## Shenzhen JFY Tech.Co.,Ltd.



**Grid-Connected Inverters** 

Off-Grid Hybrid Power

**PV** Accessories

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#### Company Profile

Founded in 2003, Shenzhen JingFuYuan Tech. Co., Ltd. (Abbr. JFY) is a professional designer, manufacturer and solutions provider in power electronics field. Awarded as National High-tech Enterprise and certified to ISO9001: 2008 international quality system, JFY has 16000 m² of production plants and R&D laboratories in Shenzhen headquarter and marketing centers in domestic and overseas areas. Devoting to being a leading supplier with best products and services, JFY offers customers the high cost-effective products and integrated energy solutions with plentiful design and production experiences. The products cover a wide range of Solar Inverter (1.5KW~1MW), UPS, Telecom Power Supply, Off-grid Hybrid solar Power etc. Our products have been sold to more than 50 countries and areas. Their stable operation and excellent performance have been universally recognized by users across the world.



#### **JSI Series Single Phase String Inverter**







#### **Features**

#### High performance string inverters

- > From 1.5KW to 6.0KW
- > Wide PV input voltage range
- Rapid MPPT tracking technology
- Superior PV energy harvest
- > Transformerless design with higher operation efficiency
- Excellent thermal performance
- > High overload capability under most ambient conditions

#### Easy and affordable to install

- Lightweight and compact size
- > Includes a lightweight portable bracket simplifying installation
- > Firm IP65 inverter enclosure allows outdoor application

#### Full data display and communications

- > LCD display energy data
- > Bright LED indicators imply system status at a glance
- > PC software for remote monitoring and system trouble shooting
- > Integrated RS232 serial communications

#### Cost advantages

- > Transformerless design cutting down the cost
- > Light weight and small dimension, reducing shipping cost
- > Low maintenance expense

#### JSI-1500TL JSI-2000TL JSI-2500TL



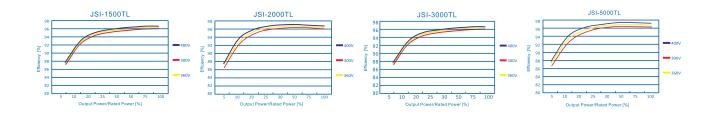
#### JSI-3000TL JSI-3600TL



#### JSI-5000TL JSI-6000TL



#### Typical Efficiency Curve



Model (JSI)	1500TL	2000TL	2500TL	3000TL	3600TL	5000TL	6000TL
Input (DC side)							
Max. DC Input Power	1750W	2300W	2700W	3660W	3750W	5300W	6400W
Max. DC Voltage	450Vdc		500	Vdc		550	Vdc
Start Voltage		150Vdc					
MPPT Operating Range		100~450Vdc 100~500\				00Vdc	
Number of Parallel Inputs	1			2		;	3
Number of MPP Trackers				1			
Max. Input Current	10A	13A	14.5A	20A	20A	22.5A	27.5A
Output (AC side)							
Nominal Output Power	1500W	2000W	2490W	3000W	3600W	4600W	6000W
Max. Output Power	1650W	2200W	2490W	3400W	3600W	5000W	6000W
Nominal Output Current	6.5A	8.7A	10.8A	13A	15.7A	20A	26A
Max. Output Current	7.9A	10.5A	12A	15.7A	16A	24A	29.3A
Nominal AC Output Voltage				230Vac			
AC Output Voltage Range*				190~265Vac			
AC Grid Frequency Range*				50±5Hz			
Power Factor (cosφ)				>0.99			
THDI			<3% (	at nominal output p	oower)		
Efficiency							
Max Efficiency	96.5%	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%
Euro Efficiency	95.5%	96.2%	96.3%	96.4%	96.6%	96.8%	96.8%
MPPT Efficiency	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%
System							
Operating Temperature				-25°C~+60°C			
Noise (typical)				≤20dB (A)			
Consumption at night				0 W			
Electrical Isolation				Transformerless			
Cooling Concept				Natural Cooling			
Degree of Protection				IP65			
Communication			R	S232 (WiFi optiona	al)		
Dimension (W*D*H mm)	345*152*315	345*1	52*355	345*15	52*385	345*152*505	345*162*57
Weight (kg)	12	13	13	15	15	19	24

 $<sup>^{\</sup>star}\text{AC}$  grid voltage range and frequency range depend on local standards.



#### **SUNTWINS Series Dual MPPT String Inverter**

#### **Features**

#### High performance string inverters

- > From 3.0KW to 5.0KW
- > Wide PV input voltage range
- Rapid MPPT tracking technology
- > Two MPPT trackers
- Superior PV energy harvest
- > Transformerless design with higher operation efficiency
- > Excellent thermal performance
- > High overload capability under most ambient conditions

#### Easy and affordable to install

- Lightweight and compact size
- > Includes a lightweight portable bracket simplifying installation
- > Firm IP65 inverter enclosure allows outdoor application

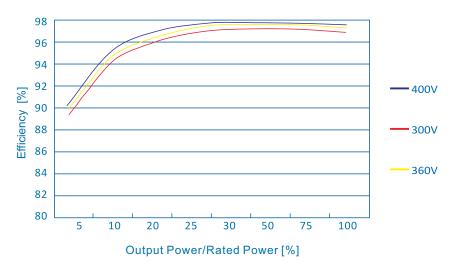
#### Full data display and communications

- > LCD display energy data
- > Bright LED indicators imply system status at a glance
- > PC software for remote monitoring and system troubleshooting
- > Integrated RS232 serial communications

#### Cost advantages

- > Transformerless design cutting down the cost
- > Light weight and small dimension, reducing shipping cost
- ▶ IP65 protection degree, suitable for outdoor installation, reducing construction cost
- Low maintenance expense

#### Typical Efficiency Curve





SUNTWINS 3300TL~SUNTWINS 5000TL

Model (SUNTWINS)	3300TL	4000TL	5000TL		
Input (DC side)					
Max. DC Input Power	3600W	4380W	5300W		
Max DC Voltage		500Vdc			
Start Voltage		150Vdc			
MPPT Operating Range		100~450Vdc			
Number of Inputs		2			
Number of MPP Trackers		2			
Max. Input Power per MPPT	2000W	2300W	3000W		
Max. Input Current	IN1: 10A/IN2: 10A	IN1: 13A/IN2: 13A	IN1: 15A/IN2: 15A		
Output (AC side)					
Nominal Output Power	3300W	4000W	4950W/5000W		
Max. Output Power	3300W	4000W	4950W/5000W		
Nominal Output Current	14.3A	17.4A	21.5A		
Max. Output Current	16.5A	20.0A	25.0A		
Nominal AC Output Voltage	230Vac				
AC Output Voltage Range*		190~265Vac			
AC Grid Frequency Range*		50±5Hz			
Power Factor (cosφ)		>0.99			
THDI		<3% (at nominal output power)			
Efficiency					
Max Efficiency	97.4%	97.6%	97.6%		
Euro Efficiency	97.0%	97.1%	97.1%		
MPPT Efficiency	99.6%	99.6%	99.6%		
System					
Operating Temperature		-25°C~+60°C			
Noise (typical)		≤25dB (A)			
Consumption at night		0W			
Electrical Isolation		Transformerless			
Cooling Concept		Natural Cooling			
Degree of Protection	IP65				
Communication		RS232 (WiFi Optional)			
Dimension (W*D*H mm)		345*152*435			
Weight (kg)	16.5	18	18		

 $<sup>^{\</sup>star} AC$  grid voltage range and frequency range depend on local standards.



#### **SUNTREE Series Three Phase String Inverter**

#### **Features**

#### High performance string inverters

- > From 5.0KW to 30.0KW
- > Famous power components
- Superior PV energy harvest
- > Excellent thermal performance
- Transformerless design with higher operation efficiency
- > High overload capability under most ambient conditions

#### Easy and affordable to install

- Lightweight and compact size
- > Wide MPPT voltage range allows more flexible module selections
- Includes a lightweight portable bracket simplifying installation
- > Firm IP65 inverter enclosure allows outdoor application

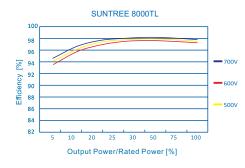
#### Full data display and communications

- > LCD display energy data
- > Bright LED indicators imply system status at a glance
- > PC software for remote monitoring and system troubleshooting
- > Integrated RS485/RS232 serial communications

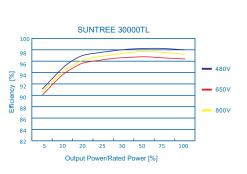
#### **Cost Advantages**

- > Transformerless design cutting down the cost
- > Light weight and small dimension, reducing shipping cost
- Integrated procurement and assembly line of operation, reducing production cost
- > IP65 protection degree, suitable for outdoor installation, reducing construction cost
- > Low maintenance expense and low power loss when breakdown

#### Typical Efficiency Curve









Model (SUNTREE)	5000TL	6000TL	8000TL	10000TL	12000TL	15000TL	17000TL	20000TL	30000TL
Input (DC side)									
Max. DC Input Power	5180W	6200W	8300W	11200W	13300W	15800W	17900W	21000W	32000W
Max DC Voltage		900Vdc				100	00Vdc		
Start Voltage					250Vdc				
MPPT Operating Range		250~720Vdc				250~800Vdc			400~800Vc
Number of Inputs		2		4	1		6		10
Number of MPPT Trackers					2				
Max. Input Power per MPPT	3500W	4000W	5000W	6000W	7000W	8500W	9500W	11000W	16500W
Max Input Current	20A	24A	32A	44A	48A	60A	64A	70A	82A
Output (AC side)									
Nominal Output Power	5000W	6000W	8000W	10000W	12000W	15000W	17000W	20000W	30000W
Max Output Power	5000W	6000W	8000W	10000W	12000W	15000W	17000W	20000W	30000W
Rated Output Current	7.3A	8.7A	11.6A	14.5A	17.4A	21.7A	24.6A	29.0A	43.5A
Max. Output Current	7.9A	9.5A	12.7A	16.2A	19.4A	24.3A	27.5A	32.3A	48A
Nominal Output Voltage					400Vac				
Output Voltage Range*					330~480Vac				
Grid Frequency Range*					50/60±5Hz				
Power Factor				0.9 (le	eading)~0.9 (la	igging)			
THDI				<3% (at	nominal outpu	ut power)			
Efficiency									
Max Efficiency	97.6%	97.8%	98.1%	98.2%	98.2%	98.2%	98.2%	98.2%	98.2%
Euro Efficiency	96.7%	96.9%	97.3%	97.6%	97.6%	97.6%	97.6%	97.6%	97.8%
MPPT Efficiency	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.6%	99.9%
System									
Operation Temperature					-25°C~+60°C				
Noise		≤25dB (A)		≤50dB (A)					≤65dB (A)
Consumption at night					0W				
Electrical Isolation				7	ransformerles [	SS			
Cooling Concept		Natural Coolin	g	Fan Cooling					
Degree of Protection					IP65				
Communication	RS485/RS232 (WiFi optional)								
Dimension (W*D*H mm)		470*165*560			65*585		470*165*670		580*235*80
Weight (kg)		32		3	35		50		60

<sup>\*</sup>AC grid voltage range and frequency range depend on local standards.



#### SUNKID Series Isolate HF String Inverter

#### **Features**

#### High-efficiency isolated HF design

- > One of the highest efficiencies in this class
- Rapid MPPT for real time tracking and improved energy harvesting
- > Optional 240/208Vac nominal output voltage

#### Designed to maximize the return on investment

- Superior PV energy harvest
- > Simplified and fast installation
- > Excellent thermal performance

#### Full data display and communications

- Liquid crystal display (LCD)
- > Bright LED indicators provide system status at a glance
- > PC software for remote monitoring and system troubleshooting
- > Integrated RS485 serial communications

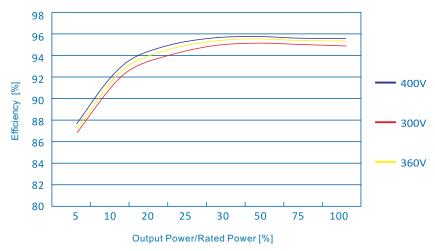
#### Cost advantages

- > Integrated DC switch
- > Light weight and small dimension, reducing shipping cost
- ▶ IP65 protection degree, suitable for outdoor installation, reducing construction cost
- Low maintenance expense



SUNKID 3300HF~SUNKID 5000HF

#### Typical Efficiency Curve



Model (SUNKID)	3300HF	4000HF	5000HF		
Input (DC side)					
Max. DC Input Power	3500W	4250W	5300W		
Max DC Voltage		600Vdc			
MPPT Range		150~550Vdc			
String of Input		1			
Output (AC side)					
Nominal Output Power	3300W	4000W	5000W		
Max Output Power	3300W	4000W	5000W		
Rated Output Current	13.8A (240Vac), 15.9A (208Vac)	16.7A (240Vac), 19.2A (208Vac)	21A (240Vac), 24A (208Vac)		
Max. Output Current	20A	25A	30A		
Output Voltage		240/208Vac			
Output Voltage Range	2	11~264Vac (240Vac), 183~229Vac (208Vac	:)		
Grid Frequency		60Hz			
Power Factor		>0.99			
THDI		<3% (at nominal output power)			
Efficiency					
Max Efficiency	95.7% (240Vac), 95.5% (208Vac)	95.8% (240Vac), 95.5% (208Vac)	95.9% (240Vac), 95.5% (208Vac)		
Euro Efficiency	95.2% (240Vac), 95.0% (208Vac)	95.3% (240Vac), 95.1% (208Vac)	95.4% (240Vac), 95.0% (208Vac)		
MPPT Efficiency	99.6%	99.6%	99.6%		
System					
Operation Temperature		-25°C~+60°C			
Noise		≤20dB (A)			
Consumption at night		0W			
Electrical Isolation	HF Transformer				
Cooling Concept	Natural Cooling				
Degree of Protection	IP65/Nema 4X				
Communication		RS485			
Dimension (W*D*H mm)	380**	152*500	380*152*560		
Weight (kg)		22			

 $<sup>^{\</sup>star}\text{AC}$  grid voltage range and frequency range depend on local standards.



#### **SUNFOREST Series Central Commercial Inverter**

#### C E W LVRT

#### **Features**

#### Advanced performance

- With the advanced system intelligence, highly speed MPPT technology, industrial-grade engineering and compete fault protections, Sunforest series central commercial inverters maximize system uptime and power production, even in harshest environments
- DSP-controlled IGBT circuitry to achieve high efficiency, reliability and low installing cost
- Sunforest KT series grid-tied inverters are integrated with an isolation transformer
- Sunforest KTL series grid-tied inverters have a max efficiency of 98.6% without a transformer
- Multiple work mode, SVG (Static Var Generator) mode, Anti-Reverse Power control mode

#### **Utility-ready features**

- Open communication protocol, good compatible with any third-party monitoring system and easily integrated into SCADA systems
- > Remote control of real and reactive power
- LVRT (Low voltage ride through)
- Power factor control
- Simplified grid interconnection

#### **Optimal MPPT technology**

- > Rapid and accurate control boost PV plant KWH yield
- Provides a wide range of operation voltage

#### Safety

> Built-in DC and AC disconnected switches

#### Increased PV plant yield

Rapid and accurate MPPT control increases PV plant KWH yield by extending the production window of arrays, enabling them to operate at optimal voltage and current levels for longer periods of time—even in varied sunlight conditions to maximize efficiency and enable you to get the most from your investment

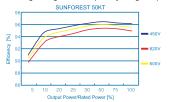


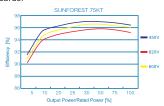
#### SUNFOREST 50KT~630KTL

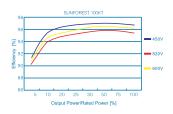
Sunforest series offer central PV grid-tied inverter with power range from 50KW to 1000KW, efficiency up to 98.6%, even working under non-full load conditions, and offer a cost-effective guarantee for the PV power plants. It has friendly interface, easy to use, modern appearance, wide DC input voltage features and high reliability performance.

Model (SUNFOREST)	50KT	75KT	100KT			
Input (DC side)						
Max. DC Input Power	58KW	87KW	115KW			
Max DC Voltage		1000Vdc				
MPPT Operating Range		450~820Vdc (start voltage 470Vac)				
Number of Parallel Inputs		2				
Number of MPP Trackers		1				
Max. Input Current	128A	128A 200A 250A				
Output (AC side)						
Nominal Output Power	50KW	75KW	100KW			
Max. Output Power	55KW	82.5KW	110KW			
Nominal Output Current	72A	108A	144A			
Max. Output Current	80A	120A	158A			
Nominal AC Output Voltage	400Vac					
AC Output Voltage Range*	360~440Vac					
AC Grid Frequency Range*		50±5Hz				
Power Factor (cosφ)		0.9 (leading)~0.9 (lagging)				
THDI		<3% (at nominal output power)				
Efficiency						
Max Efficiency	96.5%	96.8%	97.1%			
Euro Efficiency	95.8%	96.2%	96.4%			
MPPT Efficiency	99.9%	99.9%	99.9%			
System						
Operating Temperature		-25°C~+60°C(derated power above 50°C)				
Altitude		6000m(derated power above 3000m)				
Noise (typical)		≤65dB (A)				
Consumption at night		<100W				
Electrical Isolation	Transformer					
Cooling Concept		Fan Cooling				
Degree of Protection		IP20				
Communication		RS485				
Dimension (W*D*H mm)	600*650*1450	650*700*1550	800*700*1700			
Weight (kg)	520	650	810			









Model (SUNFOREST)	150KT	175KT	250KTL	250KT			
Input (DC side)							
Max. DC Input Power	172KW	202KW	285KW	285KW			
Max DC Voltage		1000	OVdc				
MPPT Operating Range		450~820Vdc (star	t voltage 470Vac)				
Number of Parallel Inputs	4	4 4 5					
Number of MPP Trackers		1	1				
Max. Input Current	380A	500A	600A	600A			
Output (AC side)							
Nominal Output Power	150KW	175KW	250KW	250KW			
Max. Output Power	165KW	192KW	275KW	275KW			
Nominal Output Current	217A	254A	535A	362A			
Max. Output Current	238A	280A	589A	400A			
Nominal AC Output Voltage	400Vac	400Vac	270Vac	400Vac			
AC Output Voltage Range*	360~440Vac	360~440Vac	243~297Vac	360~440Vac			
AC Grid Frequency Range*		50±	5Hz				
Power Factor (cosφ)		0.9 (leading)	~0.9 (lagging)				
THDI		<3% (at nomina	al output power)				
Efficiency							
Max Efficiency	97.2%	97.2%	98.4%	97.3%			
Euro Efficiency	96.5%	96.6%	98.0%	96.8%			
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%			
System							
Operating Temperature		-25°C~+60°C(derated	d power above 50°C)				
Altitude		6000m(derated por	wer above 3000m)				
Noise (typical)	≤65dB (A)						
Consumption at night	<100 W						
Electrical Isolation	Transformer	Transformer	Transformerless	Transformer			
Cooling Concept		Fan C	ooling				
Degree of Protection		IP:	20				
Communication		RS4	485				

900\*900\*1800

1150

1000\*900\*1850

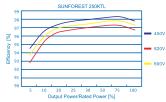
890

1985\*900\*1850

1750

900\*900\*1800

830



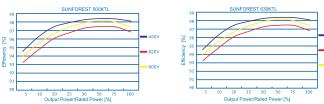
Dimension (W\*D\*H mm)

Weight (kg)

<sup>\*</sup>AC grid voltage range and frequency range depend on local standards.

Model (SUNFOREST)	500KTL	500KT	630KTL	630KT
Input (DC side)				
Max. DC Input Power	570KW	570KW	715KW	715KW
Max DC Voltage		1000	Vdc	
MPPT Operating Range	450~820Vdc (start v	oltage 470Vac)	500~820Vdc (start	voltage 520Vac)
Number of Parallel Inputs		1:	2	
Number of MPP Trackers		1		
Max. Input Current	1200A	1200A	1400A	1400A
Output (AC side)				
Nominal Output Power	500KW	500KW	630KW	630KW
Max. Output Power	550KW	550KW	693KW	693KW
Nominal Output Current	1070A	725A	1155A	910A
Max. Output Current	1177A	800A	1270A	1000A
Nominal AC Output Voltage	270Vac	400Vac	315Vac	400Vac
AC Output Voltage Range*	243~297Vac	360~440Vac	283~347Vac	360~440Vac
AC Grid Frequency Range*		50±5	5Hz	
Power Factor (cosφ)		0.9 (leading)~	-0.9 (lagging)	
THDI		<3% (at nomina	l output power)	
Efficiency				
Max Efficiency	98.5%	97.3%	98.6%	97.5%
Euro Efficiency	98.0%	96.6%	98.2%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%
System				
Operating Temperature		-25°C~+60°C(derated	d power above 50°C)	
Altitude		6000m(derated pov	wer above 3000m)	
Noise (typical)		≤65dl	B (A)	
Consumption at night		<10	0W	
Electrical Isolation	Transformerless	Transformer	Transformerless	Transformer
Cooling Concept		Fan C	ooling	
Degree of Protection		IP2	20	
Communication		RS4	185	
Dimension (W*D*H mm)	1700*900*1850	3100*900*1850	1700*900*1850	3100*900*1850
Weight (kg)	1427	3200	1677	3400

 $<sup>{}^\</sup>star AC$  grid voltage range and frequency range depend on local standards.



### One-Stop PV Power Plant

#### **Features**

- Built-in two 500/630KW high efficient inverter with perfect power distribution, firefighting protection, monitoring system to meet requirements to rapidly and security connect the grid
- > IP54 containerized design, easy to transport and install
- > DC power distribution and cooling integrated design, reducing cost of whole system
- > Comply the zero-voltage ride trough standard
- SVG running mode controlling reactive power compensation at night
- > Transformerless design, the highest efficiency 98.6% (European efficiency 98.2%)
- > Active and reactive power adjustable according to the grid command
- > Strong capability to the harsh grid environment ,LCL filter, low output harmonic
- > Perfect protection to ensure reliable operation of the system
- Auxiliary heating optional, normal running at ambient temperature of minus 35 degrees

SP-1000/1260KTL with the four integrated functions as DC distribution, inverting-inversion and system monitoring, this solution of inverter cells is able to control from the DC output of PV modules to the grid-connection in one-stop, and has significant advantages at system integration, environmental adaptation, overall investment, speedy installation and debugging, etc. The integrated design of power distribution and inverting-inversion is based on the high performance inverter and distribution cabinet, and the total solution will reduce the system loss and bring higher equipment compatibility, hence improve the power generating efficiency and the system stability. The field installation of this product is more convenient and quick since it's adapted to integral hoisting with shorter duration of construction, lower cost, smaller construction difficulty and risks. This overall solution of inverter cells is standardized and able to be debugged and grid-connected rapidly.



Model	SP-1000KTL	SP-1260KTL		
DC Side				
Max. DC Input Power	1157KW	1410KW		
Max DC Voltage	1000Vdc	1000Vdc		
MPPT Operating Range	450~820Vdc (start voltage 470Vac)	500~820Vdc (start voltage 520Vac)		
Number of Parallel Inputs	24	24		
Number of MPP Trackers	2	2		
Max. Input Current	2400A	2800A		
AC Side				
Nominal Output Power	1000KW	1260KW		
Max. Output Power	1100KW	1400KW		
Nominal Output Current	2140A	2310A		
Max. Output Current	2354A	2566A		
Nominal AC Output Voltage	270Vac	315Vac		
AC Output Voltage Range *	243~297Vac	283~347Vac		
AC Grid Frequency Range *	50±5 Hz	50±5 Hz		
Power Factor (cosφ)	0.9 (leading)~0.9 (lagging)	0.9 (leading)~0.9 (lagging)		
THDI	<3% (normal output power)	<3% (normal output power)		
Efficiency				
Max Efficiency	98.5%	98.6%		
Euro Efficiency	98.0%	98.2%		
MPPT Efficiency	99.9%	99.9%		
System				
Operating Temperature	−35°C~ +55°C	−35°C~ +55°C		
Noise (typical)	≤65 dB(A)	≤65 dB(A)		
Consumption at night	<200W	<200W		
Electrical Isolation	Transformerless	Transformerless		
Cooling Concept	Fan Cooling	Fan Cooling		
Degree of Protection	IP54	IP54		
Communication	RS485	RS485		
Dimension (W×D×H)(mm)	6058*2896*2438 mm	6058*2896*2438 mm		
Weight (kg)	8000	8000		

<sup>\*</sup> Note: AC grid voltage range and frequency range depend on local standards



#### **XPR Series Hybrid Inverter & Charger**

#### **Features**

#### **High Reliability**

- Built-in AC charger and inverter
- > Fully automatic restart operation
- Overvoltage/undervoltage/over-temperature/short circuit/overload/battery poles anti-reverse protection
- > Mains and inverter switch quickly
- Allowed to cut off DC when the power is on, automatically switch to bypass and does not affect the supply to the load for convenient battery maintenance and replacement

#### High Efficiency, Minimize Charging Loss

- Advanced technology to optimize battery life
- The battery voltage is too high or too low, the inverter shutdown output and automatic recovery if the battery voltage is back to normal

#### Load Compatibility

- Inverter shutdown output due to overload, after eliminating the overload, inverter will automatically restore the output power
- Support power on without DC, you can run only the mains input. This feature allows first put into inverter to use and then install the battery

#### Cheap, Cost-Effective And Flexible select

- DC 12V/24V, AC 220/230/240V output
- User-friendly design, easy to install and operate
- Different outlet options

#### **Applications**

- > TV, stereo, notebook computer and other appliances
- Cars, electric cars, trains, yachts, ships
- > The power outage place: homes, offices, stores
- Field operations, tourism
- Night commercial activities Location: night market, shops, stalls, farms, etc



#### XPR 1200/2400VA

The XPR series inverter&charger built-in high efficiency inverter and large power charger to delivery stable power output in a compact size. When utility power is available, it charges the batteries; when utility power is outage, inverter works at battery mode, the battery delivery power for the load. XPR series inverter&charger modified inverter series convert DC power to correct sine wave power output, simple circuit design, and high reliable performance.

XPR1200/2400 with high efficiency to convert DC power into AC power and reliable power output for the following applications provide continuous and stable power output by 720 watts / 1440 watts.

Model (XPR)	1200VA	2400VA			
Rated Power	1200VA/720W	2400VA/1440W			
DC Input					
Battery	12Vdc	24Vdc			
Constant Charger Voltage	14.3Vdc	28.6Vdc			
Floating Charge Voltage	13.7Vdc	27.4Vdc			
Low-battery Alarm Voltage	10.2Vdc	20.4Vdc			
Overcharge Protection	15.0Vdc	30.0Vdc			
Shutdown Voltage	9.9Vdc	19.8Vdc			
Charging Current	max	20A			
Backup Time	The backup time is u	up to battery capacity			
AC Input					
Phase	L	+N			
Input Voltage	(90~2	90)Vac			
Input Frequency	50/60Hz (Auto detection)				
AC Output					
Output Voltage	220/230/240VAC	±10% (adjustable)			
Output Frequency	50/60Hz (Ar	uto Sensing)			
Output Power Factor	0	1.6			
Overload Capability	line mode: 110% <load<130%, 5min;="">130%, shut down; l</load<130%,>	battery mode: 110% <load<120%, 15s;="">120%, shut down;</load<120%,>			
Transfer Time	20ms	typical			
Output Waveform	Modified S	Sine Wave			
System					
Efficiency	AC to DC: >95%;	; DC to DC: >82%			
Noise (1m front)	<55	dBA			
Operation Temperature	0°C~+40°C				
Humidity	0~90% non-condensing				
Storage Temperature	-15°C-	~+50°C			
Altitude	100	00m			
Dimension(W*D*H mm)	231.5*2	293*82.5			
Weight (kg)	2.22	2.37			

#### Modular MPPT solar controller

- State-of-the-art solar maximum power point tracking technology, utilization of solar panels can reach more than 99%
- Wide PV input voltage range, more flexible solar panel selection and array configuration
- MPPT solar controller modular system subsequent expansion provides great convenience

#### Three phase unbalanced load capability

- Any one phase output independently drives the load, without affecting the other two phases
- > Extra against impact current capability
- Built-in low frequency isolation transformer, high impact resistance, can drive the motor, air conditioner with strong impact current

#### Support multiple equipments in parallel

Can be achieved through larger capacity power generation system by in parallel, while improving the reliability of system

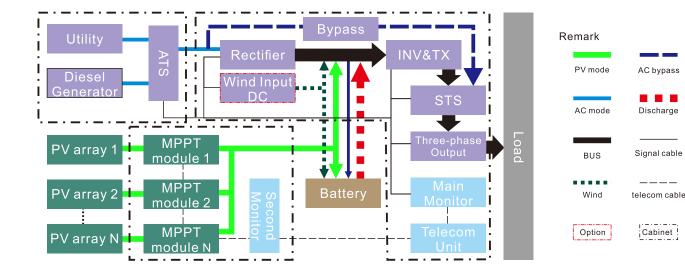
#### Perfect protections

- Battery overcharge, over discharge protection and advanced battery management system extend battery life
- The intelligent load graded protection strategy when battery power is low, giving priority protection for critical loads
- Overload protection, short circuit protection to protect safe and reliable operation of the equipment and load

#### ETS 15KVA-120KVA



The ETS series three phase solar off-grid power adopts a new generation of all-digital control technology, three phase AC output; integrates MPPT solar controller unit and inverter, easy to use; individually powered by solar panels, also be connected utility power and a generator, solar, grid power and generator complementary; delivery stable power output for areas mountainous and pastoral areas, border, island without utility power or unstable power by multi-energy-powered solutions.



Model	ETS 15/20/30/60/80/120KVA
AC/DC Rectifier	210 10/20/00/00/12010/1
	380VAC, 3 phase 5 wire
Rated voltage	275~475Vac
Voltage range	
Frequency range	40~70Hz
Charging current	20-500A(adjustable)
Solar Charger Controller	
Туре	MPPT
Input voltage range	Boost mode: 450~700Vdc; Buck mode: 150~400Vdc;
Protections	High and low voltage, Overload, Over temperature, Short circuit and anti-reverse connection protection
Charging current	53~265A(adjustable)
Battery	
Туре	Maintenance free lead-acid cell
DC voltage	336(12Vdc*28pcs)
Equalized charging voltage	403Vdc
Float charging voltage	381Vdc
Inverter	
Rated power	10~100KW
Wave form	Pure sine wave
Rated voltage	380/400/415V + -2%,3 phase 5 wire(other voltage can be customized)
Frequency	50 / 60 Hz + / - 0.1%
Power factor	0.8
THD	< 3% linear load, < 10%( nonlinear load)
Crest factor	3:1
Transient response time	100ms
Overload capacity	105%~125% for 30 min; 125%~150% for 10min.150%~175% for 1min; >175% for 100ms
System	
Efficiency	> 96%
Communication interface	RS232 ( RS485,USB,Dry contact )
Cooling method	Force cooling
Operation temperature	-10 to +40 degree Celsius
	0~ 95% (non-condensing)
Relative humidity	
Altitude	<1000m
Noise	<70 dB
Degree of protection	IP20

#### Efficient, stable & maximize output power

- ➤ High-power density modular design, supporting N + X parallel redundancy and cabinet in parallel, simple and fast to maintain, convenient and flexible to expand capacity
- Advanced MPPT maximum power point tracking technology, compare with PWM pulse width modulation, increasing power generation up to 30%, in case of same power generation, it can save up to 30% solar panels
- ➤ Wide input voltage range provides more flexible access solutions of solar panels, also according to requirements, you can choose buck mode module (high voltage, low current) or boost mode module (low voltage, high current) (see technical data)

#### Perfect protection design, safe and reliable

- Hot-swap modules safety switch, quickly disconnect technology provides security guarantees
- Input and output over voltage, under voltage, module failure, reverse polarity, anti-polarity, over-temperature protection function protect equipment perfectly

#### Intelligent battery management system

- Choosing best charging mode according to the battery charging status, prolong battery life
- Overcharge and over discharge protection functions send sound & light alarm timely, starting responsible protections automatically

#### Friendly human-machine interface, easy to use

- Large touch screen LCD design, graphic visual display operating status at a glance
- ➤ Data storage device alarm information stored for easy stroubleshooting

#### Powerful monitoring function, easy management and maintenance

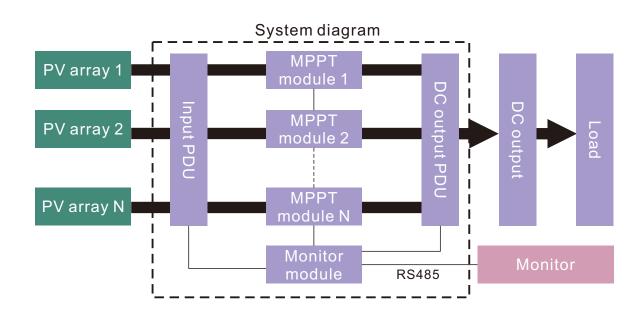
- Remote monitoring and control system, unattended on station
- Support software online upgrade

#### JPC20~160KW



JPC series modular MPPT solar controller unit is a complete solar energy conversion systems converting solar energy into 380Vdc DC output with power distribution unit. It apply to photovoltaic on-grid systems, off-grid systems and other solar power systems.

## ## Company Course ## JPC 160H ## JPC 160H ## JPC 160H ## JPC 160L ## JPC 160L



Model	JPC40L	JPC60L	JPC80L	JPC100L	JPC120L	JPC140L	JPC160L
	JPC40H	JPC60H	JPC80H	JPC100H	JPC120H	JPC140H	JPC160H
Rated power (KW)	40	60	80	100	120	140	160
Output current (A)	100	150	200	250	300	350	400
Number of MPPT module	2	3	4	5	6	7	8
Input							
Number of input string	2	3	4	5	6	7	8
Max power per string				20KW			
Max current per string			Buck mo	de: 50A; Boost mod	de: 80A		
Max voltage per string			Buck mode:	750Vdc; Boost mo	de: 430Vdc		
Voltage range per string			Buck mode: 350~	700Vdc; Boost mod	de:150~400 Vdc		
Output							
Nominal output voltage				380Vdc			
Voltage range				294~403 Vdc			
Ripple				≤500 mVp-p			
Efficiency			Buck mode:	≥96.5%; Boost mo	de:≥96.0%		
Accuracy of MPP tracking				99.9%			
Accuracy of voltage				≤±1.0%			
Dynamic response	∆V:≤±5%Vo; recovery time: ∆t: ≤500uS; 25%~50%~25% or 50%~75%~50% load, 0.1A/us; period 4ms						
System							
Consumption				≤25W			
Temperature coefficient				±0.02%/℃			
Noise				≤60dB(A)			
Cooling				Force cooling			
Degree of protection				IP20			
Communication				RS485			
Storage function			Max 200	items at monitor n	nodule		
Protection	Buck mode: module failure, fan error, over temperature, over or low input voltage, anti-polarity, over output voltage, short circuit, current flowing backwards, communication error, resistance input to ground, module loss, PV array error warning, input breaker warning;  Boost mode: module failure, fan error, over temperature, over or low input voltage, over output voltage, short circuit, current flowing backwards, communication error, resistance input to ground, module loss, PV array error warning, input breaker warning;						
Storage temperature				-40~+70°C			
Operation temperature			-20~+55℃	(+55~+65°C deratin	g to 80%)		
Environment temperature			0~9	5%, non-condensi	ng		
Altitude			0~4000m (decre	ase 1℃ per 200m	above 2000m)		
Dimension (W*D*H mm)				600x600x1500			
Weight (Kg)	115	130	145	160	175	190	205



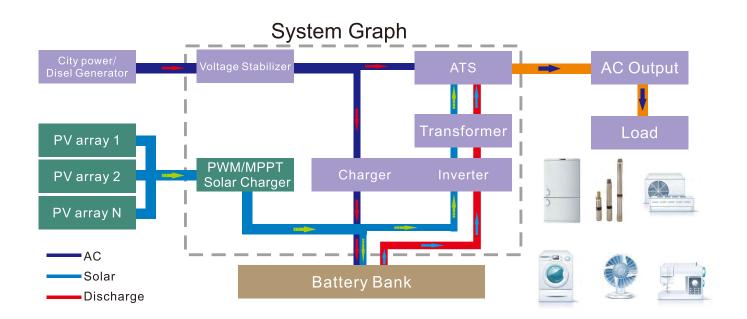
#### **Indoor Solar Charger & Inverter**

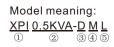
#### **Features**

- ➤ Integrated with solar charger, AC charger (optional), inverter, AC bypass switch, transformer, solar and DC battery terminals, protection breakers and LCD display
- Auto-switch smoothly transfer the load to city power or inverter's output
- > MPP tracking technology, offer wide input voltage, low input current, stable charging voltage and current, reduce the investment of solar panels, can save 20~30% panels compared with the PWM solar charger
- Auxiliary-charging could complement power to battery by city power even if PV array does not work in the raining days.
- Low frequency transformer allows to withstand high inrush load current, supports fan, pump, refrigerator, TV, airconditioner, lamp etc
- > True sine wave output
- Preferential solar charging function uses the renewable energy while city power is complementary
- The input of city power can be substituted by the input of diesel generator



XPI 0.5~7.0KVA





①Indoor solar inverter&charger series

②Capacity
③D/U: support diesel generator/city power
④M: MPPT controller; P: PWM controller
⑤S: internal battery; L: external battery

Weight (kg)Bat In/Out	148/8	149/9	150/10	281/11
Dimension (W*D*H mm)Bat In/Out		365*575*980/488*212*310		615*575*980/603*325*470
Altitude	0-3000m(Above 1000m, derated power 1% per 100m)			
Humidity	-15~+50°C 0~90%, No dew			
Storage Temperature	0~40°C			
Noise Operation Temperature	<60dB			
Communication				
Cooling			y cooling fan 232	
Comprehensive Protections	ACADC Overload, (	Jnder-voltage, SPD, Short-circ		ge, Over-temperature
Display Content		tatus, Battery Capacity, AC Inp		
Display			+LED	
Others parameters				
Output Wave	True Sine Wave			
Crest Factor	3 (can endure any startup of inductive load)			
Overload Capability	Overload Protection: 105~120% 30s; 120~150% 10s; >150% 5s;short circuit, 0.1ms			
Efficiency	>80% >85%			
Inverter Output Frequency	50/60Hz±1%			
Inverter Output Voltage	220/110Vac±3%(optional 120/127/230Vac)			
Inverter parameters				
AC Charging Current	Standard: 10A, Max.: 15A			
City Power Input Frequency Voltage			Hz±3%	
City Power Input Voltage Range			)/90~135Vac(60Hz)	
AC Charger parameters (optional)				
Battery Equalization Charge Voltage		28.8Vdc		57.6Vdc
Battery Float Charge Voltage		27.2Vdc		54.5Vdc
Max. Solar Charging Current		30A/50A		50A
PV Input Voltage		30~50Vdc/30~90Vdc		70~150Vdc
Max. PV Input Power		900/1440W		2880W
Charger Type	PWM/MPPT M			MPPT
Solar Charger parameters				
Battery Configuration	II	nside max 200AH*2pcs/Extern	al	Inside max 200AH*4pcs/Ex
Rated Battery Voltage		24Vdc		48Vdc
Inverter Rating Power	350W	500W	700W	1000W
	XPIKVA-DMS/DML/ DPS/DPL/UMS/UML/UPS/UPL			_
Model (XPI)	0.5KVA	0.7KVA	1.0KVA	1.5KVA

Model (XPI)	2.0KVA	3.0KVA	4.0KVA	5.0KVA	6.0KVA	7.0KVA
		XPIK	VA-DMS/DML/ DF	PS/DPL/UMS/UML/	UPS/UPL	
Inverter Rating Power	1.5KW	2.0KW	3.0KW	3.5KW	4.2KW	5.0KW
Rated Battery Voltage	48Vdc			96\	Vdc	
Battery Configuration	Inside max 200A	.H*4pcs/External		External (1	2Vdc*8pcs)	
Solar Charger parameters						
Charger Type	MF	MPPT MPPT		PPT		
Max. PV Input Power	288	60W		576	W06	
PV Input Voltage	70~15	50Vdc		150~3	00Vdc	
Max. Solar Charging Current	50	)A		50	DA .	
Battery Float Charge Voltage	54.5	Vdc		109	Vdc	
Battery Equalization Charge Voltage	57.6	Vdc		115.2	2Vdc	
AC Charger parameters (optional)						
City Power Input Voltage Range		175~270Vac(50Hz)/90~135Vac(60Hz)				
City Power Input Frequency Voltage			50/60	Hz±3%		
AC Charging Current	Standard: 10A, Max.: 15A					
Inverter parameters						
Inverter Output Voltage	220/110Vac±3%(optional 120/127/230Vac)					
Inverter Output Frequency	50/60Hz±1%					
Efficiency	>85.0%					
Overload Capability	Overload Protection: 105~120% 30s; 120~150% 10s; >150% 5s;short circuit, 0.1ms					
Crest Factor	3 (can endure any startup of inductive load)					
Output Wave	True Sine Wave					
Others parameters						
Display			LCD	)+LED		
Display Content		PV Status, Batt	ery Capacity, AC Inp	out Voltage, AC Outp	out Voltage, Load	
Comprehensive Protections	AC&DC O	verload, Under-volta	age, SPD, Short-cire	cuit, Overcharge, Ov	erdischarge, Over-te	emperature
Cooling			High-veloci	ty cooling fan		
Communication			RS	3232		
Noise			<6	60dB		
Operation Temperature			0~	40°C		
Storage Temperature			-15~	+50°C		
Humidity			0~90%	, No dew		
Altitude	0~3000m(Above 1000m, derated power 1% per 100m)					
Dimension (W*D*H mm)Bat In/Out	615*575*980	/603*325*470		680*3	80*565	
Weight (kg)Bat In/Out	289/19	291/22	35	40	45	54

Inverter Communication	RS485
Remote Communication	WiFi (802.11 b/g)/Ethernet
Max Communication Range	<1km
Communication Rate	9600bps
WiFi Communication Range	300m in outdoor open area without obstruction
WiFi Frequency	2.4GHz
Data Collection Intervals	5minutes
Firmware Updates	Serial/Wireless
Data Access	Serial/WiFi point-to-point/remote server
Status Display	4LEDs
Electrical	

Input Voltage	DC5V
Static Power Consumption	<1.6W
Max. Power Consumption	<2.5W

#### Environmental

Operating Temperature	-10~+65°C
Operating Humidity	10%~90% relative humidity, no condensing
Storage Temperature	-40~+85°C
Storage Humidity	<40%
Protection Class	IP21

#### Physical

Installation Method	Wall mounted or flatwise
Certificates	FCC\CE\RoHS
Dimension (W*D*H mm)	110*80*26
Weight (g)	108

#### Solar WIFI/Ethernet Data Logger



Using wireless communication function, WiFi transfers information from the inverter to the remote server by router. Then customers obtain the information from the server by clients, such as PC, mobile phone, PAD and so on.

#### Features

- A variety of communication methods available, including Ethernet, WiFi
- > Can be connected to up to 12 inverters
- Quick installation and easy operation with "Plug & Play" function
- Easy access data via Internet anywhere and anytime, no additional software required
- > Graphical display of PV system data on data logger

#### Solar EM Environmental Monitor

Compact, easy to install. Acquisition a variety of environmental parameters, modular design, and the user can select the appropriate demand function to achieve cost optimization. RS485 communication and selection criteria MODBUS communications connect networking.



- > Remote monitor, RS485 communication optional
- > Simplest installation of cables
- Comply with the requirement of outdoor installation
- > Wide DC input voltage, maximum input voltage 1000VDC
- Special DC fuse for PV system
- Special SPD for PV system
- Easy to maintain
- Customized on demand (dimension, strings, DC fuse etc)
- > PV Combiner Box (PVCB-8M/10M/12M/16M)

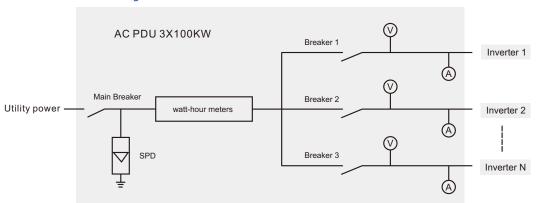
For large scale PV generation system, combiner box can reduce the cables between PV modules and inverters, increase reliability of system and make maintenance easier. PVCB series combine box is designed with high performance and reliability, provides total system solutions with our gird-tied inverters. It ensures safety of PV system and reduces the installation time.



Model	PVCB-8M	PVCB-10M	PVCB-12M	PVCB-16M
Max DC Input Voltage	1000Vdc			
Number of Input String	8	10	12	16
Current per DC Fuse of String		10/1	15A	
Output Terminal		PG	21	
Protection Level	IP65			
Environment Temperature	-25~60°C			
Environment Humidity	0~99%			
Output DC Breaker	yes			
Lighting Module	yes			
String Current Inspection	yes			
SPD Failure Inspection	yes			
Output DC Breaker Inspection	yes			
Communication	RS485			
Dimension(W*H*D mm)	400*200*420	460*200*470	460*200*470	460*200*590
Weight (kg)	15	15	18	20

- > Power: 50KW-1260KW
- > Simplify the wiring of solar system
- > Easy to maintain and operate
- > Increase reliability and safety of system
- > Customized on demand (dimension, internal configuration)

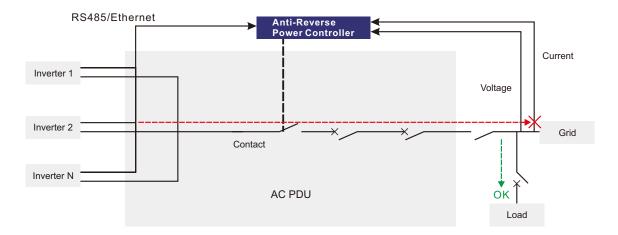
#### AC PDU diagram



Model	JFY-ACB300K	JFY-ACB500K	JFY-ACB1000K
Max. Number of Connecting Inverter	3pcs*100KW	2pcs*250KW	2pcs*500KW
Nominal AC Output Power	300KW	500KW	1000KW
Max. AC Output Current	476A	1200A	1800A
Wiring		Copper Bars	
SPD	Superior SPD		
Isolation		3000Vac, 1min	
Protection Level		IP20	
Dimension (W*D*H mm)	900*600*1800	1100*600*1800	1300*600*1800
Weight (kg)	155	190	250

Anti-Reverse Power Controller make sure that the solar energy supply the local load instead of the public utility by monitoring the voltage and current of the utility interface. When solar energy flows to the utility, it will reduce the output current of inverters; if the communication has problems or other system failures happen; it will totally stop the connection between the inverters and the utility power grid by disconnecting the breaker of AC PDU or turning off the inverter by preset program.

#### Anit-reverse Power Diagram



Model	ARP31
Power	50KW~500KW
Number of connect inverter	Maximum 31pcs
Auxi-power	220Vac 50Hz
No load power	<50W
Communication	RS485 (Ethernet optional)
Display	LCD
Cooling	Air Cooling
Operation Temperature	-25°C~+55°C
Protection Level	IP 20
Precision	0.5S (0.5 CT)
Dimension(W*H*D mm)	239*215*42
Weight (kg)	3.5

#### **Solardog Wireless Monitor**

( (

#### **Features**

- > Integrated large LCD display
- ➤ Bar chart display for historical output energy of PV system, for example, daily, monthly and yearly output energy
- > Advanced wireless communication technology (Up to 120 meters in open area)
- Monitor up to 5 inverters, convenient to monitor small commercial or residential PV system
- > Real time monitoring for output power of PV system, operation value and carbon saving data
- > Error recorder and warning buzzer





Device	Receiver Unit	Emitter Unit
Power source	AA*3	Powered by RS232 port on inverter
Working current	<30mA	<120mA
Wireless transmission mode	433MHZ FSK	433MHZ FSK
Communication distance	120m	120m
LCD display	90*76MM digital display	\
Installing type	\	Plug on RS232 port on inverter, each EU per inverter
Monitor the max. number of inverter	5	\
Max. number of connected Emitter Unit	5	\
Currency	£, \$, ¥	\
Real-time power display	Yes	\
E-total display	Yes	\
E-history date display	Yes	\
Date display	D/M/Y	\
Time display	Yes	\
Error alarm	Yes/LCD display& Warning buzzer	\
Stand-by current	<1mA	\
IP protection type	IP20 (Indoor type)	IP65 (Outdoor type)
Operation temperature range	0~50°C	-25~60°C
Warranty	2 years	2 years



Germany 3KW Home On-grid System





England 4KW Home On-grid System





Malaysia 3KW Home On-grid System



Denmark 6KW Home On-grid System





Denmark 60KW Farm On-grid System



Netherlands 10KW Home On-grid System



Chile 1.5KW Home On-grid System



Others



## Certificates





































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