button
⑥ Communication Port 4	⑮ Indicator Light
⑦ Vent Valve	⑯ LCD Screen
⑧ Grounding Screw Hole	⑰ Overload Protector
⑨ Battery Input Port	

Parameters

Model	ZECO-HES4855H100-S	Adjustable
Battery Input Parameters		
Battery Type	Lead-acid Battery or Lithium Battery	✓
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)	
Hybrid Charging Maximum Charging Current	100A	✓
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)	✓
Solar Input Parameters		
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	6000W	
Maximum PV Charging Current	100A	✓
Mains Input Parameters		
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 Parameter		
Output Voltage Waveform	Pure Sine Wave	
Rated Output Voltage	230 (200/208/220/240Vac)	✓
Rated Output Power	5500 (4780/4970/5260/5500VA)	
Rated Output Power	5500 (4780/4970/5260/5500W)	
Peak Power	11000VA	
On-load Motor Capacity	4HP	
Output Frequency Range(Hz)	50Hz±0.3Hz/60Hz±0.3Hz	✓
Maximum Efficiency	>90%	
No-load Loss	Non Energy-saving Mode: ≤100W Energy-saving Mode: ≤50W (Manual Setup)	
Basic Parameters		
Certificate	CE(IEC 62109-1)	
EMC Certification Level	EN61000	
Working Temperature Range	-25°C ~ 55°C,>45°C Derating	
Storage Temperature Range	-25°C ~ 60°C	
Humidity Range	0% to 100%	
Waterproof Grade	IP65	
Dimensions	556mm*345mm*182mm	
Weight	20 KG	

All-in-one Solar Charge Inverter

HT48V Low Voltage Series(Max.Voc: 145V; Rated input voltage: 220/230V)

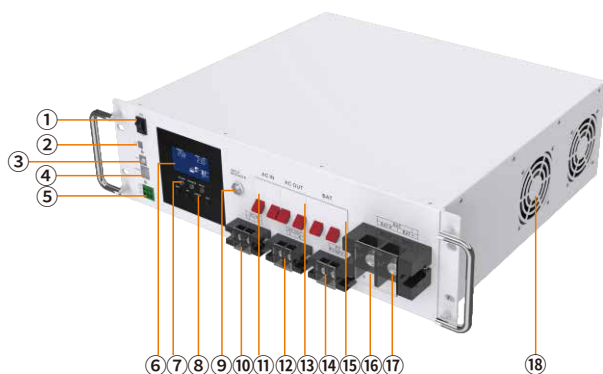
HT48V Low Voltage Series(Max.Voc: 145V; Rated input voltage: 110/120V)

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.
- Horizontal installation, convenient for cabinet combination installation.
- Support BMS communication,CANBUS can be customized



Product characteristics



① ON/OFF Rocker Switch	⑦ Indicator Light	⑬ AC Output Circuit Breaker
② CAN Communication Port	⑧ Light Touch Button	⑭ PV Port
③ USB Communication Port	⑨ Overload Protector	⑮ Battery Circuit Breaker
④ RS485 Communication Port	⑩ AC Input Port	⑯ Grounding Screw Hole
⑤ Dry Contact Port	⑪ AC Input Circuit Breaker	⑰ Battery Port
⑥ LCD Screen	⑫ AC Output Port	⑱ Cooling Fan

Parameters

Model	ZECO-HT485014580-S	ZECO-HT483514580-U	Adjustable
Battery Input			
Battery type	Sealed, Flood, GEL, LFP, Ternary		✓
Rated Battery Input Voltage	48V (Minimum Startup Voltage 44V)		
Hybrid Charging Maximum Charging Current	140A	120A	✓
Battery Voltage Range	40Vdc~60Vdc ± 0.6Vdc(Undervoltage Warning/Shutdown Voltage/Overvoltage Warning/Overvoltage Recovery...)		✓
Solar Input			
Maximum PV Open-circuit Voltage	145vdc		
PV Working Voltage Range	60-145Vdc		
MPPT Voltage Range	60-115Vdc		
Maximum PV Input Current	50A		
Maximum PV Input Power	4400W		
Maximum PV Charging Current	80A		✓
AC Input (generator/grid)			
Mains Maximum Charging Current	60A	40A	✓
Rated Input Voltage	220/230Vac	110/120Vac	
Input Voltage Range	UPS Mains Mode: (170Vac~280Vac)±2% APL Generator Mode: (90Vac-280Vac)±2%	(90Vac~140Vac)±2%	✓
Frequency	50Hz/ 60Hz (Automatic Detection)		
Mains Charging Efficiency	>95%		
Switch Time (bypass and inverter)	10ms(Typical Value)		
Maximum Bypass Overload Current	63A		
AC Output			
Output Voltage Waveform	Pure Sine Wave		
Rated Output Voltage	230 (200/208/220/240Vac)	120Vac (100/105/110Vac)	✓
Rated Output Power	5000 (4350/4500/4750/5000VA)	3500 (2900/3050/3200VA)	
Rated Output Power	5000 (4350/4500/4750/5000W)	3500 (2900/3050/3200W)	
Peak Power	10000VA	5000VA	
On-load Motor Capacity	4HP	2HP	
Output Frequency Range(Hz)	50Hz ± 0.3Hz/60Hz ± 0.3Hz		✓
Maximum Efficiency	>90%		
No-load Loss	Non Energy-saving Mode: ≤50W Energy-saving Mode: ≤25W (Manual Setup)		
General			
Certificate	CE(IEC62109-1)		
EMC Certification Level	EN61000, C2		
Working Temperature Range	-15°C ~ 55°C		
Storage Temperature Range	-25°C ~ 60°C		
Humidity Range	5% to 95%(Conformal Coating Protection)		
Dimensions	482mm*425mm*133mm		
Weight (KG)	13.3KG		

All-in-one Solar Charger Inverter

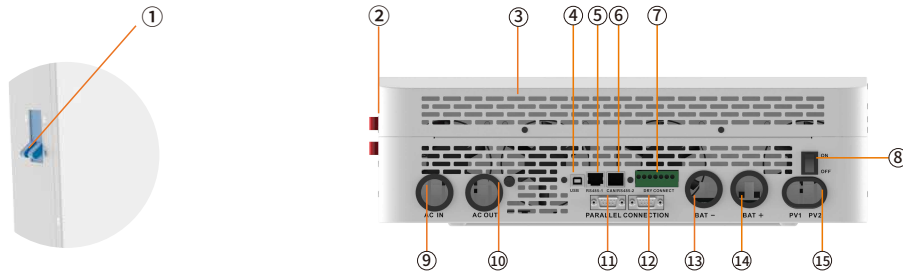
SF48V-H High Voltage Series(Max.Voc: 500V; Rated input voltage: 120/240V)



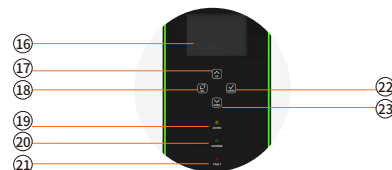
Performance characteristics

- Dual MPPT with up to 99.9% efficiency
- Up to 22A PV input current perfect for high power modules
- Outputs high quality pure sine wave AC power
- 8-10kW load power to meet the needs of most households
- Industrial design with a modern aesthetic look
- Easy to install and simple to use
- 360 degrees of security from hardware to software
- EU and North American safety approvals
- Solar Charger Controller up to 200A charging current
- Support for Li-ion battery BMS communication
- Exclusive Li-ion battery BMS dual activation
- Time-slot function to save cost with peak-valley tariff

Product characteristics

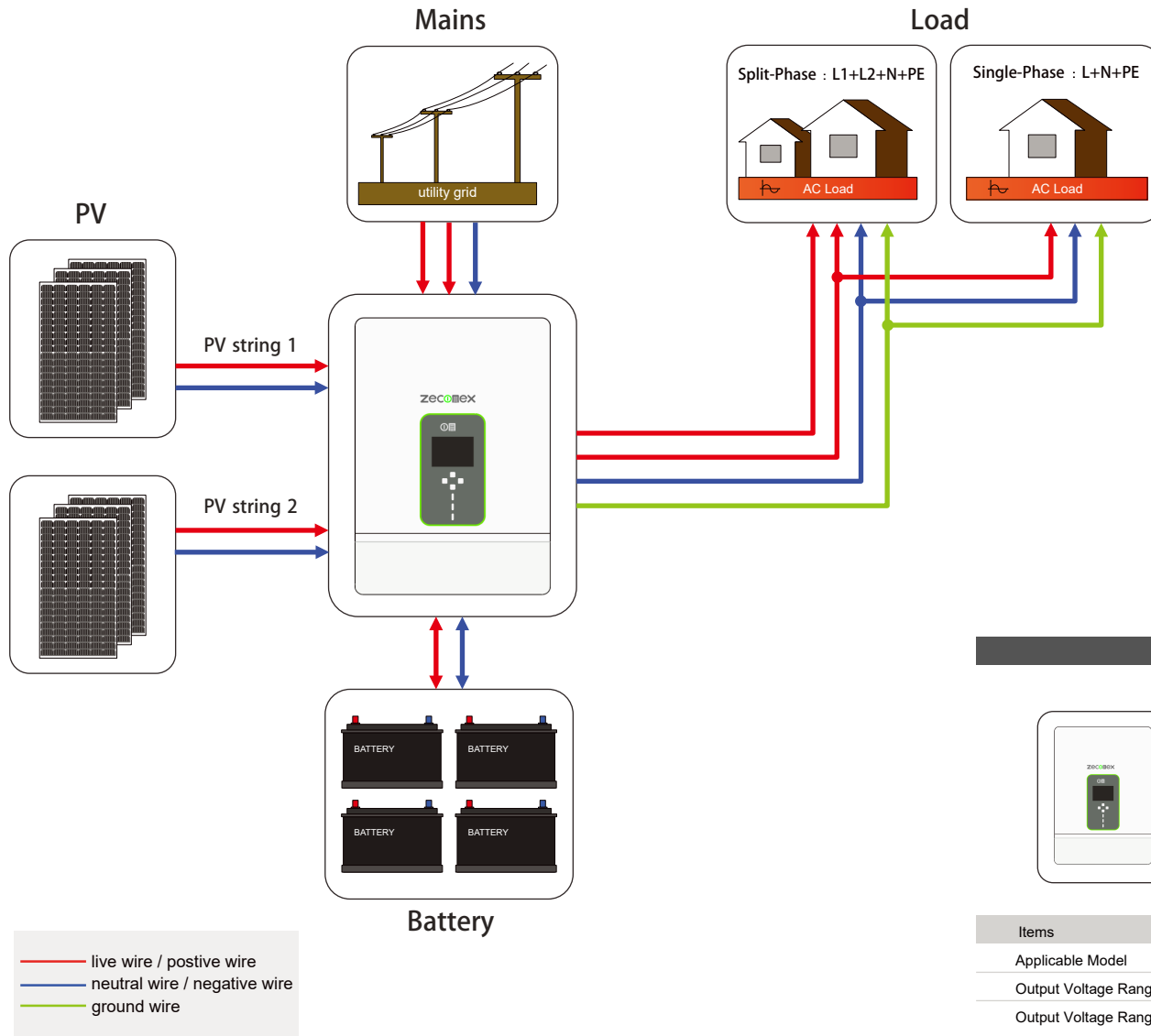


① Overload Protector	⑨ AC IN	⑰ UP
② ON/OFF Rocker Switch	⑩ AC OUT	⑱ SET
③ Cooling fan	⑪ PARALLEL	⑲ AC / INV
④ USB	⑫ CONNECTION	⑳ CHARGE
⑤ RS485-1	⑬ BAT -	㉑ FAULT
⑥ CAN RS485-2	⑭ BAT +	㉒ ENTER
⑦ DRY CONNECT	⑮ PV1 PV2	㉓ DOWN
⑧ ON / OFF	⑯ LED Display Screen	

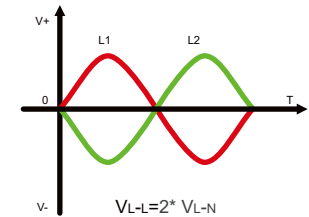
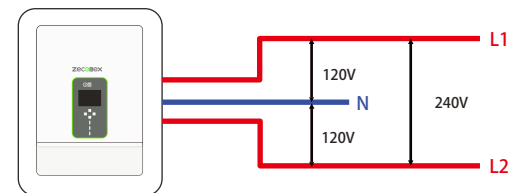


Parameters

MODEL	ZECO-SF4880H200-U	ZECO-SF48100H200-U	CANBE SET
INVERTER OUT PUT			
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)		Y
Load Capacity of Motors	5HP	6HP	
Rated AC Frequency	50/60Hz		Y
Waveform	Pure Sine Wave		
Switch Time	10ms (typical)		
Parallel capacity	/		
BATTERY			
Battery Type	Li-ion / Lead-Acid / User Defined		Y
Rated Battery Voltage	48Vdc		
Voltage Range	40-60Vdc		Y
Max. MPPT Charging Current	200A		Y
Max. Mains/Generator Charging Current	100A	120A	Y
Max. Hybrid Charging Current	180A	200A	Y
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, IndoorOnly		
Operating Temperature Range	-15~55 C, >45 C derated (5~131 F, >113 F derated)		
Noise	<60dB		
Cooling Method	InternalFan		
Warranty	2Years		
COMMUNICATION			
Embedded Interfaces	RS485/CAN/USB/Drycontact		Y
External Modules (Optional)	Wi-Fi/GPRS		Y
CERTIFICATION			
Safety	IEC62109-1,IEC62109-2,UL1741		
EMC	EN61000-6-1,EN61000-6-3,FCC15classB		
RoHS	Yes		



AC Output Voltage Range



Items	Description
Applicable Model	SF series H model
Output Voltage Range(L-N)	100 ~ 120Vac, 120Vac default
Output Voltage Range(L-L)	200 ~ 240Vac, 240Vac default

Solar charge inverter



- 1.Product model:HFP4850S80-145
- 2.Load power:30kw,three-phase 380V
- 3.Power storage capacity :40Kwh
- 4.PV power:30kw
- 5.Case location:ZhongShan City,GuangDong Province, China
- 6.Application scenarios:three-phase can be output,used for villa



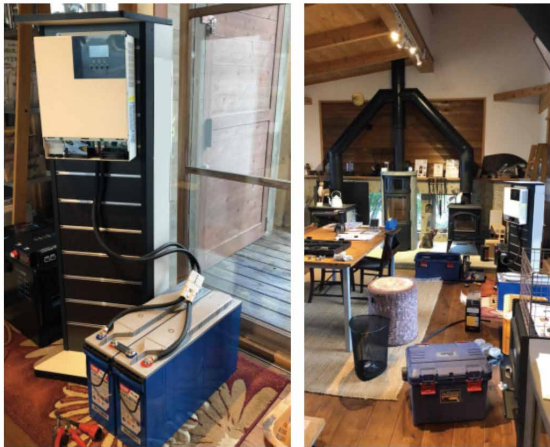
- 1.Product model:HFP4850S80-145
- 2.Load power:10kw
- 3.Power storage capacity :48V 30Kwh
- 4.PV power:12kw
- 5.Case location:CangShang City, YunNan Province, China
- 6.Application scenarios:10KW can be offgrid output



- 1.Product model:HFP4850S80-145
- 2.Load power:7.5kw three-phase air compressor
- 3.Power storage capacity :24 batteries for 12V120AH GEL battery
- 4.PV power:18*350W
- 5.Case location:Zhangzhou City, FuJian Province, China
- 6.Application scenarios:For use in the cabin, solar panels are laid on the roof of the cabin, Generators as an auxiliary energy source, three units in three-phase parallel output 380V driving 7.5KW load.



- 1.Product model:HFP4850S80-145
- 2.Load power:7kw
- 3.Power storage capacity :12 batteries for 12V200AH Lead-acid battery
- 4.PV power:about 8KW
- 5.Case location: Zhongshan City, Guangdong Province, China
- 6.Application scenarios:household electricity consumption



1. Product model: HF2430U60-100
2. Output power: 3kw
3. Output voltage :100V
4. Power storage capacity: AGM 24V 210Ah
5. Load power: 1HP air conditioner
6. Case location: Japanese kumamoto



1. Product model: HF2430S60-100
2. Load power: 1kw
3. Power storage capacity : 24V Lead-acid battery
4. PV power: 1600W
5. Case location: Bulgaria
6. App



1. Product model: HF4830S60-H
2. Quantity: 9
3. Load power :Public toilets :300W lighting, 1P air conditioning (735W), and others, approx. 1.5-2kW
4. Power storage capacity: 4 batteries for 12V200AH Lead-acid battery array(solar panel): 8*450W GPS module with years dataflow
5. Case location: ChangZhou City, JiangSu Province, China
6. Application scenarios: Photovoltaic public toilet