

UPS产品手册

Catalog Of UPS



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COOPERATIVE PARTNER

合作伙伴



*排名不分先后,因合作客户过多,以上只列举部分品牌
The ranking is not in any order. Because there are too many cooperative customers, only some brands are listed above



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
Long-run model		36VDC	72VDC	96VDC	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
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				
EFFICIENCY					
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
	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 suitable 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
	Net Weight(KG)	9.8	17	27.6	61
Long Run Model	Size,DxWxH(mm)	282 x 145 x 220	397 x 145 x 220		369 x 190 x 318
	Net Weight(KG)	4.1	6.8	7.4	12
				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				

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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					

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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											

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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		Continuously 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		

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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) Continuously working until breaker protection (optional)						
EFFICIENCY								
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(Optional)		Power management support SNMP management and network management						

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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) Continuously working until breaker protection (optional)						
EFFICIENCY							
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-condensing						
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(Optional)	Power management support SNMP management and network management						

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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 adaptability.
- 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							
EFFIENCY								
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						

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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
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 circuit and 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	ZWM 42U	ZWM 30U	ZWM 30U	ZWM 42U	ZWM 42U	ZWM 42U
	-90HV	-120HV	-120HV	-180HV	-200-20KHV	-210HV	-300HV
			ZWM 30U	ZWM 30U			
			-80-20KHV	-120-20KHV			
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.							

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