pure wave power

pure wave power

Company Profile

INDEX

Introduction

We specialise in providing bespoke backup power solutions to clients worldwide, with a particular focus in Europe and the Middle East.

We are a young company, who have seen an opportunity to provide quality products of British origin, which are better than the competition and at a more competitive price point .

We can do this because we have a wealth of knowledge we can draw upon, including combined engineering experience of 30 years, extensive commercial, legal and language skills. This skill set ensures we are able to meet, and we hope exceed, our client's expectations.

We are proud to be a British company, and equally proud of the relationships and strong ties we have in Europe and the Middle East, which gives us what we believe is a unique skill set, perspective and ability to meet the growing backup power solution needs of the regions.

Our Vision

Pure Wave Power is proud have a trusted and respected reputation within the market and it is our desire to always be improving, expanding and developing our services in order to ensure we always meet our customers' requirements. With our highly qualified managerial and executive teams, we feel uniquely prepared to realise our ambition of becoming the company of choice within the region for all of your Power Solution needs.

Our Mission

- Pure Wave Power aim is to become the company of choice within the Europe and Middle East.
- Our customers are our ultimate priority. Our mission is to provide our clients with an optimal service and exceed our customers' expectations in delivering a service above and beyond their expectations.
- We at Pure Wave Power feel an obligation to provide our customers reliably, flexibly and innovatively, along with our guaranteed professionalism.
- We aim to be able to provide the perfect solution to any of our customer's needs, quickly and efficiently.
- Pure Wave Power endeavors to continue to serve our clients even after providing the solution. Satisfied customers are the most important measure of our success.
- We therefore always aspire to ensure our customers are fully content with our Post Sales Ser vices.

Standards Certificates

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

Products: PW3100TH,PW3120TH,PW3160TH,PW3200TH, PW3250TH and PW3300TH

Test Standards: EN 62040-1: 2008
EN 62040-2: 2006
EN 60950-1: 2006/A1:2010

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

Products: PW310L,PW315L,PW320L and PW330L

Test Standards: EN62040-1:2008
EN62040-2:2006
EN60950-1:2006/A1:2010

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

Products: PW340L, PW360L

Test Standards: EN62040-1:2008/A1:2013
EN62040-2:2006
EN60950-1:2006/A1:2010

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

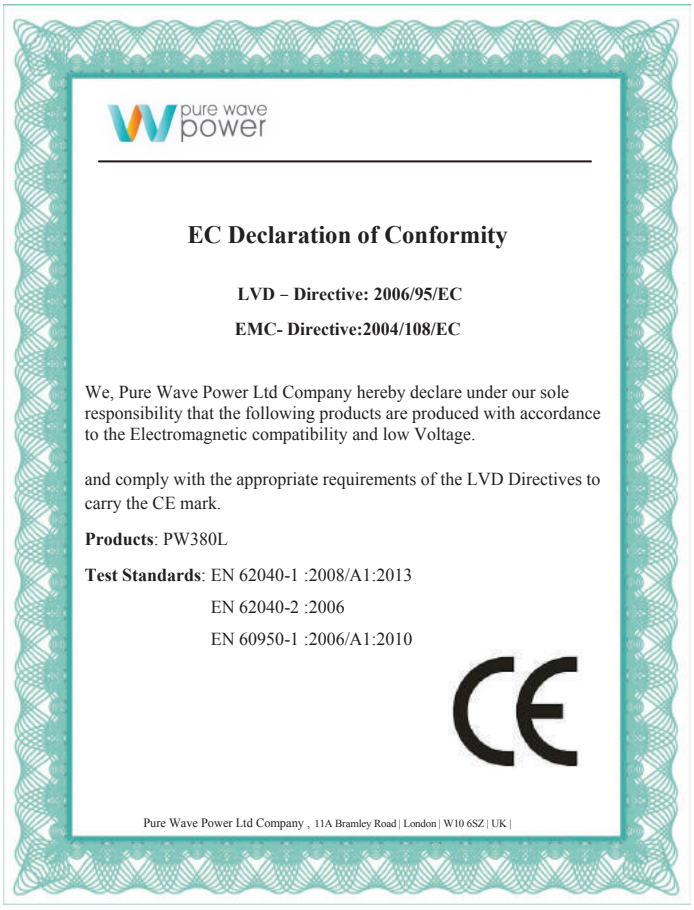
and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

Products: PW380L

Test Standards: EN 62040-1 :2008/A1:2013
EN 62040-2 :2006
EN 60950-1 :2006/A1:2010

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |

Standards Certificates



pure wave power

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

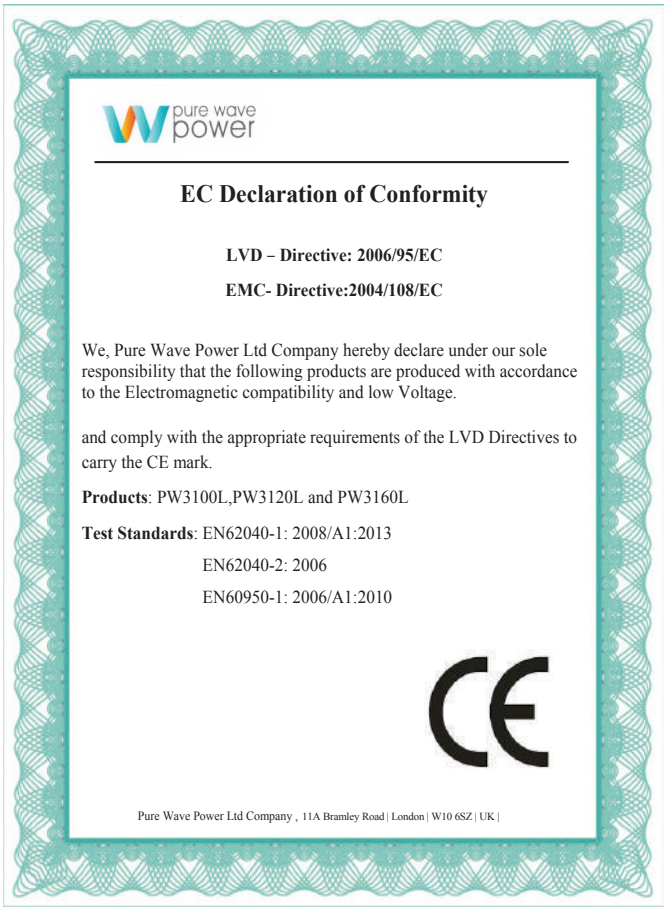
and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

Products: PW380L

Test Standards: EN 62040-1 :2008/A1:2013
EN 62040-2 :2006
EN 60950-1 :2006/A1:2010

CE

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |



pure wave power

EC Declaration of Conformity

LVD – Directive: 2006/95/EC

EMC- Directive:2004/108/EC

We, Pure Wave Power Ltd Company hereby declare under our sole responsibility that the following products are produced with accordance to the Electromagnetic compatibility and low Voltage.

and comply with the appropriate requirements of the LVD Directives to carry the CE mark.

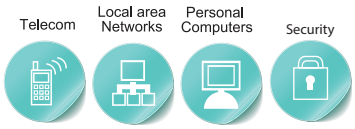
Products: PW3100L,PW3120L and PW3160L

Test Standards: EN62040-1: 2008/A1:2013
EN62040-2: 2006
EN60950-1: 2006/A1:2010

CE

Pure Wave Power Ltd Company , 11A Bramley Road | London | W10 6SZ | UK |

PW100T SERIES



High Frequency Online UPS
Single in/Single out

Model : PW100T 1-3KVA
Nominal frequency : 50/60Hz
Output Power Factor : 0.9

General Specifications:

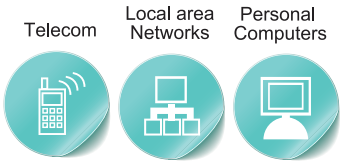
- True double-conversion
- Wide input voltage range (110~300Vac)
- Input power factor correction 0.99
- Output power factor 0.9
- Maximum 12A charger for long-run models
- Charger current can be set by LCD
- 50Hz/60Hz frequency converter mode
- Emergency power off function(EPO)
- Eco mode operating for energy saving (ECO)
- Generator compatible
- SNMP/USB/RS232 multiple communications
- Smart battery charger design for optimized battery performance
- Selectable output voltage : 200/208/220/230/240Vac

Technical Specifications

MODEL		PW101T	PW101T-XL	PW102T	PW102T-XL	PW103T	PW103T-XL
PHASE		Single phase with ground					
Capacity (VA/Watts)		1000VA / 900W		2000VA / 1800W		3000VA / 2700W	
INPUT							
Nominal voltage		200/208/220/230/240VAC					
Operating voltage range	Low line transfer	160Vac±5% @100%-80% load;					
		140Vac±5% @80%-70% load;					
		120Vac±5% @70%-60% load;					
		110Vac±5% @60%-0% load;					
		(Ambient Temp. <35℃)					
	Low line comeback	175Vac±5% @100%-80% load;					
		155Vac±5% @80%-70% load;					
		135Vac±5% @70%-60% load;					
		125Vac±5% @60%-0% load;					
		(Ambient Temp. <35℃)					
	High line transfer	300Vac ±5%					
	High line comeback	290Vac ±5%					
Operating frequency range		40-70Hz					
Power factor		0.99@100% load(Nominal Input Voltage)					
Bypass voltage range		Bypass high voltage point					
		230-264: setting the high voltage point in LCD from 230Vac to 264Vac. (Default: 264Vac)					
		Bypass low voltage point					
		170-220: setting the low voltage point in LCD from 170Vac to 220Vac. (Default: 170Vac)					
Generator input		Support					
OUTPUT							
Output voltage		200/208/220/230/240Vac					
Power factor		0.9					
Voltage regulation		±1%					
Frequency	Line Mode (synchronized range)	47-53Hz or 57-63Hz					
	Bat. Mode	(50/60±0.1)Hz					
Crest factor		3:01					
Harmonic distortion (THDv)		≤3% THDwith linear load					
		≤6% THD with non linear load					
Waveform		Pure Sinewave					
Transfer time	AC mode <->Batt. mode	Zero					
	Inverter <-> bypass	4ms(Typical)					
Efficiency		88%(AC mode)		92%(AC mode)		92%(AC mode)	
		85%(DC mode)	86%(DC mode)	87%(DC mode)	88%(DC mode)	89%(DC mode)	90%(DC mode)
BATTERY							
Battery Type		12V9AH	depends on the capacity of external batteries	12V9AH	depends on the capacity of external batteries	12V9AH	depends on the capacity of external batteries
Numbers		2	2 / 3	4	4 / 6	6	6 / 8
Backup time		Long run unit depends on the capacity of external batteries					
Typical recharge time(standard modle)		4 hours recover to 90% capacity (Typical)					
Charging voltage		27.4 VDC ±1%	27.4 VDC ±1% / 41.0 VDC ±1%	54.7 VDC ±1%	54.7 VDC ±1% / 82.1 VDC ±1%	82.1 VDC ±1%	82.1 VDC ±1% / 109.4 VDC ±1%
Charge current		1A	12A max,can be set by LCD	1A	12A max,can be set by LCD	1A	12A max,can be set by LCD
SYSTEM FEATURES							
Overload @35℃	Line Mode	**Ambient Temp.<35℃**					
		105%~110%: UPS transfer to bypass after 10minuteswhen the utility is normal					
		110%~130%: UPS transfer to bypass after 1minute when the utility is normal					
		130%~150%: UPS transfer to bypass after 5 seconds when the utility is normal					
		>150%: UPS transfer to bypass immediately when the utility is normal					
	Battery Mode	**35℃<Ambient Temp.<40℃**					
		105%~110%: UPS transfer to bypass after 1minute when the utility is normal					
		110%~130%: UPS transfer to bypass after 5 seconds when the utility is normal					
		>130%: UPS transfer to bypass immediately when the utility is normal					
Short Circuit		Hold Whole System					
Overheat		Line Mode: Switch to Bypass; Backup Mode: Shut down UPS immediately					
Low battery voltage		Alarm and Switch off					
EPO (optional)		Shut down UPS immediately					
Audible & Visual alarms		Line Failure, Battery Low, Overload, System Fault					
Comunication interface		USB(or RS232), SNMPcard(optional), Relay card (optional)					
ENVIRONMENTAL							
Operating temperature		0℃～40℃					
Storage temperature		-25℃～55℃					
Humidity range		20-90 % RH @ 0- 40°C (non-condensing)					
Altitude		< 1000m					
Noise level		Less than 50dBA at 1 Meter					
PHYSICAL							
Dimension W×H×D (mm)		144*209*293		144*209*399		191*337*460	144*209*399
Net Weight (kg)		9.8	4 / 4.2	17	6.7 / 6.8	27.6	7.3 / 7.4
STANDARDS							
Safety		IEC/EN62040-1,IEC/EN60950-1					
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,					
		IEC61000-4-5,IEC61000-4-6,IEC61000-4-8					

* Specifications are subject to be changed without prior notes

PW100RT SERIES



High Frequency Online UPS
Single in/Single out

Model : PW100RT 1-3KVA
Nominal voltage
200/208/220/230/240VAC

Two directions LCD display

General Specifications:

- Rack/Tower convertible LCD design.
- Patented mimic LCD display may be rotated by simply pushing front button.
- True online double conversion.
- High output power factor 0.9PF.
- Comprehensive display allows easy monitoring and access of UPS status.
- Smart SNMP works with either USB or RS-232 together.
- Hot-Swappable battery.
- Efficiency up to 90%.
- Estimated remaining time displayed on the LCD.
- Support economic (ECO) operation mode.
- Matching battery pack.
- Operating powerful charger.
- Cold start.
- Power shedding may turn off uncritical load in battery backup.
- Emergency power off.
- Frequency converter mode is settable.

Technical Specifications

Model		PW101RT	PW101.5RT	PW102RT	PW103RT
Capacity (VA/Watts)		1000/900	1500/1350	2000/1800	3000/2700
INPUT					
Rated voltage		200/208/220/230/240Vac			
Voltage range		110~290Vac			
Frequency range		45~65Hz(Auto-detect)			
Power Factor		≥0.98			
Bypass voltage range		Max.voltage: +15%(optional +5%,+10%,+25%) Min.voltage : -45% (optional -15%,-20%,-30%) Frequency protection range : ±10%			
Generator input		Support			
OUTPUT					
Rated voltage		200/208/220/230/240Vac			
Power Factor		0.9			
Voltage regulation		± 2%			
Frequency	Utility mode	50Hz or 60Hz (synchronized to Mains)			
	Battery mode	50/60Hz ± 0.02Hz			
Crest factor		3:1			
Harmonic Distortion (THDv)		≤ 3% with linear load ≤ 5% with non-linear load			
Efficiency	AC mode(full load)	up to 90%			
	Battery mode(full load)	>85%			
	ECO mode(full load)	>94%			
BATTERY					
Standard model	Battery Type	12V/9Ah	12V/9Ah	12V/9Ah	12V/9Ah
	Numbers	2	3	4	6
	Typical Recharge Time	4 hours recover to 90% capacity			
	Charging Current(max.)	1.4A			
	Charging Voltage	27.4Vdc±1%	41.0Vdc±1%	54.7Vdc±1%	82.1Vdc±1%
Long-run model	Battery Numbers	Depending on the capacityof external batteries			
	Charging Current(max.)	6A/12A(double board)	7A/14A(double board)	6A/12A(double board)	6A/12A(double board)
	Charging Voltage	27.4Vdc±1%	41.0Vdc±1%	54.7Vdc±1%	82.1Vdc±1%
SYSTEM FEATURES					
Time transfer		Utility to Battery: 0ms ; Utility to bypass <4ms			
Overload	AC mode	Load<100%~ 150%: 30S,Load>150%: 300ms then shut down UPS immediately ;			
	Bat. mode	Load<100%~ 150%: 30S,Load>150%: 300ms then shut down UPS immediately ;			
	Bypass mode	Load>130%: 60S then shut down output ;			
Audible & Visual		Line failure, Battery low , Overload, system fault			
Status LED & LCD		Load/Battery/Input/Output/Operating mode information			
ENVIRONMENTAL					
Dimension: (WxHxD) mm		440x86.5x430	440x86.5x430	440x86.5x552	S: 440x86.5x710 H: 440x86.5x552
Net weight (kg)		S:15.1/H:8.5	S:18.1/H:8.8	S:22.2/H:12.2	S:29.8/H:12.5
Communication interface		Smart RS232/USB Port/RJ45/SNMP Card (independent to RS232)			
Operating temperature		0°C ~ 40°C			
Storage Temperature		- 25°C ~ 55°C			
Relative Humidity		0-90% (Non-consending)			
Altitude		<1500m . (derating while > 1500m)			
Noise		<50dB(at 1 meter)			
S: Standard type , H:Long-run type					

* Specifications are subject to be changed without prior notes

PW100RT SERIES

High Frequency Online UPS
Single in/Single out

Model : PW100RT 6-10KVA
Nominal voltage: 20/230/240VAC
Nominal frequency : 50/60Hz
Output power factor : 0.9

General Specifications:

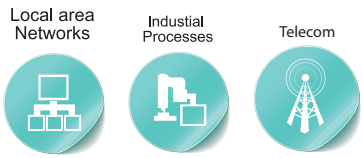
- Online-Double conversion , with fully digitalize control (DSP)
- PFC technology
- Output power factor: 0.9
- Input current harmonic: 3%
- ECO function
- Charging/Rectifier/Inverter fully digital control technology
- Optimization battery group, the quantity of battery: 16/18/20 pieces (optional)
- Wide input voltage range: 120~276Vac
- Self-testing when UPS startup
- Automatic bypass
- DC start

Technical Specifications

Model		PW106RT	PW110RT
Capacity (VA/Watts)		6000/5400	1000/9000
INPUT			
Nominal voltage		220/230/240Vac(L+N+PE)	
Operating voltage range		120~276Vac	
Operating frequency range		45~55Hz/54~66Hz ±0.5Hz	
Power Factor		≥0.99	
ECO range		Same as pypass	
Harmonic Distortion (THDi)		≤ 3% (100% Linear load)	
Generator input		Support	
OUTPUT			
Rated voltage		220/230/240Vac	
Power Factor		0.9	
Voltage regulation		± 2%	
Frequency	Utility mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (optional)	
	Battery mode	50/60H(±0.1)Hz	
Crest factor		3:1	
Harmonic Distortion (THDv)		≤ 2% with linear load ≤ 5% with non-linear load	
Waveform		Pure sinewave	
Efficiency		>93.5%	
BATTERY			
Battery voltage		Optional voltage:±96/±108/±120Vdc	
Charge current		Maximum current 6A ; charge current can be setr according to battery capacity installed.	
SYSTEM FEATURES			
Time transfer		Utility to Battery: 0ms ; Utility to bypass 0ms	
Overload	Line mode	Load≤110%: last 60mins; ≤125%: last 10mins; ≤150%: last 1S ; >150% turn to bypass mode	
	Bypass mode	40A(Input breaker)	60A(Input breaker)
Communication interface		USB,RS232,parallel port,SNMP Card/relay card (optional)	
ENVIRONMENTAL			
Operating temperature		0°C ~ 40°C	
Storage Temperature		- 25°C ~ 55°C	
Relative Humidity		0-95% (Non-consending)	
Altitude		<1500m	
Noise		<55dB	
PHYSICAL			
Dimension: (WxHxD) mm		443x131x580 (3U)	

* Specifications are subject to be changed without prior notes

OutPro SERIES



Integrated Outdoor Online UPS 1-10KVA

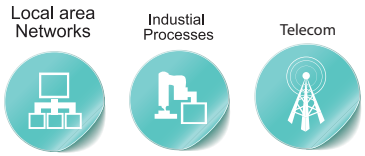
Reliable power rich experience:

OutPro series communication marginal network outdoor UPS is special for wireless communiction system of outdoor micro cellular base station and design of a high-performance integrated outdoor online uninterrupted power supply system, has the very high technology advancement and

General Specifications :

- PWP Outdoor Intelligent High Frequency Online UPS provide continuous pure sine wave AC power supply for outside communications / network equipment.
- Double-conversion online design, high temperature resistant, anti-cold, sealing level for IP55; With the wide range of input voltage and frequency of input window (- 45% +35% rated voltage and ± 10 % rated frequency) .

OutPro SERIES



Applications

This UPS is commonly used in the corner of the city, remote roads, mountains, bad environment, such as high temperature (+50 °C) / low temperature (-10 °C), severe dust, moisture, rain, mist erosion, very poor power quality (voltage

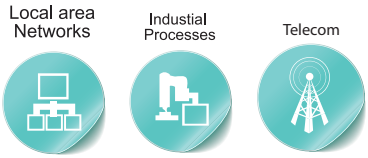
High Reliability of the UPS System

- Using microprocessor control, directly produce high frequency pulse width modulation wave (SPWM) control of the UPS inverter, to simplify the UPS control circuit, to improve the stability, to have more real-time UPS to quickly respond to changes in the external environment and guarantee the machine's control circuit is more simple and reliable.
- Using digital control techniques, to avoid the traditional analog control temperature drift inherent defects such as hardware parameters, to ensure consistency and reliability of UPS.

Fine dust-proof, water-proof features

According to the overall standard of design dust-proof and water-proof IP55.

- With a sun protection, heat insulation, roof ventilation.
- With waterproof and the filtration dust inlet; the cabinet front door shutters with waterproof design, on the back of welding water tank, water tank installed above the net wit quick release feature of the dust.



Environmental adaptability

- Wide input voltage, avoids frequent switching to battery power because of large power grid voltage, reduce battery failure probability, adapt to the power environment in poor areas.
- Input Frequency Range 45 ~ 55Hz, to ensure the fuel generator can access all kinds of stability to meet user requirements for use on the oil machine.

Optional accessories

Heat exchanger

The environment which require higher IP level, we use heat exchanger to effectively reduce the temperature of box inside and improve IP protection level .

Heater and temperature controller

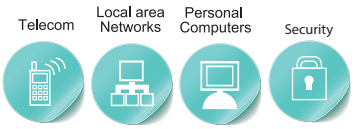
In response to low temperature climate impact of batteries and UPS, we adopt ajustable heating device to ensure the UPS and battery life of normal use.

Technical Specifications

MODEL	OutPro UPS				
	1 kVA	2 kVA	3 kVA	6 kVA	10 kVA
Capacity	1kVA/0.7kW	2kVA/1.4kW	3kVA/2.1kW	6kVA/4.2kW	10kVA/7kW
Norminal voltage	220/230/240 VAC				
Norminal frequency	50Hz/60Hz				
INPUT					
Voltage Range	115~295VAC (±3VAC)			176~297VAC (±3VAC)	
Frequency Range	50Hz:(46~54Hz);60Hz:(56Hz~64Hz)				
Soft start	0~100% 5sec				
Power Factor	0.98				
OUTPUT					
Voltage Precision	220/230/240X (1 ± 2%)VAC				
Frequency Precision	50/60Hz ± 0.05Hz				
Power Factor	0.7/0.8 (optional) standard 0.7				
Harmonic Distortion	Linear load <3% , Non-Linear<6%				
Overload Capacity	Overload (110%-150%) for 30s,then automatically transfer to bypass .When load is normal,it can automatically transfer to normal mode.				
Current Crest Ratio	3:1				
Transfer time	0 ms (AC to DC)				
BATTERY					
DC voltage	36VDC	96VDC	96VDC	240VDC	240VDC
Charging current	4A/8A (Optional)	4A/8A (Optional)	4A/8A (Optional)	4.2A	4.2A
Internal battery capacity	(38/65/80/100Ah) optional				
PANEL DISPLAY					
LCD	Display input and output voltage, frequency, battery voltage, battery capacity, load temperature,				
COMMUNICATION					
Communication interface	RS232, SNMP Card (Optional)				
WORKING ENVIRONMENT					
Temperature	-40°C ~ 55°C				
Relative Humidity	0-95% (Non-consending)				
Storage Temperature	- 25°C ~ 55°C				
Elevation	< 1500m				
PHYSICS CHARACTERISTIC					
Weight (kg) N.W	85	125	125	150	155
Dimension: (WxDxH)	613x640x954	650x753x1227	650x753x1227	940x940x1770	940x940x1770

* Specifications are subject to be changed without prior notes

PW100 SERIES



1phase in / 1phase out (6-10kVA)

PW100 series are true online double conversion UPS Systems, manufactured with the state of the art , PWM and IGBT technology, producing microprocessor controlled pure sinewave output.

General Specifications:

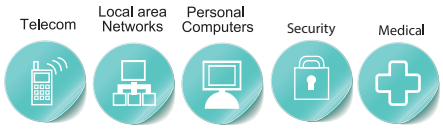
- N+X parallel redundancy
- Online double conversion with DSP control
- Input current harmonic: <3%
- High output power factor 0.9
- Optimization battery group, quantity of battery : 16/18/20 pieces (optional)
- Wide input voltage range: 120~276Vac
- Wide input frequency range (50Hz : 45~55Hz / 60Hz : 54~66Hz)
- Support generator input
- Support economic (ECO) operation mode
- Self-testing when UPS startup
- Cold start
- Options : SNMP card/ Relay card/ Parallel card

Technical Specifications

MODEL		PW106	PW110
Capacity(VA/Watts)		6k/5.4k	10k/9k
INPUT			
Norminal voltage		220/230/240VAC	
Operating Voltage Range		120~276VAC	
Operating Frequency Range		50Hz:(45~55Hz);60Hz:(54Hz~66Hz)	
Power Factor		≥0.99	
Bypass Voltage Rage		Max.Voltage : 220V: +25%(Optional +10%,15%,20%) 230V: +20%(Optional +10%,15%) 240V: +15%(Optional +10%) Min.Voltage : 220V: - 45%(Optional -20%,- 30%)	
ECO Range		Same as the bypass	
Harmonic distortion (THDi)		<3%(100% Linear load)	
Generator Input		Support	
OUTPUT			
Voltage Range		220/230/240VAC	
Power Factor		0.9	
Voltage Range		±1	
Frequency	Line mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)	
	Batt. Mode	50/60(±0.1)Hz	
Crest Factor		3:1	
Harmonic Distortion(THDv)		≤2% with linear load	
		≤5% with non-linear load	
Efficiency		>93.5	
BATTERY			
Battery Voltage		±96/108/120VDC (Optional)	
Capacity (Standard unit)		12V-7Ah/9Ah	
Typical Recharge Time		6-8 hours (To 90% full capacity)	
Charging current		1A (Standard unit);Long run unit Max.current 10A (Charge current can be set according to battery capacity installed)	
STSTEM FEATURES			
Transfer Time		Mains to battery : 0ms ; Mains to bypass : 0ms	
Overload	Line mode	Load≤110%: Last 60mins, ≤125% Last 10mins , ≤150% last 1min, >150% turn to bypass mode immediatley	
	Bypass mode	40A(Breaker)	60A(Breaker)
Short Circuit		Hold Whole System	
Overheat		Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediatley	
Low Battery Voltage		Alarm and switch off	
Self-Diagnostics		Upon power on and software control	
Battery		Advanced battery management	
Audible & Visual Alarms		Line failure , Battery low , Overload, System fault	
LED & LCD Display		Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault	
LCD Display		Input voltage , Input frequency , Output volatge , Output frequency , Load percentage , Battery voltage , Inner temperature & Remaining battery backup time	
Communication interface		RS232, USB, SNMP Card (Optional), Parallel Card (Optional) , Relay Card (Optional)	
WORKING ENVIRONMENT			
Temperature		0°C ~ 40°C	
Storage Temperature		- 25°C ~ 55°C	
Relative Humidity		0-95% (Non-consending)	
Elevation		< 1500m	
Noise level		<55dB	
PHYSICS CHARACTERISTIC			
Net Weight (kg)		62/18	64/20
Dimension: (DxWxH) mm		502x250x616	

* Specifications are subject to be changed without prior notes

PW200 SERIES



3phase in / 1phase out (10kVA-20kVA)

PW200 series are true online double conversion UPS Systems manufactured technology, technology, producing microprocessor with the state of the art , PWN and IGBT controlledcontrolled pure sinewave output.

General Specifications:

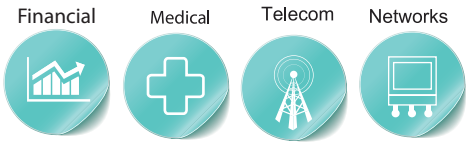
- N+X parallel redundancy
- Online double conversion with DSP control
- Input current harmonic: <5%
- Optimization battery group, quantity of battery: 16/18/20 pieces (optional)
- Wide input voltage range: 208~478Vac
- Wide input frequency range (50Hz: 45~55Hz / 60Hz: 54~66Hz)
- Support generator input
- Support economic (ECO) operation mode
- Self-testing when UPS startup
- Cold start

Technical Specifications

MODEL		PW210	PW215	PW220
Capacity(VA/Watts)		10k/9k	15k/13.5k	20k/18k
INPUT				
Norminal voltage		380/400/415Vac; (3Ph+N+PE)		
Operating Voltage Range		208~478VAC		
Operating Frequency Range		50Hz:(45~55Hz);60Hz:(auto sensing)		
Power Factor		≥0.99		
Bypass Voltage Rage		Max.Voltage : 220V: +25%(Optional +10%,15%,20%) 230V: +20%(Optional +10%,15%) 240V: +15%(Optional +10%) Min.Voltage : 220V: - 45%(Optional -20%,- 30%)		
Bypass Frequency Rage		Frequency protection range : ± 10%		
ECO Range		Same as the bypass		
Harmonic distortion (THDi)		<5%(100% Linear load)		
Generator Input		Support		
OUTPUT				
Voltage Range		220/230/240VAC		
Power Factor		0.9		
Voltage Range		±1		
Frequency	Line mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional)		
	Batt. Mode	50/60(±0.1)Hz		
Crest Factor		3:1		
Harmonic Distortion(THDv)		≤2% with linear load		
		≤5% with non-linear load		
Efficiency		>93.5	>94.5	
BATTERY				
Battery Voltage		±96/108/120VDC (Optional)		
Capacity (Standard unit)		12V-7Ah/9Ah		
Typical Recharge Time		6-8 hours (To 90% full capacity)		
Charging current		1A (10kVA standard unit); Max.current 10A (Long run unit)		
STSTEM FEATURES				
Transfer Time		Mains to battery : 0ms ; Mains to bypass : 0ms		
Overload	Line mode	Load≤110%: Last 60mins, ≤125% Last 10mins , ≤150% last 1min, >150% turn to bypass mode immediatley		
	Bypass mode	63A(Breaker)	100A(Breaker)	125A(Breaker)
Short Circuit		Hold Whole System		
Overheat		Line Mode: Turn to bypass ; Batt. Mode :Shut down UPS immediatley		
Low Battery Voltage		Alarm and switch off		
Self-Diagnostics		Upon power on and software control		
Battery		Advanced battery management		
Audible & Visual Alarms		Line failure , Battery low , Overload, System fault		
LED & LCD Display		Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault		
LCD Display		Input voltage , Input frequency , Output volatge , Output frequency , Load percentage , Battery voltage , Inner temperature & Remaining battery backup time		
Communication interface		RS232, USB, SNMP Card (Optional), Parallel Card (Optional) , Relay Card (Optional)		
WORKING ENVIRONMENT				
Temperature		0°C ~ 40°C		
Storage Temperature		- 25°C ~ 55°C		
Relative Humidity		0-95% (Non-consending)		
Elevation		< 1500m		
Noise level		<55dB	<58dB	
PHYSICS CHARACTERISTIC				
Net Weight (kg)		35	45	46
Dimension: (DxWxH) mm		502x250x616	502x250x616	

* Specifications are subject to be changed without prior notes

PW300L SERIES



3phase in / 3phase out (10kVA-80kVA)
Uninterruptible Power Supplies

IGBT RECTIFIER
DSP CONTROL

General Specifications:

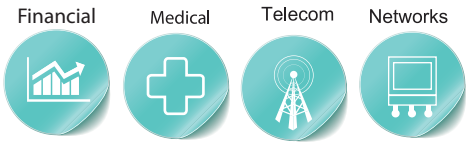
- DSP-controlled technology
- Parallel redundancy up to 4 units
- Wide input voltage and frequency windows
- Easy-to-operate LCD display
- Unity power factor and low input distortion
- Output power factor at 0.8(0.9 optional)
- Common or separate battery
- Programmable battery voltage from ±192Vdc to±240Vdc
- Powerful charger built in
- Superior overload capability

Technical Specifications

Model		PW310L	PW315L	PW320L	PW330L	PW340L	PW360L	PW380L
Capacity (VA/Watts)		10k/8k	15k/12k	20k/16k	30k/24k	40k/32k	60k/48k	80k/64k
INPUT								
Nominal voltage		380/400/415Vac(3ph+N+PE)						
Operating voltage range		208~478Vac						
Operating frequency range		40Hz~70Hz						
Power Factor		≥ 0.99						
Harmonic Distortion (THDi)		2% (100% non-linear load)						
Bypass Voltage Range		Max. voltage : 220V: +25%(optional +10%,+15%,+20%) 230V: +20% (optional +10% , +15%) 240V: +15% (optional +10%) Min. voltage: -45% (optional -20%,-30%)						
Bypass Frequency Range		Frequency protection range : ±10%						
Generator input		Support						
OUTPUT								
Rated voltage		380/400/415Vac(3ph+N+PE)						
Voltage regulation		± 1%						
Power Factor		0.8/0.9(optional)						
Frequency	Utility mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (optional)						
	Battery mode	50/60H(±0.1)Hz						
Crest factor		3:1						
Harmonic Distortion (THDv)		≤ 2% with linear load ≤ 5% with non-linear load						
Efficiency		>94.5%		>95.5%				
BATTERY								
Battery voltage		Standard unit:±216Vdc ; Long run unit Optional voltage:±192Vdc/±204Vdc/±216Vdc/±228Vdc/±240Vdc						
Charge current(A) (charge current can be set according to battery capacity installed)		5.7A(Max./Standard unit) 6.0A(Max./Standard unit)				12A (Max.)		18A (Max.)
SYSTEM FEATURES								
Time transfer		Mains to Battery: 0ms ; Mains to bypass 0ms						
Overload	Line mode	Load≤110%: last 60mins; ≤125%: last 10mins; ≤150%: last 1min ; ≥150% turn to bypass mode immediately						
	Bypass mode	Load≤110%: last 10mins; Load≤125%: last 1min; Load≤150%: last 10 seconds ; Load >150%:Last 1 second						
Short circuit		Hold Whole System						
Overheat		Line mode : Turn to bypass / Bat. Mode : Shut down UPS immediately						
Low vattery voltage		Alarm and switch off						
Self-diagnostics		Upon power on and software control						
Battery		Advanced battery management						
Audible & Visual		Line failure , Battery Low , Overload , System Fault						
LED & LCD display		Line mode, Bypass mode , Battery low , Battery bad , Overload & UPS Fault						
LCD display		Input voltage , Input frequency , Output voltage , Output frequency , Load percentage , Battery voltage & Temperature						
Communication interface		RS232,RS485,Parallel port,Relay card (optional),SNMP Card (optional)						
ENVIRONMENTAL								
Operating temperature		0°C ~ 40°C						
Storage Temperature		- 25°C ~ 55°C						
Relative Humidity		0-95% (Non-consending)						
Altitude		<1500m						
Noise		<55dB		< 58dB				
PHYSICAL								
Dimension: (DxWxH) mm		780x600x1200						
Net Weight (kg)		S : 591 L : 123	S : 594 L : 126	S: 595 L : 127	S: 595 L : 127	158	158	195
STANDARDS								
Saftey		IEC/EN62040-1,IEC/EN60950-1						
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8						

* Specifications are subject to be changed without prior notes

PW300H SERIES



3phase in / 3phase out (100kVA-200kVA)
Uninterruptible Power Supplies

IGBT Rectifier
Power factor: 0.8 (0.9 optional)

General Specifications:

- DSP-controlled technology
- Parallel redundancy up to 4 units
- Wide input voltage and frequency windows
- Easy-to-operate LCD display
- Unity power factor and low input distortion
- Output power factor at 0.8(0.9 optional)
- Common or separate battery
- Programmable battery voltage from ±192Vdc to±240Vdc
- Powerful charger built in
- Superior overload capability

Technical Specifications

Model		PW3100H	PW3120H	PW3160H	PW3200H
Capacity (VA/Watts)		100k/80k	120k/96k	160k/128k	200k/160k
INPUT					
Nominal voltage		380/400/415Vac(3ph+N+PE)			
Operating voltage range		208~478Vac			
Operating frequency range		40Hz~70Hz			
Power Factor		≥0.99			
Harmonic Distortion (THDi)		2% (100% non-linear load)			
Bypass Voltage Range		Max. voltage : 220V: +25%(optional +10%,+15%,+20%) 230V: +20% (optional +10% , +15%) 240V: +15% (optional +10%) Min. voltage: -45% (optional -20%,-30%)			
Bypass Frequency Range		Frequency protection range : ±10%			
Generator input		Support			
OUTPUT					
Rated voltage		380/400/415Vac(3ph+N+PE)			
Voltage regulation		± 1%			
Power Factor		0.8/0.9(optional)			
Frequency	Utility mode	±1%/±2%/±4%/±5%/±10% of the rated frequency (optional)			
	Battery mode	50/60H(±0.1)Hz			
Crest factor		3:1			
Harmonic Distortion (THDv)		≤ 2% with linear load ≤5% with non-linear load			
Efficiency		>95.5%			
BATTERY					
Battery voltage		Standard unit:±216Vdc ; Long run unit Optional voltage: ±192Vdc/±204Vdc/±216Vdc/±228Vdc/±240Vdc			
Charge current(A) (charge current can be set according to battery capacity installed)		30 (Max.)	30 (Max.)	40 (Max.)	50 (Max.)
SYSTEM FEATURES					
Time transfer		Mains to Battery: 0ms ; Mains to bypass 0ms			
Overload	Line mode	Load≤110%: last 60mins; ≤125%: last 10mins; ≤150%: last 1min ; ≥150% turn to bypass mode immediately			
	Bypass mode	Load≤110%: last 10mins; Load≤125%: last 1min; Load≤150%: last 5 seconds ; Load >150%: Shutdown UPS immediately			
Short circuit		Hold Whole System			
Overheat		Line mode : Turn to bypass / Bat. Mode : Shut down UPS immediately			
Low vattery voltage		Alarm and switch off			
Self-diagnostics		Upon power on and software control			
Battery		Advanced battery management			
Audible & Visual		Line failure , Battery Low , Overload , System Fault			
LED & LCD display		Line mode, Bypass mode , Battery low , Battery bad , Overload & UPS Fault			
LCD display		Input voltage , Input frequency , Output voltage , Output frequency , Load percentage , Battery voltage & Temperature			
Communication interface		RS232,RS485,Parallel port,Relay card (optional),SNMP Card (optional)			
ENVIRONMENTAL					
Operating temperature		0°C ~ 40°C			
Storage Temperature		- 25°C ~ 55°C			
Relative Humidity		0-95% (Non-consending)			
Altitude		<1500m			
Noise		<65dB			
PHYSICAL					
Dimension: (DxWxH) mm		780x600x1200		780x600x1600	
Net Weight (kg)		286	317	348	355
STANDARDS					
Saftey		IEC/EN62040-1,IEC/EN60950-1			
EMC		IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8			

* Specifications are subject to be changed without prior notes

PW300TL SERIES

3 phase in / 3 phase out (10kVA-80kVA)
Output isolation transformer

PW300TL series are true online, double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewaveoutput to critical loads.

General Specifications:

- Online double conversion
- Output isolation transfotmer
- Optimized battery management
- N+X parallel redundancy
- Power walk in
- Generator mode
- High power factor
- Wide input adaptability
- Optimized battery management
- LBS synchronization

Technical Specifications

Model	PW310TL	PW320TL	PW330TL	PW340TL	PW360TL	PW380TL
Capacity (VA/Watts)	10k/9k	20k/18k	30k/27k	40k/36k	60k/54k	80k/72k
INPUT						
Operating voltage range	380/400/415Vac (380-25% , 415+20%),(3ph+N+PE)					
Operating frequency range	50/60Hz (±5Hz)					
Power Factor	> 0.97 (with filter)					
OUTPUT						
Rated voltage	380/400/415Vac(±1%)					
Output Frequency	50/60H(±0.05%)					
Harmonic Distortion (THDv)	< 3% (linear load)					
Crest Factor	3:1 (max)					
Efficiency	>89%	>90%	>91%		>92%	
BYPASS						
Rated voltage	380/400/415Vac					
Raed Frequency	50/60Hz					
BATTERY						
Battery voltage	384Vdc					
SYSTEM FEATURES						
Time transfer	0ms (Line mode ↔ Battery mode)					
Overload	110%/60mins; 125%/10mins; 150%/1min					
Communication interface	LCD display,LED indications,Dry contact,RS232,RS485,SNMP Card (optional)					
Optional	Harmonic filter , SNMP adapter , LBS cabels , Battery temperature sensor , Baypass current - sharing inductor					
ENVIRONMENTAL						
Operating temperature	0°C ~ 40°C					
Storage Temperature	- 25°C ~ 55°C					
Relative Humidity	0-95% (Non-consending)					
Altitude	<1500m					
Noise	<60dB			<65dB		
PHYSICAL						
Dimension: (WxDxH) mm	570x800x1195				880x760x1600	

⋆ Specifications are subject to be changed without prior notes

PW300TH SERIES

3 phase in / 3 phase out (100kVA-800kVA)

Output isolation transformer

PW300TH series are true online, double conversion UPS Systems, manufactured with the state of the art, PWM and IGBT technology, producing microprocessor controlled pure sinewaveoutput to critical loads.

General Specifications:

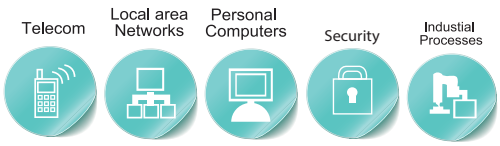
- Online double conversion
- Output isolation transfotmer
- Optimized battery management
- N+X parallel redundancy
- Power walk in
- Generator mode
- High power factor
- Wide input adaptability
- Optimized battery management
- LBS synchronization

Technical Specifications

Model	PW3100TH	PW3120TH	PW3160TH	PW3200TH	PW3300TH	PW3400TH	PW3500TH	PW3600TH	PW3800TH
Capacity (VA/Watts)	100k/90k	120k/108k	160k/144k	200k/180k	300k/270k	400k/360k	500k/450k	600k/540k	800k/720k
INPUT									
Operating voltage range	380/400/415Vac (-25%/+20%),(3ph+N+PE)								
Operating frequency range	50/60Hz (±5Hz)								
Power Factor	>0.97 (with filter)								
OUTPUT									
Rated voltage	380/400/415Vac(±1%)								
Max Output Current	152A	182A	243A	304A	456A	608A	760A	912A	1216A
Output Frequency	50/60H(±0.05%)								
Harmonic Distortion (THDv)	< 2% (linear load)								
Crest Factor	3:1 (max)								
Efficiency	>92%	>92%	>92%	>92.5%	>93%	>94%	>95%	>95%	>96%
BYPASS									
Rated voltage	380/400/415Vac								
Raed Frequency	50/60Hz (Auto-sensing)								
Voltage Protection Range	Upper limit :+20% (+10%,+15%,+20% adjustable) Lower limit : -40% (-10%,-20%,-30%,-40% adjustable)								
Frequency Protection Range	±10% (±2.5%,±5%,±10%,±20% adjustable)								
BATTERY									
Battery voltage	384Vdc						480Vdc		
SYSTEM FEATURES									
Time transfer	0ms (Line mode ↔ Battery mode)								
Overload	110%/60mins; 125%/10mins; 150%/1min								
LED display	Input , Inverter , Bypass , Battery , Output , Status								
LCD display	Input voltage , Input frequency , Output voltage , Output frequency , Power , Power factor , Load percentage , Battery voltage , current , Battery status , UPS status , History record , settings								
Communication interface	Dry contact,RS232,RS485,Parallel port,,SNMP Card (optional)								
Optional	Harmonic filter , SNMP adapter , LBS cabels , Battery temperature sensor , Baypass current - sharing inductor								
ENVIRONMENTAL									
Operating temperature	0°C ~ 40°C								
Storage Temperature	- 25°C ~ 55°C								
Relative Humidity	0-95% (Non-consending)								
Altitude	<1500m								
Noise	<65dB				<70dB				
PHYSICAL									
Dimension: (WxDxH) mm	1160x805x1600 (6P) 1520x830x1600 (12P)		1400x945x1900 (6P) 1640x1040x1900 (12P)		1640x1040x1900 (6P) 1760x1040x1900 (12P)		2800x1040x1900(12P)		3900x1100x1950 (12)
Net Weight (kg)	800/1100	903/1250	1219/1774	1425/1893	1780/2580	2050/3050	3700	4500	6400
Shipping Weight	890/1190	993/1293	1349/1954	1555/2073	1950/2850	2200/3300	3950	4750	6700
STANDARDS									
Saftey	IEC/EN62040-1,IEC/EN60950-1								
EMC	IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8								

* Specifications are subject to be changed without prior notes

PW-M 3300 SERIES



High Frequency Online UPS
Rack-Tower UPS
Three phase in/Three phase out

Model : PW-M 3300 10-20KVA
Wide input voltage : 208V~478V
Nominal frequency : 50/60Hz
Output power factor : 0.9

General Specifications:

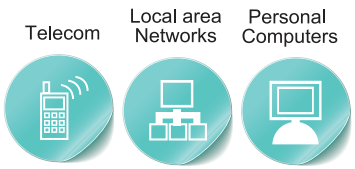
- Rack/Tower convertible LCD design
- Compact in Size, only 3U Height
- Modular Design : 10K/15K/20K Module
- Optimization Battery : (32/34/36/38/40)
- Wide input voltage: 208V~478V
- Sinusoidal input current THDI <3%
- High input power factor up to 1 (0.99)
- High efficiency up to 92% in normal mode
- ECO mode efficiency: >98%
- Remote EPO Function
- EPO

Technical Specifications

MODEL		PW-M 3310	PW-M 3315	PW-M 3320
Capacity (VA/W)		10KVA/9KW	15KVA/13.5KW	20KVA/18KW
INPUT				
Phase		3Phase/4Wires + Ground		
Rated Voltage		380/400/415Vac		
Voltage Range		207~476Vac		
Frequency Range		40~70Hz		
Power Factor		≥0.99		
Bypass Voltage Range		Max.voltage: +15%(optional +5%,+10%,+25%)		
		Min. voltage: -45% (optional -20%,-30%)		
		Frequency protection range: ±10%		
Current Harmonic		≤3(100% non-linear load)		
OUTPUT				
Phase		3Phase/4Wires + Ground		
Rated Voltage		380/400/415Vac		
Power Factor		0.9		
Voltage Precision		±2%		
Output Frequency	Utility Mode	±1%,±2%,±4%,±5%,±10% of the rated frequency(optional)		
	Battery Mode	(50/60±0.2)Hz		
Crest Factor		3:01		
Transfer Time		Utility to Battery : 0ms Utility to bypass : 0ms (following)		
Overload Capacity		Load≤110%, 60min, ≤125%, last 10min, ≤150%last 1min, ≥150% shut		
THD		≤2% with linear load		
		≤5% with non linear load		
Battery				
Voltage		±192V\±204V\±216V\±228V\±240VDC ; battery quantity(optional)		
Charge Current(A)	UPS module	Maximum current 6A		
Backup time		Depends on the capacity of external batteries		
OPERATING ENVIRONMENT				
Temperature		0°C~40°C		
Humidity		0~95% non condensing		
Storage temperature		-25°C~55° C		
Altitude		< 1500m		
OTHER				
Efficiency		ECO mode≥98%;Normal mode≥92%		
Comunication Interface	UPS module	RS232,RS485,SNMP card		
Unit Dimensions(W*H*D)	UPS module	443x131 x580mm		
Weight (Kg)	UPS module	26	30	31
INDUSTRY STANDARD		CE,EN/IEC 62040-2,EN/IEC 62040-1-1		

* Specifications are subject to be changed without prior notes

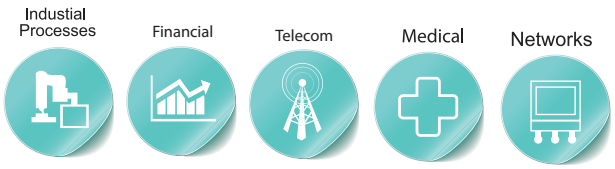
PW-M Modular SERIES



Modular UPS
3phase in/3phase out
(10-520KVA)

General Specifications:

- High frequency and double conversion on-line technology
- Advanced PFC technology
- 3U frame, rack-mounted and tower convertible
- EPO function
- Wide input voltage range
- Fully digitized microprocessor control (DSP)
- Parallel up to 3 units
- Advanced battery management
- Lightning and surge protection, short circuit and overload protection
- Multilingual LCD and LED display
- EMI/RFI noise filter
- Smart RS232 communication with monitoring software
- Optional SNMP card slot



Individual static transfer switch (STS) for each module

Individual static transfer switches will be incredibly reliable. In addition, the system elements are designed and assembled in a way that minimizes complexity and eliminating single points of failure.

Parallel feature and Maximum power

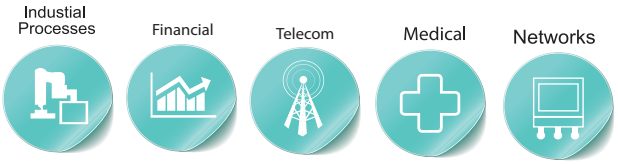
Our Modular UPS system can reach a maximum power of 1.56MVA with a paralled system of 3 units each have 520kVA (13x40kVA) .

520kVA cabinet (13x40kVA) .

1 phase in/ 1 phase out and 3 phase in/1 phase out modular UPS system is available

Single phase in/ Single phase out and Three phase in/Single phase out modular UPS system is available for the ranges from 6kVA to 100kVA.

COMPANY PROFILE / Pure Wave Power



Modular UPS 3phase in/3phase out 10-520KVA

PW-M 3310 / PW-M 3315 / PW-M 3320 / PW-M 3325 / PW-M 3330 / PW-M 3340

Single Module (3U)

10kVA / 15kVA /20kVA / 25kVA
30kVA 3:3 phase

40kVA 3:3 phase

UPS Cabinet Control Panel

Module Control Panel

Technical Specifications

Model		PW-M 3320-60	PW-M 3320-100	PW-M 3320-200	PW-M 3325-250	PW-M 3330-90	PW-M 3330-150	PW-M 3330-300	PW-M 3340-400	PW-M 3340-520
Capacity (VA/Watts)	UPS Cabinet	10~60k/9~54k	10~100k/9~90k	10~200k/9~180k	250/225k	90k/81k	150k/135	300k/270k	400k/360k	520k/468k
	Module	10k / 9k , 15k / 13.5k , 20k / 18k			25k / 22.5k	25k / 22.5k , 30k/27k			40k/36k	
INPUT										
Nominal voltage		380/400/415Vac, (3Ph+N+PE)								
Operating voltage range		208~478Vac								
Operating frequency		40~70Hz								
Power Factor		≥ 0.99								
Bypass voltage range		Max.voltage: 220V + 25%(optional +10%,+15%,+20%) 230V 20% (optional +10%,+15%) 240V 15% (optional 10%) Min.voltage : -45% (optional -20%,-30%) Frequency protection range : ± 10%								
Harmonic Distortion		2%(100% non-linear load)			3%(100% non-linear load)					
Generator input		Support								
OUTPUT										
Output voltage		380/400/415Vac, (3Ph+N+PE)								
Voltage regulation		± 1%								
Output Frequency		1. Line mode : ±1% , ±2% , ±4% , ±5% , ±10% of the rated frequency (optional) 2. Battery mode: (50/60 ± 0.1%) Hz								
Power Factor		0.9/1 (Customized)			0.9					
Crest factor		3:1								
Harmonic Distortion (THDv)		≤ 2% with linear load ≤ 5% with non-linear load								
Efficiency		95.5%			95%					
BATTERY										
Battery voltage		±192/ ± 204/ ± 216/ ± 228/ ± 240Vdc ; batteries quantity (optional)								
Charging current	UPS Cabinet	18A (Max.)	30A (Max.)	60A (Max.)	60A (Max.)	30A (Max.)	50A (Max.)	100A (Max.)		130A (Max.)
	Module	6A (Max.) (charge current can be set according to battery capacity installed)			6A (Max.)	25kVA:6A (Max.) / 30kVA:10A (Max.)			10A (Max.)	
Backup time		Depends on the capacity of external batteries								
SYSTEM FEATURES										
Time transfer		Utility to Battery: 0ms ; Utility to bypass: 0ms								
Overload	Line mode	Load ≤ 110%: last 60mins, ≤125%: last 10mins, ≤150%: last 1min, ≥ 150% turn to bypass mode immediately ;								
	Bat. mode	Load ≤ 110%: last 10mins, ≤125%: last 1min, ≤150%: last 1S , ≥ 150% shut down UPS immediately ;							Load ≤ 110%: last 60mins, ≤125%: last 10min, ≤150%: last	
	Bypass mode	Breaker (10kVA:20A / 15kVA:32A / 20kVA:40A)			Breaker (25kVA:40A)	Breaker (25kVA:40A / 30kVA:60A)			40kVA:95A	
Short circuit		Hold whole system								
Nose suppression		Complies with EN62040-2								
Communication port		1. LCD touch screen on UPS cabinet , LCD display on module , LED indication 2. UPS cabinet : RS232, RS485, Dry contact, Intelligent slot x 2 (SNMP Card,Relay card optional) 3. UPS module : RS232								
ENVIRONMENTAL										
Operating temperature		0°C ~ 40°C								
Storage Temperature		- 25°C ~ 55°C								
Relative Humidity		0-95% (Non-consending)								
Altitude		<1500m								
Noise level		<65dB			<70dB				<73B	
PHYSICS										
Dimension: (DxWxH)	UPS Cabinet	840x600x1400		1100x600x2000		840x600x1400		1100x600x2000	860x1200x2000	
	Module	580x443x131 (3U)								
Net weight (kg)	UPS Cabinet	149	152	290	290	158	170	307	750	860
	Module	10kVA/26 ; 15kVA/30 ; 20kVA/31			32	25kVA/32 ; 30kVA/33.5			34	
STANDARD										
Saftey		IEC/EN62040-1 , IEC/EN60950-1								
EMC		IEC/EN62040-2 , IEC61000-4-2 , IEC61000-4-3 , IEC61000-4-4 , IEC61000-4-5 , IEC61000-4-6 , IEC61000-4-8								

* **Specifications are subject to be changed without prior notes**

Inverters

Pure Wave Power pure sinewave inverters (48VDC to 400VDC) provide premium power that is identical to or even better than power supplied by your electric company. They produce lodistortion sinus waveform output to your mission critical equipment.

General Specifications:

- Detailed monitoring by alphanumeric LCD panel
- 2 microprocessors
- 128 log event recording
- Separate battery supported clock and calendar
- RS232 or DRY contact relays
- Custom input, output voltage and frequency ranges
- Single phase or 3 phase output
- SNMP communication
- 1 year warranty

Technical Specifications

INPUT	
Voltage	48V DC - 400V DC
OUTPUT	
Power (kW)	5kVA - 300kVA
Voltage	120/208 V, 60/400 Hz - 230/400V, 50/60 Hz. (other voltage ranges available)
Voltage regulation	+ %1 (balanced load) + % 2 (unbalanced load)
Frequency	50/60/400 Hz
Frequency stability	+ 0.2 Hz (free running)
Efficiency	85% - 90%
Overcurrent protection	electronic protection
Voltage protection	AC voltage low and high protection
Output waveform	Sinusoidal (THD <3% for lineer load)
Load power factor	0.8
GENERAL	
Power module	IGBT or IPM module
Front panel	Alphanumeric LCD 2x16 characters
Control buttons	3 or 5 buttons
Bypass	Available as option
Bypass isolation	Available as option
Parallel operation	Available as option (up to 4 devices)
Alarm buzzer	Available
Remote REPO input	Available
RS232 interface	Available
Dry contact outputs	Available
DC input protection	3 level alarms

* Specifications are subject to be changed without prior notes

Frequency Converters

Pure Wave Power Frequency Converters are used for converting either 50Hz, 60Hz, or 400Hz, utility line power to 50Hz, 60Hz or 400Hz power to run your mission critical equipment. All Pure Wave Power solid state frequency converters use IGBT technology and are designed for continuous operation.

General Specifications:

- Detailed monitoring by alphanumeric LCD panel
- 2 microprocessors
- 128 log event recording with RTC
- Separate battery supported clock and calendar
- RS232 or DRY contact relays.
- Custom input voltage and frequency ranges
- 3 phase or single phase options
- SNMP communication
- 1 year warranty

Technical Specifications

INPUT	
Voltage	220/230V single phase - 380/400V 3 phase ± 15% (other voltages; ask)
Frequency	50Hz/60Hz/400Hz (± 5%)
OUTPUT	
Power (kW)	5kVA to 300kVA 50Hz/60Hz/400Hz
Voltage	120/208V 60/400Hz - 230/400V 50/60Hz. (other voltage ranges available)
Voltage regulation	+ 1% (balanced load) + 2% (unbalanced load)
Frequency	50/60/400 Hz
Frequency stability	+ 0.2Hz (free running)
Efficiency	85% - 91%
Protections	Short circuit protection, overload protection, output voltage out of tolerance protection
Voltage protection	AC voltage low and high protection
Output waveform	Sinusoidal (THD <3% for lineer load)
Output power factor	0.7 (single phase) - 0.8 (three phase)

* Specifications are subject to be changed without prior notes

STS2000 SERIES

1phase in / 2 poles static transfer switch

Single phase out , 2 poles static transfer switches

STS2000 Series allows instantaneous transfer of power from the different sources to the load. If one power source fails, the STS switches to the back-up power source so fast that the load never recognizes the transfer made

General Specifications:

- Increased power quantity
- Increased noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources
- Easy static and mechanical transfer to input sources
- Remote management to power events
- Power event logging
- Output current capability up to 1000% for short time
- 1 years warranty
- 10 years spare parts support
- 19 " rack cabinet
- Hot swap option
- Manufactured according to EC directive : EN62310

Technical Specifications

MODEL	STS2032	STS2063	STS2120
Nominal current	32 A	63 A	120 A
ELECTRICAL DATA			
Input voltage	220 - 230 - 240 VAC 1F+N+Earth		
Input voltage range	180/264 VAC (Ph-N)		
Input frequency	50 Hz or 60 Hz		
Input frequency range (operation range adjustable)	46-54Hz (for 50Hz) 56-64Hz (for 60Hz)		
Transfer type	"Break before make"		
Transfer methods available	Automatic / Manual / Remote		
Transfer control	synchron		
	with adjustable delay (non synchron)		
	zero current (non synchron)		
Transfer time	≤ 4msec for synchronous sources		
	≤ 10msec for non-synchronous sources		
Switching type	1 phase + Neutral switching (2-Poles)		
Output Current Crest Factor	3:1		
Admissible overload	0 - 100% continuous		
	101-150% 1 minute		
	151-200% 10 seconds		
	>200% 250 msec		
LCD panel and mimic	Standard		
Communication	RS232 standard - STS NET TCP/IP option		
Breaking current capacity (SW1, SW2)	10kA		
ENVIRONMENTAL DATA			
Storage temperature	-10°C up to +50 °C		
Operating temperature	0 – 40° C		
Humidity (non-condensed)	< 90%		
Cooling	Forced cooling (redundant fans)		
Cooling air direction	From front to rear		
Max. operation height	1000m at nominal current rating		
Safety standard	EN 62310-1		
EMC	EN 62310-2		
Protection degree	IP20		
Acoustic noise	<50 dBA		<52 dBA
MECHANICAL DATA			
Dimensions	2U (19"rack),depth=545mm		3U (19"rack),depth = 605mm
	(hot-swappable=590mm)		(hot-swappable = 645mm)
Weight (kgs)	12	13	20
Power cables connection	Clip-on terminals (on the rear panel)		

* Specifications are subject to be changed without prior notes

STS3000-4000 SERIES

3 phase out , 3 & 4 poles static transfer switches

STS3000-4000 Series allows instantaneous transfer of power from the different sources to the load. If one power source fails, the STS switches to the back-up power source so fast that the load never recognizes the transfer made.

General Specifications:

- Increased power quality
- Increased noise reduction
- Power blackout protection
- Power redundancy
- Automatic static switching
- Remote monitoring input power sources
- Easy static and mechanical transfer to input sources
- Remote management the power events
- Power event logging
- Output current capability up to 1000% for short time
- 1 year warranty
- 10 years spare parts support
- Manufactured according to EC Directive; EN62310

Technical Specifications

MODEL	STS3050 / STS4050	STS3100 / STS4100	STS3150 / STS4150	STS3200 / STS4200	STS3250 / STS4250	STS3300 / STS4300	STS3400 / STS4400	STS3600 / STS4600	STS3800 / STS4800
Nominal current	50 A	100 A	150 A	200 A	250 A	300 A	400 A	600 A	800 A
ELECTRICAL DATA									
Input voltage (Ph-Ph)	380-400-415 VAC 3PH+N+Earth								
Input voltage tolerance	180-264 VAC (PH-N)								
Input frequency	50Hz / 60Hz								
Input frequency range	48-65 Hz (upper and lower limits adjustable)								
Efficiency (at full load)	>99%								
Input voltage THD	<%10								
Transfer type	'Break before make"								
Transfer methods available	Automatic / Manual / Remote								
Transfer control	synchron								
	with adjustable delay (non synchron)								
	zero current (non synchron)								
Transfer time	<4 msn for synchronous sources								
	<10 msn for non-synchronous sources								
Switching type	3-Poles:3 phase switching / 4-Poles:3 phase + Neutral switching								
Output current crest factor	3:1								
Admissible overload	0%-100% continuous								
	101%-150% 1 min								
	151%-200% 10 seconds								
	>200% 250 msec								
Protections	Output overload and short circuit protection, overtemperature protection, backfeed protection, SCR fault protection								
LCD panel and mimic	Standard								
Communication	RS232 standard, RS485 optional								
TCP/IP connection	Optional								
Dry contacts	5 programmable relay outputs								
Two serial ports	Optional								
Temperature sensor	Standard for internal cabinet temperature								
ENVIRONMENTAL DATA									
Cooling	Forced cooling (redundant fans)								
Operating temperature	0 - 40 °C								
Storage temperature	-10 / +50 °C								
Humidity (non condensed)	<90%								
Protection degree	IP20								
Safety standard	EN62310-1								
EMC	EN62310-2								
Acoustic noise	<52 dBA			<55 dBA				<60 dBA	
MECHANICAL DATA									
Dimensions(WxDxH) (mm)	685x530x1500			685x580x1770				915x735x1905	
Weight(STS3000 Series)	139	145	165	195	205	230	240	340	TBA
Weight(STS4000 Series)	160	175	190	205	235	240	255	375	

* Specifications are subject to be changed without prior notes

Pure Wave Power Ltd
11A Bramley Road | London | W10 6SZ | UK
Tel :+44 208 935 5 391
Email: sales@purewavepower.co.uk
Website: www.purewavepower.co.uk