



Solar Hybrid Inverter



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## **Development Course**



#### Beginning

The company was established and obtained 2 trademarks of Deming and quanneng.

#### **Develop Markets**

Established the Ministry of Foreign Trade, applied for foreign export trade rights, and started to explore overseas markets.

#### **Progress**

Owned 2 invention patents, 6 new type patents, 1 appearance patent, obtained high-tech enterprises.

Completed 9001 quality management system certification.

#### **Future**

Deming is committed to the cause of green energy conservation. Carry forward the craftsmanship. Based on the market, paying attention to customers, providing high-quality products, and jointly meeting new challenges.



#### Innovation

Possess 4 invention patents, 11 new patents, 2 software registration rights, complete the implementation of corporate intellectual property standards.



#### **Company Profile**

Jinan Deming Power Equipment Co., Ltd. is a high-tech enterprise focusing on research, production, sales and service of renewable energy power products such as wind energy and solar energy. With a high reputation in the Association and participates in the formulation of international standards for small wind turbines. It is a designated product for state aid for foreign projects and 80% of products are exported.

The company was established in 2004 and acquired two registered trademarks of "Deming" and "Quanneng" in the same year. After five years of accumulation in 2009, the company gradually matured steadily. The company purchased factory buildings with independent property rights, and the company relocated to start a new journey. In 2012, the Ministry of Foreign Trade was established to open up markets and begin to expand foreign markets. In 2015, the company achieved rapid development, with 2 invention patents, 6 utility model patents, 1 appearance patents, obtained the "high-tech enterprise certificate" recognition, and obtained the ISO 9001 quality management system certification. In 2018, the company continued to innovate, with four invention patents, six utility model patents, and two software registration rights, and again successfully recognized high-tech enterprises. On July 10, 2019, it passed the certification of intellectual property management system. In 2020, three patents for invention and six patents for utility models were applied for.

Our main products are off grid wind turbine controller, On grid wind turbine controller, solar charging controller, wind-light complementary controller, wind-light complementary street lamp controller, On grid inverter, off grid inverter, frequency converter, stabilized frequency power supply, etc.

With first-class manufacturing technology, advanced technology and equipment, strong technical force, perfect testing means and personnel management, Deming has carried out 17 research and development projects in the last three years, completed 16 transformation of scientific and technological achievements, and invested all by itself to implement the transformation, averaging 5.3 transformation of scientific and technological achievements each year.

Deming takes technological innovation as the basis of enterprise development, annual R&D cost is not less than 20% of sales revenue, and continuously explores advanced technologies in the field of new energy power sources, such as electromagnetic control technology for wind turbines, MPPT technology, yaw wind turbines control technology, wind and solar complementary system Internet of Things monitoring, etc. Now it has five national invention patents for core technologies, twelve utility model patents, and the control technology for wind turbines has reached the advanced international level.

Deming has a complete product quality assurance system and 9001 certification. Perform comprehensive quality control, rigorous test one by one, each performance is superior to the relevant national standards, all products have passed the EU CE certification. Ensure user safety and reliable use. Now the company's products have been the preferred supporting products for the well-known domestic manufacturers. The products export to more than 120 countries and regions, such as Germany, Japan, the United States, the United Kingdom, Canada, Australia, Egypt, Brazil, Saudi Arabia, and have established a good image in the domestic and foreign markets.

We are based on the market, pay attention to customers, provide high-quality products, adhere to technological progress, scientific management and standardized operation are the key to our success. We will jointly meet the challenges of the new century, shape a good image outside, and construct the blueprint of a modern enterprise in an all-round and three-dimensional way.





### About Us

#### **Professional Technical Team**

Our technical team has engaged in wind and solar power research and production for 37 years, since 1990. Deming was founded in 2004, 16 years only to do one thing.





#### **Craftsmanship Spirit**

Each component is strictly tested before production and each product must pass aging quality test before delivery.

#### **Innovation Abilit**

Our products keep on technical innovation every year, and we have got 16 invention patents. All products have achieved remote communication and data cloud storage function.





#### **Integrated System Specialist**

Deming is China earliest factory specialized in production wind controllers. We cooperate with some outstanding wind turbine factories. We can provide high quality integrated wind solar hybrid system.











エア PRODUCTION MANAGEMENT

























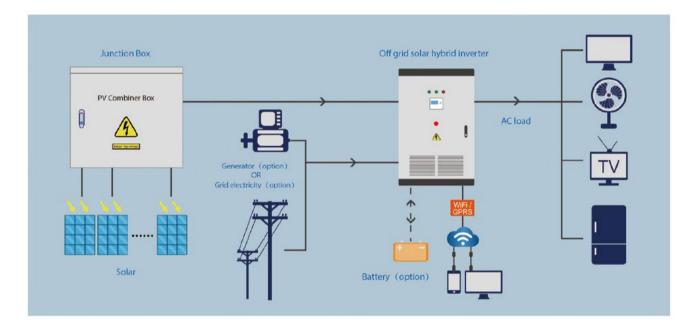




#### **Function Introduction**

Compared with the traditional off grid inverter system, the biggest difference between the new off grid inverter system and the traditional off grid inverter system is that there is no need for batteries or a small amount of batteries, so as to reduce the initial investment cost, make full use of new energy to generate electricity, and achieve the purpose of reducing the use of grid electricity or diesel generator.

The new off grid inverter system consists of solar panels, combiner box, new off grid inverter and other components.

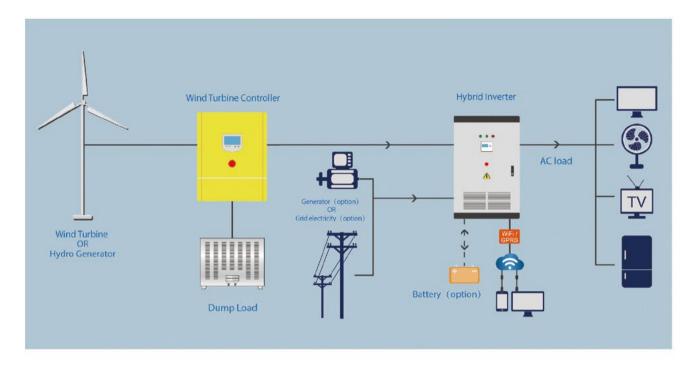


The electric energy generated by solar panels is directly connected to the new-type off grid inverter after converging through the combiner box, and then DC is converted to AC through the new-type off grid inverter for the use of load equipment.

The diesel engine / power grid is connected through the AC input terminal of the new off grid inverter, and it will participate in the inverter after rectification. When the power supply of solar panel is insufficient, it will automatically switch and supplement, and the switching time is 0ms.

In the system with a small number of batteries, some solar panels are connected to the controller to charge the batteries. The battery plays a supporting role in the switching process between solar panels and diesel generator, so as to avoid power failure of the system during the switching process.

In some application, the new off grid inverter can also be used in wind power, hydropower and other systems.

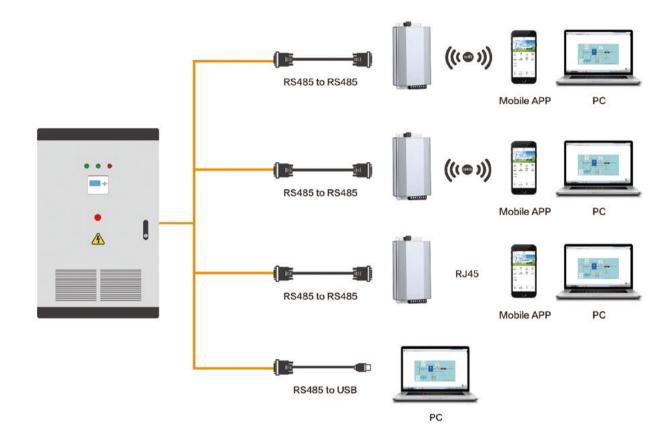




#### **Performance Characteristics**

- The drive protection is Mitsubishi inner works, and the perfect drive protection circuit ensures the reliable operation of IGBT.
- Fast dynamic response (Patented technology): Double closed-loop feedback circuit, internal loop current environmental protection certificate non-distorted non-linear load waveform; external loop voltage environmental protection certificate sudden load voltage drop ≤ 1%, reaction speed ≤ 2 ms.
- Reasonable combination of components, inversion efficiency ≥ 90%.
- Output frequency 50/60Hz switching to meet different device power requirements, other frequencies can be customized.
- Built-in isolation transformer with pure sine wave output and resistance, induction, capacitance and mixed load.
- Reasonable airway design and high heat dissipation efficiency.
- Strong carrying capacity, can withstand 200% power impact for 10 seconds.
- Friendly interactive interface, touch-display integration. Display DC input voltage, AC output voltage, frequency, power, temperature, status indication and fault indication.
- Digital technology design, high adjustability, DC high/low voltage, DC low voltage recovery, output high/low voltage, output overload can be set within a certain range.
- Wide voltage input range, 48-800V DC input, customizable input voltage.
- Full and efficient protection function, to protect against damage under any load, with input connection back protection, input high/low voltage protection, output low/voltage protection,
   IGBT drive protection, output over load protection, current limit protection, overheat protection, three-phase unbalance protection.
- Accurate switching of solar panels, batteries and grid power to maximize energy utilization.
- The generator start by dry contact ,can start the generator in advance before the power supply is low voltage, and the start voltage can be set.
- Optional: Bypass input.
- Communication: RS485, USB, WiFi, GPRS, CAN. Data can be accessed to the Internet of Things, monitored remotely, and queried for historical data.
- Communication protocol: Modbus RTU

# Multiple Communication Methods





## Product Type And Specifications



20KW-75KW Solar hybrid inverter

Туре	SPI 110-20K	SPI 220-20K		
Solar Input				
Solar power	20KWp	20KWp		
Solar panels voltage (Vmp)	195V	240V		
*Battery (optional)				
Battery rated voltage (DC)	156V	192V		
Input voltage range (DC)	130-195V	160-240V		
Single-phase AC input				
Allow voltage range (AC)	110V ± 15%	220V ± 15%		
Input rated current	202A	100A		
Transfer time	0m	ns		
*AC bypass(optional)				
Allow AC input voltage range	110V ± 15%	220V ± 15%		
Input frequency accuracy	50Hz/60H	z ± 10%		
Bypass transfer time	≤100ms ( ≤10r	ms optional )		
Single-phase AC output				
Rated power	20K	W		
AC Rated voltage	110V	220V		
Rated phase current	181A	91A		
Output voltage accuracy	110V ± 1%	220V ± 1%		
Output frequency accuracy	50Hz/60Hz	± 0.05%		
Waveform distortion (THD).	≤3% (Line	ear load)		
Overload capacity	110%,10 minutes,	200%,10 second		
Crest factor (CF)	3:	1		
Inverter efficiency	> 90	0%		
General parameters				
Working Environment				
Dielectric strength	1500VAC,	1 minute		
Noise (1m)	≤50	dB		
Ambient temperature	-10°C~	-10°C~+50°C		
Humidity	0~90%, No co	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated po	< 2000m Higher than 2000m rated power should Be reduced		
Production function				
Input reverse protection, input under-vo	Itage protection, output overload protection, ou	tput short circuit protection, thermal		
Size	520mm×900r	520mm×900mm×900mm		
Weight	200	200KG		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



Туре	SPI 110-30K	SPI 220-30K		
Solar Input	alle de la companya d			
Solar power	30KWp	30KWp		
Solar panels voltage (Vmp)	195V	240V		
*Battery (optional)				
Battery rated voltage (DC)	156V	192V		
Input voltage range (DC)	130-195V	160-240V		
Single-phase AC input				
Allow voltage range (AC)	110V ± 15%	220V ± 15%		
Input rated current	303A	151A		
Transfer time	0m	s		
*AC bypass(optional)				
Allow AC input voltage range	110V ± 15%	220V ± 15%		
Input frequency accuracy	50Hz/60Hz	z ± 10%		
Bypass transfer time	≤100ms ( ≤10m	ns optional)		
Single-phase AC output				
Rated power	30K	W		
AC Rated voltage	110V	220V		
Rated phase current	272A	136A		
Output voltage accuracy	110V ± 1%	220V ± 1%		
Output frequency accuracy	50Hz/60Hz	± 0.05%		
Waveform distortion (THD).	≤3% (Line	ear load)		
Overload capacity	110%,10 minutes,	200%,10 second		
Crest factor (CF)	3:1	L		
Inverter efficiency	> 90	9%		
General parameters				
Working Environment				
Dielectric strength	1500VAC,	1minute		
Noise (1m)	≤500	dB		
Ambient temperature	-10℃~-	-10°C~+50°C		
Humidity	0~90%, No condensation			
Altitude	< 2000m Higher than 2000m rated power should Be reduced			
Production function				
Input reverse protection, input under-voltage protection	e protection, output overload protection, outp	put short circuit protection, thermal		
Size	520mm*900m	m*1000mm		
Weight	245	245KG		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications

Туре	SPI 220-50K	SPI 380-50K	SPI 440-50K
Solar Input		-	
Solar power	50KWp	50KWp	50KWp
Solar panels voltage (Vmp)	450V	525V	525V
*Battery (optional)			
Battery rated voltage (DC)	360V	420V	420V
Input voltage range (DC)	300-450V	350-525V	350-525V
Three-phase AC input			
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%
Input rated current	145A	84A	73A
Transfer time		0ms	
*AC bypass(optional)			
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%
Input frequency accuracy		50Hz/60Hz ± 10%	
Bypass transfer time	5	≤100ms ( ≤10ms optional )	
Three-phase AC output			
Rated power		50KW	
AC Rated voltage	220V	380V	440V
Rated phase current	130A	76A	66A
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%
Output frequency accuracy		50Hz/60Hz ± 0.05%	
Waveform distortion (THD).		≤3% (Linear load)	
Overload capacity	110	%,10 minutes, 200%,10 seco	ond
Crest factor (CF)		3:1	
Inverter efficiency		> 90%	
General parameters			
Working Environment			
Dielectric strength		1500VAC,1minute	
Noise (1m)		≤50dB	
Ambient temperature	-10°C~+50°C		
Humidity	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced		
Production function	·		
Input reverse protection, input under-v protection	oltage protection, output over	load protection, output shor	t circuit protection, thermal
Size		1000mm*1000mm*1640mm	
Weight	500KG		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



Туре	SPI 220-60K	SPI 380-60K	SPI 440-60K	
Solar Input	4			
Solar power	60KWp	60KWp	60KWp	
Solar panels voltage (Vmp)	450V	525V	525V	
*Battery (optional)				
Battery rated voltage (DC)	360V	420V	420V	
Input voltage range (DC)	300-450V	350-525V	350-525V	
Three-phase AC input				
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%	
Input rated current	174A	101A	87A	
Transfer time		0ms		
*AC bypass(optional)				
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%	
Input frequency accuracy		50Hz/60Hz ± 10%		
Bypass transfer time	≤10	0ms (≤10ms option	nal)	
Three-phase AC output				
Rated power		60KW		
AC Rated voltage	220V	380V	440V	
Rated phase current	157A	91A	78A	
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%	
Output frequency accuracy		50Hz/60Hz ± 0.05%		
Waveform distortion (THD).		≤3% (Linear load)		
Overload capacity	110%,	10 minutes, 200%,10 s	second	
Crest factor (CF)		3:1		
Inverter efficiency		> 90%		
General parameters				
Working Environment				
Dielectric strength		1500VAC,1minute		
Noise (1m)		≤50dB		
Ambient temperature		-10℃~+50℃		
Humidity	0-	0~90%, No condensation		
Altitude	<2000m			
Aititude	Higher than 20	00m rated power sho	uld Be reduced	
Production function				
Input reverse protection, input under-voltage protection	tion, output overload protection	on, output short circui	t protection, thermal	
Size	100	00mm*1000mm*1640	mm	
Weight	500KG			

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.

Туре	SPI 220-75K	SPI 380-75K	SPI 440-75K
Solar Input	200		
Solar power	75KWp	75KWp	75KWp
Solar panels voltage (Vmp)	450V	525V	525V
*Battery (optional)			
Battery rated voltage (DC)	360V	420V	420V
Input voltage range (DC)	300-450V	350-525V	350-525V
Three-phase AC input			
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%
Input rated current	219A	127A	109A
Transfer time		0ms	
*AC bypass(optional)			
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%
Input frequency accuracy		50Hz/60Hz ± 10%	
Bypass transfer time		≤100ms (≤10ms optional	)
Three-phase AC output			
Rated power		75KW	
AC Rated voltage	220V	380V	440V
Rated phase current	197A	114A	98A
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%
Output frequency accuracy		50Hz/60Hz ± 0.05%	
Waveform distortion (THD).		≤3% (Linear load)	
Overload capacity	110	0%,10 minutes, 200%,10 sec	ond
Crest factor (CF)		3:1	
Inverter efficiency		>90%	
General parameters			
Working Environment	nan j		
Dielectric strength		1500VAC,1minute	
Noise (1m)		≤50dB	
Ambient temperature	-10°C~+50°C		
Humidity	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced		
Production function	12h		
Input reverse protection, input under-vo	ltage protection, output over	load protection, output shor	t circuit protection, thermal
Size	3	1000mm*1000mm*1700mn	n
	600KG		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



# Product Type And Specifications



100KW-150KW Solar hybrid inverter

Туре	SPI 220-100K	SPI 380-100K	SPI 440-100K
Solar Input			
Solar power	100KWp	100KWp	100KWp
Solar panels voltage (Vmp)	450V	525V	525V
*Battery (optional)			
Battery rated voltage (DC)	360V	420V	420V
Input voltage range (DC)	300-450V	350-525V	350-525V
Three-phase AC input			
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%
Input rated current	292A	168A	146A
Transfer time		0ms	
*AC bypass(optional)			
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%
Input frequency accuracy		50Hz/60Hz ± 10%	
Bypass transfer time		≤100ms (≤10ms optional	)
Three-phase AC output			
Rated power		100KW	
AC Rated voltage	220V	380V	440V
Rated phase current	263A	151A	131A
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%
Output frequency accuracy		50Hz/60Hz ± 0.05%	
Waveform distortion (THD).		≤3% (Linear load)	
Overload capacity	110	%,10 minutes, 200%,10 sec	ond
Crest factor (CF)		3:1	
Inverter efficiency		> 90%	
General parameters			
Working Environment	40		
Dielectric strength		1500VAC,1minute	
Noise (1m)	≤50dB		
Ambient temperature	-10°C~+50°C		
Humidity	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced		
Production function			
Input reverse protection, input under-vo	ltage protection, output overl	oad protection, output shor	t circuit protection, thermal
Size	840mm*1420mm*2250mm		
Weight	650KG		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



Туре	SPI 220-150K	SPI 380-150K	SPI 440-150K
Solar Input			
Solar power	150KWp	150KWp	150KWp
Solar panels voltage (Vmp)	450V	525V	525V
*Battery (optional)			
Battery rated voltage (DC)	360V	420V	420V
Input voltage range (DC)	300-450V	350-525V	350-525V
Three-phase AC input			70-
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%
Input rated current	437A	153A	218A
Transfer time		0ms	•
*AC bypass(optional)			
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%
Input frequency accuracy		50Hz/60Hz ± 10%	
Bypass transfer time	<u> </u>	100ms (≤10ms optional)	)
Three-phase AC output			
Rated power		150KW	as a second
AC Rated voltage	220V	380V	440V
Rated phase current	393A	137A	196A
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%
Output frequency accuracy		50Hz/60Hz ± 0.05%	02
Waveform distortion (THD).		≤3% (Linear load)	
Overload capacity	110	%,10 minutes, 200%,10 seco	ond
Crest factor (CF)		3:1	
Inverter efficiency		> 90%	
General parameters			
Working Environment			
Dielectric strength		1500VAC,1minute	
Noise (1m)	≤50dB		
Ambient temperature	-10°C~+50°C		
Humidity	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced		
Production function			
Input reverse protection, input under- thermal protection	voltage protection, output ove	erload protection, output sh	ort circuit protection,
Size		1460mm*860mm*1820mm	
Weight	1.5t		

 $<sup>{}^*\!</sup>Above$  parameter only for reference. Could be custom made to user specifications.

# Product Type And Specifications



200KW-300KW Solar hybrid inverter



Туре	SPI 220-200K	SPI 380-200K	SPI 440-200K
Solar Input			
Solar power	200KWp	200KWp	200KWp
Solar panels voltage (Vmp)	450V	525V	525V
*Battery (optional)			
Battery rated voltage (DC)	360V	420V	420V
Input voltage range (DC)	300-450V	350-525V	350-525V
Three-phase AC input		*	
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%
Input rated current	583A	336A	291A
Transfer time		0ms	
*AC bypass(optional)			
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%
Input frequency accuracy		50Hz/60Hz ± 10%	
Bypass transfer time	۲.	100ms (≤10ms optional)	
Three-phase AC output			
Rated power		200KW	
AC Rated voltage	220V	380V	440V
Rated phase current	524A	302A	262A
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%
Output frequency accuracy		50Hz/60Hz ± 0.05%	
Waveform distortion (THD).		≤3% (Linear load)	
Overload capacity	1109	%,10 minutes, 200%,10 secor	nd
Crest factor (CF)		3:1	
Inverter efficiency		> 90%	
General parameters			
Working Environment			
Dielectric strength		1500VAC,1minute	
Noise (1 m)		≤50dB	
Ambient temperature		-10℃~+50℃	
Humidity	0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced		
Production function			
Input reverse protection, input under-v	oltage protection, output over	rload protection, output sho	rt circuit protection,
thermal protection			
Size	1900mm*930mm*2100mm		
Weight	1.8t		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.

Туре	SPI 220-300K	SPI 380-300K	SPI 440-300K	
Solar Input				
Solar power	300KWp	300KWp	300KWp	
Solar panels voltage (Vmp)	450V	525V	525V	
*Battery (optional)				
Battery rated voltage (DC)	360V	420V	420V	
Input voltage range (DC)	300-450V	350-525V	350-525V	
Three-phase AC input	500 C		56 20	
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%	
Input rated current	875A	504A	437A	
Transfer time		0ms		
*AC bypass(optional)				
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%	
Input frequency accuracy		50Hz/60Hz ± 10%		
Bypass transfer time	2	100ms (≤10ms optional)		
Three-phase AC output	w/ra			
Rated power	300KW	300KW	300KW	
AC Rated voltage	220V	380V	440V	
Rated phase current	787A	453A	393A	
Output voltage accuracy	380V ± 1%	380V ± 1%	440V ± 1%	
Output frequency accuracy		50Hz/60Hz ± 0.05%		
Waveform distortion (THD).		≤3% (Linear load)		
Overload capacity	110	%,10 minutes, 200%,10 seco	ond	
Crest factor (CF)		3:1		
Inverter efficiency		> 90%		
General parameters	80			
Working Environment	40			
Dielectric strength		1500VAC,1minute		
Noise (1m)		≤50dB		
Ambient temperature		-10℃~+50℃		
Humidity		0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced			
Production function	000			
Input reverse protection, input under thermal protection	er-voltage protection, output ove	erload protection, output sh	ort circuit protection,	
Size		2010mm*1060mm*2100mm		
Weight		2t		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



# Product Type And Specifications



400KW-500KW Solar hybrid inverter

Туре	SPI 220-400K	SPI 380-400K	SPI 440-400K	
Solar Input				
Solar power	400KWp	400KWp	400KWp	
Solar panels voltage (Vmp)	450V	525V	525V	
*Battery (optional)				
Battery rated voltage (DC)	360V	420V	420V	
Input voltage range (DC)	300-450V	350-525V	350-525V	
Three-phase AC input				
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%	
Input rated current	1166A	675A	583A	
Transfer time		0ms	•	
*AC bypass(optional)				
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%	
Input frequency accuracy		50Hz/60Hz ± 10%	•	
Bypass transfer time	<u>-</u>	100ms (≤10ms optional	)	
Three-phase AC output	·			
Rated power		400KW	×	
AC Rated voltage	220V	380V	440V	
Rated phase current	1049A	607A	524A	
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%	
Output frequency accuracy		50Hz/60Hz ± 0.05%		
Waveform distortion (THD).		≤3% (Linear load)		
Overload capacity	110	%,10 minutes, 200%,10 sec	ond	
Crest factor (CF)		3:1		
Inverter efficiency		> 90%		
General parameters	<u>'</u>			
Working Environment				
Dielectric strength		1500VAC,1minute		
Noise (1m)		≤50dB		
Ambient temperature		-10℃~+50℃		
Humidity		0~90%, No condensation		
Altitude	< 2000m Higher than 2000m rated power should Be reduced			
Production function				
Input reverse protection, input und thermal protection	er-voltage protection, output over	erload protection, output sh	ort circuit protection,	
Size		2010mm*1060mm*2100mm		
Weight		2t		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.



Туре	SPI 220-500K	SPI 380-500K	SPI 440-500K	
Solar Input				
Solar power	500KWp	500KWp	500KWp	
Solar panels voltage (Vmp)	450V	525V	525V	
*Battery (optional)				
Battery rated voltage (DC)	360V	420V	420V	
Input voltage range (DC)	300-450V	350-525V	350-525V	
Three phase AC input		_		
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%	
Input rated current	1458A	844A	729A	
Transfer time	0ms			
*AC bypass(optional)				
Allow AC input voltage range	22 <b>0V</b> ± 15%	380V ± 15%	440V ± 15%	
Input frequency accuracy	50Hz/60Hz ± 10%			
Bypass transfer time	≤100ms ( ≤10ms optional )			
Three-phase AC output				
Rated power	500KW			
AC Rated voltage	220V	380V	440V	
Rated phase current	1312A	760A	656A	
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%	
Output frequency accuracy	50Hz/60Hz ± 0.05%			
Waveform distortion (THD).	≤3% (Linear load)			
Overload capacity	110%,10 minutes, 200%,10 second			
Crest factor (CF)	3:1			
Inverter efficiency	> 90%			
General parameters	·			
Working Environment				
Dielectric strength	1500VAC,1minute			
Noise (1m)	≤50dB			
Ambient temperature	-10℃~+50℃			
Humidity	0~90%,No condensation			
Altitude	< 2000m Higher than 2000m rated power should Be reduced			
Production function				
Input reverse protection, input under- thermal protection	voltage protection, output over	rload protection, output sho	rt circuit protection,	
thermal protection				
Size	20	010mm*1200mm*2090mm		

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.

# **Product Type And Specifications**





Туре	SPI 220-1000K	SPI 380-1000K	SPI 440-1000K		
Solar Input					
Solar power	1000KWp	1000KWp	1000KWp		
Solar panels voltage (Vmp)	450V	525V	525V		
*Battery (optional)					
Battery rated voltage (DC)	360V	420V	420V		
Input voltage range (DC)	300-450V	350-525V	350-525V		
Three-phase AC input					
Allow voltage range (AC)	220V ± 15%	380V ± 15%	440V ± 15%		
Input rated current	2915A	1688A	1457A		
Transfer time		0ms			
*AC bypass(optional)					
Allow AC input voltage range	220V ± 15%	380V ± 15%	440V ± 15%		
Input frequency accuracy		50Hz/60Hz ± 10%			
Bypass transfer time		≤200ms			
Three-phase AC output					
Rated power	1000KW	1000KW	1000KW		
AC Rated voltage	220V	380V	440V		
Rated phase current	2624A	1519A	1312A		
Output voltage accuracy	220V ± 1%	380V ± 1%	440V ± 1%		
Output frequency accuracy	1	50Hz/60Hz ± 0.05%			
Waveform distortion (THD).		≤3% (Linear load)			
Overload capacity		110%,10 minutes, 200%,10 second			
Crest factor (CF)		3:1			
Inverter efficiency		>90%			
General parameters	**				
Working Environment					
Dielectric strength		1500VAC,1minute			
Noise (1m)		≤50dB			
Ambient temperature		-10℃~+50℃			
Humidity		0~90%, No condensation			
Altitude	< 2000m Hi	< 2000m Higher than 2000m rated power should Be reduced			
Production function	2				
Input reverse protection, input under-volt	age protection, output o	verload protection, outp	out short circuit protection,		
thermal protection					
Size		4800mm*830mm*2200mm			
	_	5t			

<sup>\*</sup>Above parameter only for reference. Could be custom made to user specifications.

### DeMing APP

Deming APP is intelligent terminal for hybrid wind solar power, PV power station monitoring and management person. It help user master power station running status at anytime and anywhere, realize remote data monitoring of hybrid wind solar power and PV power station, ensure convenient management and monitoring timeliness. System displays hybrid wind solar power station and PV power station running data by visual table, includes power station power generation, benefit, CO2 emission reduction benefit, equipment running status, equipment real-time data, history data query, power generation comparison, equipment performance comparison. As fashion and intelligent application, it can let user demonstrate his hybrid wind solarpower station and PV power station at any occasion, user has intuitive feeling, enhance user confidence.

- Various data output interface, support Android iphone ipad windows macOS
- Delicate and precise data, easy to operate, download and install, Wechat binded, real-time monitoring, data synchronization
- 24-hour monitoring
- Low maintenance cost
- Power station information sharing function



## **Optional Parts**





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