YIY

Inverter / MPPT Charger / AC Charger

Start Digital Power Supply

YIYEN HOLDING GROUP

YIYEN HOLDING GROUP is a high-tech company that focuses on researching and manufacturing power electronic technology，integrating design, research and development, manufacturing, sales and service. YIYEN is dedicated to reducing electricity costs, improving electricity efficiency, and providing core power equipment and system solutions for the energy Internet of Things.With electrochemical energy storage and energy efficiency management as its core industry, YIYEN provides energy-saving service for power system, communication system, financial system, education system, medical system, and large industrial and mining enterprises.

Energy storage and energy efficiency management are critical reducing carbon emissions and promoting sustainable development. YIYEN's mission is to help make energy and ecology more harmonious by providing advanced energy storage and power quality solutions which improve efficiency, reduce costs, and promote clean energy.YIYEN will always continue to devote ourselves to the research and development and manufacturing of power electronic technology, and be committed to delivering cutting-edge solutions helping customers meet their energy management goals while contributing to a more sustainable future for all.

300+
Staff

15+
Years Experience

30000m²+
Plant Areas

100,000+ / year
Unit Shipments

50+
R&D Staff

130+
Export Countries

100+
Intellectual Properties

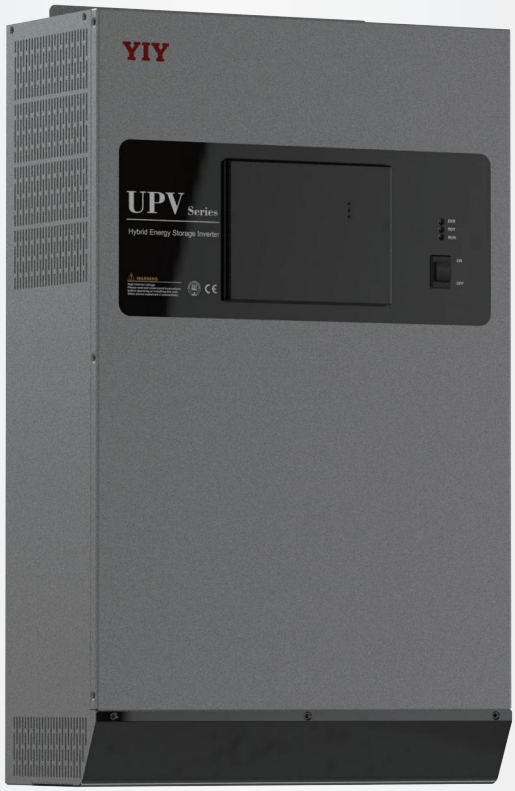
PRODUCT CATALOG

PRODUCT CATALOGUE

UE

UPV

Hybrid Solar Energy Storage Inverter



UPV Series is a multifunctional hybrid energy storage inverter with DC-AC inverter, DC-DC solar charger and AC-DC battery charger functions to offer uninterrupted and stable power to loads. UPV inverter can maximize the usage of solar energy, minimize electricity bill and optimize the usage of battery power through its builtin EMS system. Its comprehensive HMI offers user configurable and easy accessible operation to preset some basic data and working mode based on different applications.

Product Features

- Builtin EMS achieves high efficient utilization of power energy among the grid, battery and solar.
- Reservation mode allows users to set up time for charging and discharging(peak shaving function).
- Switch time <8 ms(to off grid mode).
- Can be used in single /dual/ three phase grid structures.
- On-grid mode and off grid mode selectable.
- Max efficiency 95%, THD<5% under full load.
- Battery charging voltage and charging current programmable.
- Friendly HMI allows user configuration.

Applications

Home Power Supply

Solar Energy Storage

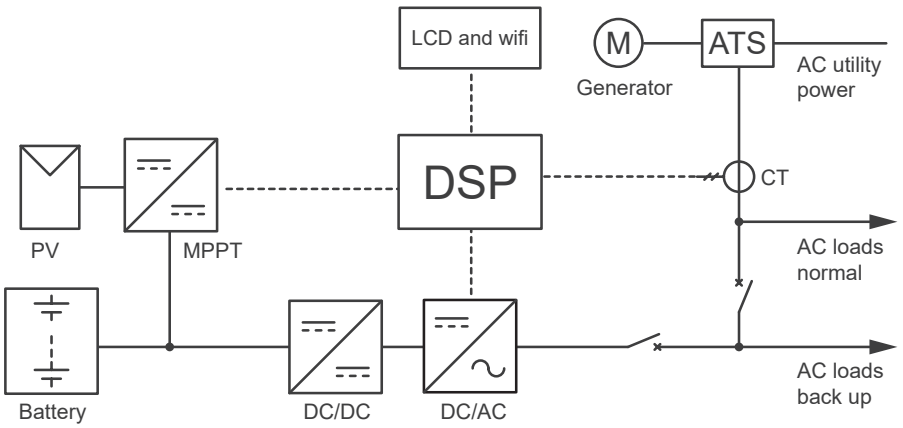
RV

Office Equipment

Engineering Vehicles

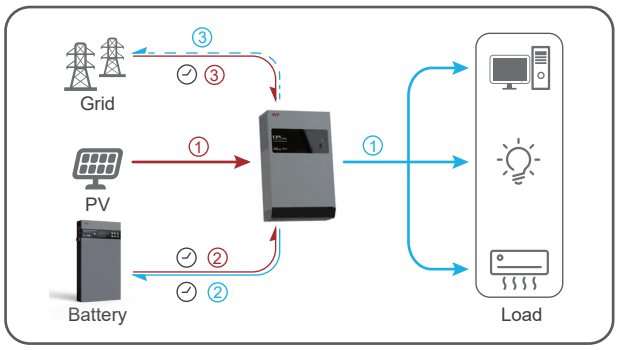
Marine

Technology Topology



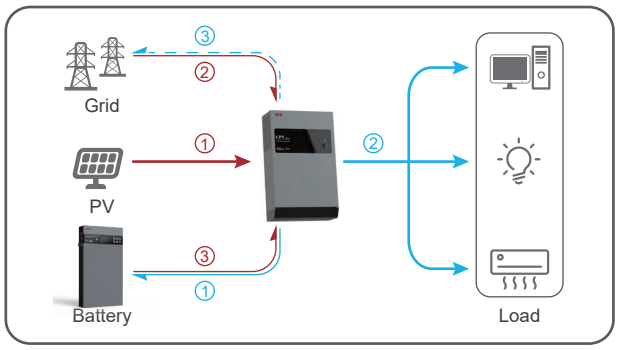
Working Mode

On and off grid:



• Self-consumption priority

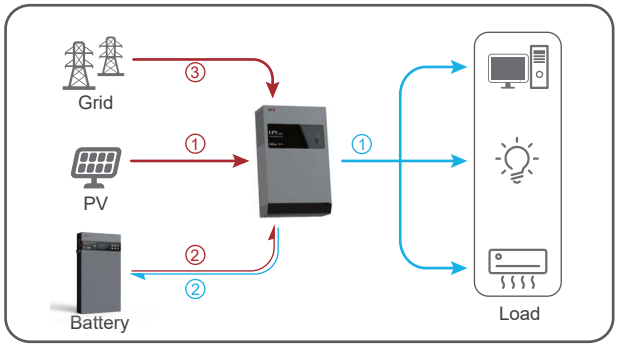
When solar power is sufficient, it provides power to loads directly, and then charge batteries or sell to the grid. But when the solar power is insufficient, it will be supplemented by battery or the grid. Inverter charges battery at set time when grid tariff is cheap to secure battery health.



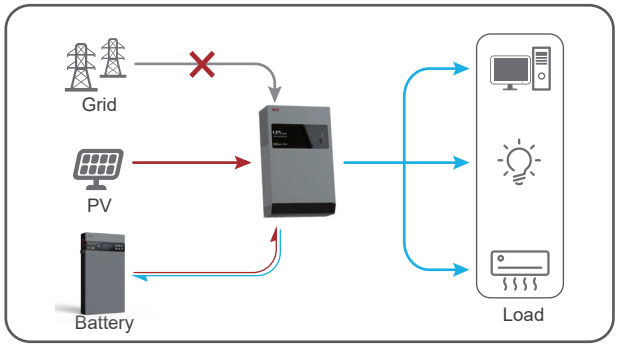
• Back up mode

Solar power charges batteries first, then power up the loads connected. If there is still excess power. it feeds back to the grid. If solar power is insufficient, it will be supplementedby the grid. Battery power only works when the grid fails.

Off Grid:



Solar power supports loads first, and then charge batteries.When solar power is insufficient, it will be supplemented by battery power and the grid.



Solar power charges batteries first, then power up the loads connected. If solar power is insufficient, it will be supplementedby the batteries.

Technical Parameter

UPV Series Hybrid Energy Storage Inverter/Charger

Mode	UPV 5048E	UPV 6048E
Battery		
Battery Type	Lead~acid or Lithium~ion	
Battery Voltage Range	40~60V	
Max. Charge/Discharge Current	100A	
Charging Curve	3 Stages	
Charging Voltage	Depends On Battery Type (Schedule 1)	
Input DC(PV Side)		
Recommended Max. PV Power	3kW	
Rated Voltage	60~200V	
Max. Input Voltage	200V	
Start Up Voltage	75V	
MPPT Voltage Range	75~170V	
Max. Input Current	60A	
No.Of MPPT Trackers No.Of Strings Per MPPT Tracker	1	
PV Module Utilization	≥99.6%	
Output AC (Back Up)		
Rated Output Power	5000W	6000W
Max. AC Output Power	5500W	6600W
Back Up Switch Time	<8ms	
Rated output voltage	230V (Single Phase)	
Rated frequency	50Hz	
Rated output current	22.7A	27.3A
Input Voltage Waveform	Sine Wave	
THDv (@linear load)	2%	
No load loss	<50W	
Output AC(Grid side)		
Rated Output Power	5000W	6000W
Max. AC Output Power	5500W	6600W
Rated grid voltage	230V(177~267V/90~267V) (Single Phase)	
Rated grid frequency	50Hz/60Hz(47Hz~55Hz/ 57Hz ~65Hz)	
Rated output current	22.7A	27.3A
Power Factor	>0.95	
THDi	<5%	

Efficiency	
Max. efficiency	95%
Protection	
Anti islanding Protection	Integrated
PVString Input Reverse Polarity Protection	Integrated
Insulation Resistor Detection	Integrated
Output Over Current Protection	Integrated
Output Over Voltage Protection	Integrated
Overtemperature protection	Integrated
Surge protection	Integrated
General Data	
Display	LED+LCD
Communication	RS485/CAN
Dimensions (W*H*D)	415*488*200mm
Weight	16kg
Installation Style	Rack/Wall Mounted
Topology	Transformer Isolation
Operating Temperature Range	-20~60℃ (Derating Treatment Is Required IfThe Radiator Is Above 80)
Humidity	0%~95% Relative Humidity (No Condensation)
Cooling	Intelligent Air Cooling
Protection Degree	IP20
Max. operation altitude	2000m (>2000m Derating)
Warranty	1 Years

*Schedule 1: Battery Type And Charging Voltage

Battery Type	Boost/Vdc	Float/Vdc
Gel USA	56Vdc	54.8Vdc
AGM 1	56.4Vdc	53.6Vdc
LiFePO4_LF14	57.6Vdc	54.4Vdc
MnNiCo_N14	54.8Vdc	54.8Vdc
Custom	Set The Information According To The Specification Of The Battery	

UP

Bi-directional Battery Inverter

UP series is a bidirectional Battery Inverter/charger with DC-AC inverter and AC-DC battery charger functions to offer uninterrupted and stable power to loads. UP inverter can minimize electricity bill and optimize the usage of battery power through its builtin EMS system. Its comprehensive HMI offers user configurable and easy accessible operation to preset some basic data and working mode based on different applications.

Product Features

- Builtin EMS achieves high efficient utilization of power energy among the grid and battery
- Reservation mode allows users to set up time for charging and discharging(peak shaving function)
- Switch time <8 ms (to off grid mode)
- Can be used in single /dual/ three phase grid structures
- On-grid mode and off grid mode selectable
- Max efficiency 95%, THD<5% under full load
- Battery charging voltage and charging current programmable
- Friendly HMI allows user configuration

Applications

Home Power Supply

Solar Energy Storage

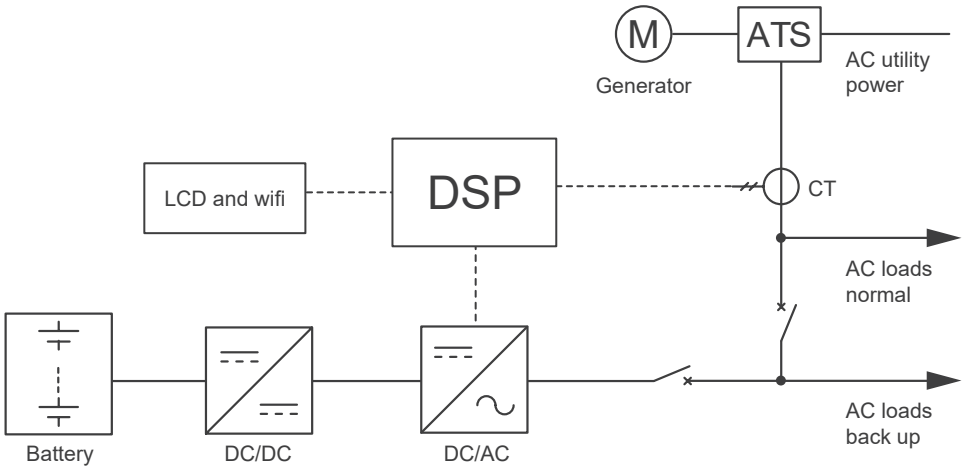
RV

Office Equipment

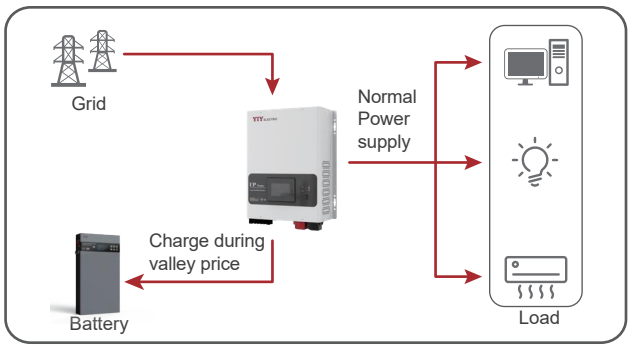
Engineering Vehicles

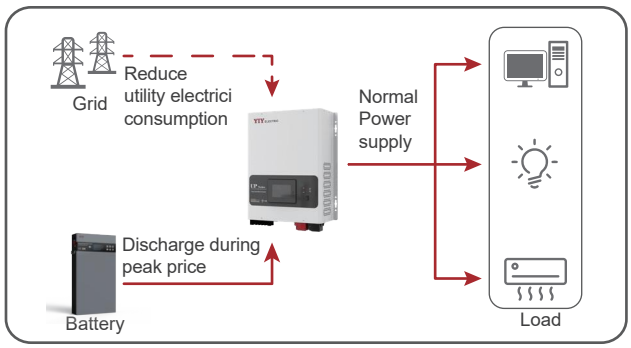
Marine

Technology Topology



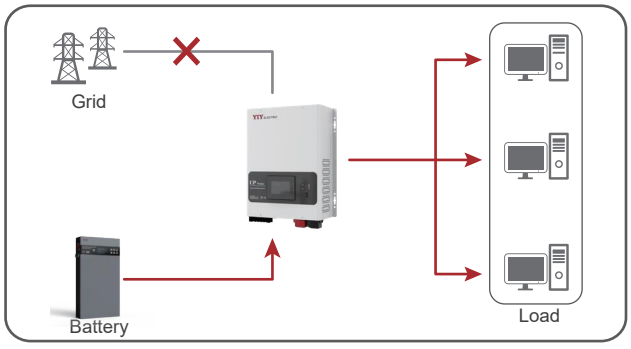
Working Mode





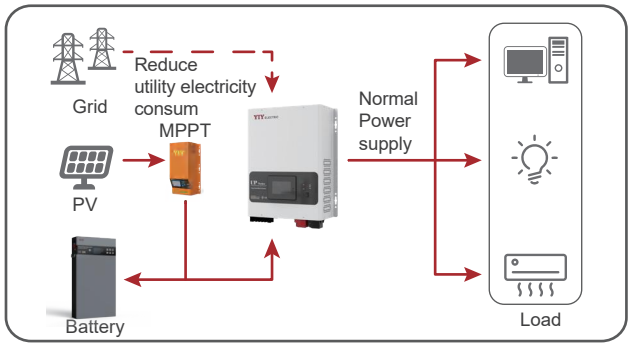
• Reservation Mode

UP inverter charges batteries when grid tariff is low and discharge batteries to power up loads when grid tariff is high, which helps reduce electricity bills for users in areas where there is big tariff difference between peak time and valley time



• Backup Power Mode

Release the energy stored in battery when the grid fails (switching time 6-8ms), to provide power and protection for important loads, which suits users in areas with unstable grid power.



• Solar Generation Mode

Capable of charging battery by solar power if collocate with MPPT and solar panels, that can reduce gird electricity consumption. The solar power can supply to loads directly after battery is full.

Technical Parameter

UP Series Bi-directional Battery Inverter

Model	UP 5048E	UP 6048E
Battery		
Battery Type	Lead~acid or Lithium~ion	
Battery Voltage Range	40~60V	
Max. Charge/Discharge Current	100A	
Charging Curve	3 Stages	
Charging Voltage	Depends On Battery Type (Schedule 1)	
Output AC (Back Up)		
Rated Output Powe	5000W	6000W
Max. AC Output Power	5500W	6600W
Back Up Switch Time	<8ms	
Rated output voltage	230V (Single Phase)	
Rated frequency	50Hz	
Rated output current	22.7A	27.3A
Input Voltage Waveform	Sine Wave	
THDv (@linear load)	2%	
No load loss	<50W	
Output AC(Grid side)		
Rated Output Power	5000W	6000W
Max. AC Output Power	5500W	6600W
Rated grid voltage	230V(177~267V/90~267V) (Single Phase)	
Rated grid frequency	50Hz/60Hz (47Hz~55Hz/57Hz ~65Hz)	
Rated output current	22.7A	27.3A
Power Factor	>0.95	
THDi	<5%	
Efficiency		
Max. efficiency	95%	
Protection		
Anti islanding Protection	Integrated	
PV String Input Reverse Polarity Protection	Integrated	
Insulation Resistor Detection	Integrated	
Output Over Current Protection	Integrated	
Output Over Voltage Protection	Integrated	
Overtemperature protection	Integrated	
Surge protection	Integrated	

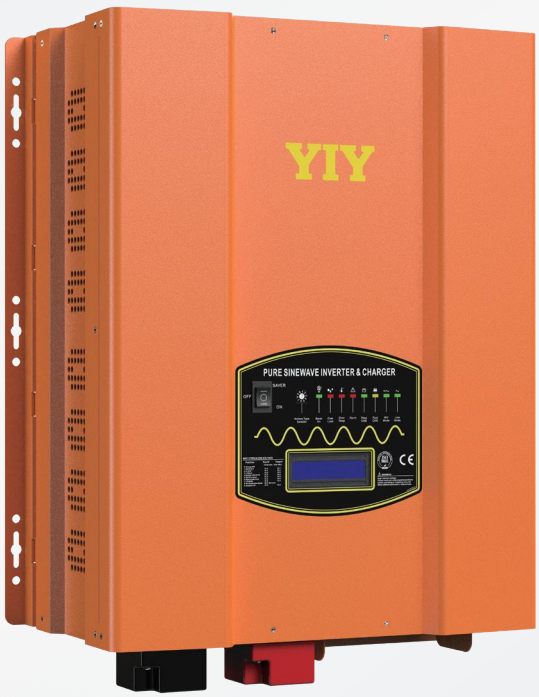
General Data	
Display	LED+LCD
Communication	RS485/CAN
Dimensions (W*H*D)	415*488*200mm
Weight	16kg
Installation Style	Rack/Wall Mounted
Topology	Transformer Isolation
Operating Temperature Range	-20~60℃ (Derating Treatment Is Required If The Radiator Is Above 80℃)
Humidity	0%~95% Relative Humidity (No Condensation)
Cooling	Intelligent Air Cooling
Protection Degree	IP20
Max. operation altitude	2000m(>2000m Derating)
Warranty	1 Years

*Schedule 1: Battery Type And Charging Voltage

Battery Type	Boost/Vdc	Float/Vdc
Gel USA	56Vdc	54.8Vdc
AGM 1	56.4Vdc	53.6Vdc
LiFePO4_LF14	57.6Vdc	54.4Vdc
MnNiCo_N14	54.8Vdc	54.8Vdc
Custom	Set The Information According To The Specification Of The Battery	

HP/HPV

Low Frequency Pure Sine Wave Inverter/Charger



- High Output Capacity up to 18 KW.
- Ultra Low THD,Typically 7%Under Full Linear Load (battery low).
- Battery Temperature Sensing For Increased Charging Precision.
- Powerful Charge Rate up to 120Amp, Selectable From 0%-100%.
- Auto Gen Start Function For Off Grid System With Generator As Backup Power.
- MPPT Solar Charger Controller Available.

Product Features

- AC Voltage:100-110-120VAC/220-230-240VAC.
- DC Voltage:12VDC/24VDC/48VDC/96VDC.
- MPPT bulit-in Seletable.
- Remote Control Seletable (RJ11 port/RJ45 port).
- ≥3KW,120/240VAC split phase.
- BTS Seletable.
- GFCI Seletable.

Applications

Home Power Supply

Solar Energy Storage

RV

Office Equipment

Engineering Vehicles

Marine

Technical Parameter

HP Pure Sine Wave Inverter/Charger													
Inverter Output	Model	1.0KW	1.5KW	2.0KW	3.0KW	4.0KW	5.0KW	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	18.0KW
	Continuous Output Power	1.0KW	1.5KW	2.0KW	3.0KW	4.0KW	5.0KW	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	18.0KW
	Surge Rating (20Secs)	3.0KW	4.5KW	6.0KW	9.0KW	12.0KW	15.0KW	18.0KW	24.0KW	30.0KW	36.0KW	45.0KW	54.0KW
	Output Waveform	Pure Sine vave/Same as input (Bypass Mode)											
	Nominal Efficiency	>88% (Peak)											
	Line Mode Efficiency	>95%											
	Power Factor	0.9-1.0											
	Nominal Output Voltage rms	100-110-120Vac/ 220-230-240Vac											
	Output Voltage Regulation	±10%RMS											
	Output Frequency	50Hz± 0.3Hz/60Hz± 0.3Hz											
	Short Circuit Protection	Yes(1 sec after fault)											
	Typical transfer Time	10ms (Max)											
	THD	< 3% (Rated battery level, rated full linear load)											
DC Input	Nominal Input Voltage	12.0Vdc/24.0Vdc		12.0Vdc/24.0Vdc/48.0Vdc				24.0Vdc 48.0Vdc	24.0Vdc/48.0Vdc 96.0Vdc		48.0Vdc/96.0Vdc		
	Minimum Start Voltage	10.0Vdc/ 10.5Vdc for 12Vdc Mode						*2 for 24Vdc/*4 for 48Vdc/*8 for 96Vdc,					
	Low Battery Alarm	10.5Vdc/ 11.0Vdc for 12Vdc Mode											
	Low Batteiy Trip	10.0Vdc/ 10.5Vdcfor 12VdcMode											
	High Voltage Alarm	16.0Vdcfor12Vdc Mode											
	Low Battery Voltage Recover	15.5Vdc for 12Vdc Mode											
	Idle Consumption-Search Mode	< 25W When Power Saver On. (Refer to Table)											
Charger	Output Voltage	Depends on battery type (Refer to Table 2.5.2)											
	Charger Breaker Rating	20A	20A	20A	25A	32A	40A	40A	50A	80A	80A	100A	125 A
	Max Charge Power Rate	1/3 Rating Pover (Refer to Table 2.5.3)											
	Battery Initial Voltage for start	10-15.7Vdcfor12Vdc Mode						*2 for 24Vdc;4 for 48Vdc/8 for 96Vdc,					
	Over Charge Protection S.D.	15.7Vdcfor12Vdc Mode											
	Selector	Switch Setting			Description			Fast Mode / VDC			Float Mode/VDC		
		0			Charger Off								
		1			Gel USA			14.0			13.7		
		2			AGM 1			14.1			13.4		
		3			Lithium			13.8			13.6		
		4			Sealed Lead Acid			14.4			13.6		
		5			Gel EURO			14.4			13.8		
		6			Open Lead Acid			14.8			13.8		
		7			LifePO4			14.0			13.8		
		8			De-sulphation			15.5 (4 Hours then Off)					
		9			Classic LFP			13.6			13.5		
		For 12Vdc Mode Series("2 for 24Vdc Mode/4 for 48Vdc Mode/8 for 96Vdc Mode)											
BTS	Battery Temperature Sensor (Optional)	Yes (Refer to the table) Variances in Charging Voltage & S.D Voltage Base on the Battery Temperature.											

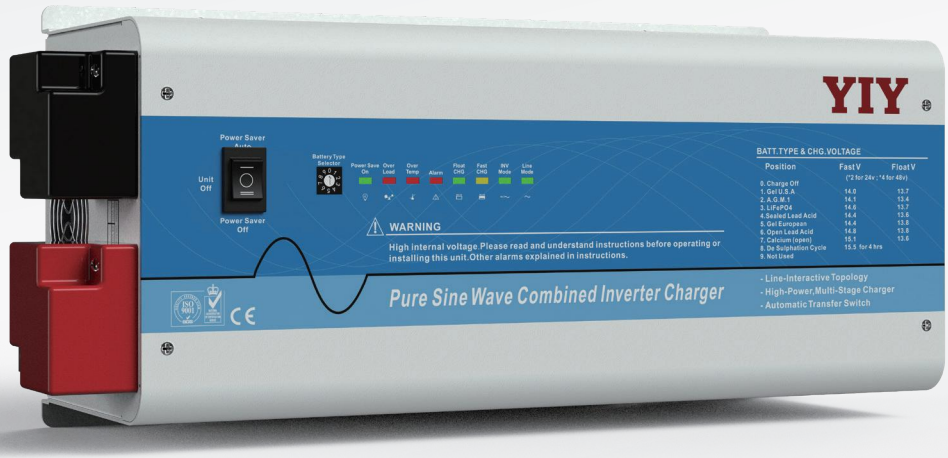
HP Pure Sine Wave Inverter/Charger

BTS	Battery Temperature Sensor (Optional)	Yes (Refer to the table) Variances in Charging Voltage & S.D Voltage Base on the Battery Temperature.											
Bypass & Protection	Input Voltage Waveform	Sine vave (Grid or Generator)											
	Nominal Voltage	100-110-120Vac/ 220-230-240Vac											
	Max Input AC Voltage	150Vac For 120Vac LV Mode; 300Vac For 230Vac HV Mode:											
	Nominal Input Frequency	50Hzor60Hz											
	Low Freq Trip	47±0.3Hzfor 50Hz 57±0.3Hzfor 60Hz											
	High Freq Trip	55±0.3Hz for 50Hz. 65±0.3Hz for 60Hz											
	Ov ertoad protection (SMPS load)	Circuit Breaker											
	Output Short Circuit Protection	Circuit Breaker											
	By pass Breaker Rating	20A	20A	20A	25A	32A	40A	40A	50A	80A	80A	100A	125 A
	Transfer SWitch Rating	30AmpforUL&TUV				40Ampfor UL			80Amp for UL			100AmpforUL	
	Bypass Without Battery Connected	Yes (Optional)											
	Max Bypass Current	30Amp				40 Amp			80Amp			80 Amp	
Mechanical Specifications	Mounting	Wall Mount											
	Inverter Dimensions (L*WH)	388*415*200mm				488*4158*200mm			588*415*200mm			688*415*230mm	
	Inverter Weight (Solar Chg) KG	21+2.5	22+2.5	23+2.5	27+2.5	38+2.5	48+2.5	49+2.5	60+2.5	66+2.5	70+2.5	75+2.5	78+2.5
	Shipping Dimensions(LWH)	550*520*310mm				650*520*310mm			750*520*310mm			850*520*350mm	
	Shipping Weight (Solar Chg) KG	23+2.5	24+2.5	25+2.5	29+2.5	40+2.5	50+2.5	51+2.5	62+2.5	68+2.5	72+2.5	78+2.5	81+2.5
	Display	Status LEDs / Status LEDs+LCD											
	Standard Warranty	1 Years											

Optional Built-In MPPT Solar Controller Parameters Are Detailed On Page 38

AP Mini

Low Frequency Pure Sine Wave Inverter/Charger



- Ultra Low THD,Typically 7% Under Full Linear Load (battery low).
- MPPT Solar Charger Controller Available.
- Remote Control Available.
- Battery Temperature Sensing For Increased Charging Precision.
- Auto Gen Start Function For Off Grid System With Generator As Backup Power.

Product Features

• AC Voltage:120VAC/230VAC.

• DC Voltage:12VDC/24VDC.

• Remote Control Seletable(RJ11 port/RJ45 port).

• BTS Seletable.

• GFCI Seletable.

Applications

Home Power Supply

Solar Energy Storage

RV

Office Equipment

Engineering Vehicles

Marine

Technical Parameter

AP Mini Series Pure Sine Wave Inverter/Charger					
Inverter Output	Power Rating	600W	1000W		1500W
	Continuous Output Power	600W	1000W		1500W
	Surge Rating (20s)	1800W	3000W		4500W
	Output Waveform	Pure Sine wave / Same as input (Bypass mode)			
	Nominal Efficiency	80%(Peak)			
	Line Mode Efficiency	>95%			
	Power Factor	0.9-1.0			
	Nominal Output Voltage RMS	120Vacor230Vac			
	Output Voltage Regulation	±10% RMS			
	Output Frequency	50/60Hz± 0.3Hz			
	Short Circuit Protection	Yes, Current Limit Function (Fault after 1sec)			
	Typical transfer Time	10ms (Max)			
	THD	Typically < 3%(Rated battery level, rated full linear load)			
DC Input	Nominal Inpul Voltage	12.0Vdc		24.0Vdc	
	Minimum Start Voltage	10.0Vdc		20.0Vdc	
	Low Battery Alarm	10.5Vdc/11.0Vdc		21.0Vdc/22.0Vdc	
	Low Battery Trip	10.0Vdc/10.5Vdc		20.0Vdc/21.0Vdc	
	High Voltage Alarm & Fault	16.0Vdc		32.0Vdc	
	High DC Input Recovery	15.5Vdc		31.0Vdc	
	Low Battery Voltage Recover	13.0Vdc		26.0Vdc	
	Idle Consumption-Search Mode	<25W when Power Saver On			
Bypass & Protection	Input Voltage Range	Narrow: 100 ~ 135VAC /194 - 243Vac			
		Wide: 90 ~ 135VAC /150 ~ 260Vac			
	Input Frequency Range	Narrow: 47-55 ± 0.3Hz for 50Hz, 57-65 ± 0.3Hzfor 60Hz			
		Wide: 42-68 ± 0.3Hz for 50Hz / 60Hz			
	Output Voltage	Depends on battery type			
	Charger Breaker Rating (120Vac)	7A	10A		15A
	Max Charge Rate	20A to 25A +/-5A, depending on models		15A	
	Over Charge Protection Shutdown	15.7V for 12Vdc			
	Battery type	Fast Vdc		Float Vdc	
	Gel U.S.A	14		13.7	
	A.G.M 1	14.1		13.4	
	A.G.M2	14.6		137	
	Sealed Lead Acid	14.4		13.6	
	Gel Euro	14.4		13.8	
	Open Lead Acid	14.8		13.3	
	Calcium	15.1		13.6	
	De-sulphation	15.5 for 4hrs			
	Remote Control	Yes. Optional			
Mechanical Specification	Inverter Dimensions (L*W*H)	325*173*135mm/12.8*6.8*5.3		362*173,135mm /14.3*6.8*5.3"	
	Inverter Weight	7.5KG/16.5lb		11KG/24.3lb	14KG/30.8lb
	Shipping Dimensions (L*W*H)	425*230*205mm/16.7*9*8		475*230*205mm/18.7*9*8	
	Shipping Weight	8.5KG/18.7lb		12KG/26.5lb	16KG/35.2lb
	Display	Display			
	Standard Warranty	Standard Warranty			

AP

Low Frequency Pure Sine Wave Inverter/Charger

Product Features

- Stabilizing the output AC voltage to a range of 230V+/-10%.
- Connected with batteries,the AP inverter will function as a UPS with max transfer time of 10ms.
- With all the unique features from the inverter and AVR,it brings you long-term trouble free operation Beyond your expectation.
- Built-in voltage stabilisation (optional).
- Built-in solar controller MPPT (optional).

- AC Voltage:100-110-120VAC/220-230-240VAC.
- DC Voltage:12VDC/24VDC/48VDC.
- Remote Control Seletable(RJ11 port/RJ45 port).
- LCD Display Seletable.
- Split Phase Available : ≥3KW ,120/240VAC split phase.
- Support for lithium battery charging (optional).
- BTS Seletable.
- GFCI Seletable.

Applications

Home Power Supply

Solar Energy Storage

RV

Office Equipment

Engineering Vehicles

Marine

Technical Parameter

AP Pure Sine Wave Inverter/Charger								
Inverter Output	Model	1000W	1500W	2000W	3000W	4000W	5000W	6000W
	Continuous Output Power	1000W	1500W	2000W	3000W	4000W	5000W	6000W
	Surge Rating (20S)	3000W	4500W	6000W	9000W	12000W	15000W	18000W
	Capable of Starting Electric Motor	1HP	1.5HP	2HP	3HP	4HP	5HP	6HP
	Output Waveform	Pure Sine wave / Same as input (Bypass Mode)						
	Nominal Efficiency	>88% (Peak)						
	Line Mode Efficiency	>95%						
	Power Factor	0.9-1.0						
	Nominal Output Voltage rms	100-110-120Vac / 220-230-240Vac						
	Output Voltage Regulation	±10% RMS						
	Output Frequency	50Hz ± 0.3Hz /60Hz ± 0.3Hz						
	Short Circuit Protection	Yes, Current Limit Function (Fault after 1 sec)						
	Typical transfer Time	10ms (Max)						
	THD	<10%						
DC Input	Nominal Input Voltage	12.0Vdc						
		(*2 for 24Vdc, *4for48Vdc)						
	Minimum Start Voltage	10.0Vdc						
	Low Battery Alarm	10.5Vdc/11.0Vdc						
	Low Battery Trip	10.0Vdc/10.5Vdc						
	High Voltage Alarm & Fault	16.0Vdc						
	High DC Input Recovery	15.5Vdc						
	Low Battery voltage recover	13.0Vdc						
	Idle Consumption-Search Mode	<25 W when Power Saver On						
Charger	Input Voltage Range	Wide: 90~135VAC / 164-243VAC ;						
		Narraw: 100-135VAC / 194-243VAC ;						
	Output Voltage	Depends on battery type						
	Charger Breaker Rating	10A	10A	10A	20A	20A	30A	30A
	Max Charge Rate	35A/70-90A Max(Charger Current Control)						
	Over Charge Protection Shutdown	15.7V for 12Vdc(*2 for 24Vdc, *4 for48Vdc)						
	Charger curve(4 stage constant current) 4 Step Digital Controlled Progressive Charge	Battery types (*2 for 24Vdc, *4 for 48Vdc)						
	Battery type	Fast Vdc				Float Vdc		
	Gel U.S.A	14				13.7		
	A.G.M 1	14.1				13.4		
	A.G.M2	14.6				13.7		
	Sealed Lead Acid	14.4				13.6		
	Gel Euro	14.4				13.8		
	Open Lead Acid	14.8				13.3		
	Calcium	15.1				13.6		
	De-sulphation	15.5 for 4hrs						
	Remote Control	Yes. Optional						

AP Pure Sine Wave Inverter/Charger								
Bypass& Protection	Input Voltage Waveform	Sine wave (Grid or Generator)						
	Nominal Voltage	120Vac				230Vac		
	Low Voltage Trip	80V/90V±4%				184V/154V±4%		
	Low Voltage re engage	90V/100V±4%				194V/164V±4%		
	High Voltage Trip	140V±4%				253V±4%		
	High Voltage re engage	135V±4%				243V±4%		
	Max Input AC Voltage	150VAC				270VAC		
	Nominal Input Frequency	50Hz or 60Hz (Auto detect)						
	Low Freq Trip	47±0.3Hz for 50Hz, 57±0.3Hz for 60Hz						
	Low Freq re engage	48±0.3Hz for 50Hz, 58±0.3Hz for 60Hz						
	High Freq Trip	55±0.3Hz for 50Hz, 65±0.3Hz for 60Hz						
	High Freq re engage	54±0.3Hz for 50Hz. 64±0.3Hz for 60Hz						
	Output Short circuit protection	Circuit breaker						
	Bypass breaker rating	10A	15A	20A	30A	30A	40A	40A
	Transfer switch rating	30ampforUL&TUV				270VAC		
		Max bypass current				40amp		
Mechanical Specification	Mounting	Wall mount						
	Inverter Dimensions(L*W*H)	382*218*179mm		442*218*179mm		598*218*179mm		
	Inverter Weight	16KG	17KG	20KG	24KG	35KG	45KG	45KG
	Shipping Dimensions(L*W*H)	520*315*300mm		580*315*300mm		740*315*300mm		
	Shipping Weight	18KG	19KG	22KG	26KG	37KG	47KG	47KG
	Display	Status LEDs / Status LEDs+LCD						
	Standard Warranty	1 Year						

TPP

48VDC Three Phase Pure sine wave Inverter/charger

Product Features

- High output capcity upto 45KW .
- Unbalance Load Acceptable Idle Consumption Search Mode,less than 100 W when Power Saver On.
- DC input voltage 12VDC/24VDC/48VDC.
- Powerful charge rate max charge current up to 450A (150A*3).
- Intelligent commnication port RS 232,RS 485,CAN port.
- Advanced MPPT solar charger controller Available.
- LED + LCD Display.
- Remote control optional(LED or LCD remote)

- Connection mode:3-phase 4-wire /3-phase 3-wire.
- AC Voltage:3AC/N 400V/207V.
- DC Voltage:48VDC.
- Remote Control Seletable(RJ11 port/RJ45 port).
- Ultra Low THD, less than 3% under full linear load (battery low).
- 13Vdc battery Recover Point,Dedicated for Renewable Energy Systems.
- BTS Seletable.

Applications

Home Power Supply

Solar Energy Storage

RV

Office Equipment

Engineering Vehicles

Marine

Technical Parameter

TPP Series Inverter & Charger										
Inverter Output	Model	6KW	9KW	12KW	15KW	18KW	24KW	30KW	36KW	45KW
	Continuous Output Power	6000W	9000W	12000W	15000W	18000W	24000W	30000W	36000W	45000W
	Surge Rating(20s)	18000W	27000W	36000W	45000W	54000W	72000W	90000W	108000W	135000W
	"Capable of Starting Electric Motor"	6HP	9HP	12HP	15HP	18HP	24HP	30HP	36HP	45HP
	Unbalance Load Acceptable	100%								
	DC Input Voltage	48.0Vdc								
	Output Waveform	Pure Sine wave/Same as input(Bypass mode)								
	Nominal Efficiency	89%(Peak)								
	Line Mode Efficiency	>95%								
	Power Factor	0.9-1.0								
	Connection mode	3-phase 4-wire system+Gnd								
	Output voltage rating	3AC/N 400V/207V								
	Output phase voltage	120/230VAC	120/230VAC	120/230VAC	120/230VAC	120/230VAC	230VAC	230VAC	230VAC	230VAC
	Output Voltage Regulation	±10% RMS								
	Output Frequency	50/60HZ ±0.3Hz								
	Short Circuit Protection	Yes, Current Limit Function (Fault after 60ms)								
	Typical transfer Time	Typical 6-8ms,10ms(Max)								
	THD	<3%Linear Loac								
DC Input	Nominal Input Voltage	48.0Vdc								
	Minimum Start Voltage	42.0Vdc/ 44.0Vdc								
	Low Battery Alarm	42.0Vdc /44.0Vdc								
	Low Battery Trip	40.0Vdc/ 42.0Vdc								
	High Voltage Alarm & Fault	64.0Vdc								
	High DC Input Recovery	62.0Vdc								
	Low Battery Voltage Recover	52.0Vdc								
	"Idle Consumption-Search Mode"	< 100 W when Power Saver On								
Charge	Input Voltage Range	Narrow: 96-132VAC / 184~253VAC;Wide 70-135VAC70-135VAC/ 140-270VAC;								
	Input Frequency Range	Narrow: 47-55D.3Hzfor 50Hz. 57-65d£).3Hz for 60Hz Wide:40-70D.3Hz for 50Hz/60Hz								
	Output Voltage	Same as input								
	Charger Breaker Rating(230Vac)	10A	20A	20A	30A	30A	40A	50A	60A	
	Charger Breaker Rating(120Vac)	20A	30A	40A	50A	60A				

Technical Parameter

TPP Series Inverter & Charger										
Charge	Max Charge Rate	20A*3	30A*3	40A*3	50A*3	60A*3	80A*3	100A*3	120A*3	150A*3
	Power Factor	0.97 MAX								
	Over Charge Protection Shutdown	62.8Vdc								
	Battery type	Fast Vdc			Float Vdc					
	Gel U.S.A	14.0			13.7					
	A.G.M 1	14.1			13.4					
	A.G.M 2	14.6			13.7					
	Sealed Lead Acid	14.4			13.6					
	Gel Euro	14.4			13.8					
	Open Lead Acid	14.8			13.3					
	Calcium	15.1			13.6					
	De-sulphation	15.5 for 4hrs								
	Remote Control	Yes. Optional LED/LCD								
Bypass & Protection	Input Voltage Waveform	Sine wave (Grid or Generator)								
	Nominal Voltage	120Vac			230Vac					
	Low Voltage Trip	70V/96V*!%			184V/154V14%					
	Low Voltage re engage	75V/100V14%			194V/164V14%					
	High Voltage Trip	130Vi4%			253V/260V14%					
	High Voltage re engage	135VM%			243V/270VM%					
	Max Input AC Voltage	150VAC			300VAC					
	Nominal Input Frequency	50Hz or 60Hz (Auto detect)								
	Low Freq Trip	Narrow:47±0.3Hz for 50Hz, 57±0.3Hz for 60Hz Wide:40±0.3Hz for 50Hz/60Hz								
	Low Freq re engage	Narrow:48±0.3Hzfor 50Hz, 58±0.3Hzfor 60Hz Wide:42±0.3Hz for 50Hz/60Hz								
	High Freq Trip	Narrow: 55±0.3Hz for 50Hz, 65 ±0.3Hz for 60Hz Wide:70±0.3Hz for 50Hz/60Hz								
	High Freq re engage	Narrow:54 ±0.3Hz for 50Hz, 64 ±0.3Hz for 60Hz Wide:68±0.3Hz for 50Hz/60Hz								
	Output Short circuit protection	Circuit breaker								
	Bypass breaker rating(230Vac)	10A	20A	20A	30A	30A	40A	50A	60A	80A
	Bypass breaker rating(120Vac)	20A	30A	40A	50A	60A				
Other	Communication methods	RS232/458/CAN								
	Display	LED+LCD								

SMP

High Frequency Solar Inverter

- Pure sine wave inverter.
- Configurable input voltage range for home appliances and personal computers via LCD setting.
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority via LCD setting.
- Compatible to mains voltage or generator power.
- Auto restart while AC is recovering.
- Overload/ Over temperature/short circuit protection.
- Smart battery charger design for optimized battery performance.
- Cold start function.

Product Features

• Built-in MPPT.
• WIFI module is optional.
• AC Voltage : 120VAC/230VAC.
• DC Voltage : 12VDC/24VDC/48VDC.

Applications

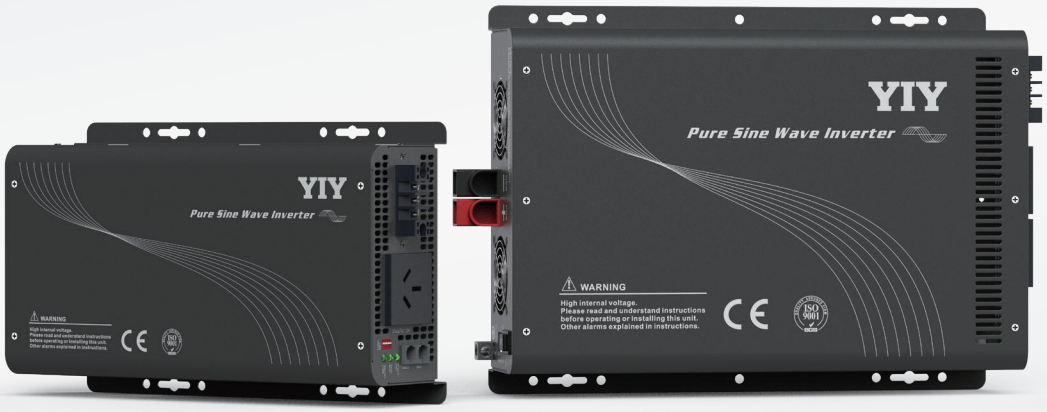
Home Power Supply
Solar Energy Storage
RV
Office Equipment
Engineering Vehicles
Marine

Technical Parameter

SMP Series High Frequency Solar Inverter						
Model Line Mode		1.5KVA-12	3KVA-24	3KW-24	5KW-48	5.5KW-48
		1.5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Nominal AC Input Voltage/Waveform		230Vac/Sinusoidal (utility or generator)				
AC Input Range		90~280Vac(AppEances); 170Vac-280Vac(UPS)				
Max AC Input Voltage		300Vac				
Nominal Input Frequency		50Hz / 60Hz (Auto detection)				
AC Input Frequency Range		40-65±1 Hz; (>42 or <63±1 Hz correback)				
Output Short Circuit Protection		Circuit Breaker				
Efficiency (Line Mode)		>95% (Rated Rload, battery full charged)				
Transfer Time		10ms typical (UPS);				
		20ms typical (Appliances)				
Utility Charging Mode		1.5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Charging Algorithm		3-Step				
AC Charging Current (Max)		30Amp (@ $V_{I/p}$=230Vac)	30Amp (@ $V_{I/p}$=230Vac)	"80Amp (@ $V_{I/p}$=230Vac)"	60Amp (@ $V_{I/p}$=230Vac)	60 Amp (@ $V_{I/p}$=230Vac)
Bulk Charging Voltag	Flooded Battery	14.6Vdc	29.2 Vdc	29.2Vdc	58.4Vdc	58.4Vdc
	AGM / Gel Battery	14.1Vdc	28.2Vdc	28.2Vdc	56.4Vdc	56.4Vdc
Floating Charging Voltage		13.5Vdc	27Vdc	27Vdc	54 Vdc	54Vdc
Invert Mode		1.5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Rated Output Power		1.5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Output Voltage Waveform		Pure Sine Wave				
Output Voltage/Frequency		230Vac±5%/50Hz				
Peak Efficiency		92%	93%	94%	94%	94%
Overload Protection		5s@>150% load; 10s@110%-150% load				
Surge Capacity		2* rated power for 5 seconds				
Nominal Battery Input Voltage		12 Vdc	24Vdc	24Vdc	48Vdc	48Vdc
Cold Start Voltage		11.5Vdc	23.0Vdc	23.0 Vdc	46.0Vdc	46.0Vdc
High DC Cut-off Voltage		15.5Vdc	31Vdc	33Vdc	63Vdc	63 Vdc
No Load Power Consumption		<25W	<30W	<30W	<40W	<40W
MPPT Solar Charging & Invert Mode		1-5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Max. PV Array Power		2000W	3000W	4000W	6000W	6000W
PV Array MPPT Voltage Range		60-300Vdc		120~450Vdc		
Max. PV Array Open Circuit Voltage		350Vdc		495Vdc		
Max Charging Current		60Anp		80 Amp		
Other information		1.5KVA/1.2KW	3KVA/2.4KW	3KVA/3KW	5KVA/5KW	5.5KVA/5.5KW
Safety Certification		CE				
Operating Temperature Range		-10°C to 50°C				
Storage temperature		-15°C~60°C				
Humidity		5% to 95% Relative Humidity (hton-condensing)				
Enclosure		P21				
Dimension (D*W*H), mm		102*255*349	102*255*349	110*309*355	110*309*415	110*309*415
Net Weight, kg		5.2	5.5	7.3	9.6	9.6
Shipping Dimensions (D*W*H),mm		208*390*490	208*390*490	208*390*490	208*390*550	208*390*550
Shipping weight, kg		6.2	6.5	8.2	10.6	10.6

OPS

Solar Inverter



Product Features

- Adopts New Pure Sine-wave Inverter Topology (THD < 3%) .
- High power density with superior reliability and performance.
- Capable of driving highly reactive & capacitive loads at start moment.
- Advanced DSP Control ,Input/output isolated design.
- LED indicators display.
- Low power “Power Saving Mode” to conserve energy.
- Surge Rating: 2 * Prated.
- N+X redundancy function (optional).

Applications

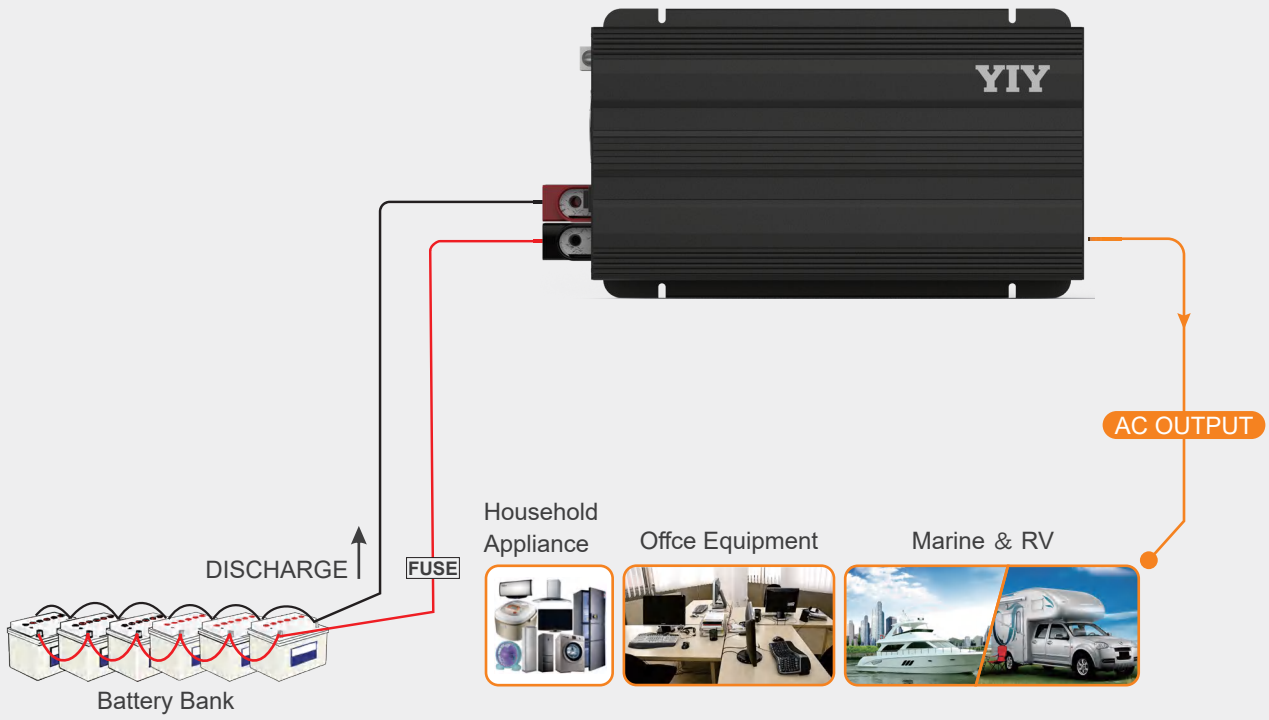
Home Power Supply	Solar Energy Storage	RV
Office Equipment	Engineering Vehicles	Marine

Technical Parameter

OPS Pure Sine Wave Inverter											
Input	Item	0612	1012	—	2012	0612E	1012E	—	2012E	3012E	—
		0624	1024	1524	2024	0624E	1024E	1524E	2024E	3024E	4024E
	Nominal voltage	12Vdc(*2for24Vdc)									
	Operating range	10Vdc~15.1Vdc									
	Startup voltage	11.75Vdc~14.8Vdc									
		Load Level			0-29%		30-69%		70-100%		
	Battery alarm level	Battery-low Level			11.3Vdc		11.2Vdc		11.0Vdc		
		Battery-high Level			14.1Vdc		14.0Vdc		13.8Vdc		
	Battery shut-down level	Battery-under Level			10.3Vdc		10.2Vdc		10.0Vdc		
		Battery-over Level			15.1Vdc		15.0Vdc		14.8Vdc		
	Battery recovery level	Battery-under Recovery			12.5Vdc						
		Battery-over Recovery			14.0Vdc						
Output	Output Waveform	Pure sine wave									
	Output Power	600W	1000W	1500W	2000W	600W	1000W	1500W	2000W	3000W	4000W
	Surge Rating	2*Prated									
	Nominal Output Voltage	110/115/120Vac				220/230/240Vac					
	Output Voltage Regulation	± 5%.....when input voltage higher than battery-low level									
	Output Frequency	50/60Hz±0.1%									
	"Output Current @ 220/230/240"	—				2.73A / 2.61 A / 2.50A	4.55A / 4.35A / 4.17A	6.81A / 6.52A / 6.25A	9.10A / 8.70A / 8.34A	13.65A /13.05A /12.51 A	18.18A /1739A /16.67A
	"Output Current @110/115/120"	5.45A / 5.22A / 5A	9.09A / 8.70A / 8.33A	13.63A 13.04A /12.50A	18.18A /17.39A /16.67 A	——					
	Crest factor	3:1									
	THD	"<3%. linear load; <5%. non-linear load....at nominal Input voltage <15%.....at minimum cut-off (10Vdc) level"									
	"Peak Output Current @ 220/230/240"	—				5.46A / 5.22A / 5.00A	9.10A / 8.70A / 8.34A	13.62A /13.04A /12.50A	18.20A /17.40A /16.68A	273A / 26.1 A / 25.02A	36.36A /34.78A /33.34A
	Peak Output Current @110/115/120	10.92A/ 10.44A / 10A	182A / 17.4A / 16.68A	27.3A / 26.1A / 25A	36.36A /34.78A /33.34A	—					
	Efficiency	>88% (typical), 90% (peak)									
	No load Current Draw	<15W	<15W	<15W	<25W	<20W	<20W	<20W	<30W	<35W	<40W
	Stand-by Current Draw	<6W	<6W	<6W	<10W	<6W	<6W	<6W	<10W	<10W	<10W
	Over load protection	Refer to Sec.3.9 and Sec.3.10									

OPS Pure Sine Wave Inverter

Environmental	Noise	<50 dB								
	Operating temperature	Operation temperature: -20 to +70°C -5 to +40 °C with full performance.								
	Storage temperature	-30-70°C								
	Operating humidity	90% RH (no condense)								
	Operating Attitude	1500m								
	Safety	ETL, UL-458, CE								
	EMC	FCC Part 15 Class B. EN55022 Class B. E-mark								
Mechanical	Dimension LxWxH(mm)	270x160x 70 mm	355x190x95 mm		411x285x 107 mm	270x160x 70 mm	355x190x95 mm		411x285x 107 mm	411x285x122 mm
	Weight (Kg)	2.5kg	4.0Kg	4.5kg	8.0kg	2.5kg	4.0Kg	4.5kg	8.0kg	8.8kg 8.8kg
	Force cooling	Load and Temperature Controlled Cooling Fan								
Control	Protection	Overload, Short circuits, Reverse polarity. Over/ under input voltage, Over temperature, High output voltage, Low output voltage, Unit internal failure. Unit in-parallel failure								
	Startup time	< 5 Seconds								
	Power Saving Recovery Time	5 Seconds								
Human Interface	LED Indicator	3-LED installed								
	Audible Alarm	Buzzer								
	Communication Interface	RS232								



CSB

AC Converter / Battery Charger

Product Features

- Three stage timer-based charging algorithm.
- Most suitable for fast battery charging.
- Operate with wider input voltage range.
- with PFC function.
- High efficiency.
- Highly reliable MOSEFET base design.
- Smart fan control.

Applications

- Home Power Supply
- Solar Energy Storage
- RV
- Office Equipment
- Engineering Vehicles
- Marine

Technical Parameter

CSB AC Converter / Battery Charger						
Model No.	05H / 05L		10H / 10L		20H / 20L	
Rated Power (W)	500W		1000W		2000W	
Battery Voltage	12/24Vdc	36/48Vdc	12/24Vdc	36/48Vdc	12/24Vdc	36/48Vdc
Output Current (A)	37.5/18.75A	12.5/9.375A	75/37.5A	25/18.75A	150/75A	50/37.5A
Display	LED Display / LCD Display (optional)					
AC Input Voltage Range (Vac)	H : 90~286Vac / L :70~145Vac					
Input Type	AC Plug Cord		AC Plug Cord		CSB20L: 3 PIN Terminal Block CSB20H : AC Plug Cord	
AC Input Frequency	40~70Hz					
Charging Efficiency	≥80%					
Operation temperature	0°C ~ 50°C					
Storage temperature	0°C ~ 105°C					
Protection	Over/Under Voltage,Over Temperature,Over Current					
Cooling	Smart fan control (Control by Heat Sink temperature,Charging Current)					
Chasis Material	Iron Chasis / Alu. Chasis					
Optional Accessories / Function	BTS ; Reverse Polarity Protection ; RS232 Comm Module ; Battery 0V Charging ; Rain Shield					
"Product Size (mm) (L x W x H)"	259*134*72.5		259*134*72.5		315*170*83.5	
"Packing Size (mm) (L x W x H)"	346*191*122		346*191*122		415*245*152	
Net Weight (KG)	2.50		2.50		3.50	
Gross Weight (KG)	2.77		2.77		3.92	
Remark	"H : Short for High Voltage 220VAC L: Short for Low Voltage 110VAC"					

Charge Voltage Select :

Battery Type			12VDC Model		24VDC Model		36VDC Model		48VDC Model	
	SW1	SW2	Bulk	Float	Bulk	Float	Bulk	Float	Bulk	Float
DIP Switch	0	1	12.2	12	24.4	24	36.6	36	48.8	48
	1	0	13.8	13.6	27.6	27.2	41.4	40.8	55.2	54.4
	1	1	14.2	13.6	28.4	27.2	42.6	40.8	56.8	54.4
	0	0	14.4	13.8	28.8	27.6	43.2	41.4	57.6	55.2

MPPT
SCM4860

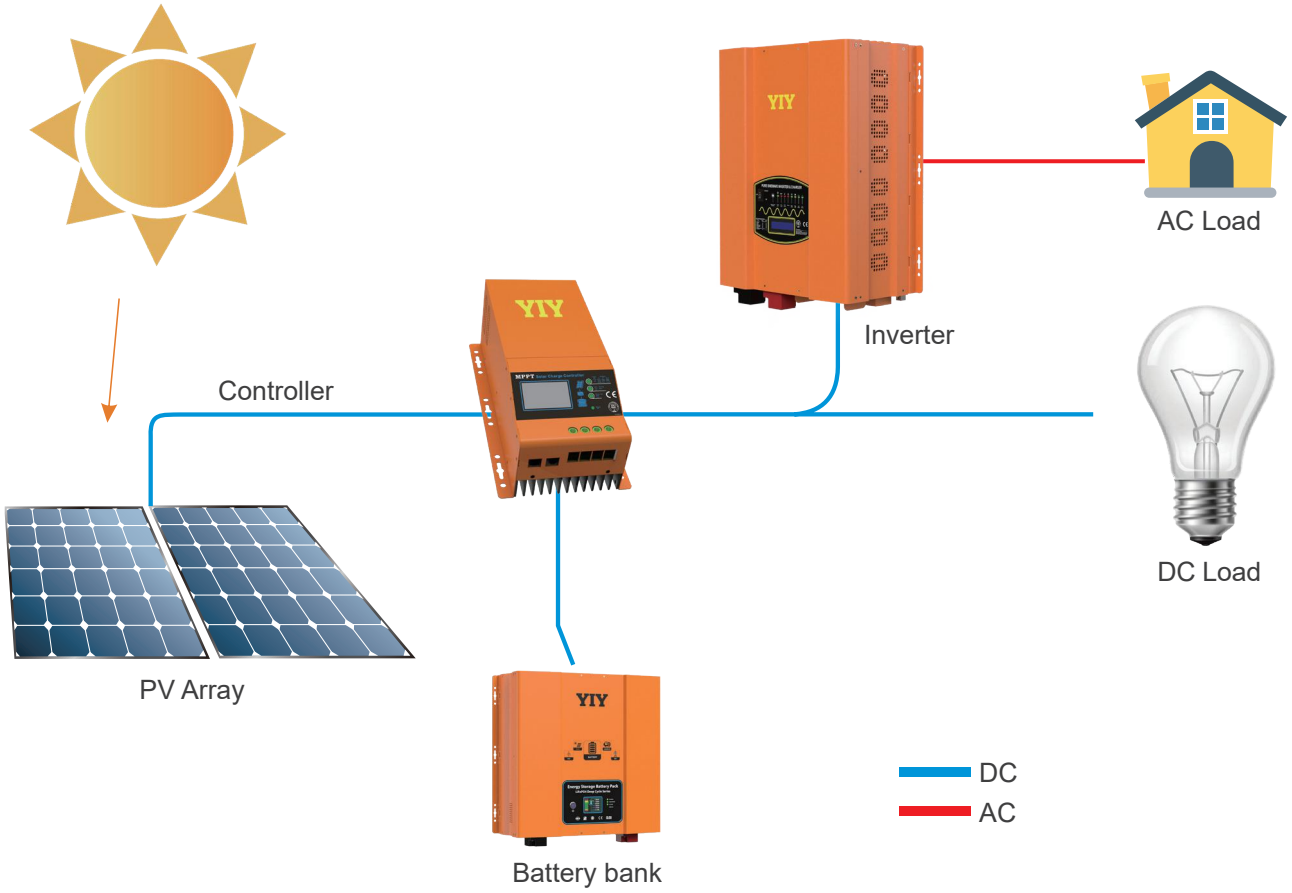
Advanced MPPT Solar Charger Controller

Product Features

- Intelligent Maximum Power Point Tracking technology increases efficiency 25%~30%.
- Compatible for PV systems in 12V,24V or 48V.
- Three-stage charging optimizes battery performance.
- Maximum charging current up to 60A.
- Maximum efficiency up to 98%.
- Battery temperature sensor (BTS) automatically provides temperature compensation.
- Automatic battery voltage detection.
- Support wide range of lead-acid batteries including wet, AGM and gel batteries.

Applications

- Home Power Supply
- Solar Energy Storage
- RV
- Office Equipment
- Engineering Vehicles
- Marine



Technical Parameter

MPPT Solar Charge & Discharge Controller				
MODEL	3KW	Charging Set points	Absorption Stage	Float Stage
Nominal System Voltage	"12, 24, or 48 VDC (Auto detection)"	Flooded Battery	14.6 / 29.2 / 58.4Vdc	13.5 / 27 / 54Vdc
"Maximum Battery Current"	60 Amps	AGM/Gel Battery (Default)	14.1 / 28.2 / 56.4Vdc	13.5 / 27 / 54Vdc
"Maximum Solar Input Voltage"	145Vdc	Over-charging voltage	15Vdc / 30Vdc / 60Vdc	
"PV Array MPPT Voltage Range"	(Bat. Voltage+5)~115Vdc	Overcharging comeback voltage	14.5Vdc / 29Vdc/ 58Vdc	
Maximum Input Power	"12 Volt--800 Watts 24 Volt--1600 Watts 48 Volt--3200 Watts"	Battery defect voltage	8.5Vdc/ 17Vdc/ 34Vdc	
Transient Surge Protection	4500 Watts / port	Battery defect comeback voltage	9Vdc / 18Vdc / 36Vdc	
Temperature compensation coefficient	"Volt-5 mV/°C/ cell (25 °C ref.)"	"Mechanical and Environment"	"Product size (W x H x D mm)"	322 x 173 x 118
Temperature compensation	0°C to +50°C	Product weight (Kg)	4.8	
Charging stages	Bulk,Absorption,Float	Enclosure	IP31 (indoor & vented)	

UP-S

Three Phase Power Conversion System

UP-S series power conversion system mainly consists of AC distribution, transformer, energy storage AC/DC converter module, monitoring system, etc. With modular design, high integration, easy and flexible installation, modular splicing according to the actual application scenario, with constant voltage, constant current and constant power control, it can be applied to industrial and commercial energy storage systems, with bi-directional (rectifier and inverter) as the basic feature, supporting grid-connected and off-grid operation, and with reactive power compensation and harmonic compensation functions. It can meet the application requirements of different application scenarios.

Product Features

- Maximum efficiency can reach 97.3%.
- Modular design ,easy for installation and depolymen.
- Bidirectional power conversion system with full fourquadrant operation.
- 62.5kW to 630kW by 1 to 10 power modules.
- Multi-string technology for better battery safety and performance.
- Multiple battery strings working in parallel or independently to allow easy power and energy expansion.
- Grid-support function built-in.
- Optional STS to achieve seamless switching between on-grid and off-grid.

Applications

Self-Consumption | Off grid | Demand Charge | Back Up

DG+BESS | Micro-grid | Smooth output | Peak Shifting

Technical Parameter

UP-S Series Power Conversion System			
Model	30KW	62.5KW	100KW
Utility-interactive Mode			
"Battery voltage range"	600~900V		
DC max current	50A	100A	170A
AC voltage	380V±15%		
Max. AC current	100A	200A	400A
Nominal power	30KW	62.5KW	100KW
AC frequency	50Hz/60Hz±2.5Hz		
THDi	≤3%		
AC PF	-1~+1		
Stand-alone Mode			
"Battery voltage range"	650~950V		
DC Max Current	50	220A	440A
AC output voltage	380±1%		
Max. AC output current	50A	100A	170A
Nominal AC output power	30KW	62.5KW	100KW
AC max power	33KW	68.75KW	110KW
Output THDu	< 3 % (Linear load)		
AC frequency	50Hz/60Hz±0.2%		
AC PF	-1~+1		
Overload Capability	110%:10min ; 120%:1min		
Other			
Peak efficiency	97.30%		
Protection	Overtemperature protection, AC over/under voltage protection, Over/under frequency protection,Emergency power off, AC phase reverse, Fan/relay failure, Over/under load protection, Ground faultcircuit Interrupter, Anti-islanding		
AC connection	3P4W		
Display	7 "color touch screen (optional)(External connection)		
Communication	RS485/CAN/ModBusTCP/IP/CAN/LAN		
Isolation	Built-in Transformer		Transformer
Physical			
Cooling	Forced air cooling		
Noise	≤70dB		
Enclosure	IP20		
Max elevation	3000m/10000feet (>2000m/6500feet derating)		
Operating ambient temperature	-20˚C ~50˚C (>45˚C derating)		
Humidity	0~95%(No condensing)		
Size (W×H×D)	850*2400*1600mm		
Weight	/	/	/

UPV-S

Three Phase Solar+Storage Hybrid Inverters

UPV-S series Bi-directional hybrid storage inverter is mainly composed of DC-AC inverter, DC-DC solar controller, AC power distribution, transformer, monitoring system,etc. It can be used in both on-grid and off-grid modes. It adopts modular design, high integration, convenient and flexible installation, which allows modular splicing according to actual application scenarios, and can efficiently use solar power to meet the application requirements of small and medium-sized micro-grid and industrial and commercial buildings.

Product Features

- High stability, modular design support N+1.
- Bi-directional Power Conversion System.
- Built-in transformer.
- Support self-generation, micro-grid application.
- Supports on/off grid.
- Photovoltaic can be connected to a maximum of twice the capacity of the device.
- Dual-stage topology, wide battery voltage input range.
- With MPPT function to enhance system power generation.
- Self-contained solar storage operation strategy.
- Support communciation with BMS, EMS system.

Applications

Self-Consumption | Off grid | Demand Charge | Back Up

DG+BESS | Micro-grid | Smooth output | Peak Shifting

Technical Parameter

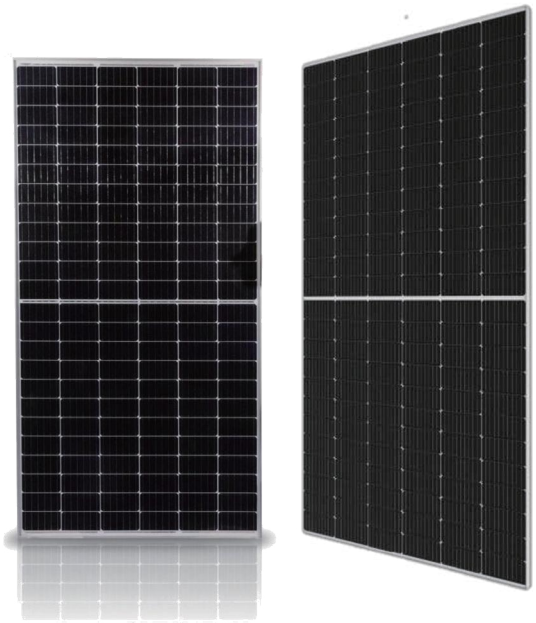
UPV-S Series Solar+Storage Hybrid Inverters										
Model	0.4-50KW	0.4-100KW	0.4-150KW	0.4-200KW	0.4-250KW	0.5-50KW	0.5-100KW	0.5-150KW	0.5-200KW	0.5-250KW
Stand-alone Mode										
AC output voltage	400V±10%(Controllable)					480V±10%(Controllable)				
AC output current	72A（Max 79A）	144A（Max 159A）	216A（Max 238A）	288A（Max 317A）	360A（Max 396A）	60A(Max 66A)	120A(Max 132A)	180A（Max 196A）	240A（Max 264A）	300A（Max 330A）
Nominal AC output power	50kW	100kW	150kW	200kW	250kW	50kW	100kW	150kW	200kW	250kW
AC Max Power	55kW	110kW	165kW	220kW	275kW	55kW	110kW	165kW	220kW	275kW
Output THDu	≤3%(Linear load)									
AC frequency	50/60Hz					60Hz				
AP PF	0.99/-1~1									
Overload Capability	120% 1min									
Battery voltage range	400~600V（Rated 512V）		600 ～ 900V			400~600V（Rated 512V）		600 ～ 900V		
Battery DC Max Current	120A	240A	275A	367A	458A	120A	240A	275A	367A	458A
PV Voltage Range	520~900V (MPPT 520V~800V)		300~800V			520~900V (MPPT 520V~800V)		300~800V		
PV DC Max Current	192A	384A	360A	480A	600A	192A	384A	360A	480A	600A
Utility grid-interactive Mode										
AC voltage range	400V±15%					480V±15%				
AC rated current	72A	144A	216A	288A	360A	60A	120A	180A	240A	300A
Nominal AC output power	50kW	100kW	150kW	200kW	250kW	50kW	100kW	150kW	200kW	250kW
AC frequency	50Hz / 60Hz±2.5Hz					60Hz±0.2%±2.5Hz				
Output THDI	≤3%									
AP PF	0.99/-1~1									
Battery voltage range	400~600V（Rated 512V）		600 ～ 900V			400~600V（Rated 512V）		600 ～ 900V		
Batter DC Max Current	120A	240A	275A	367A	458A	120A	240A	275A	367A	458A
PV Voltage Range	520~900V (MPPT 520V~800V)		300~800V			520~900V (MPPT 520V~800V)		300~800V		
PV DC. Max Current	192A	384A	360A	480A	600A	192A	384A	360A	480A	600A
Other										
Peak efficiency	≥96%		≥95.5%			≥96%		≥95.5%		
Protection	Overtemperature protection, AC over/under voltage protection, Over/under frequency protection,Emergency power off, AC phase reverse, Fan/relay failure, Over/under load protection, Ground faultcircuit Interrupter, Anti-islanding									
Configurable protection limits	Upper/Lower AC Voltage/Frequency limit, Battery end of discharge voltage.									
AC connection	3P4W									
Display	7"color touch screen									
Communication	RS485,CAN,Ethernet									
Isolation	Built-in Transformer									
Physical										
Cooling	Forced air cooling									
Noise	≤70dB									
Enclosure	IP20/IP54									
Max elevation	3000m/10000 feet (>2000m/6500 feet derating)									
Operating temp	-20°C～ 50°C (>45°C derating)									
Humidity	0~95% (No condensing)									
Size (W*H*D)	800*2200*1050mm		1350*2200*1050mm			800*2200*1050mm		1350*2200*1050mm		
Weight	/	/	1300kg	1650kg	2000kg	/	/	1300kg	1650kg	2000kg

RD450M6H / RD550M10H(144 Half Cells)

450Wp Output Power / Max 550Wp Output Power
Max system voltage 1500V standard

Key Features

- Outstanding Performance in weak-light conditions.
- Excellent temperature coefficient.
- 0~+5W positive tolerance guarantee reliable power output.
- Shortened current collection, path,low series resistance.
- More uniform stress distribution, higher anti-crack ability.
- Excellent anti-PID module design.
- Certified to withstand high wind loads(2400pa) and snow loads (5400pa) of the latest standard test of module mechanical load.
- Salt mist and ammonia corrosion resistant.



Quality & Environment Certification System

ISO 9001:2015 Quality management systems

ISO 14001:2015 Environment management systems

OHSAS18001:2007 Occupational health and safety management systems

Linear Warranty For Module

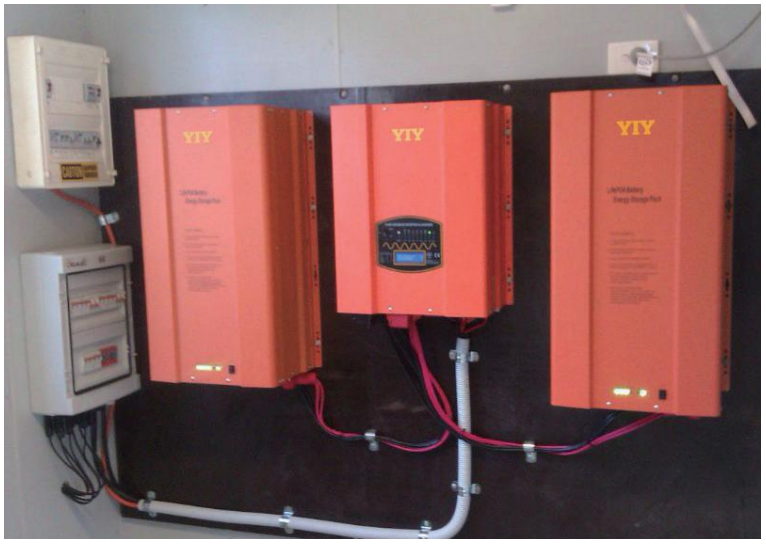
12	12 years warranty workmanship Warranty
25	25-year linear performance Warranty
15	15 years warranty workmanship Warranty
30	30-year linear performance Warranty

IEC61215 IEC61730 UI1703 IEC61701 IEC62716

Technical Parameter

Solar Module						
Module Type			450W		550W	
"Electrical Characteristics"	Working Conditions		STC	NMOT	STC	NMOT
	Maximum Power at STC/NMOT (Pmax)	W	450	338.4	550	412
	Optimum Operating Voltage (Vmp)	V	40.65	37.12	41.8	38.2
	Optimum Operating Current (Imp)	A	11.07	9.12	13.16	10.78
	Open Circuit Voltage (Voc) +3%	V	49.65	45.34	50.1	45.8
	Short Circuit Current (Voc) ±3%	A	11.49	9.33	13.90	11.64
	Module Efficiency	%	20.7		21.3	
	Maximum System Voltage	V	1500 (DC)			
	Maximum Series Fuse Rating	A	25			
	Operating Module Temperature	°C	-40 ± 85			
	Power Tolerance	W	0/+5			
"Mechanical Characteristics"	Solar Cell (No.of cells)		Mono166×83,144pcs		Mono 182x182,72pcs	
	Dimensions		2094*1038*35mm (±2mm)		2278x1134x35mm (±2mm)	
	Weight		22.5kg (±3%)		28.6kg (±3%)	
	Front Glass		low-iron tempered glass / 3.2mm			
	Frame		anodized aluminum alloy			
	Junction Box		≥ IP68 with bypass-diode			
	Output Cables		2×350mm-Section4.0mm2/TUV			
	Connectors		MC4 / IP67		MC4 / IP68	
	Maximum Load Capacity		5400Pa / 2400Pa			
	Safty Rate		II / Class II (TUV)			
Temperature Characteristics	Temperature Coefficient of Pmax		δ[%/°C]	-0.370	δ[%/°C]	-0.370
	Temperature Coefficient of Voc		β[%/°C]	-0.304	β[%/°C]	-0.300
	Temperature Coefficient of Isc		α[%/°C]	0.046	α[%/°C]	0.046
	Nominal Mondule Operating Temperature		44°C ± 2°C			
Packing Configuration	Container		20'GP	40'HQ	20'GP	40'HQ
	Pieces per container		300pcs	792pcs	270pcs	620pcs

Demonstrations

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Start Digital Power Supply

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