



Off Grid Inverter

Low Frequency 5KW-500KW

SANDI ELECTRIC CO., LTD
— www.lgis.cc —

Company profile

Zhejiang Sandi Electric Co., Ltd is an international PV enterprise which is located in the "capital of China's electrical appliances" Wenzhou. Specialized in the new energy source and electrical source scientific research, development, manufacture and service had surpasses for 15 years.

Sandi company's products are widely applied in solar and wind energy system, Industrial automation control, new energy source, civilian use, electric power, medical treatment, aviation, automatically control system, train, ship, fire power, military system and national heavy engineering project.

Main products: Off grid pure sine wave inverter, solar pump inverter, PV array combiner box, solar charge controller, single phase to three phase converter, AC/DC Battery Charger products.

SANDI is recognized by widely customers according to entirely varieties, high quality and service first. The company strictly controls the product quality, strives for perfection, regards the quality as the lifeline of the company, continuously improves the quality management system, and obtains ISO9001, CE(EMC&LVD, ARN 4105 EN62109, EN61000), SAA certificate and approved by international standard, the continuous introduction international advanced production equipment and testing equipment to ensure product quality and timely delivery, we are people-oriented, with solid integrity and perfect service to make customers more secure use of SANDI products and get customers praise.

SANDI company insist on technology as forerunner, keep long-term, good research cooperation with all universities; fetch in and absorb international advanced technology, built strictly quality control system.

We will take the work objective of "unremitting exploration, endeavor and innovation, honesty and dedication, perfect and practicality" and quality guideline of "criterion management, intensive manufacture, quality first, service with all hearts". Seek excellence, value innovation!

We will ceaselessly struggle and create refulgence with you together.





Product Introduction

SANDI SDP series Pure Sine Wave Inverter is the one of the most advanced technology DC to AC conversion products in the world, it's suitable use for areas without electricity, providing a complete power solution for strict demand applications. With SVPWM technology it has high conversion efficiency, high instantaneous power and low losses power output pure sine wave, applying to capacitive, inductive and nonlinear mixed-load, with superior load capacity, perfect protection function: overload, short circuit, low/over battery voltage, improper operation etc, which won't cause mechanical failures. This Inverter is very suitable for solar power systems, wind power generation systems, wind and solar hybrid generation systems. The inverter can supply AC power to all kinds of electric equipment, air conditioners, electric motors, refrigerators, fluorescent lights, televisions, electric fans and other industrial power supply.

Technical Features:

- ✧ The core components are all imported, adopting the sixth generation IPM module from Mitsubishi, which has stable performance, long service life, strong protection functions and convenient replacement and maintenance.
- ✧ Adopt the central processor DSP28335 chip from American TI Company, respond quickly and accurately, and provide stable and clean power for the load to provide protection.
- ✧ The whole machine adopts modular design and plug-in design, which is convenient for maintenance and reduces the hidden cost of machine failure to repair.
- ✧ According to the product configuration conditions, adjustment the system usage mode: DC(Battery/Solar) priority or AC mains bypass priority can be set.
- ✧ Two kinds of start mode: Reduction Voltage Start and Variable Frequency Start. Customers can set start mode according to the type of their load. This function is very convenient for users and also reduce frequency converter's usage, which reduced the cost of equipment investment, easy to connect wires and control.
- ✧ The output voltage can be set between -40 % to +20 % of rated voltage. And the output voltage is very accuracy $\pm 1\%$.
- ✧ The DC input voltage range can be set. Over-voltage point, under-voltage point, over-voltage recovery point, under-voltage recovery point all can be setting via the LCD panel.
- ✧ Output AC Power is suitable for all types of electrical equipment, CNC machines, electric tools, motors, pump and air conditioner etc. It has higher efficiency and higher capability of driving load.
- ✧ Humanized safety design, using isolation transformer design, input and output are completely electrically isolated, input and output are equipped with circuit breakers, which saving costs for the user and easy to installation, the electric parts are completely closed to prevent electric shock.

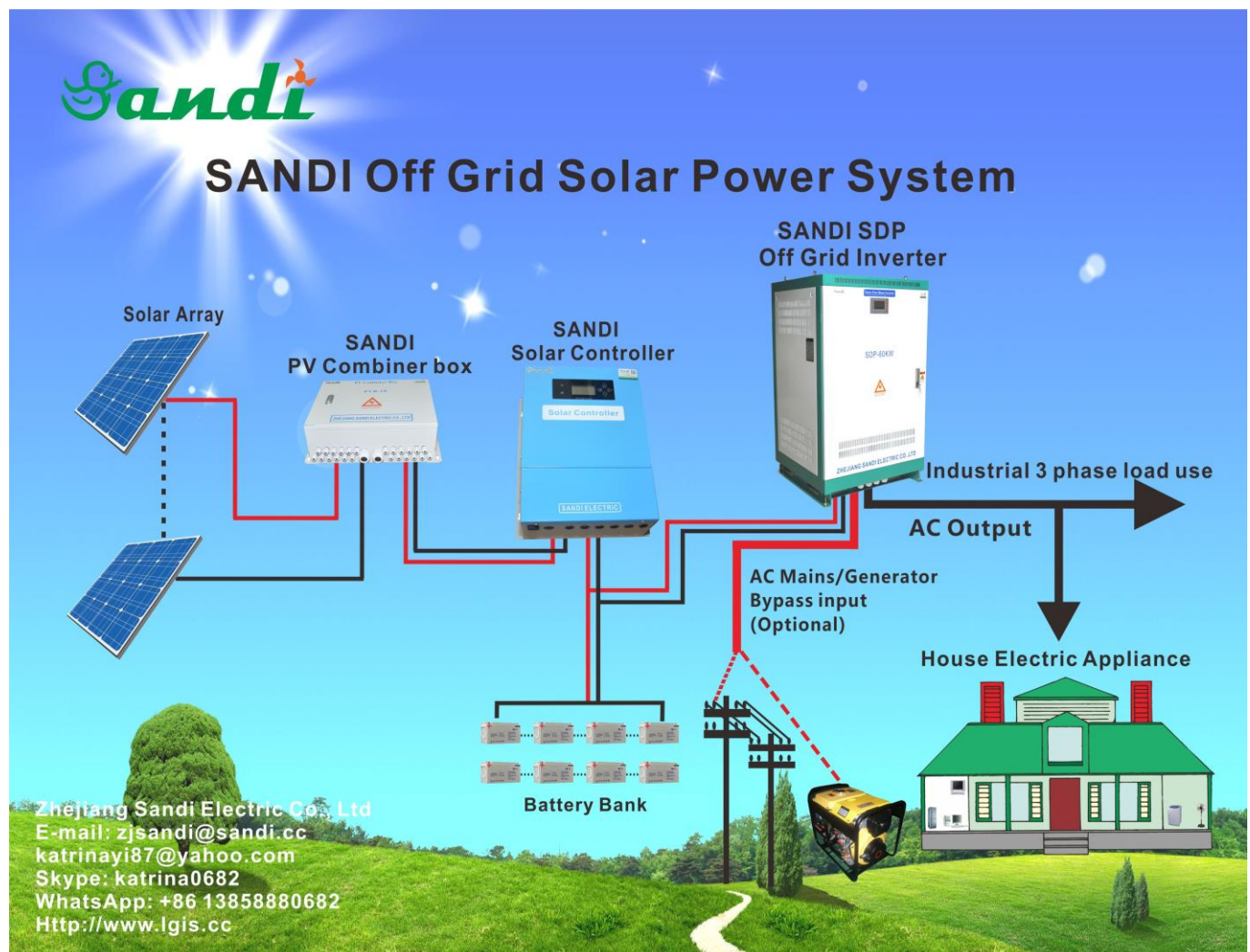
- ✧ Wide input voltage can be set according to customer's requirement. Input voltage range can be selected from 100-300V, 200-500V or 500-850V, suitable for solar/wind system without backup batteries, it can save many cost and maximization use the solar/wind energy.
- ✧ Using SVPWM space vector algorithms, high conversion efficiency, high instantaneous power and low losses conversion efficiency up to 94%.
- ✧ Powerful data display function. LCD + LED display, can display input and output voltage, current, KWH, fault display, convenient for customers to quickly find faults and guide maintenance.
- ✧ European CE (EMC, LVD, UL1741) and ISO9001 certificates.

[Optional]

- ✧ **RS485 remote monitoring;**
- ✧ **AC bypass input complementary function;**

PV Off-grid Solar Power System

PV Off-grid solar power generation system including solar panel array, solar charge controller, storage battery, Off-grid inverter, PV combiner box and etc. In the sunshine, the solar panel convert the solar energy to DC power and charge the battery group by the charge controller. Then the off grid inverter convert the DC power into AC power for power supply the AC load.



Technical Parameter

Model	SDP-5KW		SDP-6KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	96Vdc	120Vdc	96Vdc	192Vdc
Rated current (A)	52A	42A	62.5A	31A
Input voltage range (Vdc)	86~140V	108~175V	86~140V	172~280V
AC Output				
Rated power (Kw)	5KW		6KW	
Rated voltage	220V±3%	380V±3%	220V±3%	380V±3%
Number of phases	1 phase 2 wire	3 phase 4 wire	1 phase 2 wire	3 phase 4 wire
Rated current (A)	23A	7.5A	27A	9A
Rated output voltage range (V)	110/120/220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤50dB			
Unit size: (W x D x H)	500×450×730mm			
Reference weight (Kg)	72Kg		84Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-8KW		SDP-10KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	120Vdc	192Vdc	192Vdc	240Vdc
Rated current (A)	67A	42A	52A	42A
Input voltage range (Vdc)	108~175V	172~275V	172~275V	216~340V
AC Output				
Rated power (Kw)	8KW		10KW	
Rated voltage	220V±3%	380V±3%	220V±3%	380V±3%
Number of phases	1 phase 2 wire	3 phase 4 wire	1 phase 2 wire	3 phase 4 wire
Rated current (A)	36A	12A	45.5A	15A
Rated output voltage range (V)	110/120/220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤50dB			
Unit size: (W x D x H)	550x550x860mm			
Reference weight (Kg)	105Kg		115Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-15KW		SDP-20KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	192Vdc	240Vdc	240Vdc	360Vdc
Rated current (A)	78A	62.5A	83A	55.5A
Input voltage range (Vdc)	172~275V	216~340V	216~340V	324~480V
AC Output				
Rated power (Kw)	15KW		20KW	
Rated voltage	220V±3%	380V±3%	220V±3%	380V±3%
Number of phases	1 phase 2 wire	3 phase 4 wire	1 phase 2 wire	3 phase 4 wire
Rated current (A)	68A	23A	90A	30A
Rated output voltage range (V)	110/120/220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤55dB			
Unit size: (W x D x H)	550x550x860mm			
Reference weight (Kg)	155Kg		170Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-25KW		SDP-30KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	240Vdc	360Vdc	240Vdc	360Vdc
Rated current (A)	104A	69.5A	125A	83A
Input voltage range (Vdc)	216~340V	324~480V	216~340V	324~480V
AC Output				
Rated power (Kw)	25KW		30KW	
Rated voltage	220V±3%	380V±3%	220V±3%	380V±3%
Number of phases	1 phase 2 wire	3 phase 4 wire	1 phase 2 wire	3 phase 4 wire
Rated current (A)	114A	38A	136A	45.5A
Rated output voltage range (V)	110/120/220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤55dB			
Unit size: (W x D x H)	700×600×1080mm			
Reference weight (Kg)	230Kg		257Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-40KW		SDP-50KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	360Vdc	384Vdc	360Vdc	384Vdc
Rated current (A)	111A	104A	139A	130A
Input voltage range (Vdc)	324~480V	345~550V	324~480V	345~550V
AC Output				
Rated power (Kw)	40KW		50KW	
Rated voltage	220V±3%	380V±3%	380V±3%	
Number of phases	1 phase 2 wire	3 phase 4 wire	3 phase 4 wire	
Rated current (A)	182A	60A	76A	
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤55dB			
Unit size: (W x D x H)	750×650×1200mm			
Reference weight (Kg)	320Kg		360Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-60KW		SDP-80KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	384Vdc	480Vdc	384Vdc	480Vdc
Rated current (A)	104A	125A	208A	167A
Input voltage range (Vdc)	345~550V	432~650V	345~550V	432~650V
AC Output				
Rated power (Kw)	60KW		80KW	
Rated voltage	380V±3%		380V±3%	
Number of phases	3 phase 4 wire		3 phase 4 wire	
Rated current (A)	91A		121A	
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤55dB			
Unit size: (W x D x H)	750x750x1485mm			
Reference weight (Kg)	420Kg		490Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-100KW		SDP-150KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	384Vdc	480Vdc	480Vdc	540Vdc
Rated current (A)	260.5A	208A	312.5A	278A
Input voltage range (Vdc)	345~550V	432~650V	432~650V	486~750V
AC Output				
Rated power (Kw)	100KW		150KW	
Rated voltage	380V±3%		380V±3%	
Number of phases	3 phase 4 wire		3 phase 4 wire	
Rated current (A)	151.5A		227A	
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤60dB			
Unit size: (W x D x H)	750×750×1485mm		1000×1150×1860mm	
Reference weight (Kg)	750Kg		1050Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-200KW		SDP-250KW	
Isolation mode	Low Frequency Transformer			
DC Input				
Rated voltage (Vdc)	480Vdc	540Vdc	540Vdc	600Vdc
Rated current (A)	417A	370A	463A	417A
Input voltage range (Vdc)	432~650V	486~750V	486~750V	540~850V
AC Output				
Rated power (Kw)	200KW		250KW	
Rated voltage	380V±3%		380V±3%	
Number of phases	3 phase 4 wire		3 phase 4 wire	
Rated current (A)	303A		379A	
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)			
Output frequency	50Hz or 60Hz ±0.05 (Can set)			
Waveform	Pure sine wave			
Waveform distortion rate (THD)	Linear load≤2%			
Dynamic Response time (Load 0↔100%)	5%, ≤50ms			
Power Factor (PF)	0.99			
Inverter Efficiency	>93%			
Electrical insulation properties	2000Vac、1 Minute			
Protection Function				
Overload Ability	150%、10s			
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.			
Display	LCD+LED			
Communication interface (optional)	RS485 (A、B)			
Method of working	Working continuously			
Cooling method	Fan-cooled			
Short-circuit protection	No automatic recovery, need to restart the machine			
Working Environment & Mechanical dimension				
Degree of protection	IP20 (indoor)			
Working Altitude (m)	≤3000m			
Working temperature (℃)	-20~+50℃			
Relative humidity (℃)	0~90%, No condensation			
Noise (1 meter)	≤60dB			
Unit size: (W x D x H)	1000×1150×1860mm			
Reference weight (Kg)	1150Kg		1300Kg	
Our company can adjust parameter configuration according to user's requirement.				

Technical Parameter

Model	SDP-300KW	SDP-400KW
Isolation mode	Low Frequency Transformer	
DC Input		
Rated voltage (Vdc)	600V	
Rated current (A)	500A	667A
Input voltage range (Vdc)	540~850V	540~850V
AC Output		
Rated power (Kw)	300KW	400KW
Rated voltage	380V±3%	380V±3%
Number of phases	3 phase 4 wire	3 phase 4 wire
Rated current (A)	454.5A	606A
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)	
Output frequency	50Hz or 60Hz ±0.05 (Can set)	
Waveform	Pure sine wave	
Waveform distortion rate (THD)	Linear load≤2%	
Dynamic Response time (Load 0↔100%)	5%, ≤50ms	
Power Factor (PF)	0.99	
Inverter Efficiency	>93%	
Electrical insulation properties	2000Vac、1 Minute	
Protection Function		
Overload Ability	150%、10s	
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.	
Display	LCD+LED	
Communication interface (optional)	RS485 (A、B)	
Method of working	Working continuously	
Cooling method	Fan-cooled	
Short-circuit protection	No automatic recovery, need to restart the machine	
Working Environment & Mechanical dimension		
Degree of protection	IP20 (indoor)	
Working Altitude (m)	≤3000m	
Working temperature (℃)	-20~+50℃	
Relative humidity (℃)	0~90%, No condensation	
Noise (1 meter)	≤65dB	
Unit size: (W x D x H)	1600×1600×2000mm	
Reference weight (Kg)	2300Kg	2600Kg
Our company can adjust parameter configuration according to user's requirement.		

Technical Parameter

Model	SDP-500KW
Isolation mode	Low Frequency Transformer
DC Input	
Rated voltage (Vdc)	600V
Rated current (A)	833A
Input voltage range (Vdc)	540~850V
AC Output	
Rated power (Kw)	500KW
Rated voltage	380V±3%
Number of phases	3 phase 4 wire
Rated current (A)	757.5A
Rated output voltage range (V)	220/230/240/380/400/415/440/480VAC (optional)
Output frequency	50Hz or 60Hz ±0.05 (Can set)
Waveform	Pure sine wave
Waveform distortion rate (THD)	Linear load≤2%
Dynamic Response time (Load 0←→100%)	5%, ≤50ms
Power Factor (PF)	0.99
Inverter Efficiency	>93%
Electrical insulation properties	2000Vac、1 Minute
Protection Function	
Overload Ability	150%、10s
Protection	Input reverse polarity, under voltage, overvoltage, output over-current, short circuit, overheating etc.
Display	LCD+LED
Communication interface (optional)	RS485 (A、B)
Method of working	Working continuously
Cooling method	Fan-cooled
Short-circuit protection	No automatic recovery, need to restart the machine
Working Environment & Mechanical dimension	
Degree of protection	IP20 (indoor)
Working Altitude (m)	≤3000m
Working temperature (°C)	-20~+50°C
Relative humidity (°C)	0~90%, No condensation
Noise (1 meter)	≤65dB
Unit size: (W x D x H)	1600×1600×2000mm
Reference weight (Kg)	3200Kg
Our company can adjust parameter configuration according to user's requirement.	

Project Case







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