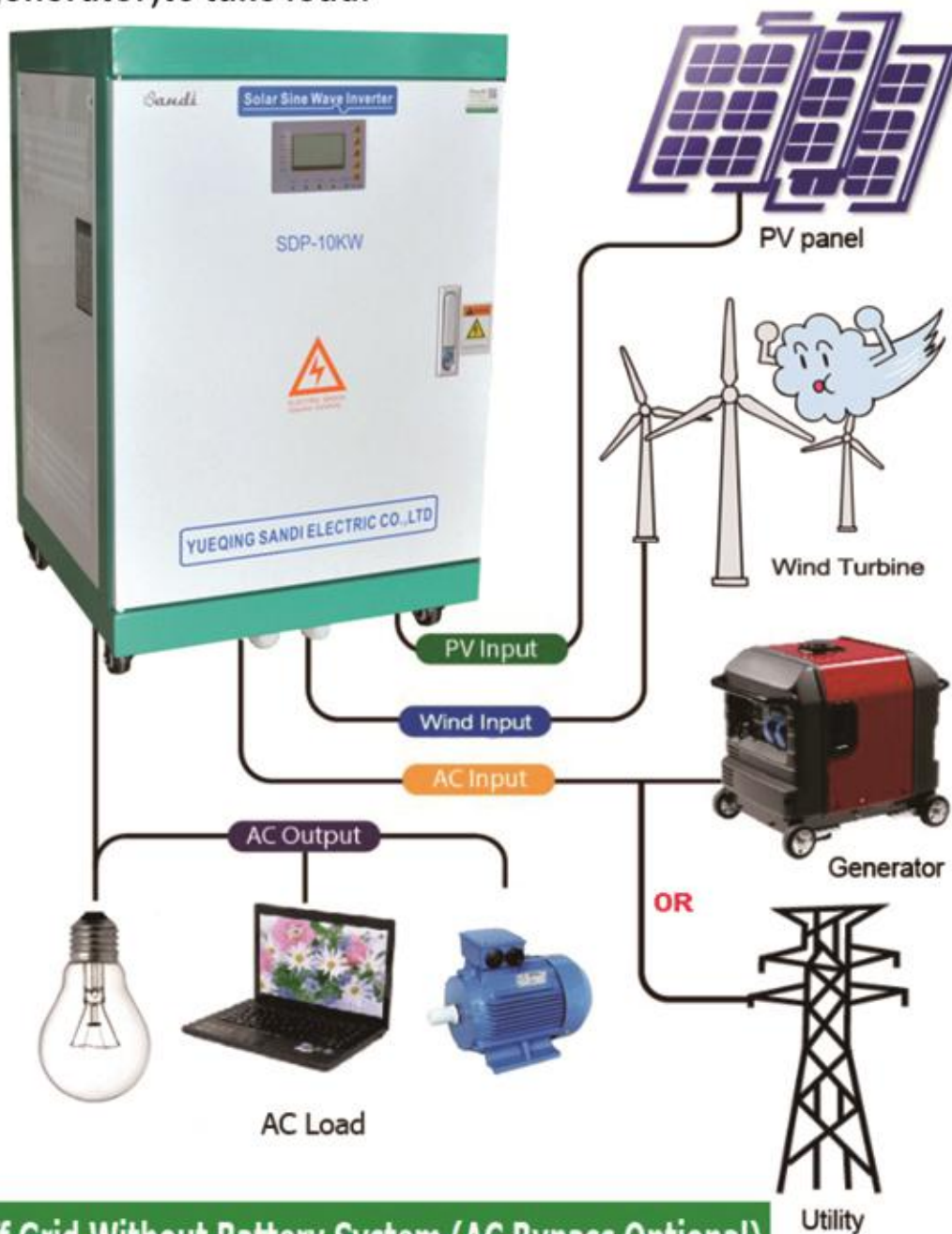




Wide Voltage Off Grid Inverter without Battery

Off grid without battery system consist of solar panel array/wind turbine, wide voltage off grid inverter, etc. The solar panel or wind turbine convert solar/wind power to electrical energy, then wide voltage off grid inverter convert DC power into AC power to supply power for the AC load. Inverter also can add AC bypass input switch, when solar/wind power is insufficient, inverter will automatically switch to AC bypass input power(AC grid or diesel generator)to take load.



Off Grid Without Battery System (AC Bypass Optional)

Wide Voltage Off Grid Inverter Main Features

MPPT

Wide
Voltage

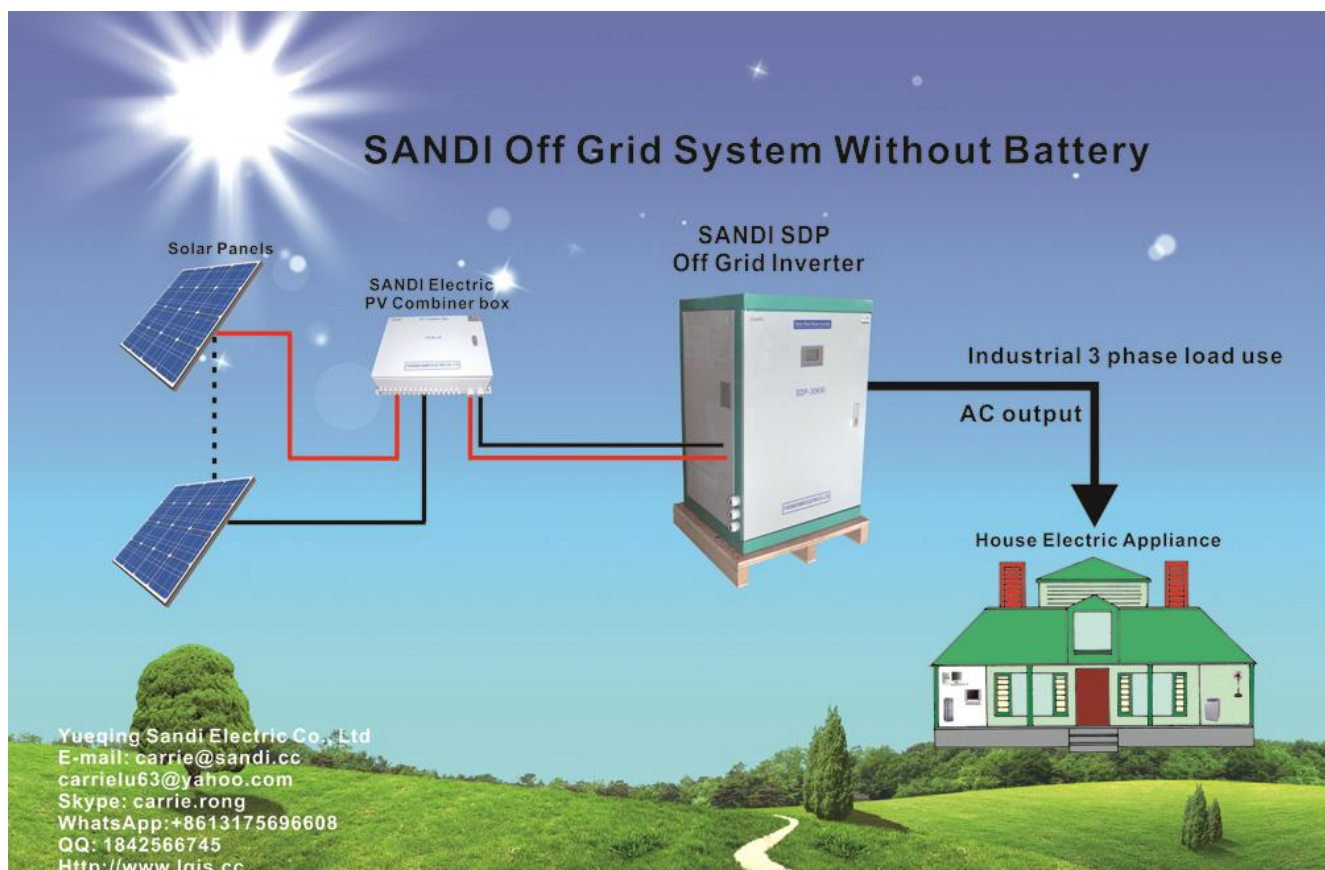
>92%
Efficiency

7x24h
Working

0ms
Switch

Anti
Oscillation

- With MPPT(maximum power point tracking) function, priority to use solar/wind power, when solar/wind power is insufficient, seamlessly switch to AC grid power as backup, transfer time is 0ms.
- Without battery and charge controller, reduce the cost a lot.
- With high precision voltage stabilizing and filtering function, when AC grid power is unstable and power measure is poor, through inverter can output stable and clean pure sine wave, voltage transient response less than 40MS.
- Unique anti-oscillation function, when there is no AC grid power input, inverter still can independently and stably running, won't happen turn on and off repeatedly these oscillation problems.
- Resistance to the sand wind, moisture and salt, inverter have been tested on bad environment for long time, the service life can reach 15 years and more.



Technical Features:

- ✧ Using the sixth generation efficient **IPM intelligent module** from Japanese Mitsubishi, **high efficiency and stable performance**. It with **powerful protection** function for **short circuit, over load and over temperature** which is more safe and reliable. **It's service life can up to 15-20 years or more**.
- ✧ Intelligentized, modularized and simple structure design, **very easy and convenient for maintenance**.
- ✧ Two kinds of start mode: **Step Down Voltage Start and Variable Frequency Start**. Customer 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, save more cost and easy to connect wires and control.
- ✧ The **output frequency 50Hz/60Hz can be set** via LCD panel.
- ✧ The **output voltage can be set** between -40 % to +20 % of rated voltage. And the accuracy of output voltage is very high less than 1%.
- ✧ The **DC input voltage range can be set**. over-voltage point, under-voltage point, over-voltage recovery point, under-voltage recovery point and under voltage recovery time all can be set via the LCD panel.
- ✧ Using SVPWM space vector algorithms, **high conversion efficiency, high instantaneous power and low losses, higher efficiency > 94%**.
- ✧ **Pure sine wave output**. with good transient response less than 50MS, little harmonic distortion, higher conversion efficiency and stable output voltage.
- ✧ **Low frequency transformer**, which ensure the AC busbar and DC busbar are completely isolated to avoid interference, high efficiency and very little no-load loss.
- ✧ **Powerful data display and fault instruction function**. LCD can **display** the DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code display.
- ✧ **Wide input voltage can be set** according to customer's requirement. Input voltage range can be selected from 100-400v or 200-600v or 400-850v. This wide voltage input **off grid inverter can work without battery** and solar charge controller, which save battery cost and same like with MPPT function can maximum make full use of solar power .
- ✧ **AC bypass input function optional**: Battery Power Priority or AC Bypass Priority work mode can be set.
- ✧ **RS485 remote monitoring function optional**

Technical Parameters(normal model)

Model		SDP-3KW		SDP-4KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	100-300V	200-600V	400-800V	
	Rated Voltage(Vdc)	200V	400V	600V	
AC Output	Rated output power	3KW		4KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	13.6A	4.5A (phase current)	18.2A	6A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
	relative humidity	0~90%, non-condensing			
Mechanical dimension	Depth* Width * Height	450x550x760mm			
	Weight (Kg)	65Kg		75Kg	
Certification		European CE(EMC & LVD), SAA			

Model		SDP-5KW		SDP-6KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	100-300V	200-600V	400-800V	
	Rated Voltage(Vdc)	200V	400V	600V	
AC Output	Rated output power	5KW		6KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	23A	7.6A (phase current)	27A	9A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
	relative humidity	0~90%, non-condensing			
Mechanical dimension	Depth* Width * Height	450x550x760mm			
	Weight (Kg)	85Kg		95Kg	
Certification		European CE(EMC & LVD), SAA			

Model		SDP-8KW		SDP-10KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	100-300V	200-600V	400-800V	
	Rated Voltage(Vdc)	200V	400V	600V	
AC Output	Rated output power	8KW		10KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	36A	12A (phase current)	45.5A	15A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
Mechanical dimension	relative humidity	0~90%, non-condensing			
	Depth* Width * Height	550x550x860mm			
Mechanical dimension	Weight (Kg)	105Kg	120Kg		
	Certification	European CE(EMC & LVD), SAA			

Model		SDP-12KW		SDP-15KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	100-300V	200-600V	400-800V	
	Rated Voltage(Vdc)	200V	400V	600V	
AC Output	Rated output power	12KW		15KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	55A	18A (phase current)	68A	23A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
	relative humidity	0~90%, non-condensing			
Mechanical dimension	Depth* Width * Height	550x550x860mm			
	Weight (Kg)	130Kg		140Kg	
Certification		European CE(EMC & LVD)			

Model		SDP-20KW		SDP-25KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	100-300V	200-600V	400-800V	
	Rated Voltage(Vdc)	200V	400V	600V	
AC Output	Rated output power	20KW		25KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	91A	31A (phase current)	114A	38A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
Mechanical dimension	relative humidity	0~90%, non-condensing			
	Depth* Width * Height	550x750x1000mm			
Mechanical dimension	Weight (Kg)	180Kg	220Kg		
	Certification	European CE(EMC & LVD)			

Model		SDP-30KW		SDP-40KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	200-600V or 400-800V			
	Rated Voltage(Vdc)	400V or 600V			
AC Output	Rated output power	30KW		40KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	136A	45.5A (phase current)	182A	61A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	110/120/220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
	Electrical insulation properties	2000Vac, 1 Minute			
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
Mechanical dimension	relative humidity	0~90%, non-condensing			
	Depth* Width * Height	650x750x1100mm			
Mechanical dimension	Weight (Kg)	260Kg		300Kg	
	Certification	European CE(EMC & LVD)			

Model		SDP-50KW		SDP-60KW	
Isolation mode		Low Frequency Transformer			
DC Input	Input Voltage Range	200-600V or 400-800V			
	Rated Voltage(Vdc)	400V or 600V			
AC Output	Rated output power	50KW		60KW	
	Output waveform	Pure Sine Wave			
	Rated Voltage	220V±3%	380VAC±3%	220V±3%	380VAC±3%
	Phases	Single phase	3 phase	Single phase	3 phase
	Rated current (A)	227A	75.7A (phase current)	272.7A	90.9A (phase current)
	Frequency	50Hz or 60Hz			
	Rated output voltage range (V)	220/230/240/380/400/415/440VAC can be customized			
	Phases	Single / Two/ Three phase optional			
	Power Factor (PF)	0.95			
	Overload Ability	150%, 5 seconds			
	Efficiency	>94%			
	Waveform distortion rate (THD)	<3%(Linear load)			
	Dynamic Response (0 to 100% load)	5%, ≤50ms			
	Running mode	Working continuously, can work 24*7			
Electrical insulation properties	2000Vac, 1 Minute				
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code			
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority			
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start			
RS485 remote monitoring		Optional			
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.			
	Cooling method	Fan-cooled			
	Short-circuit protection	No automatic recovery, need to restart the machine			
Working environment	Noise (1 meter)	≤50dB			
	Degree of protection	IP20(indoor)			
	Working Altitude (m)	≤2000			
	Working temperature	-25~+55℃			
Mechanical dimension	relative humidity	0~90%, non-condensing			
	Depth* Width * Height	710x750x1300mm			
Mechanical dimension	Weight (Kg)	400Kg		420Kg	
	Certification	European CE(EMC & LVD)			

Model		SDP-80KW	SDP-100KW
Isolation mode		Low Frequency Transformer	
DC Input	Input Voltage Range	200-600V or 400-800V	
	Rated Voltage(Vdc)	400V or 600V	
AC Output	Rated output power	80KW	100KW
	Output waveform	Pure Sine Wave	
	Rated Voltage	380VAC±3%	380VAC±3%
	Phases	3 phase	3 phase
	Rated current (A)	121A (phase current)	152A (phase current)
	Frequency	50Hz or 60Hz	
	Rated output voltage range (V)	380/400/415/440VAC can be customized	
	Phases	Single / Two/ Three phase optional	
	Power Factor (PF)	0.95	
	Overload Ability	150%, 5 seconds	
	Efficiency	>94%	
	Waveform distortion rate (THD)	<3%(Linear load)	
	Dynamic Response (0 to 100% load)	5%, ≤50ms	
	Running mode	Working continuously, can work 24*7	
Electrical insulation properties	2000Vac, 1 Minute		
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code	
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority	
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start	
RS485 remote monitoring		Optional	
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.	
	Cooling method	Fan-cooled	
	Short-circuit protection	No automatic recovery, need to restart the machine	
Working environment	Noise (1 meter)	≤50dB	
	Degree of protection	IP20(indoor)	
	Working Altitude (m)	≤2000	
	Working temperature	-25~+55℃	
Mechanical dimension	relative humidity	0~90%, non-condensing	
	Depth* Width * Height	710x750x1300mm	
Mechanical dimension	Weight (Kg)	550Kg	650Kg
	Certification	European CE(EMC & LVD)	

Model		SDP-150KW	SDP-200KW
Isolation mode		Low Frequency Transformer	
DC Input	Input Voltage Range	200-600V or 400-800V	
	Rated Voltage(Vdc)	400V or 600V	
AC Output	Rated output power	150KW	200KW
	Output waveform	Pure Sine Wave	
	Rated Voltage	380VAC±3%	380VAC±3%
	Phases	3 phase	3 phase
	Rated current (A)	227A (phase current)	303A (phase current)
	Frequency	50Hz or 60Hz	
	Rated output voltage range (V)	380/400/415/440VAC can be customized	
	Phases	Two/ Three phase optional	
	Power Factor (PF)	0.95	
	Overload Ability	150%, 5 seconds	
	Efficiency	>94%	
	Waveform distortion rate (THD)	<3%(Linear load)	
	Dynamic Response (0 to 100% load)	5%, ≤50ms	
	Running mode	Working continuously, can work 24*7	
	Electrical insulation properties	2000Vac, 1 Minute	
LCD Display		Can display DC input voltage, output frequency, phase voltage, phase current, AC bypass input voltage, output power KWH, time and date, temperature, fault code	
AC Bypass Function(Optional)		DC Power Priority or AC Power Priority	
Two Kinds of Start Mode		Variable Frequency Start or Step Down Voltage Start	
RS485 remote monitoring		Optional	
Protection Function	Protection	Input reverse polarity, under voltage, over voltage, output over-current, short circuit, overheating etc.	
	Cooling method	Fan-cooled	
	Short-circuit protection	No automatic recovery, need to restart the machine	
Working environment	Noise (1 meter)	≤50dB	
	Degree of protection	IP20(indoor)	
	Working Altitude (m)	≤2000	
	Working temperature	-25~+55℃	
	relative humidity	0~90%, non-condensing	
Mechanical dimension	Depth* Width * Height	1200x1200x1860mm	
	Weight (Kg)	1000Kg	1100Kg
Certification	European CE(EMC & LVD)		