CONNECTED WORLD SMART DEVICES

SHENZHEN SST POWER

Building 1, No. 282 Gongchang Road, Lihu Community,
Xinhu Street, Guangming District, Shenzhen City,
Guangdong Province, China

COMPANY PROFILE

About Us

Shenzhen SST Power Company Limited is a professional power solutions provider, dedicated to offering reliable, intelligent, high-quality, and green power protection solutions for critical electrical equipment. Our mission is to ensure safe operation, enhance productivity and availability, and extend the service life of equipment.

To meet growing market demands, we have expanded our manufacturing facilities to two production bases, ensuring robust production capacity. Backed by a team of experienced engineers, we are committed to delivering exceptional products and professional services. Shenzhen SST Power's professional team is ready to start a new chapter in global power market.

Our Products

1)Voltage Stabilizer
2)Online UPS
3)Variable Voltage & Frequency Converter
4)Transformer
5)DC Power Supply
6)Portable Power Station
7)Solar Inverters & PV Energy Solutions
8)EPS (Emergency Power Supply)
9)VRLA (Valve-regulated Lead-acid) Battery
10)Electric Vehicle Charging Station

Our Mission

Customer satisfaction is our core pursuit. We focus on addressing customers' market challenges and needs by providing excellent power supply solutions, high-quality products, and premium services. By prioritizing customer requirements, we aim to enhance their competitiveness and profitability, consistently creating maximum value for every partner.

Catalogue

Voltage Stabilizer

Uninterruptible Power Supply

Transformer

Frequency Converter

SVC

- CPU intelligent control, stable and reliable
- Main Control PCB adopts SMT process.
- Electronic components all adopt good-quality brands.
- LED screen, easy setup with menu button
- Withstand all kinds of load
- Overload, Under/Over Voltage, Short Circuit, Bypass protection

TND & SVC AC Automatic Voltage Stabilizer										
ITEM	**TND-**				**SVC-**					
Power Rating（KVA）	10K	15K	20K	30K	10K	15K	20K	30K	50K	60K
Control Method	Servo Motor（Microprocessor CPU）									
INPUT										
Rated Voltage	1x 220VAC (1Phase+N)				3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)					
Voltage Range	±20%									
Frequency	50/60 Hz									
OUPUT										
Rated Voltage	1 x 220VAC (1phase + N)				3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)					
Stabilizing Accuracy	±2%									
Power Factor	PF≥0.8									
Efficiency	≥98%									
Response time	≤0.5S									
Delay time(When it is on)	≤5s（Optional）									
Waveform Distortion	≤1%									
SYESTEM PROTECTION										
Over Voltage	The output voltage is higher than 10%， the screen indicates over voltage.									
Under Voltage	The output voltage is under than 10%， the screen indicates under voltage.									
Overload	If over current， cut off the input in 3~5s									
Phase Loss	When there is phase loss, alarm and cut off the input power.									
Short Circuit	When the load device is short circuited, cut off the input power									
Manual Bypass	When any failures, can be turned to the bypass manually									
LED SCREEN										
Input Voltage	Real-time display of the input voltage									
Output Voltage	Real-time display of output voltage									
Output Current	Current Percentage (Amps) drawn by the connected load									
OTHERS										
Cooling System	Air									
Insulation Resistance	≥2MΩ									
Voltage-endurance	The whole machine has no breakdown and no									
Noise	<65dB/m									
ENVIROMENT										
Ambient Temperature	0℃-45℃(No condensation)									
Working Humidity	20%-90%									
DIMENSION										
Size WxDxH(mm)	360×480×580				320×580×530		360×680×550		400×680×880	
Net Weight (KG)	55	65	85	95	65	75	105	122	126	140
Gross Weight (KG)	70	80	100	110	80	90	130	147	150	165
Product specifications are subject to change without further notice.										

SBW

- CPU intelligent control, stable and reliable
- Main Control PCB adopts SMT process.
- Electronic components all adopt imported brands.
- LCD screen, easy setup with menu button
- Withstand all kinds of load
- Overload, Under/Over Voltage, Short Circuit, Bypass protection

SBW Three Phase Servo AC Automatic Voltage Stabilizer												
ITEM	**SBW-**											
Power Rating（KVA）	80K	100K	120K	150K	200K	250K	300K	400K	500K	600K	800K	1000K
Control Method	Servo Motor（Microprocessor CPU）											
INPUT												
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)											
Voltage Range	±20%											
Frequency	50/60 Hz											
OUTPUT												
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)											
Stabilizing Accuracy	±2%											
Power Factor	PF≥0.8											
Efficiency	≥98%											
Response time	≤0.5S											
Delay time(When it is on)	≤5s（Optional）											
Waveform Distortion	≤1%											
SYSTEM PROTECTION												
Over Voltage	The output voltage is higher than 10%（adjustable)，cut off the input in 3~5s											
Under Voltage	The output voltage is lower than 15%（adjustable)，cut off the input in 3~5s											
Overload	If over current，cut off the input in 3~5s											
Phase Loss	When there is phase loss, alarm and cut off the input power.											
Short Circuit	When the load device is short circuited, cut off the input power											
Bypass	When the AVR fails or is repaired, the power transfer to bypass manually (Option)											
LCD SCREEN												
Input Voltage	Real-time display of the input voltage											
Output Voltage	Real-time display of output voltage											
Output Current	Real-time display of working current											
Working Status	AVR, Bypass, Fuse Blown, Over-voltage, Under-voltage,Over-load etc.											
OTHERS												
Cooling System	Air											
Insulation Resistance	≥2MΩ											
Voltage-endurance	The whole machine has no breakdown and no											
Noise	<65dB/m											
ENVIRONMENT												
Ambient Temperature	0℃-45℃（No condensation）											
Working Humidity	20%-90%											
DIMENSION												
Size WxDxH(mm)	650×1100×1200				700×1200×1500				800×1300×1700		1500×1600×2000×3door	
Net Weight (KG)	220	240	250	290	300	600	800	9500	1200	1350	1550	1750
Gross Weight (KG)	260	280	290	330	350	650	850	1000	1300	1450	1700	1900
Product specifications are subject to change without further notice.												

ZW-D

- CPU intelligent control, stable and reliable
- Main Control PCB adopts SMT process.
- No contact, no abrasion, maintenance free.
- LCD screen, easy setup with menu button
- Response time≤40ms, Withstand all kinds of load
- Overload, Under/Over Voltage, Short Circuit, Bypass protection
- Remote control(Option)

ZW-D Single Phase Static Intelligent AC Automatic Voltage Stabilizer							
MODEL	**ZW-D**						
Power Rating（KVA）	5K	10K	15K	20K	30K	40K	50K
Control Method	SCR/Non-Contact（Microprocessor CPU）						
INPUT							
Rated Voltage	1 x 220VAC (1Phase + N)(230V, 240V option)						
Voltage Range	±15% or ±20% (±15%~±60% customized)						
Frequency	50/60 Hz						
OUTPUT							
Rated Voltage	1 x 220VAC (1Phase + N)(230V, 240V option)						
Stabilizing Accuracy	±1%~ ±5% Adjustable						
Power Factor	PF≥0.8						
Efficiency	≥98%						
Response time	≤0.04S						
Delay time(When it is on)	≤5s（Optional）						
Waveform Distortion	≤1%						
SYSTEM PROTECTION							
Over Voltage	The output voltage is higher than 10%，turn to the bypass automatically in 3~5s						
Under Voltage	The output voltage is lower than 10%，turn to the bypass automatically in 3~5s						
Overload	If over current，the input switch will be tripped in 3~5s						
Short Circuit	When there exists short circuit, the input switch will be tripped in 3~5s						
Bypass	When the AVR fails or is repaired, the power transfer to bypass automatically						
LCD SCREEN							
Input Voltage	Real-time display of the input voltage						
Output Voltage	Real-time display of output voltage						
Output Current	Real-time display of working current						
Working Status	AVR, Bypass, Fuse Blown, Over-voltage, Under-voltage,Over-load etc.						
OTHERS							
Cooling System	Air						
Insulation Resistance	≥2MΩ						
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.						
Noise	<65dB/m						
ENVIRONMENT							
Ambient Temperature	0℃-45℃（No condensation）						
Working Humidity	20%-90%						
DIMENSION							
Size WxDxH(mm)	280×550×300		350×600×400			380×780×830	
Net Weight (KG)	25	30	71	85	90	105	135
Gross Weight (KG)	28	33	80	94	99	118	150
Product specifications are subject to change without further notice.							

ZW-S

- •CPU intelligent control, stable and reliable
- •Main Control PCB adopts SMT process.
- •Independent Phase Control, no contact, no abrasion, maintenance free.
- •LCD screen, easy setup with menu button
- •Response time≤40ms, Withstand all kinds of load
- •Overload, Under/Over Voltage, Short Circuit, Bypass protection

ZW-S Three Phase Static Intelligent Voltage Stabilizer											
ITEM	**ZW-S**										
Power Rating（KVA）	10K	20K	30K	50K	60K	80K	100K	120K	150K	200K	250K
Control Method	SCR/Non-Contact（Microprocessor CPU）										
INPUT											
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)										
Voltage Range	±15% or ±20% (±15%~±60% customized)										
Frequency	50/60 Hz										
OUPUT											
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)										
Stabilizing Accuracy	±1%~ ±5% Adjustable										
Power Factor	PF≥0.8										
Efficiency	≥98%										
Response time	≤0.04S										
Delay time(When it is on)	≤5s（Optional）										
Waveform Distortion	≤1%										
SYESTEM PROTECTION											
Over Voltage	The output voltage is higher than 10%， turn to the bypass automatically in 3~5s										
Under Voltage	The output voltage is lower than 10%， turn to the bypass automatically in 3~5s										
Overload	If over current， the input switch will be tripped in 3~5s										
Phase Loss	When there is phase loss, alarm and cut off the input power.(Option)										
Short Circuit	When there exists short circuit, the input switch will be tripped in 3~5s										
Bypass	When the AVR fails or is repaired, the power transfer to bypass automatically										
LCD SCREEN											
Input Voltage	Real-time display of the input voltage										
Output Voltage	Real-time display of output voltage										
Output Current	Real-time display of working current										
Working Status	AVR, Bypass, Fuse Blown, Over-voltage, Under-voltage,Over-load etc.										
OTHERS											
Cooling System	Air										
Insulation Resistance	≥2MΩ										
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.										
Noise	<65dB/m										
ENVIRONMENT											
Ambient Temperature	0℃-45℃（No condensation）										
Working Humidity	20%-90%										
DIMENSION											
Size WxDxH(mm)	380×780×830					430×780×1170		520×850×1220			
Net Weight (KG)	80	85	88	104	144	153	168	213	232	274	323
Gross Weight (KG)	95	100	109	126	167	181	196	254	270	311	259
Product specifications are subject to change without further notice.											

ZW-S

- CPU intelligent control, stable and reliable
- Main Control PCB adopts SMT process.
- Independent Phase Control, no contact, no abrasion, maintenance free.
- LCD screen, easy setup with menu button
- Response time≤40ms, Withstand all kinds of load
- Overload, Under/Over Voltage, Short Circuit, Bypass protection
- Remote control(Optional)

ZW-S Three Phase Static Intelligent Voltage Stabilizer											
ITEM	**ZW-S**										
Power Rating（KVA）	300K	400K	500K	600K	800K	1000K	1200K	1600K	2000K	2500K	3125K
Control Method	SCR/Non-Contact（Microprocessor CPU）										
INPUT											
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)										
Voltage Range	±15% or ±20% (±15%~±60% customized)										
Frequency	50/60 Hz										
OUPUT											
Rated Voltage	3 x 380VAC (3Phase + N)(208V,220V, 230V, 400V, 415V option)										
Stabilizing Accuracy	±1%~ ±5% Adjustable										
Power Factor	PF≥0.8										
Efficiency	≥98%										
Response time	≤0.04S										
Delay time(When it is on)	≤5s（Optional）										
Waveform Distortion	≤1%										
SYESTEM PROTECTION											
Over Voltage	The output voltage is higher than 10%， turn to the bypass automatically in 3~5s										
Under Voltage	The output voltage is lower than 10%， turn to the bypass automatically in 3~5s										
Overload	If over current， the input switch will be tripped in 3~5s										
Phase Loss	When there is phase loss, alarm and cut off the input power.(Option)										
Short Circuit	When there exists short circuit, the input switch will be tripped in 3~5s										
Bypass	When the AVR fails or is repaired, the power transfer to bypass automatically										
LCD SCREEN											
Input Voltage	Real-time display of the input voltage										
Output Voltage	Real-time display of output voltage										
Output Current	Real-time display of working current										
Working Status	AVR, Bypass, Fuse Blown, Over-voltage, Under-voltage,Over-load etc.										
OTHERS											
Cooling System	Air										
Insulation Resistance	≥2MΩ										
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.										
Noise	<65dB/m										
ENVIRONMENT											
Ambient Temperature	0℃-45℃ (No condensation)										
Working Humidity	20%-90%										
DIMENSION											
Size WxDxH(mm)	1050×700×1500		1200×800×1600		1500×1000×1950		1500×1300×1950		2000×1500×1950		
Net Weight (KG)	450	550	750	950	1200	1400	1600	2250	4200	5200	6200
Gross Weight (KG)	550	650	890	1100	1400	1600	1850	2500	4450	5530	6500
Product specifications are subject to change without further notice.											

AVR-D

- 100% fully rated power capacity
- CPU intelligent control design to withstand all kinds of loads
- Main Control PCB adopts SMT process.
- Electronic components all adopt imported brands.
- LED screen, easy setup with menu button
- Overload, Under/Over Voltage, Short Circuit, Bypass protection

AVR-D Single Phase Servo AC Automatic Voltage Stabilizer							
ITEM	**AVR-D**						
Power Rating（KVA）	1KW	1.5KW	2KW	5KW	5KW	7.5KW	10KW
Control Method	Servo Motor（Microprocessor CPU）						
INPUT							
Rated Voltage	1 x 220VAC (1Phase + N)						
Voltage Range	150VAC ~ 250VAC						
Frequency	50/60 Hz						
OUPUT							
Rated Voltage	1 x 220VAC (1phase + N)						
Stabilizing Accuracy	±2%						
Power Factor	PF≥1						
Efficiency	≥98%						
Response time	≤0.5S						
Delay time(When it is on)	≤5s（Optional）						
Waveform Distortion	≤1%						
SYESTEM PROTECTION							
Over Voltage	The output voltage is higher than 10%（adjustable)，cut off the output in 3~5s						
Under Voltage	The output voltage is lower than 10%（adjustable)，cut off the output in 3~5s						
Overload	If over current，cut off the output in 3~5s						
Bypass	When the AVR fails or is repaired, the power can be transferred to bypass manually						
Short Circuit	When there exists short circuit, the input switch will be tripped in 3~5s						
LED DIGITAL DISPLAY							
Input Voltage	Real-time display of input voltage						
Output Voltage	Real-time display of output voltage						
Output Current	Real-time display of working current						
Working Status	AVR, Bypass, Over-voltage, Under-voltage,Over-load etc.						
OTHERS							
Cooling System	Air						
Insulation Resistance	≥2MΩ						
Voltage-endurance	The whole machine has no breakdown and no						
Noise	<65dB/m						
ENVIRONMENT							
Ambient Temperature	0℃-45℃ (No condensation)						
Working Humidity	20%-90%						
DIMENSION							
Size WxDxH(mm)	200×220×200			243×342×280		303×402×320	
Net Weight (KG)	7KG	8KG	9KG	14.5KG	18KG	26KG	30KG
Gross Weight (KG)	8KG	9KG	10KG	16KG	20KG	28KG	32KG
Product specifications are subject to change without further notice.							

AVR-D

- 100% fully rated power capacity
- CPU intelligent control design to withstand all kinds of loads
- Main Control PCB adopts SMT process.
- Electronic components all adopt imported brands.
- LCD digital display, easy setup with menu button
- Overload, Under/Over Voltage, Short Circuit, Bypass protection

AVR-D Single Phase Servo AC Automatic Voltage Stabilizer			
ITEM	**AVR-D**		
Power Rating（KVA）	15KVA	20KVA	30KVA
Control Method	Servo Motor（Microprocessor CPU）		
INPUT			
Rated Voltage	1 x 220VAC (1Phase + N)		
Voltage Range	220VAC ±20%		
Frequency	50/60 Hz		
OUPUT			
Rated Voltage	1 x 220VAC (1phase + N)		
Stabilizing Accuracy	±2%		
Power Factor	PF≥1 or 0.8		
Efficiency	≥98%		
Response time	≤0.5S		
Delay time(When it is on)	≤5s（Optional）		
Waveform Distortion	≤1%		
SYESTEM PROTECTION			
Over Voltage	The output voltage is higher than 10%（adjustable），cut off the output in 3~5s		
Under Voltage	The output voltage is lower than 10%（adjustable），cut off the output in 3~5s		
Overload	If over current，cut off the output in 3~5s		
Bypass	When the AVR fails or is repaired, the power can be transferred to bypass manually		
Short Circuit	When there exists short circuit, the input switch will be tripped in 3~5s		
LCD SCREEN			
Input Voltage	Real-time display of input voltage		
Output Voltage	Real-time display of output voltage		
Output Current	Real-time display of working current		
Working Status	AVR, Bypass, Fuse Blown, Over-voltage, Under-voltage,Over-load etc.		
OTHERS			
Cooling System	Air		
Insulation Resistance	≥2MΩ		
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.		
Noise	＜65dB/m		
ENVIRONMENT			
Ambient Temperature	0℃-45℃（No condensation）		
Working Humidity	20%-90%		
DIMENSION			
Size WxDxH(mm)	400×400×590		400×470×750
Net Weight (KG)	71	78	101
Gross Weight (KG)	81	88	115
Product specifications are subject to change without further notice.			

ZWOD

- Large-screen LCD display
- Fast Response. Response time within 40 millisecond.
- Wide Input Voltage Swing Ranges ,can be customized from - ±15% to ±60%
- High Precision for the Output Voltage. Accuracy can be ±1% (±1% to ±5% adjustable)
- Multi-protection ,over-voltage, under-voltage ,over-load, short-circuit, automatic bypass.
- Independent Phase Control
- Rain Proof Enclosure, Corrosion Resistant

ZWOD Outdoor Three Phase Static Intelligent Voltage Stabilizer	
INPUT	
Rated Voltage	Phase Voltage AC 220V，Line Voltage AC 380V (Or customized)
Voltage Range	3P4W+G 304V-456V (Or customized)
Frequency	50/60 Hz
OUPUT	
Rated Voltage	Phase Voltage AC 220V，Line Voltage AC 380V (Or customized)
Center Voltage	±7%(can be adjusted)
Stabilizing Accuracy	±1%
Power Factor	PF≥0.8
Efficiency	≥99%
Response time	≤40ms/Step
Three-phase Unbalance Factor	Three-phase voltage balance automatically, incrimination≤2%
Waveform Distortion	Do not produce additional waveform distortion（Static）
SYESTEM PROTECTION	
Over Voltage	The output phase voltage is higher than 10%（242V)，Uninterrupted to bypass
Under Voltage	The output phase voltage is lower than 10%（198V），Uninterrupted to bypass
Overload	Electric detection, overload 1 minute, the output would be cut off
Phase Loss	Yes，uninterrupted to bypass （Option）
Over Current	Electronic detection and circuit breaker dual protection
Short Circuit	Electronic detection and circuit breaker dual protection
Bypass	Manual bypass and automatic bypass. （Option）
INSTRUCTION	
Voltage	A、B、C、∑ABC Three-phase shows respectively true and effective values
Current	A、B、C、∑ABC Three-phase shows respectively true and effective values
Working State	AVR/Bypass
Abnormal	Over-voltage, under-voltage, over-load, fuse blowing
OTHERS	
Control Mode	DSP operate metering chip intelligent control technology
Working Mode	With automatic voltage regulation and the bypass, two working mode
Voltage Regulation Mode	Three-phase adjust voltage separately
Overload Capacity	3 times the rated current, 1 second, can be adapted to the resistive, inductive, capacitive and impact load; can withstand the instantaneous overload impact. Stabilizer continuously output the rated current. When temperature rise stably, overload 10% for 30 minutes is allowed. Short-term (5 minutes) overload current (1.6 times rated value) is also allowed.

HHF

- True double-conversion
- Ultra - compact, high power density. 20% - 70% smaller than similar.
- Double - conversion online for high - reliability power.
- Ultra - wide input V/f, adapts to harsh grids.
- 120 - 288V input, no output derating. Reduces battery use, extends life.
- Strong overload: 130% for 5 min, 150% for 10s at mains rating.
- ECO mode energy saving
- 1 - 8A adjustable charge for long - delay batteries, longer life.

HHF Series High Frequency Single Phase Online UPS						
Model		**HHF-1101 (L)**	**HHF-1102 (L)**	**HHF-1103 (L)**	**HHF-1106 (L)**	**HHF-1110 (L)**
Capacity		1KVA / 0.8KW	2KVA /1.6KW	3KVA/2.4KW	6KVA/4.8KW	10KVA/8KW
INPUT						
Nominal Voltage		220/230/240 VAC				
Input Voltage Range		115V ~ 276 VAC				
Frequency Range		40 Hz ~ 70 Hz				
Power Factor		≥0.99 @ nominal voltage (100% load)				
THDi		≦ 5% @ nominal voltage (100% load)				
OUTPUT						
Output Voltage		220/230/240 VAC				
AC Voltage Regulation (Batt. Mode)		± 1 %				
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)				
Current Crest Ratio		3:1				
Harmonic Distortion		≦ 2 % THD (Linear Load) ; ≦ 5 % THD (Non-linear Load)				
Transfer Time	AC to DC	Zero				
	Inverter to Bypass	4 ms (Typical)				
	ECO to Battery mode	8 ms (Typical), 10 ms(max)				
Waveform (Batt. Mode)		Pure Sinewave				
EFFICIENCY						
ECO mode @ full charged battery		0.96		0.97	0.97	
AC Mode @ full charged battery		0.92		0.92	0.93	
Battery Mode		0.86	0.89	0.89	0.88	0.89
BATTERY						
Standard Model	Battery Type	12 V / 7 Ah *2	12 V / 7 Ah *4	12 V / 9Ah *4	12 V / 7 Ah *12	12 V / 7 Ah *16
Long-run model		36VDC	72VDC	96VDC	192VDC	192VDC
Typical Recharge Time		4 hours recover to 90% capacity for internal battery				
Charging Current (CC)		1.5A for standard machine				
Charging Voltage (FV)		27.4VDC ± 1%	41.0VDC ± 1%	41.0VDC ± 1%	54.8VDC ± 1%	82.2VDC ± 1%
INDICATORS						
LCD		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicator Via LCD				
PHYSICAL						
Standard Model	Dimension, D x W x H (mm)	295 x 145 x 225	405 x 145 x 225		490 x 190 x 688	
	Net Weight (kgs)	8	15.8	16.5	61	66
Long-run Model	Dimension, D x W x H (mm)	295 x 145 x 225	405 x 145 x 225		415 x 192 x 328	
	Net Weight (kgs)	4.5	6.8	6.8	12	13
ENVIRONMENT						
Humidity		20-90 % RH @ 0 - 50°C (non-condensing)				
Altitude		0~1000m @ full load, 3500m @ 75% load				
MANAGEMENT						
Smart RS-232 or USB		Supports Windows® family, Linux, Unix and MAC				
Optional external Slot (for SNMP, Dry contact, ...)		Power management from SNMP manager and web browser				

*Product specifications are subject to us. If any changes, there would be no notice.

RHF

- Realize online double conversion
- Microprocessor control ensures high reliability
- Input power factor correction
- Output power factor up to 0.8
- Wide mains input range (110 V - 300 V)
- Efficient conversion mode
- Compatible generator
- Optional exquisite SNMP card can be alone or with USB,

RHF Series High Frequency Single Phase Online UPS						
Model		**RHF-1101K(L)**	**RHF-1102K(L)**	**RHF-1103K(L)**	**RHF-1106K(L)**	**RHF-1110K(L)**
Capacity		1KVA / 0.8KW	2KVA / 1.6KW	3KVA / 2.4KW	6KVA / 4.8KW	10KVA / 8KW
INPUT						
Input Voltage Range/Window		55-150 VAC or 110-300 VAC at 50% load 85-140 VAC or 160-280 VAC at 100% load L+N+G			110-300 VAC (Based on load at 50%) 176-300 VAC (Based on load at 100%) L+N+G	
Frequency		40Hz ~ 70 Hz			46Hz ~ 54 Hz or 56Hz ~ 64 Hz	
Power Factor		100% load≧0.99				
OUTPUT						
Output Voltage		200/208/220/230/240VAC			208/220/230/240VAC	
Voltage Range (Battery Mode)		± 1%				
Frequency (Battery Mode)		50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz	
Surge Ratio		3:1				
Harmonic Distortion		≦ 3% THD (Linear Load) ≦6% THD (Nonlinear Load)			≦ 3% THD (Linear Load) ≦5% THD (Nonlinear Load)	
Transfer Time	AC to DC	0ms				
	Inversion to Bypass	4 ms (Standard)			0ms	
Waveform(Battery Mode)		Pure Sine Wave				
EFFIENCY						
Bypass Mode		88%	88%	90%	92%	93%
Battery Mode		83%	85%	88%	90%	91%
BATTERY						
Standard model	Battery Type	12 V / 7 Ah *2	12 V / 7 Ah *4	12 V / 7 Ah *6	12 V / 7 Ah *16	12 V / 7 Ah *16
	The Max Charging Current	1.0A（Max）			Preset:1.0 A ± 10%, Max.:2.0A ± 10%	
	Charging Voltage	27.4VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	218.4 VDC ± 1%	218.4 VDC ± 1%
Long Run model	Battery Type	24VDC or 36VDC	48VDC or 72VDC	72VDC or 96VDC	192VDC - 240VDC(Adjustable)	
	The Max Charging Current	1A/2A/4A/6A(Adjustable)			1A/2A/4A/6A(Adjustable. 6A(Only sutible for 16pcs batteries)	
	Charging Voltage	27.4VDC ± 1% or 41.0VDC ± 1%	54.7VDC ± 1% or 82.1VDC ± 1%	82.1VDC ± 1% or 109.4VDC ± 1%	273VDC ± 1%（When 20pcs batteries）	
INDICATORS						
LCD or LED Display		Load size, Battery power, Mains Supply Mode, Battery mode,Failure instruction				
ALARM						
LowBat/Over-load/Bat		Low Battery. Over-load. Battery Mode Sound every 4 seconds				
Fault		Continuous sounding				
PHYSICAL						
Standard model	Size,DxWxH(mm)	282 x 145 x 220	397 x 145 x 220	421 x 190 x 318	369 x 190 x 688	442 x 190 x 688
	Net Weight(KG)	9.8	17	27.6	61	66
Long Run Model	Size,DxWxH(mm)	282 x 145 x 220	397 x 145 x 220		369 x 190 x 318	442 x 190 x 318
	Net Weight(KG)	4.1	6.8	7.4	12	16 or 18
ENVIRONMENT						
Temperature & Humidity		Relative humidity 20-90 % and temperature 0- 40°C (No condensation)			Relative humidity 0-95 % and temperature 0- 40°C (No condensation)	
MANAGEMENT						
Smart RS-232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC				
SNMP(Optional)		Power management support SNMP management and network management				

*Product specifications are subject to us. If any changes, there would be no notice.

SHF

- Zero switching time, double conversion pure online type.
- Adopt DSP digital control technology
- Ultra-wide input voltage frequency range 55-145VAC
- Excellent load adaptability
- Can be used with generator
- High input power factor 0.99
- Reliable Product Design

SHF Series High Frequency Single Phase Online UPS					
Model		**SHF-1K(L)-LV**	**SHF-2K(L)-LV**	**SHF-3K(L)-LV**	**SHF-6K(L)-LV**
Capacity		1KVA / 0.9KW	2KVA /1.8KW	3KVA/2.7KW	6KVA/5.4KW
INPUT					
Nominal Voltage		110/115/120/127 VAC, L + N +G			
Input Voltage Range		55V ~ 145 VAC			
Frequency Range		40 Hz ~ 70 Hz			
Power Factor		≥0.99 @ nominal voltage (100% load)			
THDi		≦ 5% @ nominal voltage (100% load)			
OUTPUT					
Output Voltage		110/115/120/127 VAC, L + N +G			
AC Voltage Regulation (Batt. Mode)		± 2 %			
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)			
Current Crest Ratio		3:1			
Harmonic Distortion		≦ 2 % THD (Linear Load) ; ≦ 7 % THD (Non-linear Load)			
Transfer Time	AC to DC	Zero			
	Inverter to Bypass	4 ms (Typical)			
	ECO to Battery mode	8 ms (Typical), 10 ms(max)			
Waveform (Batt. Mode)		Pure Sinewave			
EFFICIENCY					
Mains Mode		0.88	0.89	0.9	0.92
Battery Mode		0.85	0.86	0.87	0.90
BATTERY					
Standard Model	Battery Type	12 V / 7 Ah *2	12 V / 7 Ah *4	12 V / 7Ah *6	12 V / 7 Ah *12
Long-run model		36VDC	72VDC	96VDC	192VDC
Typical Recharge Time		4 hours recover to 90% capacity for internal battery			
Charging Current (CC)		1.0 A for internal battery, 4.0A for external battery			
INDICATORS					
LCD		Display show input and output voltage, frequency, load percentage, working mode, machine status			
PHYSICAL					
Standard Model	Dimension, D x W x H (mm)	325 x 145 x 220	378 x 190 x 318	378 x 190 x 318	535x190x456
	Net Weight (kgs)	8.4	16.2	21.2	47
Long-run Model	Dimension, D x W x H (mm)	325 x 145 x 220	378 x 190 x 318	378 x 190 x 318	535x190x360
	Net Weight (kgs)	4.7	10.5	12	18
ENVIRONMENT					
Temperature		-10~45℃			
Humidity		0-98% (No condensation)			
Noise Level		Less than 50dBA @ 1 Meter with Fan speed control			
MANAGEMENT					
Standard Communication Interface		RS232 port			
Optional Extension Card		(2) EPO / ROO port (3) Intelligent slot (4) USB port (5) NETWORK card: Support SNMP/TCP/IP for remote monitoring the UPS via smart phone APP, web page, PC monitor software , support server/NAS shutdown (6) CMC MODBUS card (7) AS400 Relay card			

*Product specifications are subject to us. If any changes, there would be no notice.

RHF

- True double-conversion
- DSP technology guarantees high performance
- Input power factor correction
- Output power factor 0.8
- Wide input voltage range (110-300 VAC)
- Converter mode available
- Generator compatible

Rack Mount Type High Frequency Single Phase Online UPS							
Model		**RHF-1101K(L)-RM**	**RHF-1102K(L)-RM**	**RHF-1103K(L)-RM**	**RHF-1106K(L)-RM**	**RHF-1110K(L)-RM**	
Capacity		1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W	6000 VA / 4800 W	10000 VA / 8000 W	
INPUT							
Input Voltage		200/208/220/230/240VAC , L+N+G			208/220/230/240VAC , L+N+G		
Voltage Range		110 -300VAC when 50% load 160 -280 VAC when 100% load			110 -300VAC when 50% load 176-300 VAC when 100% load		
Frequency Range		40Hz ~ 70 Hz			46Hz ~ 54 Hz or 56Hz ~ 64 Hz		
Power Factor		100% load≧0.99					
OUTPUT							
Output Voltage		200/208/220/230/240VAC , L+N+G			208/220/230/240VAC, L+N+G		
AC Voltage Regulation (Batt. Mode)		± 1%					
Frequency Range (Batt. Mode)		50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz		
Current Crest Ratio		3:1					
Harmonic Distortion		≦ 3% THD (Linear Load) ≦6% THD (Non-linear Load)			≦ 3% THD (Linear Load) ≦5% THD (Non-linear Load)		
Transfer Time	AC Mode to Batt. Mode	0ms					
	Inverter to Bypass	4 ms (Standard situation)			0ms		
Waveform (Batt. Mode)		Pure Sine Wave					
Efficiency							
AC Mode		88%	89%	90%	92%	93%	
Battery Mode		83%	87%	88%	90%	91%	
BATTERY							
Standard model	Battery Model	12V / 9AH					
	Quantity	2	4	6	16	16	
	The Max Charging Current	1.0A（max）			Preset:1.0 A ± 10%, Max.:2.0A ± 10%		
	Charging Voltage	27.4VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	218.4 VDC ± 1%	218.4 VDC ± 1%	
Long Run model	Battery Model	Depending on applications					
	Quantity	2	3	4	6	6	8	16-20(adjustable)**
	The Max Charging Current	1A/2A/4A/6A(adjustable)					1A/2A/4A/6A(adjustable. 6A only suitable for 16pcs batteries)
	Charging Voltage	27.4VDC ± 1%	41.0VDC ± 1%	54.7VDC ± 1%	82.1VDC ± 1%	82.1VDC ± 1%	109.4VDC ± 1%	218.4VDC ± 1%（16pcs batteries）
INDICATORS							
LCD or LED		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators					
ALARM							
LowBat/Over-load/Bat		Low Battery. Over-load. Battery Mode Sound every 4 seconds					
Fault		Continuous sounding					
PHYSICAL							
Standard model	Size,WxDxH(mm)	438 x310 x 88（2U）	438 x 410 x 88（2U）	438 x 630 x 88（2U）	UPS:438x530x88（2U） Bat:438x668x88（2U）	UPS: 438 x580x133（3U） Bat: 438x580x133（3U）	
	Net Weight(KG)	12	19	29.3	UPS:15. Bat:48	UPS:18,Bat:51	
Long Run Model	Size,WxDxH(mm)	310 x 438 x 88（2U）	410 x 438 x 88（2U）		530x438x88（2U）	580x 438 x133（3U）	
	Net Weight(KG)	4.1	6.8	7.4	12	16	
ENVIRONMENT							
Humidity		Relative humidity 20-90 % and temperature 0- 40°C (No condensing)			0-95 % RH @ 0- 40°C (Non-condensing)		
MANAGEMENT							
Smart RS-232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC					
Optional SNMP		Power management from SNMP manager and web browser					

*Product specifications are subject to change without further notice.

RHF

- Wide input voltage range（190V-520V）
- 50Hz/60Hz frequency converter mode
- ECO mode operation for energy saving
- Emergency power off function (EPO)
- Generator compatible
- Charger capacity expansion to 8A for long-run models
- SNMP+USB+RS-232 multiple communications
- Adjustable battery numbers

RHF Series High Frequency 3P/1P Online UPS				
Model		**RHF-3110K(L)**	**RHF-3115K(L)**	**RHF-3120K(L)**
Capacity		10KVA / 8KW	15KVA / 12KW	20KVA / 16KW
INPUT				
Nominal Voltage		3 x 380/400/415VAC, 3L + N + G		
Voltage Range		305-520 VAC (3-phase) at 100% load ; 190-520 VAC (3-phase) at 50% load		
Frequency Range		46~54 Hz or 56~64Hz		
OUTPUT				
Output Voltage		208/220/230/240VAC, L + N + G		
AC Voltage Regulation (Batt. Mode)		± 1%		
Frequency Range (Synchronized Range)		46~54 Hz or 56~64 Hz		
Frequency Range (Batt. Mode)		50 Hz ± 0.2 Hz or 60 Hz ± 0.2 Hz		
Current Crest Ratio		3:1 （Max）		
Harmonic Distortion		≦ 3 % THD(Linear Load) ; ≦ 5 % THD (Non-linear Load)		
Transfer Time	AC Mode to Batt. Mode	Zero		
	Inverter to Bypass	Zero		
Waveform (Batt. Mode)		Pure Sinewave		
EFFICIENCY				
AC Mode		91%	91%	93%
Battery Mode		91%	91%	87%
BATTERY				
Long-run Model	Battery Type	192VDC - 240VDC(Adjustable)		
	Charging Current (Max.)	Preset 4A, 1A/2A/4A/6A adjustable		
	Charging Voltage	218.4 VDC ± 1% or 273 VDC ± 1%	218.4 VDC ± 1% or 273 VDC ± 1%	218.4 VDC ± 1% or 273 VDC ± 1%
INDICATORS				
LCD Display		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions		
ALARM				
Low Battery		Sound every 4 seconds		
Over-load		Sound every 4 seconds		
Battery Mode		Sound every 4 seconds		
Fault		Continously sounding		
PHYSICAL				
Long-run Model	Size,WxDxH(mm)	442 x 190 x 318	442 x 190 x 318	575 x 190 x 318
	Net Weight(KG)	15	16	22
ENVIRONMENT				
Humidity		0-95 % RH @ 0- 40°C (Non-condensing)		
Noise Level		Less than 58dB @ 1 Meter	Less than 60dB @ 1 Meter	Less than 60dB @ 1 Meter
MANAGEMENT				
Smart RS-232/USB		Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC		
Optional SNMP		Power management from SNMP manager and web browser		

*Product specifications are subject to change without further notice

HHF

- True double-conversion
- 50Hz / 60Hz frequency conversion mode
- ECO mode provides energy-saving efficiency (ECO)
- Emergency Power Off (EPO)
- Compatible generator
- 3-stage extendable charging design for optimized battery performance
- Adjust the number of batteries

HHF Series High Frequency 3P/3P Online UPS					
Model		**HHF-3310**	**HHF-3315**	**HHF-3320**	**HHF-3330**
Capacity		10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW
INPUT					
Rated Voltage		3 x 380/400/415V, 3L+N+G			
Input Voltage Range/Window		210Vac~ 487Vac			
Frequency		47~53 Hz or 57~63 Hz			
Power Factor		≥0.99 @ 100% load			
OUTPUT					
Output Voltage		3 x 380/400/415V, 3L+N+G			
Voltage Range (Battery Mode)		±1%			
Frequency(Synchronization correction range)		47~53 Hz or 57~63 Hz			
Frequency (Battery Mode)		50Hz ±0.1Hz or 60 Hz ± 0.1Hz			
Surge Ratio		3：1（maximum）			
Harmonic Distortion		≤1%THD(linear load)； ≤3%THD（nonlinear load）			
Transfer Time	AC to DC	Zero			
	Inverter to Bypass	Zero			
Waveform(Battery Mode)		Pure sine wave			
Overload Capacity		100-110% for 60 min, 111-125% for 10 min, 126-150% for 1 min; >150% for 400ms			
BYPASS					
Nominal Voltage		3 x 380/400/415VAC, 3L+N+G			
ECO Mode		-30% ~ +20% (Adjustable)			
Frequency(Synchronization correction range)		46~54 Hz or 56~64 Hz			
Overload Capacity		>130% 1minute(default) Continously working until breaker protection (optional)			
EFFIENCEY					
AC Mode & Battery Mode		96.0%			
ECO Mode		99.00%			
BATTERY					
Long Run Model	Battery Type	It ups to the User's requirement			
	Quantity	16pcs (16-20pcs optional)			
	The Max Charging Current	10A (based on 16pcs batteries)			
	Charging Voltage	+/- 13.65V x N (N=16 ~ 20)			
INDICATORS					
LCD Display		Load size, battery capacity, mains supply mode, battery mode, bypass mode, fault indication			
PHYSICAL					
Long Run Unit	Size,DxWxH(mm)	592*250*576			
	Net Weight(KG)	34.00	38.00	39.10	40.00
ENVIROMENT					
Temperature & Humidity		0- 40°C (No condensation);<95% and non-condersing			
Noise Level		Less 60dB @ 1 meter	Less 65dB @ 1 meter		
MANAGEMENT					
Smart RS-232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC			
SNMP(Option)		Power management support SNMP management and network management			

*Product specifications are subject to us. If any changes, there would be no notice.

RHF

- True double-conversion
- 50Hz/60Hz frequency conversion mode
- ECO mode provides energy-saving efficiency(ECO)
- Emergency power off(EPO)
- Compatible generator
- 3-stage extendable charging design for optimized battery performance
- Adjust the number of batteries
- Built-in tray switch for easy maintenance
- N+X parallel redundant applications(up to 3)

RHF Series High Frequency 3P/3P Online UPS								
Model		**RHF-3310KL**	**RHF-3315KL**	**RHF-3320KL**	**RHF-3330KL**	**RHF-3340KL**	**RHF-3360KL**	**RHF-3380KL**
Capacity		10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW	60KVA/60KW	80KVA/80KW
INPUT								
Rated Voltage		3 x 380/400/415V, 3L+N+G						
Input Voltage Range/Window		-30% ~ +20%						
Frequency		40~70 Hz						
Power Factor		≥0.99 @ 100% load						
OUTPUT								
Output Voltage		3 x 360*/380/400/415V, 3L+N+G						
Voltage Range (Battery Mode)		±1%						
Frequency(Synchronization correction range)		46~54 Hz or 56~64 Hz						
Frequency (Battery Mode)		50Hz ±0.1Hz or 60 Hz ± 0.1Hz						
Surge Ratio		3：1（maximum）						
Harmonic Distortion		≤1%THD(linear load)；≤3%THD（nonlinear load）						
Transfer Time	AC to DC	Zero						
	Inverter to Bypass	Zero						
Waveform(Battery Mode)		Pure sine wave						
Overload Capacity		100-110% for 60 min, 111-125% for 10 min, 126-150% for 1 min; >150% for 400ms						
BYPASS								
Nominal Voltage		3 x 380/400/415VAC, 3L+N+G						
Frequency(Synchronization correction range)		46~54 Hz or 56~64 Hz						
Overload Capacity		>130% 1minute(default) Continously working until breaker protection (optional)						
EFFIENCEY								
AC Mode & Battery Mode		96.0%						
ECO Mode		99.00%						
BATTERY								
Long Run Model	Battery Type	It ups to the User's requirement						
	Quantity	+/- 10pcs	+/- 16pcs ~ +/- 20pcs (Adjustable)					
	The Max Charging Current	1A~12A (Adjustable)				1A~16A (Adjustable)	2A~16A (Adjustable)	2A~32A (Adjustable)
	Charging Voltage	+/- 136.5VDC ± 10%	+/- 13.65V x N (N=16 ~ 20)					
INDICATORS								
LCD Display		Load size, battery capacity, mains supply mode, battery mode, bypass mode, fault indication						
PHYSICAL								
Long Run Unit	Size,DxWxH(mm)	630 x 250 x 826			815 x 300 x 1000		790 x 360 x 1010	
	Net Weight(KG)	28	43	43	60	67	108	113
ENVIROMENT								
Temperature & Humidity		0- 40°C (No condensation);<95% and non-condersing						
Noise Level		Less 60dB @ 1 meter			Less 63dB @ 1 meter		Less 65dB @ 1 meter	
MANAGEMENT								
Smart RS-232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux, Unix, and MAC						
SNMP(Option)		Power management support SNMP management and network management						

*Product specifications are subject to us. If any changes, there would be no notice.

ZWAT

- •True double-conversion
- •DSP technology to ensure high performance
- •50Hz / 60Hz frequency conversion mode
- •7 inch touch LCD with IoT functions.
- •High power density, small volume.
- •High reliability and environment adaptibility.
- •Optional full metal battery strips, with internal batteries capable of configuring up to 16 battery module strips.
- •Built-in input, bypass, output, and maintenance switches, designed for easier operation

ZWAT Series High Frequency 3P/3P Online UPS								
Model		**ZWAT-3310K(L)**	**ZWAT-3315K(L)**	**ZWAT-3320K(L)**	**ZWAT-3330K(L)**	**ZWAT-3340K(L)**	**ZWAT-3360K(L)**	**ZWAT-3380K(L)**
Capacity		10KVA/10KW	15KVA/15KW	20KVA/20KW	30KVA/30KW	40KVA/40KW	60KVA/60KW	80KVA/80KW
INPUT								
Rated Voltage		3 x 380/400/415V, 3L+N+G						
Input Voltage Range		304 478VAC(L-L)full load ; 304 228VAC (L-L) power derate from 100% to 75%						
Frequency		40~70Hz						
Power Factor		≥0.99						
OUTPUT								
Output Voltage		3 x 380/400/415V, 3L+N+G						
Voltage Range (Battery Mode)		±1%						
Frequency (Battery Mode)		50Hz ±0.1Hz or 60 Hz ± 0.1Hz						
Surge Ratio		3：1（maximum）						
Harmonic Distortion		＜3%THD(100% linear load）						
Transfer Time	AC to DC	Zero						
	Inverter to Bypass	Zero						
Waveform(Battery Mode)		Pure sine wave						
Overload Capacity		100-110% for 60 min, 111-125% for 10 min, 126-150% for 1 min; >150% for 200ms						
BYPASS								
Nominal Voltage		3 x 380/400/415VAC, 3L+N+G						
EFFIENCEY								
AC Mode		96.0%						
Battery Mode		96.0%						
BATTERY								
Standard Model	Rate voltage	±240VDC						
	Model	UPS with internal batteries,12VDC/7~9Ah						
	Internal BAT Qty	120PCS					160PCS	
Long-run Model	Rate voltage	±240VDC						
	External BAT Qty	Depend on external battery, 40PCS						
INDICATORS								
LED + 7 inch touch LCD		Load size, battery capacity, mains supply mode, battery mode, bypass mode, fault indication						
PHYSICAL								
Standard Model	Size,DxWxH(mm)	864 x 500 x 922					865 x 500 x 1250	
	Net Weight(KG)	143				155	200	
Long-run Model	Size,DxWxH(mm)	530 x 250 x 650				782 x 250 x 650		
	Net Weight(KG)	43				53	85	
ENVIROMENT								
Temperature		0-40c (operation) ; -25℃ ~70c (storage)						
Humidity		0-95% (non-condensing)						
MANAGEMENT								
Configuration		USB, RS232, RS485, Dry contact, Air filter						
Option		SNMP card, AS400 card, Parallel kit, LBS, Cold start						

*Product specifications are subject to us. If any changes, there would be no notice.

HLF

- Digital control to achieve online double conversion
- Built-in output isolation transformer
- Industrial design for a variety of harsh conditions
- Front maintenance design
- Adapt to all kind of load.
- Can be up to 4 parallel operation
- Rich communication interface
- With EMI/RFI filtering function
- All devices will be aged and tested for more than 24 hours

HLF Series Low Frequency 1P/1P Online UPS							
Model		**HLF-1103L**	**HLF-1106L**	**HLF-1110L**	**HLF-1115L**	**HLF-1120L**	**HLF-1130L**
Capacity		3KVA / 2.4KW	6KVA /4.8KW	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW
INPUT							
Nominal Voltage		220/230/240 VAC					
Input Voltage Range		115V ~ 276 VAC					
Frequency Range		50/60 Hz ± 1 %					
Power Factor		≥0.99 @ nominal voltage (100% load)					
THDi		≦ 5% @ nominal voltage (100% load)					
OUTPUT							
Output Voltage		220/230/240 VAC					
AC Voltage Regulation (Batt. Mode)		± 1 %					
Frequency Range (Synchronized Range)		47 ~ 53 Hz or 57 ~ 63 Hz					
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)					
Current Crest Ratio		3:1					
Harmonic Distortion		≦ 2 % THD (Linear Load) ; ≦ 3 % THD (Non-linear Load)					
Transfer Time	AC to DC	Zero					
	Inverter to Bypass	4 ms (Typical)					
	ECO to Battery mode	8 ms (Typical), 10 ms(max)					
Waveform (Batt. Mode)		Pure Sinewave					
BATTERY							
Long-run model		192VDC					
Typical Recharge Time		8-10 hours recover to 90% capacity for external battery					
Charging Current (CC)		7A(Max)					
Charging Voltage (FV)		219VDC ± 1%					
INDICATORS							
LED Display		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicator					
PHYSICAL							
Long-run Model	Dimension, D x W x H (mm)	580 x 230 x 560		580 x 250 x 720	600 x 305 x 870	680 x 410 x 925	720 x 410 x 1000
	Net Weight (kgs)	42.3	60	75	98	160	188
ENVIRONMENT							
Humidity		20-95 % RH @ 0 - 40°C (non-condensing)					
Noise Level		Less than 55dBA @ 1 Meter with Fan speed control					
Altitude		0~1000m @ full load, 3500m @ 75% load					
MANAGEMENT							
Smart RS-232 or USB		Supports Windows® family, Linux, Unix and MAC					
Optional external Slot (for SNMP, Dry contact, ...)		Power management from SNMP manager and web browser					

*Product specifications are subject to us. If any changes, there would be no notice.

HLF

- Digital control to achieve online double conversion
- Built-in output isolation transformer
- Industrial design for a variety of harsh conditions
- Front maintenance design
- Adapt to all kind of load.
- Can be up to 4 parallel operation
- Rich communication interface
- All devices will be aged and tested for more than 24 hours

HLF Series Low Frequency 3P/1P Online UPS						
Model		**HLF-3106L**	**HLF-3110L**	**HLF-3115L**	**HLF-3120L**	**HLF-3130L**
Capacity		6KVA /4.8KW	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW
INPUT						
Nominal Voltage		360*/380/400/415 VAC, 3L+N+G				
Input Voltage Range		380VAC ± 20%				
Frequency Range		50/60 Hz ± 5 %				
Power Factor		≥0.99 @ nominal voltage (100% load)				
THDi		≦ 5% @ nominal voltage (100% load)				
OUTPUT						
Output Voltage		208*/220/230/240 VAC, L+N+G				
AC Voltage Regulation (Batt. Mode)		± 1 %				
Frequency Range (Synchronized Range)		47 ~ 53 Hz or 57 ~ 63 Hz				
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)				
Current Crest Ratio		3:1				
Harmonic Distortion		≦ 3 % THD (Linear Load) ; ≦ 5 % THD (Non-linear Load)				
Transfer Time	AC to DC	Zero				
	Inverter to Bypass	4 ms (Typical)				
	ECO to Battery mode	8 ms (Typical), 10 ms(max)				
Waveform (Batt. Mode)		Pure Sinewave				
BATTERY						
Long-run model		192VDC (16pcs-20pcs batteries adjustable)				
Typical Recharge Time		8-10 hours recover to 90% capacity for external battery				
Charging Current (CC)		7A(Max)				
Charging Voltage (FV)		219VDC ± 1% (when 16pcs batteries)				
INDICATORS						
LED Display		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicator				
PHYSICAL						
Long-run Model	Dimension, D x W x H (mm)	600 x 305 x 870			680 x 410 x 925	720 x 410 x 1000
	Net Weight (kgs)	90	115	165	210	248
ENVIRONMENT						
Humidity		20-95 % RH @ 0 - 40°C (non-condensing)				
Noise Level		Less than 55dBA @ 1 Meter with Fan speed control				
MANAGEMENT						
Smart RS-232 or USB		Supports Windows® family, Linux, Unix and MAC				
Optional external Slot (for SNMP, Dry contact, ...)		Power management from SNMP manager and web browser				

*Product specifications are subject to us. If any changes, there would be no notice.

RLF

- Digital control to achieve online double conversion
- Built-in output isolation transformer
- Industrial design for a variety of harsh conditions
- Front maintenance design
- Adapt to all kind of load.
- Can be up to 4 parallel operation
- Rich communication interface

RLF Series Low Frequency 3P/3P Online UPS											
Model	**RLF-3310L**	**RLF-3315L**	**RLF-3320L**	**RLF-3330L**	**RLF-3340L**	**RLF-3360L**	**RLF-3380L**	**RLF-33100L**	**RLF-33120L**	**RLF-33160L**	**RLF-33200L**
Capacity	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW	40KVA/32KW	60KVA/48KW	80KVA/64KW	100KVA/80KW	120KVA/96KW	160KVA/128KW	200KVA/160KW
INPUT											
Rated Voltage	3 x 380VAC/400VAC/415VAC (3Phase + N)										
Voltage Range/Window	304VAC ~ 440VAC										
Frequency	50/60 Hz ± 10 %										
OUTPUT											
Output Voltage	3 x 380VAC/400VAC/415VAC (3phase + N)										
Voltage Accuracy	Static: ±1% Typical value Transient: ±5% Typical value(load change 100-0-100%)										
Frequency(Synchronization correction range)	50/60 Hz synchronize ±1 % Mains Loss ±0.1 Hz										
Frequency Tracking Rate	±1 Hz/s										
Output Waveform	Pure Sine Wave										
Total Harmonic(THDv)	<2% (Linear Load) ; <5% (Nonlinear Load)										
Phase Unbalance	120º ±1% (Balance Load) ; 120º ±2% (50% Unbalance Load)										
Overload Capacity	110%~ 150% 10minutes~1 minute; 150%~ 160% >1 minute~200ms;200ms for>160%										
Peak Factor	3:1										
Load Power Factor Range	0.6~1 (Capacitive or Inductive)										
Unbalanced output voltage @ 100% unbalanced load	<1%										
Current Limit	Very heavy overload, short circuit: voltage RMS limit; impulse current: peak voltage limit										
Efficiency	90%	90%	91%		92%		93%				
BYPASS											
Type	Static Switch										
Voltage	3 x 380VAC/400VAC/415VAC (3Ph + N)										
Frequency	50/60 Hz										
Inverter to bypass switching time	Synchronous mode - switching uninterrupted, asynchronous mode - 10ms										
Overload Capacity	150%~ 180% 1h~1s; 180%~ 200%30s~200ms;200ms for>200%										
Switch to Bypass	Overload larger than 160% would be switched immediately										
Switch back to the inverter	The alarm is switched automatically after alarm clearing										
MAINTENANCE BYPASS											
Type	uninterrupted										
Voltage	3 x 380VAC/400VAC/415VAC (3Phase + N)										
Frequency	50/60 Hz										
BATTERY & CHARGING											
Battery Number（12V)	29/30/31/32(Adjustable)										
Charging Mode	Option: constant voltage charging / constant current charging										
Charge Current	Default 10A, maximum 40A										
Battery Type and Quantity	Sealed lead-acid batteries, nickel cadmium battery										
PHYSICAL											
Size,WxDxH(mm)	405x647 x 817			405 x656 x 941	432 x821 x 1159		554 x975x 1286		635 x 975 x 1326	705 x 1051 x 1376	
Net Weight (KG) (Without batteries)	118	120	145	193	278	365	471	573	650	785	840

Product specifications are subject to us. If any changes, there would be no notice.

ADS

- •Intelligent CPU control
- •Auto restart while AC is recovering
- •Boost and buck AVR for voltage stabilization
- •Cold start function
- •Optional USB or RS-232 communication port, RJ-45 and SNMP
- •Off-mode charging
- •Offering LED and LCD panels for selection, multi-color panel.

Smart Offline UPS								
Model	**ADS-500**	**ADS-650**	**ADS-800**	**ADS-1000**	**ADS-1500**	**ADS-2000**	**ADS-2000B**	**ADS-3000**
Capacity	500VA /350W	650VA/390W	800VA /480 W	1000VA /600W	1500VA /900W	2000VA/1200W	2000VA /1200W	3000VA /1800W
INPUT								
Voltage	110V/120 VAC or 220/230/240 VAC							
Voltage Range	81-145VAC or 145-275VAC							
Frequency	60/50 Hz(Auto sensing）							
OUTPUT								
Voltage	110/120 VAC or 220/230/240 VAC± 10%							
Voltage Range(Battery Mode)	± 10%							
Frequency Range(Battery Mode)	60/50 ± 1 Hz							
Transfer Time	4-6ms							
Waveform(Battery)	Simulated sine wave							
BATTERY								
Battery model & Quantity	12V4.5Ahx 1	12V7Ah x 1	12V9Ah x 1	12V7Ah x 2	12V9Ah x 2	12V9Ah x 2	12V7Ah x 4	12V9Ah x 4
Charge Time	8 hours charge to 90%							
INDICATOR LIGHT INDUCTION								
LCD Display	AC mode, Battery mode, Load level, Battery level, Input voltage, Output voltage, Overload and low battery							
WARNING								
Battery Mode	Sound every 4 seconds							
Low Battery	Sound every second							
Over-load	Sound every second							
Failure	Continuous sounding							
INTERFACE								
USB/R232 Port (optional)	Support windows XP/Vista, Windows 7/8, Linux, Unix, and MAC							
Optional SNMP	Power management from SNMP management and web browser							
PROTECTION								
Full Protection	Discharge, Short circuit and overload protection							
PHYSICAL								
Size, D X W X H (mm)	280x90x140	320×90x140	330×100x150	365×140x165			395×145×210	
Weight (kgs)	4	5.2	5.7	10.0	11.9	12.6	17.0	21.0
ENVIRONMENT								
Temperature & Humidity	Relative humidity 0-90 % and temperature 0- 40°C (No condensation conditions)							
Noise	Less 40dB @ 1 meter							
Product specifications are subject to change without further notice.								

HD

- Pure sine wave output
- Boost and buck AVR for voltage stabilization
- Cold start function
- Intelligent battery management
- Short circuitand overload protection
- Off-mode charging
- Offering LED and LCD panels for selection, multi-color panel
- Optional USB/ RS232/RJ45/SNMP communication port

HD Series Smart Line Interactive UPS			
Model	**HD-1K（L）**	**HD-2K（L）**	**HD-3K（L）**
Capacity	1000VA /800W	2000VA/1600W	3000 VA /2400 W
INPUT			
Voltage	220/230/240 VAC		
Voltage Range	145~275VAC±5V		
Frequency	50Hz/60Hz		
OUTPUT			
Voltage	220/230/240 VAC± 10%		
Voltage Range(Battery Mode)	± 10%		
Frequency Range(Battery Mode)	50Hz±0.25Hz or 60Hz±0.3Hz		
Transfer Time	＜ typical 4ms		
Waveform(Battery)	Pure sine wave		
Overload	105%-110%：UPS beep alarm, do not shut down.		
	110%-130%：auto shut down after 30 seconds		
	＞ 130%：auto shut down immediately		
BATTERY INTERNAL(Standard Model)			
Battery model & Quantity	12V7Ah x 2	12V7Ah x 4	12V7Ah x 6
Charging current(Max.)	Assume：1A±10%；Max：1A or 2A for option		
Charging voltage	27.3VDC±1%	54.7VDC±1%	82.0VDC±1%
BATTERY EXTERNAL(Long-run Model)			
Battery Type	12V, AH depending on applicant		
Numbers	3	6	8
Charge Current	＞ 5A		
Charging voltage	27.4VDC±1%	82.1VDC±1%	109.4VDC±1%
INDICATOR LIGHT INDUCTION			
LCD Display	AC mode, Battery mode, Load level, Battery level, Input voltage, Output voltage, Overload and low battery		
PROTECTION			
Full Protection	Discharge, Short circuit and overload protection		
PHYSICAL (Standard model)			
Size, D X W X H (mm)	360x147x220	440x192x340	440x192x340
Weight (kgs)	11.9	22	27.9
PHYSICAL (Long-run model)			
Size, D X W X H (mm)	360x147x220	440x192x340	440x192x340
Weight (kgs)	8.5	16	18.2
ENVIRONMENT			
Temperature & Humidity	Relative humidity 20%-90 % and temperature 0- 40°C (non- condensing)		
Noise	Less 55dB @ 1 meter		
INTERFACE			
USB/R232 Port (optional)	Support windows 2000/2003/XP/Vista/2008, Windows7/8, Linux, Unix, and MAC		
Optional SNMP	Power management from SNMP Management and web browser		

*Product specifications are subject to change without further notice

ZWM

- Unity output power factor
- Modular design lowers MTTR
- Highly reliable operation with redundant power supply in STS
- User-adjustable charging current
- Ease of installation and maintenance
- Flexible battery configuration adapts different appliances
- High overload capability
- Graphic 5.7" LCD design for easy management
- N+1 or N+X parallel redundancy for power guarantee
- Optional 10" touch LCD panel

ZWM 3P/3P 400V Modular UPS

Model	ZWM 30U -90HV	ZWM 42U -120HV	ZWM 30U -120HV ZWM 30U -80-20KHV	ZWM 30U -180HV ZWM 30U -120-20KHV	ZWM 42U -200-20KHV	ZWM 42U -210HV	ZWM 42U -300HV
Phase	3-phase in/3-phase out						
Cabinet Capacity*	90 KW	120 KW	120 KW or 80 KW	180 KW or 120 KW	200 KW	210 KW	300 KW
Battery Type	Built-in Battery		External Battery				
One Power Module Capacity	30KVA / 30KW		30KVA / 30KW or 20KVA /		20KW	30KVA / 30KW	
Max. Power Module No.	3	4	4	6	10	8	10
INPUT							
Nominal Voltage	3 x 380VAC/400VAC/415VAC (3Ph+N)						
Voltage Range	305 ~ 478 VAC at 100% load; 208 ~ 304VAC at <70% load						
Nominal Frequency	50/60Hz (Auto Sensing)						
Frequency Range	40Hz ~70Hz						
Power Factor	> 0.99 @ 100% Load , >0.98 @ 50% Load						
Harmonic Distortion (THDi)	< 3% @ 100% load						
OUTPUT							
Nominal Voltage	3 x 380VAC/400VAC/415VAC (3Ph+N)						
Voltage Regulation (Steady	≦ ± 1% Typical (balanced load) ; ≦ ± 2% Typical (unbalanced load)						
Nominal Frequency	50/60Hz						
Frequency Range	46Hz ~ 54Hz or 56Hz ~ 64Hz						
Overload Capability	1 hour for 110%, 10 mins for 125%,; 1 min for 150%, 200ms for >150%						
Harmonic Distortion	≦2% THD (Linear Load) ; ≦ 4% THD (Non-linear Load)						
Efficiency	Up to 94.5%						
BATTERY / CHARGER							
Nominal/Maximum/Minimum	` +/- 216V (12V x 36 pcs)： +/- 240V (12V x 40 pcs)： +/- 192V (12V x 32 pcs)						
Float Charging Voltage	2.25V / Cell						
Boost Charging Voltage	2.35V / Cell						
Maximum Charging Current (Per Power Module)	8A		8A for 30KW power module 6A for 20KW power module		6A	8A	
PHYSICAL							
Cabinet Dimension (D x W x H) mm	1100 x 600 x 1475	1100 x 600 x 2010	1100 x 600 x 1475	1100 x 600 x 1475	1100 x 600 x 2010		
Net Weight (Kg)	675	932	335 or 333	437.5 or 434.5	611	549	620
ENVIRONMENT							
Temperature &Relative Humidity	0 ~ 40°C ； 0 ~ 95% non-condensing						
Altitude	<1000m for Nominal power						
MANAGEMENT							
Smart RS-232/USB	Supports Windows 2000/2003/XP/Vista/2008, Windows 7/8, Linux, and MAC						
Optional SNMP	Power management from SNMP manager and web browser						

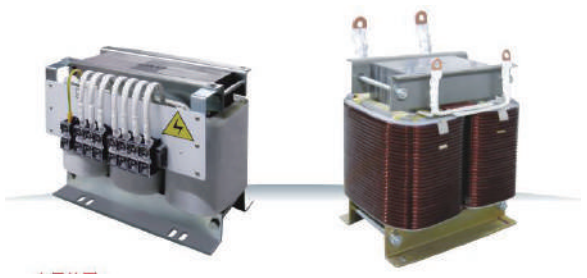
*Product specifications are subject to change without further notice.

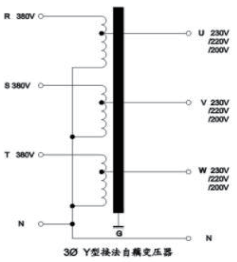
SO

- Small size,light weight and cheaper in cost
- High efficiency
- Economic and energy-saving
- Easy to install
- Reduced voltage drops in resistance
- leakage reactance result in improved voltage regulation.
- Variable voltages can be produced by an autotransformer.

SO Series Automatic Voltage Transformer		
Number of Phase	Single Phase	Three Phase
Power Rating（KVA）	5KVA - 300KVA	10KVA - 1000KVA
Input Voltage	1φ 240V/230V/220V/110V	3φ 415V/400V/380V/220V
Output Voltage	Can be customized to meet client's requirements	
Frequency	50/60 Hz	
Insulation Class	B class, F class, H class, HC class for option.	
Dielectric Strength	3000VAC/1min	
Cooling Method	Air cooling	
Overload Capacity	More than 1.2 times the rated load,allowed to work for 2 hours	
PERFORMANCE		
Efficiency	≥99%	
Design Life	20 years	
STRUCTURAL PARAMETERS		
Winding Material	Aluminum/Copper	
Insulation Resistance	≥5MΩ	
Connection	△/△, Y/Y	
Noise Level	＜35dB @ 1meter	
Protection Level	IP20, IP54	
ENVIROMENT		
Working Temperature	-20℃~+40℃	
Working Humidity	≤93％RH, no condensation	
Working Place	No corrosive gas and conductive dust	
Safety Standards	Compliance with VDE0550、IEC439、JB5555、GB226 etc, international standards.	

*Product specifications are subject to change without further notice



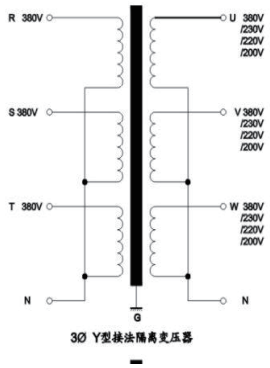


SG

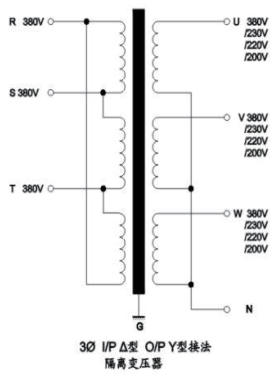
- Remove third harmonics and reduce interference signals
- Transformer system Impedance can be increased.
- The distortion of nonlinear load current doesn't affect the accuracy of sampling
- When starting large-load equipment, reduce the impact on the system voltage;
- Prevent Purifying the power grid.
- Unbalanced Load will not affect its normal operation.
- New neutral lines can be created
- Reduce short-circuit current.

SG Series Dry Type Step-up & Step-down Isolation Transformer		
Number of Phase	Single Phase	Three Phase
Power Rating（KVA）	5KVA - 300KVA	10KVA - 1000KVA
Input Voltage	1φ 240V/230V/220V/110V	3φ 415V/400V/380V/220V
Output Voltage	Can be customized to meet client's requirements	
Frequency	50/60 Hz	
Insulation Class	B class, F class, H class, HC class for option.	
Dielectric Strength	3000VAC/1min	
Cooling Method	Air cooling	
Overload Capacity	More than 1.2 times the rated load,allowed to work for 2 hours	
PERFORMANCE		
Efficiency	≥99%	
Design Life	20 years	
STRUCTURAL PARAMETERS		
Winding Material	Aluminum/Copper	
Insulation Resistance	⩾5MΩ	
Connection	Y/△, Y/Y, or △/Y	
Noise Level	＜35dB @ 1meter	
Protection Level	IP20, IP54	
ENVIROMENT		
Working Temperature	-20℃~+40℃	
Working Humidity	≤93％RH, no condensation	
Working Place	No corrosive gas and conductive dust	
Safety Standards	Compliance with VDE0550、IEC439、JB5555、GB226 etc, international standards.	

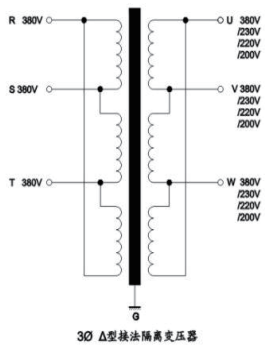
*Product specifications are subject to change without further notice



3Ø Y型接法隔离变压器



3Ø I/P Δ型 O/P Y型接法 隔离变压器



3Ø Δ型接法隔离变压器

FC11

- •High accuracy of voltage and frequency regulating with fast reponse time.
- •Display the voltage, frequency, current and power simultaneously
- •Instant trip breaker within 2ms in case of failure
- •No interference of radiation, no harmonic disdortation
- •With buzzer alarm for overload, over voltage, over temperature, short circuit
- •Apply worldwidely for all kinds of voltage and frequency standard
- •Pure and stable sinewave output, withstands all kinds of load.

FC11 Single Phase Variable Voltage & Frequency Converter											
ITEM	**FC11**										
Power Rating（KVA）	0.5K	1K	2K	3K	5K	10K	15K	20K	30K	50K	60K
Control Method	IGBT/PWM (Pulse Width Modulation)										
INPUT											
Rated Voltage	1P2W+G 220V										
Voltage Range	±10%										
Frequency	50Hz(47Hz～63Hz)										
OUTPUT											
Rated Voltage	Low Grade: 0-150V ; High Grade: 0-300V										
Limit Current Low Grade(L-N)(A)	4	8	17	25	42	83	125	167	250	417	500
Limit Current High Grade(L-N)(A)	2	4	8	13	21	42	63	83	125	208	250
Source Voltage Regulation	≤±1%										
Load Voltage Regulation	≤±1%										
Power Factor	PF≥0.8										
Frequency	50/60Hz(40.0～499.9HZ (Programmable)										
Frequency Stability	≤0.01%										
Wave distortion	< 2%										
Efficiency	≥90%										
Reponse time	≤2ms										
Crest Factor	3:01:00										
System Protection	Overload, over voltage, over current, under voltage, over temperature, short circuit										
LED DISPLAY											
Voltmeter	4 Digital LED display for output voltage, resolution 0.1V										
Ammeter	4 Digital LED display for output current, resolution 0.1A										
Wattmeter	4 Digital LED display for output power, resolution 0.1W/0.1KW										
Frequency Meter	4 Digital LED display for output frequency, resolution 0.1Hz/Step										
OTHERS											
Cooling System	Air										
Insulation Resistance	≥2MΩ										
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.										
ENVIRONMENT											
Ambient Temperature	0℃-45℃(No condensation)										
Working Humidity	0%-90%(No condensation)										
Altitude	≤1500m										
DIMENSION											
Size WxDxH(mm)	430×500×180			350×530×660		350×650×860		550×750×1100		700×900×1300	
Net Weight (KG)	25	29	40	70	75	120	138	180	270	380	400
Gross Weight (KG)	31	35	46	76	80	132	180	200	300	400	420

*Product specifications are subject to change without further notice.

FC31

- •High accuracy of voltage and frequency regulating with fast reponse time.
- •Display the voltage, frequency, current and power simultaneously
- •Instant trip breaker within 2ms in case of failure
- •No interference of radiation, no harmonic disdortation
- •With buzzer alarm for overload, over voltage, over temperature, short circuit
- •Apply worldwidely for all kinds of voltage and frequency standard
- •Pure and stable sinewave output, withstands all kinds of load.

FC31 3P/1P Variable Voltage & Frequency Converter											
ITEM	**FC31**										
Power Rating（KVA）	15K	20K	30K	50K	60K	75K	100K	120K	150K	160K	200K
Control Method	IGBT/PWM (Pulse Width Modulation)										
INPUT											
Rated Voltage	3P4W+G 380V										
Voltage Range	±10%										
Frequency	50Hz(47Hz-63Hz)										
OUPUT											
Rated Voltage	Low Grade: 0-150V ; High Grade: 0-300V										
Limit Current Low Grade(L-N)(A)	125	167	250	417	500	625	833	1000	1250	1333	1667
Limit Current High Grade(L-N)(A)	63	83	125	208	250	313	417	500	625	667	833
Source Voltage Regulation	≤±1%										
Load Voltage Regulation	≤±1%										
Power Factor	PF≥0.8										
Frequency	50/60Hz(40～499.9Hz(Programmable)										
Frequency Stability	≤0.01%										
Wave distortion	< 2%										
Efficiency	≥90%										
Reponse time	≤2ms										
Crest Factor	3:01:00										
System Protection	Overload, over voltage, over current, input under voltage, over temperature, short circuit										
LED DISPLAY											
Voltmeter	4 Digital LED display for output voltage, resolution 0.1V										
Ammeter	4 Digital LED display for output current, resolution 0.1A										
Wattmeter	4 Digital LED display for output power, resolution 0.1W/0.1KW										
Frequency Meter	4 Digital LED display for output frequency, resolution 0.1Hz/Step										
OTHERS											
Cooling System	Air										
Insulation Resistance	≥2MΩ										
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.										
ENVIRONMENT											
Ambient Temperature	0℃-45℃(No condensation)										
Working Humidity	0％-90％(No condensation)										
Altitude	≤1500m										
DIMENSION											
Size WxDxH(mm)	350×650×800	500×650×850	550×650×1400	700×900×1300			800×1100×1400			850×1220×1400	
Net Weight (KG)	138	180	270	380	400	440	500	950	1020	1200	1500
Gross Weight (KG)	180	200	300	400	420	462	562	1000	1043	1250	1550

*Product specifications are subject to change without further notice.

FC33

- High accuracy of voltage and frequency regulating with fast reponse time.
- Display the voltage, frequency, current and power simultaneously
- Instant trip breaker within 2ms in case of failure
- No interference of radiation, no harmonic disdortation
- With buzzer alarm for overload, over voltage, over temperature, short circuit
- Apply worldwidely for all kinds of voltage and frequency standard
- Pure and stable sinewave output, withstands all kinds of load.

FC33 3P/3P Variable Voltage & Frequency Converter											
ITEM	**FC33**										
Power Rating（KVA）	10K	15K	20K	30K	45K	60K	75K	100K	120K	150K	200K
Control Method	IGBT/PWM (Pulse Width Modulation)										
INPUT											
Rated Voltage	3P4W+G 380V										
Voltage Range	±10%										
Frequency	50/60Hz(47Hz-63Hz)										
OUPUT											
Rated Voltage	Low Grade：0-300V ; High Grade :0-520V										
Limit Current Low Grade(L-N)(A)	28	42	54	83	125	167	208	275	333	417	558
Limit Current High Grade(L-N)(A)	14	21	27	42	63	83	104	138	167	208	279
Source Voltage Regulation	≤±1%										
Load Voltage Regulation	≤±1%										
Power Factor	PF≥0.8										
Frequency	400HZ（499.9HZ can be customized）										
Frequency Stability	≤0.01%										
Wave distortion	< 2%										
Efficiency	≥90%										
Reponse time	≤2ms										
Crest Factor	3:01:00										
System Protection	Overload, over voltage, over current, input under voltage, over temperature, short circuit										
LED DISPLAY											
Voltmeter	4 Digital LED display for output voltage, resolution 0.1V										
Ammeter	4 Digital LED display for output current, resolution 0.1A										
Wattmeter	4 Digital LED display for output power, resolution 0.1W/0.1KW										
Frequency Meter	4 Digital LED display for output frequency, resolution 0.1Hz/Step										
OTHERS											
Cooling System	Air										
Insulation Resistance	≥2MΩ										
Voltage-endurance	The whole machine has no breakdown and no arcing phenomena for 2000VAC/ min.										
ENVIRONMENT											
Ambient Temperature	0℃-45℃(No condensation)										
Working Humidity	0%-90%(No condensation)										
Altitude	≤1500m										
DIMENSION											
Size WxDxH(mm)	500×650×850		550×750×1100		700×900×1300			800×1100×1400		850×1220×1400	
Net Weight (KG)	160	200	260	320	370	400	440	900	950	1250	1650
Gross Weight (KG)	180	220	280	370	400	430	490	950	1000	1300	1700

*Product specifications are subject to change without further notice.

ZWDC

- Large-screen LCD display
- Power-saving software to optimize the power supply to the light
- Time control
- Wide input voltage swing ranges
- High precision for the output voltage
- Multi-protection design
- Independent phase control
- Rain proof enclosure,corrosion resistant

ZWDC Series Adjustable DC Voltage Constant-current Power Supply		
PRODUCT PARAMETER		
Input Voltage		Single Phase, 220VAC ±10%, 50Hz
		Three Phase, 380VAC ±10%, 50Hz
Output Channel		Single output, independent adjustable
DC Output	DC Output	(0~) V, can be customized
	Output Current	(0~) A, can be customized
	Output Power	(0~) W, can be customized
Load Regulation	Voltage	≤1%
	Current	≤2%
Overall Efficiency		≥86%
Output Accuracy	Voltage	±1.5%
	Current	±2%
Output Voltage Overshoot during Startup		≤2%
Insulation Resistance		Input-Output≥20MΩ
Input-Enclosure		≥20MΩ
Output-Enclosure		≥80MΩ
Insulating Strength		Input-Output: AC1500V, 10mA, 1min
Input-Enclosure		AC1500V, 10mA, 1min
Output-Enclosure		AC1500V, 10mA, 1min
Overtemperature Protection Temperature Threshold		(75~85)℃
MTBF		≥50000H
Cooling Air Tunnel		Internal cooling wind left in, right out

*Product specifications are subject to us. If any changes, there would be no notice.

Variac

- LED Display: The output voltage is clear at a glance, easily adjust any voltage;
- Pure Copper Coils: High-quality pure copper, good heat dissipation, solid workmanship;
- Voltage Regulating Panel: Adopt metal instrument panel, read the word clearly, the letters are not easy to disappear;
- Carbon Brush: Use imported 1017 carbon brush, the quality is better and stable;
- Protective Enclosure: Strip ventilation grille, better heat dissipation performance and more safe;
- External Wiring Ports: Simple wiring port with wiring instructions to make operation easier;
- Offered in both manual and motorized options.

Single Phase /Three Phase Variable Transformer

WORKING ENVIROMENT	
Ambient Temperature	-10～50℃
Relative Humidity	15～85% (25℃)
Altitude	<1500M
Working Place	The working situation should be no conductivity dust and damage gas , inflammables , explosives, or corrosive chemistry stuff.
PRODUCT PARAMETER	
Input Voltage	220V±10%, Single Phase
	380V±10%, Three Phase
Output Voltage	0~250V±10%, Single Phase
	0~430V±10%, Three Phase
Insulation Class	Single Phase＞5MΩ； Three Phase＞2MΩ
Waveform Distortion	No additional distortion
Temperature Rise	＜60℃
Dielectric Strength	2000V/min
Efficiency	≥90%

MORE SPECS

Item/Model	Capacity (KVA)	Phase No.	Rated input voltage (V)	Rated output voltage (V)	Max. output current (A)	Product size (W * D * L) (mm)	Gross weight (kg)
TDGC2-0.2	0.2	1	220V	0-250V	0.8A	105*130*130	26.5
TDGC2-0.5	0.5				2A	125*150*130	28
TDGC2-1	1				4A	180*200*210	26
TDGC2-2	2				8A	180*200*210	33
TDGC2-3	3				12A	210*230*235	23
TDGC2-5	5				20A	240*285*250	18
TDGC2-10	10				40A	240*335*400	40
TDGC2-15	15				60A	240*335*560	58
TDGC2-20	20				80A	240*340*590	60
TSGC2-1.5	1.5	3	380V	0-430V	2A	125*180*340	12
TSGC2-3	3				4A	180*250*430	21.5
TSGC2-6	6				8A	180*250*460	27
TSGC2-9	9				12A	210*250*590	35
TSGC2-15	15				20A	240*330*560	56
TSGC2-20	20				26.5A	240*330*580	60
TSGC2-30	30				40A	350*420*1060	150

*Product specifications are subject to change without further notice

TGI

- Lithium battery auto-restart function, more convenient for lithium battery charging
- Intelligent power supply mode,intelligent distribution of solar panel/ mains/battery power shares.
- Battery reverse connection protection with fuse switch,safer installation.
- Support working without battery:Reduce solar system cost
- Parallel function up to maximum 9 units:Enlarge more loads.
- BMS function for lithium battery.
- Communication option: External WIFI,supervise at any time.

TGI Series High Frequency Off-grid Inverter 5500W~11000W(Parallel)					
Model		**TGIP-5.5**	**TGIP-6.2**	**TGIP-8.6**	**TGIP-11**
Capacity		5.5KW	6.2KW	8.6KW	11KW
INPUT					
Nominal Voltage		220/230/240 VAC, L+N+PE			
Input Voltage Range		90~280VAC±3V(Normal Mode), 170~280Vac±3V(UPS Mode)			
Frequency Range		50/60 Hz(Adaptive)			
OUTPUT					
Rated Power		5.5KW	6.2KW	8.6KW	11KW
Output Voltage		220/230/240 VAC			
Output Frequency		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)			
Output Wave		Pure Sine Wave			
Transfer Time	for computer equipment	10ms			
	for household equipment	20ms			
Peak Power		11000VA	12400VA	17200VA	22000KVA
Overload Ability(Battery Mode)		21s@105%~150% load; 11s@150%~200% load; 40ms@>200% load			
GRID CONNECTED OPERATION					
Output Voltage		220/230/240 VAC			
Grid Voltage Range		195-253 VAC			
Grid Frequency Range		49~51 Hz ± 1 Hz (59~61Hz ± 1 Hz)			
Output Current		23.9A	26.9A	34.7A	47.8A
Power Factor Range		>0.99			
BATTERY					
Rated Voltage		48VDC			
Costant Float & Charging Voltage(Adjustable)		56.4VDC；54VDC			
CHARGER					
PV Charging Method		MPPT	MPPT	MPPT*2	MPPT*2
Max. PV Input		5500W	6200W	2*5500W	2*5500W
MPPT Tracking Range		120~500VDC	120~500VDC	90~500VDC	90~500VDC
Best Vmp Working Range		300~400VDC	300~400VDC	300~400VDC	300~400VDC
Max. PV Input Voltage & Current		500VDC ： 18A	500VDC：18A	500VDC：18A/18A	500VDC：18A/18A
Max. PV & AC Charging Current		100A ： 60A	100A：80A	150A：120A	150A：150A
INDICATORS					
LCD		Operating mode, Load level,Input and Output			
PHYSICAL					
Dimension, D x W x H (mm)		495 x 312 x 146		570 x 500 x 148	
ENVIRONMENT					
Operating & Storage Temperature		-10℃~50℃；'-15℃~60℃			
Altitude		No more than 1000m; If >1000m, rated power will lower. Max. 4000m refers to IEC62040			
Humidity & Noise		20%~95% (No Condensing)；≤50dB			
INTERFACE					
Smart RS-232		5PIN/Pitch 2.54mm, Baud Rate 2400			
Expansion Communication Interface		Lithium Battery BMS Communication Card, WIFI 2x5PIN/Pitch 2.54mm			
Parallel Interface		Supports parallel			

*Product specifications are subject to us. If any changes, there would be no notice.

TGI

- Lithium battery auto-restart function, more convenient for lithium battery charging
- Intelligent power supply mode,intelligent distribution of solar panel/ mains/battery power shares.
- Utility charging voltage/PV charging voltage adjustable,match different battery charging requirements.
- Battery reverse connection protection with fuse switch,safer installation.
- Support working without battery:Reduce solar system cost
- High precision of output voltage,±5%. Take care of your applications.
- BMS function for lithium battery.

TGI Series High Frequency Off-grid Inverter 2000W~11000W							
Model		**TGI-2.0**	**TGI-3.0**	**TGI-3.6**	**TGI-5.5**	**TGI-6.2**	**TGI-11**
Capacity		2.0KW	3.0KW	3.6KW	5.5KW	6.2KW	11.0KW
INPUT							
Nominal Voltage		220/230/240 VAC, L+N+PE					
Input Voltage Range		90~280VAC±3V(Normal Mode), 170~280Vac±3V(UPS Mode)					
Frequency Range		50/60 Hz(Adaptive)					
OUTPUT							
Rated Power		2.0KW	3.0KW	3.6KW	5.5KW	6.2KW	11KW
Output Voltage		220/230/240 VAC					
Output Frequency		50 Hz ± 0.1 Hz (60Hz ± 0.1 Hz)					
Output Wave		Pure Sine Wave					
Transfer Time	for computer equipment	10ms					
	for household equipment	20ms					
Peak Power		4000VA	6000VA	7200VA	10000VA	12400VA	22000KVA
Overload Ability(Battery Mode)		21s@105%~150% load; 11s@150%~200% load; 40ms@>200% load					
BATTERY							
Rated Voltage		12VDC	24VDC		48VDC		
Costant Charging Voltage(Adjustable)		14.1VDC	28.2VDC		56.4VDC		
Float Charging Voltage(Adjustable)		13.5VDC	27VDC		54VDC		
CHARGER							
PV Charging Method		MPPT					MPPT*2
Max. PV Input		2000W	4200W		5500W	6200W	2*5500W
MPPT Tracking Range		40~450VDC	120~500VDC	120~500VDC	120~500VDC	120~500VDC	90~500VDC
Best Vmp Working Range		300~400VDC	300~400VDC	300~400VDC	300~400VDC	300~400VDC	300~400VDC
Max. PV Input Voltage		400VDC	500VDC	500VDC	500VDC	500VDC	500VDC
Max. PV Input Current		18A	18A	18A	18A	18A	18A/18A
Max. PV Charging Current		60A	100A	100A	100A	100A	150A
Max. AC Charging Current		60A	60A	80A	60A	80A	150A
INDICATORS							
LCD		LED	Operating mode, Load level,Input and Output through LCD				
PHYSICAL							
Dimension, D x W x H (mm)		345 x 254 x 105	495 x 312 x 146				570 x 500 x 148
ENVIRONMENT							
Operating Temperature		-10℃~50℃					
Storage Temperature		-15℃~60℃					
Altitude		No more than 1000m; If >1000m, rated power will lower. Max. 4000m refers to IEC62040					
Operating Environment Humidity		20%~90% (No Condensing)					
Noise		≤50dB					
INTERFACE							
Smart RS-232		5PIN/Pitch 2.54mm, Baud Rate 2400					
Expansion Slot Communication Interface		Lithium Battery BMS Communication Card, WIFI 2x5PIN/Pitch 2.54mm					
STANDARD							
Standards and Certifications		EN-IEC 60335-1; EN-IEC 60335-2-29; IEC 62109-1					

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