

pure wave power

Company Profile

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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









Standards Certificates





PW100T SERIES



High Frequency Online UPS Single in/Single out

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



- 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

MODEL		PW101	Т	P	W101T-XL	PW10	2T	PW102T-XL	PW1031	Г	PW103	T-XL
PHASE		Single phase with ground										
Capacity (VA/Watts)			1000VA	/ 90000		2000VA	/ 1800W		30000	7A / 2700W		
Nominal voltage						200	/208/220/230	240VAC				
Nonina Voltage						160Va	c±5% @100%	5-80% load:				
						140Va	ac±5% @80%	-70% load;				
	Low line transfer		120Vac±5% @70%-60% load;									
			110Vac±5% @60%-0% load;									
						(A	mbient Temp.	<35°C)				
			175Vac±5% @100%-80% load;									
Operating voltage			155Vac±5% @80%-70% load;									
range	Low line comeback		135Vac±5% @70%-60% load;									
						1250	ac±5% @60%	-0% load;				
						(A	mbient Temp.	<35°C)			-	-
	High line transfer						300Vac ±5	%				
	High line comeback						290Vac ±5	%				
Operating frequency	range	40-70Hz										
Power factor						0.99@1009	% load(Nomin	al Input Voltage)			-	-
						Вур	ass high volta	ige point				
Bypass voltage rang	e	230-264: setting the high voltage point in LCD from 230Vac to 264Vac. (Default: 264Vac)										
	-					By	pass low volta	ge point				
					170-220: setting t	he low voltage po	oint in LCD fro	m 170Vac to 220Vac	c. (Default: 170Va	ac)		
Generator input							Support					
Output voltage						200	000000000000000000000000000000000000000	(240)/22				
Power factor						200	n a	/240780				
Voltage regulation							±1%					
	Line Mode											
Frequency (s	synchronized range)	1				2	17-53Hz or 57	-63Hz				
	Bat. Mode	(50/60±0.1)Hz										
Crest factor		3:01										
Harmonic distortion		≤3% THDwith linear load										
	(11120)	≤6% THD with non linear load										
Waveform	1	Pure Sinewave										
Transfer time	AC mode <->Batt. mode		Zero									
	Inverter <-> bypass		000/ / A C	mode)		1	4ms(Typic	3I) do)	1	020////		-
Efficiency		85%(DC m	OM)%00	(11100e) 86	%(DC mode)	87%(DC)	92%(AC III0 mode)	88%(DC mode)	89%(DC m	92%(AC 110		mode)
BATTERY		0070(2011	loue)	00	/0(DO 11100C)	0170(201	nouc)	com(Do mode)	0070(20110	Suc)	5070(201	node)
			depends o	on the ca	anacity of external		depends	on the canacity of		depends on th	e canacit	v of external
Battery Type		12V9AH		batte	eries	12V9AH	exter	nal batteries	12V9AH	ł	atteries	y or external
Numbers		2	2		3	4	4	6	6	6		8
Backup time					Loi	ng run unit depen	ds on the cap	acity of external batt	eries			
Typical recharge time	e(standard modle)					4 hours rec	over to 90% c	apacity (Typical)				
Charging voltage		27.4 VDC ±1%	27.4 VD	C ±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 m	iax,can l	be set by LCD	1A	12A max,	can be set by LCD	1A	12A max,c	an be set	t by LCD
SYSTEM FEATURE	S											
					105%~110%	A UPS transfer to	bypass after	.<35°C 10minuteswhen the	utility is normal			
	Line Mode				130%~130%	UPS transfer to	o bypass after	5 seconds when the	utility is normal			
Overload @35°C					130%~150%. >150%:	UPS transfer to I		istely when the utility				
Overioad @33 C					- 150 %.	359	<pre>>>pass minec</pre>	mn <40°	y is normal			
					105%~110%	: UPS_transfer t	o bypass after	1 1 minute when the u	utility is normal			
	Battery Mode				110%~130%:	UPS transfer to	bypass after	5 seconds when the	utility is normal			
					>130%:	UPS transfer to I	oypass immed	iately when the utilit	y is normal			
Short Circuit							Hold Whole S	/stem	, 			
Overheat					Line Mode	: Switch to Bypas	s; Backup Mc	de: Shut down UPS	immediately			
Low battery voltage						A	larm and Swi	tch off				
EPO (optional)						Shut	down UPS im	mediately				
Audible & Visual alar	rms					Line Failure, Ba	ttery Low, Ov	erload, System Faul	t			
Comunication interfa	ice				US	B(or RS232), SN	MPcard(option	nal), Relay card (opti	ional)			
ENVIRONMENTAL												
Operating temperatu	ire						0°C∼40°(2				
Storage temperature	2						-25°C~55	°C				
Humidity range						20-90 % RI	<u>1 @ 0- 40°C (</u>	non-condensing)				
Altitude							< 1000m	4 4 14-4-2				
PHYSICAL						Less	ulan sudbA a					
	(mm)		144*20	9*293		T	144*209*30	99	191*337*460	14	4*209*300	9
Net Weight (kg)		9.8	4	- 200	4.2	17	67	6.8	27.6	7.3		7.4
STANDARDS								0.0		1		
Safety						IEC/EI	162040-1,IEC	/EN60950-1				
EMC					IEC	/EN62040-2,IEC	61000-4-2,IEC	61000-4-3,IEC6100	0-4-4,			
		IEC61000-4-5,IEC61000-4-6,IEC61000-4-8										



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

- 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.



Model		PW101RT	PW101.5RT	PW102RT	PW103RT			
Capacity (VA/Wat	ts)	1000/900 1500/1350 2000/1800 3000/2700						
INPUT								
Rated voltage			200/208/220/	230/240Vac				
Voltage range			110~29	90Vac				
Frequency range			45~65Hz(A	uto-detect)				
Power Factor			≥0.	98				
			Max.voltage: +15%(opti	onal +5%,+10%,+25%)				
Bypass voltage ra	nge		Min.voltage : -45% (opti	onal -15%,-20%,-30%)				
			Frequency protect	ion range : ± 10%				
Generator input			Supp	port				
OUTPUT								
Rated voltage			200/208/220/	230/240Vac				
Power Factor			0.	9				
Voltage regulation			± 2	%				
Frequency	Utility mode		50Hz or 60Hz (sync	hronized to Mains)				
Crost factor	Battery mode		50/00HZ :	± 0.02HZ				
				inear load				
Harmonic Distortic	on (THDv)		≤ 5% with no	n-linear load				
	AC mode(full load)		up to	90%				
Efficiency	Battery mode(full load)	>85%						
,	ECO mode(full load)		>94	1%				
BATTERY								
	Battery Type	12V/9Ah	12V/9Ah	12V/9Ah	12V/9Ah			
	Numbers	2	3	4	6			
Standard model	Typical Recharge Time	4 hours recover to 90% capacity						
	Charging Current(max)		14	IA				
	Charging Voltage	27 /\/dc+1%	/1 0\/dc+1%	54 7\/dc+1%	82 1\/dc+1%			
	Patton Numbers	27.400017/0			02.100011/0			
	Charging Current(may)	CA/12A(double board)		CA (12A (double board)	CA/12A (double board)			
Long-run model			7A/14A(double board)					
	Charging Voltage	27.4VdC±1%	41.0VdC±1%	54.7VdC±1%	82.1VdC±1%			
SYSTEM FEATUR	RES							
Time transfer	•		Utility to Battery: 0ms ;	Utility to bypass <4ms				
	AC mode	Load<100%~ 2	150%: 30S,Load>150%: 30	00ms then shut down UPS	immediately;			
Overload	Bat. mode	Load<100%~ 1	150%: 30S,Load>150%: 30	00ms then shut down UPS	immediately;			
	Bypass mode		Load>130%: 60S the	n shut down output ;				
Audible & Visual			Line failure, Battery low	, Overload, system fault				
Status LED & LCD)	L	.oad/Battery/Input/Output/C	Dperating mode information	n			
ENVIRONMENTA	L		1	1	1			
Dimension: (Wx	(HxD) 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 in	terface	Smart I	RS232/USB Port/RJ45/SNM	MP Card (independent to F	RS232)			
Operating temperation	ature		0°C ~	40°C				
Storage Temperat	ture		- 25°C ~	~ 55°C				
Relative Humidity			0-90% (Non-	consending)				
Altitude			<1500m . (derating	g while > 1500m)				
Noise			<50dB(at	1 meter)				
		S: Standard ty	pe , H:Long-run type					



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



- 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

Model		PW106RT	PW110RT		
Capacity (VA/Wat	ts)	6000/5400	1000/9000		
INPUT					
Nominal voltage		220/230/240	/ac(L+N+PE)		
Operating voltage	range	120~2	76Vac		
Operating frequen	icy range	45~55Hz/54~	66Hz ±0.5Hz		
Power Factor		≥0.	99		
ECO range		Same as	pypass		
Harmonic Distortic	on (THDi)	≤ 3% (100%	Linear load)		
Generator input		Sup	port		
OUTPUT					
Rated voltage		220/230/	240Vac		
Power Factor		0.	9		
Voltage regulation	l	± 2	%		
Frequency	Utility mode	±1%/±2%/±4%/±5%/±10% of t	he rated frequency (optional)		
	Battery mode	50/60H(±0.1)Hz			
Crest factor		3:1			
Harmonic Distortic	n (THDv)	≤ 2% with linear load			
		≤5% with non-linear load			
Waveform		Pure sir	newave		
Efficiency		>93.	5%		
BATTERY					
Battery voltage		Optional voltage:±	96/±108/±120Vdc		
Charge current		Maximum current 6A ; charge current ca insta	an be setr according to battery capacity lled.		
SYSTEM FEATUR	RES				
Time transfer		Utility to Battery: 0ms ;	Utility to bypass 0ms		
Overload	Line mode	Load≤110%: last 60mins; ≤125%: last 1 bypass	0mins; ≤150%: last 1S ; >150% turn to mode		
	Bypass mode	40A(Input breaker)	60A(Input breaker)		
Communication in	terface	USB,RS232,parallel port,SNN	/IP Card/relay card (optional)		
ENVIRONMENTA	L				
Operating temperating	ature	0°C ~	40°C		
Storage Temperat	ture	- 25°C ⁄	~ 55°C		
Relative Humidity		0-95% (Non-	consending)		
Altitude		<150	00m		
Noise		<55	dB		
PHYSICAL					
Dimension: (WxH)	xD) mm	443x131x	580 (3U)		



OutPro SERIES



Integrated Outdoor Online UPS 1-10KVA



Reliable power rich experience:

OutPro series communication marginal network outdoor UPS is special for wireless communication 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

- 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.





MODEL		OutPro UPS						
MODEL	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 VA	2	•			
Norminal frequency			50Hz/60Hz					
INPUT								
Voltage Range	1'	15~295VAC (±3VAC)		176~297VA	AC (±3VAC)			
Frequency Range		50Hz:	(46~54Hz);60Hz:(56	Hz~64Hz)				
Soft start			0~100% 5sec					
Power Factor			0.98					
OUTPUT								
Voltage Precision		2	20/230/240X (1 ± 2%	b)VAC				
Frequency Precision			50/60Hz ± 0.05H	Z				
Power Factor		0.7	7/0.8 (optional) stand	ard 0.7				
Harmonic Distortion		Linear load <3% , Non-Linear<6%						
Overload Capacity	Overload (110%-15	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) opt	tional				
PANEL DISPLAY								
LCD	Display	input and output voltage,	frequency, battery volta	ge, battery capacity, load ten	nperature,			
COMMUNICATION								
Communication interface		RS	232, SNMP Card (O	ptional)				
WORKING ENVIRONMEN	Т		· · ·	• •				
Temperature			-40°C ~ 55°C					
Relative Humidity			0-95% (Non-consend	ding)				
Storage Temperature			- 25°C ~ 55°C					
Elevation			< 1500m					
PHYSICS CHARACTERIS	TIC							
Weight (kg) N.W	85	125	125	150	155			
Dimension: (WxDxH)	613x640x954	650x753x1227	650x753x1227	940x940x1770	940x940x1770			



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.



- 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

Capacity/Warts 6k/5.4k 10k/9k Norminal voltage 220/230/240VAC Operating Frequency Range 50H2.(45-55H2).20H2.(5H2-66H2) Operating Frequency Range 50H2.(45-55H2).20H2.(5H2-66H2) Power Factor 20.99 Power Factor 20.99 CD Range 230V: - 429%(Optional + 10%, 15%) Sector Power Factor Same as the bypass CO Range Same as the bypass Harmonic distortion (THD) <3%(100% Linear load) Cenerator Input Support Outreut Support Voltage Range 11 Prever Factor 0.9 Voltage Range 3:1 Frequency Batt Mode 3:1 Frequency Batt Mode 3:1 Efficiency >83.5 Same as the association of the asted frequency (Optional) Creat Factor 3:1 Same as the association of the asted frequency (Optional) Creat Factor 3:1 Same as the association of the asted frequency (Optional) Creat Factor 3:1 Same asthe association of the asted frequency (Optional)	MODEL	PW106	PW110			
INPUT Provinal voltage 202/30/240VAC Operating Yetage Range 120-278VAC Operating Frequency Range 50Hz (45-55Hz) (50Hz) (45Hz-66Hz) Operating Frequency Range 200/278VAC 20.99 Operating Frequency Range 0.99 Bypass Voltage Rage 230/2 230% (Optional +10%, 15%) 230% 230% (Optional +10%, 15%) Bypass Voltage Rage 230/2 230% (Optional +10%, 15%) 230% 230% (Optional +10%, 15%) ECO Range Same as the bypass 34% (Optional +10%, 15%) 34% (Optional +10%, 15%) 34% (Optional +10%, 15%) ECO Range Same as the bypass 34% (Optional +10%, 15%) 34% (Optional +10%, 15%) 34% (Optional +10%, 15%) ECO Range 240% + 15% (Optional +10%, 15%) Same as the bypass 34% (Optional +10%, 15%)	Capacity(VA/Watts)	6k/5.4k	10k/9k			
Norminal voltage 220230/240/VAC Operating Voltage Range 120-276VAC Operating Strequency Range 50Hz:(45-55Hz):60Hz:(54Hz-68Hz) Power Factor 20.93 Bypass Voltage Rage 230:125%(Optional +10%, 15%, 20%) ECO Range Same as the bypass Common clistortion (THD) <3%(100% Linear-load)	INPUT					
Operating Voltage Range 120-276VAC Operating Frequency Range 50.93 Power Factor 0.93 Bypass Voltage Rage 220V: +25% (Optional +10%, 15%) (20%) Bypass Voltage Rage 220V: +25% (Optional +10%, 15%) (20%) Bypass Voltage Rage 240V: +15% (Optional +10%, 15%) (20%) ECO Range Same as the bypass Harmonic distortion (THD) <3% (10% Linear load)	Norminal voltage	220/23	30/240VAC			
Operating Frequency Range 50/12(45-551/2);60/12(2412-661/2) Power Factor 0.99 Bypass Voltage Rage 230/2:425%(Optional +10%, 15%), 23%) Bypass Voltage Rage 240/2:45%(Optional +10%, 15%), 23%) ECO Range Same as the bypass Harmonic distortion (THDD) <3%(100% Linear load)	Operating Voltage Range	120~	~276VAC			
Power Factor > 0.99 Bypass Voltage Rage Max Voltage: 220V: 25% (Optional +10%, 15%, 20%) 240V: -15% (Optional +10%, 15%) 240V: -15% (Optional +10%, 15%) Bypass Voltage Rage Same as the bypass ECO Range Same as the bypass Harmonic distortion (THD) <3%(10% Linear Loo%, 30%)	Operating Frequency Range	50Hz:(45~55Hz);60Hz:(54Hz~66Hz)			
Max. Voltage 120V + 25% (Optional +10%, 15%, 20%) Bypass Voltage Rage 230V + 20% (Optional +10%, 15%, 20%) ECO Range Same as the bypass Harmonic distortion (THD) <3% (100% Linear load)	Power Factor		≥0.99			
Bypass Voltage Rage 230V: +20%(Optional +10%, 15%) 240V: +15%(Optional +10%) ECO Range Same as the bypass Harmonic distortion (THD) <3%(100% Linear Ioad)		Max.Voltage : 220V: +25	5%(Optional +10%,15%,20%)			
Bypas Voltage Rage 240V: +15%(Optional +10%) Min Voltage: 220V: - 45%(Optional -20%, - 30%) ECO Range Same as the typass Harmonic distortion (THDI) <3%(100%) Linear load)		230V: +20%(C	Dotional +10%.15%)			
Min.Voltage : 220V: - 45% (Optional -20%, - 30%) ECO Range Same as the bypass Harmonic distortion (THDI) <3%(100%, Linear load)	Bypass Voltage Rage	240V: +15%	6(Optional +10%)			
ECO Range Same as the bypass Harmonic distortion (THDi) <3%(10% Linear load)		Min.Voltage : 220V: -	45%(Optional -20% 30%)			
Harmonic distortion (THDi) Canarator Input Canarator Input Course Canarator Canar	ECO Range	Same a	s the bypass			
Generator Input Disport OUTPUT 220/230/240VAC Yoltage Range 220/230/240VAC Power Factor 0.9 Voltage Range ±1 Frequency Line mode ±1 Frequency Batt. Mode 50/60(40.1)Hz Crest Factor 3:1 Harmonic Distortion(THDv) <2% with inear load	Harmonic distortion (THDi)	<3%(100	% Linear load)			
OUTPUT Comparison 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) Frequency Line mode 50/60(±0.1)Hz Creat Factor 3:1 Harmonic Distortion(THDv) <2% with inon-linear load	Generator Input	S				
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) Frequency Line mode ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional) Crest Factor 3:1 Harmonic Distortion(THDv) <2% with Inear load						
Device Factor Device Teactor Voltage Range ±1 Frequency Line mode ±1%/±2%/±4%/±5%/±1%/ the rated frequency (Optional) Frequency Eline mode ±1%/±2%/±4%/±5%/±1%/ the rated frequency (Optional) Crest Factor 3:1 Harmonic Distortion(THDv) <2% with linear load	Voltage Range	220/23	30/240\/AC			
Line mode ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional) Frequency Line mode ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional) Crest Factor 3:1 Harmonic Distortion(THDv) ≤2% with linear load Efficiency >93.5 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 Mains to battery : 0ms ; Mains to bypass : 0ms Overload Line mode Load<10%: Last 60mins, <125% Last 10mins , <150% last 1min, >150% turn to bypass mode immediatley Overheat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediatley Coreheat Une mode, Batt: Mode, Ecor mode system and switch off Self-Diagnostics Upon power on and software control Battery Voltage Advanced battery low , Overload and UPS fault LDe LoD Display Line mode, Batt: Mode, ECO mode, Bypass mode, Battery low, Overload and UPS fault LD D Display Line mode, Batt: Mode, ECO mode, Bypass mode, Battery low, Overload and UPS fault	Power Factor		0.9			
Line mode ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional) Frequency Line mode ±1%/±2%/±4%/±5%/±10% of the rated frequency (Optional) Crest Factor 3:1 Harmonic Distortion(THDv) ≤2% with inear load Efficiency >93.5 BATTERY Battery Voltage 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 Overload Line mode Loads110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediatley Short Circuit Line Mode: Turn to bypass ; Backup Mode System 60A(Breaker) Overload Battery Advanced battery mand switch off Self-Diagnostics Upon power on and software control Battery Advanced battery mand switch off Complay Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault LDD Bisplay Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault LDD Dis	Voltage Bange		+1			
Frequency Batt. Mode Enrolation 24 Was solved requency (opported) Batt. Mode 50/06 (d.0.1)Hz Crest Factor 3:1 Harmonic Distortion(THDv) <5% with linear load		+1%/+2%/+4%/+5%/+10% (the rated frequency (Ontional)			
Crest Factor 3.1 Harmonic Distortion(THDv) <2% with inear load	Frequency Batt Mode	1701127011470110701				
Oresh Vacual 0.1 Harmonic Distortion(THDv) <2% with linear load	Crest Factor	30/00	3:1			
Harmonic Distortion(THDv) S2.0 With Inter-Network Efficiency >93.5 BATTERY >93.5 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 Charging current Transfer Time Mains to battery : 0ms ; Mains to bypass : 0ms Overload Line mode Loads110%: Last 60mins, <125% Last 10mins , s150% last 1min, >150% turn to bypass mode immediatiey Short Circuit Hold Whole System OVerheat Circuit Line Mode: Turn to bypass : Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt. Mode, ECO mode , Bypass mode, Battery tow, Overload and UPS fault LCD Display Line mode, Batt. Mode, ECO mode , Bypass mode, Battery tow, Overload and UPS fault LCD Display Line mode, Batt. Mode, ECO mode , Bypass mode, Battery tow, Overload and UPS fault		<2% wit	b linear load			
Efficiency >93.5 BATTERY Battery Voltage 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 : Oms ; Mains to bypass : Oms 0verload Bypass mode 40A(Breaker) 60A(Breaker) Short Circuit Hold Whole System Overheat Line mode, Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, ECO mode, Bypass mode and UPS fault LCD Display Input voltage, Input frequency, Output voltage, Output requency, Load percentage, Battery voltage, Inner temperature & Remaining battery backup time Communication interface RS232, USB, SNMP Card (Optional), Parallel Card (Optional), Relay Card (Optional) Temperature 0°C ~ 40°C Storage Temperature - 25°C	Harmonic Distortion(THDv)	SZ % With mean linear load				
Entretry 293.3 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 1A (Standard unit):Long run unit Max.current 10A (Charge current can be set according to battery capacity installed) Overload Line mode Loads110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Overload Line mode Loads110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Overheat Line Mode: Turn to bypass; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt: Mode, ECO mode, Bypass mode, Battery low, Overload and UPS fault LCD Display Line mode, Batt: Mode, ECO mode, Bypass mode, Battery low, Overload and UPS fault 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 perc	Efficiency	≤5% with hori-inteal load				
DATENT #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 Intervent Mains to bypass : 0ms Overload Line mode Loads110%: Last 60mins, s125% last 10mins, s150% turn to bypass mode immediately Overload Bypass mode 40A(Breaker) 60A(Breaker) Short Circuit Hoid Whole System 60A(Breaker) Overloat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery low , Overload, System fault LED & LOD Display Line mode, Batt. Mode, ECO mode, Bypass mode, Battery low , Overload and UPS fault LCD Display Input voltage, Input frequency , Output voltage, Output frequency , Load percentage , Battery voltage , Input voltage , Inner temperature & Remaining battery backup time Communication interface RS232, USB, SNMP Card (Optional), Relay Card (Optional) WorkKING ENVIRONMENT -25°C - 55°C <t< td=""><td></td><td>-</td><td>-93.0</td></t<>		-	-93.0			
Date by Voltage 1290 r057 VODC (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 1A (Standard unit);Long run unit Max.current 10A (Charge current can be set according to battery capacity installed) Overload Line mode Loads110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Overload Line mode Loads110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Overheat Line Mode: Turn to bypass; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery low, Overload, and UPS 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 voltage , Output frequency , Load percentage , Battery voltage , Input trequency , Output voltage , Dutput moltage , Dutput voltage , Battery low, Overload and UPS fault LCD Display Input voltage , Input frequency , Output voltage , Dutput moltage , Dutput voltage , Dutput voltage , Battery low, Overload and (Optional) <td>BATTERT Better: Veltage</td> <td>106/109/12/</td> <td>a)/BC (Optional)</td>	BATTERT Better: Veltage	106/109/12/	a)/BC (Optional)			
Capacity (Statidation Unit) 12/27/AUSPAT 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 1A (Standard unit);Long run unit Max.current 10A (Charge current can be set according to battery capacity installed) Overload Line mode Load≤110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Overload Line mode Load≤110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Short Circuit Hold Whole System 60A(Breaker) Short Circuit Hold Whole System 00 Overheat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault LCD Display Input voltage , Input frequency , Output voltage , Output frequency , Load percentage , Battery voltage , Inner temperature & Remaining battery backup time Communication interface RS232, USB, SNMP Card (Optional), Parallel Card (Optional) , Relay	Capacity (Standard unit)	±90/108/12				
Typical Recharge Time 0-8 hours (10 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 Image: Current 10A (Charge current can be set according to battery capacity installed) Overload Line mode LoadS110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Overload Line mode LoadS110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Overload Line mode LoadS110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Overheat LoadS110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt. Mode, ECO mode, Bypass mode, Battery Iow, Overload and UPS fault LCD Display Input voltage, Input frequency, Output voltage, Output requency, Load percentage, Battery voltage, Input frequency, Load percentage, Battery uvitage. Communication interface RS232, USB, SNMP Card (Optional), Parallel Card (Optional), Relay Card (Optional) WORKING ENVIRONMENT 0-25% C S5% C <td></td> <td></td> <td></td>						
Charging current TA (standard unit), Long fun unit Max.during to variage current team be set according to battery capacity installed) STSTEM FEATURES Image: Capacity installed) Transfer Time Mains to battery : Oms ; Mains to bypass : Oms Overload Line mode Loads110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Short Circuit Hold Whole System 60A(Breaker) Overheat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault 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 , Input frequency , Output volatge , Output frequency , Load percentage , Battery voltage Zisz , USB, SNMP Card (Optional), Parallel Card (Optional) , Relay Card (Optional) WORKING ENVIRONMENT Temperature -25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation Noise level <55dB		0-8 Hours (10	90% full capacity)			
STSTEM FEATURES Mains to battery : 0ms ; Mains to bypass : 0ms Overload Line mode Load≤110%: Last 60mins, s125% Last 10mins, s150% last 1min, >150% turn to bypass mode immediately Overload Bypass mode 40A(Breaker) 60A(Breaker) Short Circuit Hold Whole System 60A(Breaker) Overheat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately Low Battery Voltage Alarm and switch off Self-Diagnostics Upon power on and software control Battery Advanced battery management Audible & Visual Alarms Line mode, Batt. Mode, ECO mode, Bypass mode, Battery low, Overload and UPS 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 voltage , 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 Elevation < 1500m	Charging current	capaci	city installed)			
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 Short Circuit 60A(Breaker) 60A(Breaker) Overload 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 mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault LCD Display Input voltage , Input frequency , Output volatge , 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 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	STSTEM FEATURES		· · ·			
Overload Line mode Load≤110%: Last 60mins, ≤125% Last 10mins, ≤150% last 1min, >150% turn to bypass mode immediatley Short Circuit Hold Whole System 60A(Breaker) 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 mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS 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 voltage , 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 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature -25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation <1500m	Transfer Time	Mains to battery : 0m	is ; Mains to bypass : 0ms			
Overload 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 Advanced battery management Advanced battery low , Overload, System fault LED & Visual Alarms Line mode, Batt. Mode, ECO mode , Bypass mode , Battery low , Overload and UPS fault LED & LCD Display LCD Display Input voltage , Input frequency , Output voltage , 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 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Line mode	Load≤110%: Last 60mins, ≤125% Last 10mins , ≤15	50% last 1min, >150% turn to bypass mode immediatley			
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 0°C ~ 40°C Storage Temperature -25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation <1500m	Bypass mode	40A(Breaker)	60A(Breaker)			
Overheat Line Mode: Turn to bypass ; Backup Mode :Shut down UPS immediately 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 0°°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Short Circuit	Hold W	hole System			
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 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Overheat	Line Mode: Turn to bypass ; Back	up Mode :Shut down UPS immediatley			
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 0°C ~ 40°C Temperature 0°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Low Battery Voltage	Alarm a	nd switch off			
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 Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Self-Diagnostics	Upon power on	and software control			
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 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Battery	Advanced ba	ttery management			
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 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation <1500m	Audible & Visual Alarms	Line failure , Battery lo	ow , Overload, System 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 0°C ~ 40°C Temperature 0°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	LED & LCD Display	Line mode, Batt. Mode, ECO mode , Bypa	ss mode , Battery low , Overload and UPS fault			
Communication interface RS232, USB, SNMP Card (Optional), Parallel Card (Optional) , Relay Card (Optional) WORKING ENVIRONMENT 0°C ~ 40°C Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	LCD Display	Input voltage , Input frequency , Output volate voltage , Inner temperature	ge , Output frequency , Load percentage , Battery & Remaining battery backup time			
WORKING ENVIRONMENT Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Communication interface	RS232, USB, SNMP Card (Optional), Pa	arallel Card (Optional) , Relay Card (Optional)			
Temperature 0°C ~ 40°C Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	WORKING ENVIRONMENT					
Storage Temperature - 25°C ~ 55°C Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Temperature	0°C	C ~ 40°C			
Relative Humidity 0-95% (Non-consending) Elevation < 1500m	Storage Temperature	- 25°	C ~ 55°C			
Elevation < 1500m	Relative Humidity	0-95% (No	on-consending)			
Noise level <55dB PHYSICS CHARACTERISTIC Net Weight (kg) 62/18 64/20 Dimension: (DxWxH) mm 502x250x616	Elevation	<	1500m			
PHYSICS CHARACTERISTIC Net Weight (kg) 62/18 64/20 Dimension: (DxWxH) mm 502x250x616	Noise level	<	:55dB			
Net Weight (kg) 62/18 64/20 Dimension: (DxWxH) mm 502x250x616 502x250x616	PHYSICS CHARACTERISTIC					
Dimension: (DxWxH) mm 502x250x616	Net Weight (kg)	62/18	64/20			
	Dimension: (DxWxH) mm	502×	<250x616			



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 controlled controlled pure sinewave output.



- 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

MODEL		PW210	PW215	PW220				
Capacity(VA	/Watts)	10k/9k	15k/13.5k	20k/18k				
INPUT	· · · · · · · · · · · · · · · · · · ·							
Norminal vo	Itage	380/400/415Vac; (3Ph+N+PE)						
Operating V	oltage Range		208~478VAC					
Operating F	requency Range	50Hz:(45~55Hz);60Hz:(auto sensing)						
Power Facto	or		≥0.99	-				
		Max.Voltag	ge : 220V: +25%(Optional +10%,	15%,20%)				
Duna a Malt		2	230V: +20%(Optional +10%,15%)				
	aye Raye		240V: +15%(Optional +10%)					
		Min.Volt	age : 220V: - 45%(Optional -20%	o,- 30%)				
Bypass Free	quency Rage	Fi	requency protection range : ± 10°	%				
ECO Range			Same as the bypass					
Harmonic di	stortion (THDi)		<5%(100% Linear load)					
Generator Ir	nput		Support					
OUTPUT								
Voltage Rar	ige		220/230/240VAC					
Power Facto	or		0.9					
Voltage Rar	ige		±1					
Frequency	Line mode	±1%/±2%/±4%	%/±5%/±10% of the rated frequer	icy (Optional)				
linequency	Batt. Mode		50/60(±0.1)Hz					
Crest Factor	ſ		3:1					
Harmonic D	istortion(THDv)		≤2% with linear load					
Efficiency	. ,	> 02 5	≤5% With non-linear load					
Eniciency		>93.5	>94.	.D				
BATTERT Rattory Volt	200		+96/108/120\/DC (Optional)					
Capacity (St	age andard unit)		12\/-74h/94h					
Typical Rec	harge Time		6-8 hours (To 90% full capacity)					
Charging cu	rrent	1A (10kVA st	andard unit): Max current 10A (ong run unit)				
STSTEM FE	ATURES							
Transfer Tin	ne	Mains t	o battery : 0ms ; Mains to bypass	s : 0ms				
		Load≤110%: Last 60mins, ≤1	25% Last 10mins , ≤150% last 1min,	>150% turn to bypass mode				
Overload	Line mode		immediatley					
	Bypass mode	63A(Breaker)	100A(Breaker)	125A(Breaker)				
Short Circui	t		Hold Whole System					
Overheat		Line Mode: Turn to	bypass ; Batt. Mode :Shut down	UPS immediatley				
Low Battery	Voltage		Alarm and switch off					
Self-Diagno	stics	U	oon power on and software contr	ol				
Battery			Advanced battery management					
	Diaploy	Line fail	ure, Battery low, Overload, Syst	em fault				
	Display							
LCD Display	/	Battery voltage , Input freque	ncy, Output volatge, Output free nner temperature & Remaining ba	attery backup time				
Communica	tion interface	RS232, USB, SNMP Card (Optional), Parallel Card (Option	nal), Relay Card (Optional)				
WORKING	ENVIRONMENT							
Temperatur	e		0°C ~ 40°C					
Storage Ter	nperature		- 25°C ~ 55°C					
Relative Hu	midity		0-95% (Non-consending)					
Elevation			< 1500m	_				
Noise level		<55dB	<580	IB				
PHYSICS C	HARACTERISTIC							
Net Weight	(kg)	35	45	46				
imension:	(UXVVXH) mm	502x250x616 502x250x616						



PW300L SERIES



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

IGBT RECTIFIER DSP CONTROL



- 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

Model		PW310L	PW315L	PW320L	PW330L	PW340L	PW360L	PW380L			
Capacity (VA/Watt	s)	10k/8k	10k/8k 15k/12k 20k/16k 30k/24k 40k/32k 60k/48k 80k/64								
INPUT											
Nominal voltage				380/400	0/415Vac(3ph+N+	PE)					
Operating voltage	range				208~478Vac						
Operating frequent	cy range				40Hz~70Hz						
Power Factor				004 44	≥0.99						
Harmonic Distortio	on (THDi)			2% (1	00% non-linear loa	ad)					
Bypass Voltage Ra	ange		Ма	x. voitage : 220V: 230V: +20% 240V: + Min. voltage:	+25%(optional +1 % (optional +10% , -15% (optional +10 -45% (optional -20	0%,+15%,+20%) +15%) 0%) 0%,-30%)					
Bypass Frequency	/ Range			Frequency	protection range :	±10%					
Generator input					Support						
OUTPUT											
Rated voltage				380/400	0/415Vac(3ph+N+	PE)					
Power Factor				0	$\pm 1\%$						
	Litility mode		+1%	/+2%/+4%/+5%/+1	10% of the rated fr	equency (optional)				
Frequency	Battery mode			5	50/60H(±0.1)Hz		/				
Crest factor					3:1						
Harmonic Distortio				≤ 2	% with linear load						
				≤5%	with non-linear loa	ıd					
Efficiency		>94	5%			>95.5%					
BATTERY		01			L III - 100) (L / 00 4) (L / 0 40)	(1. (2002)) (1. (2004)	<u></u>			
Battery voltage		Standard	unit:±216Vac ; L	ong run unit Optio	nai voitage:±192V	ac/±204vac/±216v	/ac/±228Vac/±240	IVac			
Charge current(A)			5.7A(Max./S	tandard unit)		104 (Max	19A (Max)			
(charge current car battery capacity ins	n be set according to stalled)		6.0A(Max./S	tandard unit)		12A (wax.)	TOA (IVIAX.)			
SYSTEM FEATUR	RES										
Time transfer				Mains to Batte	ry: 0ms ; Mains to by	vpass 0ms					
Overload	Line mode	Load≤110 ⁰	%: last 60mins; ≤1	25%: last 10mins;	≤150%: last 1min	; ≥150% turn to by	/pass mode immed	diately			
	Bypass mode	Load≤110%	6: last 10mins; Loa	ad≤125%: last 1mi	n; Load≤150%: las	st 10 seconds ; Lo	ad >150%:Last 1 s	second			
Short circuit				Но	ld Whole System						
Overheat			Line mode	e : Turn to bypass	/ Bat. Mode : Shut	down UPS immed	diately				
Low vattery voltage	e			Ala	rm and switch off						
Self-diagnostics				Upon powe	er on and software	control					
Battery				Advance	d battery manager	ment					
Audible & Visual				_ine failure , Batte	ry Low , Overload	, System Fault					
LED & LCD display	у		Line mode, E	ypass mode , Bat	tery low , Battery b	ad , Overload & U	IPS Fault				
LCD display		Input voltage , Ir	nput frequency , C	utput voltage , Ou	tput frequency, Lo	oad percentage, E	Battery voltage & T	emperature			
		DS232 DS485 Darallol nort Dalay and (antional) SNMD Card (antional)									
Communication int	terface		RS232,RS	485,Parallel port,F	Relay card (optiona	al),SNMP Card (op	otional)				
Communication int	terface L		RS232,RS	485,Parallel port,F	Relay card (optiona	al),SNMP Card (op	otional)				
Communication int ENVIRONMENTA Operating tempera	terface L ature		RS232,RS	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C	al),SNMP Card (op	otional)				
Communication int ENVIRONMENTAL Operating temperat Storage Temperat	terface L ature ure		RS232,RS	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C	al),SNMP Card (op	otional)				
Communication int ENVIRONMENTA Operating tempera Storage Temperatu Relative Humidity	terface L ature ure		RS232,RS	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consending	al),SNMP Card (op g)	otional)				
Communication int ENVIRONMENTA Operating temperat Storage Temperati Relative Humidity Altitude	terface L ature ure		RS232,RS	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consendin <1500m	g)	tional)				
Communication int ENVIRONMENTA Operating temperat Storage Temperate Relative Humidity Altitude Noise PHYSICAL	terface L ature ure	<55	RS232,RS	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consending <1500m	al),SNMP Card (op g) < 58dB	tional)				
Communication int ENVIRONMENTA Operating temperat Storage Temperatu Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx	terface L ature ure KH) mm	<55	RS232,RS dB	485,Parallel port,F	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consendin <1500m 780x600x1200	al),SNMP Card (op g) < 58dB	otional)				
Communication int ENVIRONMENTA Operating temperat Storage Temperat Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg)	terface L ature ure KH) mm	<55 S : 591	RS232,RS dB S : 594	485,Parallel port,F 0-959 S: 595	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consending <1500m 780x600x1200 S: 595	al),SNMP Card (op g) < 58dB 158	158	195			
Communication int ENVIRONMENTA Operating temperat Storage Temperatu Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg)	terface L ature ure KH) mm	<pre><55 S:591 L:123</pre>	RS232,RS dB S : 594 L : 126	485,Parallel port,F 0-959 S: 595 L : 127	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consendin <1500m 780x600x1200 S: 595 L : 127	al),SNMP Card (op g) < 58dB 158	158	195			
Communication int ENVIRONMENTA Operating temperat Storage Temperatu Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg) STANDARDS Saftey	terface L ure ure KH) mm	<55 S : 591 L : 123	RS232,RS dB S : 594 L : 126	485,Parallel port,F 0-955 S: 595 L : 127	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consending <1500m 780x600x1200 S: 595 L: 127 2040-1 JEC/EN600	al),SNMP Card (op g) < 58dB 158	158	195			
Communication int ENVIRONMENTA Operating temperat Storage Temperatur Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg) STANDARDS Saftey EMC	terface L ature ure KH) mm	<55 S : 591 L : 123 IEC/EN62	RS232,RS dB S : 594 L : 126 040-2,IEC61000-4	485,Parallel port,F 0-959 S: 595 L : 127 IEC/EN6 I-2,IEC61000-4-3.	Relay card (optiona 0°C ~ 40°C - 25°C ~ 55°C % (Non-consending <1500m 780x600x1200 S: 595 L: 127 2040-1,IEC/EN605 IEC61000-4-4, IEC	al),SNMP Card (op g) < 58dB 158 950-1 261000-4-5. IEC6	158 1000-4-6, IEC6100	195			



PW300H SERIES



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

IGBT Rectifier Power factor: 0.8 (0.9 optional)



- 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

Model		PW3100H	PW3120H	PW3160H	PW3200H		
Capacity (VA/Watt	s)	100k/80k 120k/96k 160k/128k 200k/160k					
INPUT							
Nominal voltage			380/400/415	Vac(3ph+N+PE)			
Operating voltage	range		208 [,]	~478Vac			
Operating frequent	cy range		40H	lz~70Hz			
Power Factor			2	20.99			
Harmonic Distortio	n (THDi)		2% (100%	non-linear load)			
			Max. voltage : 220V: +259	%(optional +10%,+15%,+20%)			
Bypass Voltage Pa	2000		230V: +20% (op	tional +10% , +15%)			
Bypass voliage Ra	ange		240V: +15%	(optional +10%)			
			Min. voltage: -45%	o (optional -20%,-30%)			
Bypass Frequency	Range		Frequency prot	ection range : ±10%			
Generator input			S	upport			
OUTPUT							
Rated voltage			380/400/415	Vac(3ph+N+PE)			
Voltage regulation				± 1%			
Power Factor	l Hilite e anna al a		0.8/0.	9(optional)			
Frequency	Utility mode		±1%/±2%/±4%/±5%/±10% (bit the rated frequency (optional) $\mu(+0, 1)\mu_{-}$			
Crest factor	Dattery mode		50/00	3·1			
			< 2% wit	b linear load			
Harmonic Distortio	n (THDv)		< 5% with	non-linear load			
Efficiency				95.5%			
BATTERY							
Battery voltage		Standard unit:±216Vdc	; Long run unit Optional vo	oltage: ±192Vdc/±204Vdc/±216	/dc/±228Vdc/±240Vdc		
Charge current(A)							
(charge current car	n be set according to	30 (Max.)	30 (Max.)	40 (Max.)	50 (Max.)		
battery capacity ins	stalled)						
SYSTEM FEATUR	RES						
SYSTEM FEATUR Time transfer	RES		Mains to Battery: 0n	ns ; Mains to bypass 0ms			
SYSTEM FEATUR	Line mode	Load≤110%: last 60mins	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by	pass mode immediately		
SYSTEM FEATUR Time transfer Overload	Line mode	Load≤110%: last 60mins; Load≤110%: last 10mins;	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load	pass mode immediately		
SYSTEM FEATUR Time transfer Overload	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins;	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load rediately	pass mode immediately I >150%: Shutdown UPS		
SYSTEM FEATUR Time transfer Overload Short circuit	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins;	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold W	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load lediately nole System	pass mode immediately I >150%: Shutdown UPS		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load nediately nole System . Mode : Shut down UPS immed nd switch off	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold W node : Turn to bypass / Bat Alarm a Upon power on	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load rediately nole System . Mode : Shut down UPS immed nd switch off and software control	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold W node : Turn to bypass / Bat Alarm a Upon power on Advanced bat	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load lediately hole System . Mode : Shut down UPS immed nd switch off and software control itery management	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately hole System . Mode : Shut down UPS immed nd switch off and software control ttery management w , Overload , System Fault	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 i Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery I	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed nd switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & U	pass mode immediately I >150%: Shutdown UPS liately		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display	Line mode Bypass mode	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo quency , Output voltage , O Tem	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load iediately nole System . Mode : Shut down UPS immed ind switch off and software control itery management w , Overload , System Fault ow , Battery bad , Overload & UD Dutput frequency , Load percentation perature	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage &		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int	Line mode Bypass mode e	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery I quency , Output voltage , O Tem P,RS485,Parallel port,Relay	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load nediately nole System . Mode : Shut down UPS immed nd switch off and software control tery management w , Overload , System Fault ow , Battery bad , Overload & UD Dutput frequency , Load percenta perature card (optional),SNMP Card (op	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA	Line mode Bypass mode e e y	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery I quency , Output voltage , O Tem	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load rediately nole System . Mode : Shut down UPS immed nd switch off and software control ttery management w , Overload , System Fault bw , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int ENVIRONMENTA Operating tempera	Line mode Bypass mode e e y v	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bai Line failure , Battery Lo le, Bypass mode , Battery Lo guency , Output voltage , C Tem RRS485,Parallel port,Relay	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately hole System . Mode : Shut down UPS immed ind switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op ; ~ 40°C	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int ENVIRONMENTA Operating temperation	EES Line mode Bypass mode e e y y erface L ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 i Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bai Line failure , Battery Lo le, Bypass mode , Battery Lo de, Bypass mode , Battery Lo rem 2,RS485,Parallel port,Relay	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op :~40°C C ~ 55°C	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperat Relative Humidity	Line mode Bypass mode e e y y terface L ture ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Toad≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo con Re,RS485,Parallel port,Relay 0°C - 25° 0-95% (No	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load iediately nole System . Mode : Shut down UPS immed ind switch off and software control itery management w , Overload , System Fault ow , Battery bad , Overload & UD Dutput frequency , Load percentation perature card (optional),SNMP Card (op c ~ 40°C C ~ 55°C on-consending)	pass mode immediately i >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperati Relative Humidity Altitude	Line mode Bypass mode e e y terface L ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo c, Bypass mode , Battery Lo le, Bypass mode , Battery Lo c, Bypass mode , Battery Lo le, Bypass mode , Battery Lo c, Bypass mode , Battery Lo le, Bypass mode , Battery Lo c, Bypass mode , Battery Lo le, Bypass mode , Battery Lo c, Bypass mode	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load iediately nole System . Mode : Shut down UPS immed ind switch off and software control itery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op c ~ 40°C C ~ 55°C on-consending) I500m	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperating Relative Humidity Altitude	Line mode Bypass mode e e y verface L ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo e, RS485,Parallel port,Relay 0°C - 25° 0-95% (No	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op c ~ 40°C C ~ 55°C con-consending) 1500m 65dB	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperating Relative Humidity Altitude Noise PHYSICAL	Line mode Bypass mode e e y eeface L ure ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery I quency , Output voltage , C Tem 2,RS485,Parallel port,Relay 0°C - 25° 0-95% (No	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately hole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault bw , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op $C \sim 55^{\circ}C$ con-consending) 1500m 65dB	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperating Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx	Line mode Bypass mode e e y terface L ture ure	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo e, Bypass mode , Battery Lo correct RRS485,Parallel port,Relay 0°C - 25° 0-95% (No <	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load rediately nole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op $5 \sim 40^{\circ}$ C C ~ 55°C on-consending) 1500m 65dB 780x600:	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional)		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperati Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg)	Line mode Bypass mode Bypass mode e v v terface L ture ure H) mm	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 i Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo e, Bypass mode , Battery Lo co co co co co co co co co co co co co	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op C ~ 40°C C ~ 55°C on-consending) 1500m 65dB 780x600: 348	pass mode immediately i >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional) x1600 355		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display Communication int ENVIRONMENTA Operating temperat Storage Temperat Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg) STANDARDS Saftey	Line mode Bypass mode Bypass mode e e y terface L ture ure H) mm	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232 RS232	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 i Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo le, Bypass mode , Battery Lo core RS485,Parallel port,Relay 0°C - 25° 0-95% (No core 25° 0-95% (No core 200) 200 200 200 200 200 200 200 200 20	ns ; Mains to bypass 0ms 0%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed and switch off and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percentation perature card (optional),SNMP Card (op $c \sim 40^{\circ}$ C C ~ 55°C on-consending) 1500m 65dB 780x6000 348 1 IEC/EN60950-1	pass mode immediately i >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional) x1600 355		
SYSTEM FEATUR Time transfer Overload Short circuit Overheat Low vattery voltage Self-diagnostics Battery Audible & Visual LED & LCD display LCD display Communication int ENVIRONMENTA Operating temperation Relative Humidity Altitude Noise PHYSICAL Dimension: (DxWx Net Weight (kg) STANDARDS Saftey EMC	Line mode Bypass mode e e y terface L ture ure H) mm	Load≤110%: last 60mins Load≤110%: last 10mins; Line n Line n Line mod Input voltage , Input fre RS232 RS232 780x600 286	Mains to Battery: 0n s; ≤125%: last 10mins; ≤150 Load≤125%: last 1min; Lo imm Hold Wi node : Turn to bypass / Bat Alarm a Upon power on Advanced bat Line failure , Battery Lo le, Bypass mode , Battery Lo core R,RS485,Parallel port,Relay 0°C - 25° 0-95% (No <	ns ; Mains to bypass 0ms)%: last 1min ; ≥150% turn to by ad≤150%: last 5 seconds ; Load hediately nole System . Mode : Shut down UPS immed and software control ttery management w , Overload , System Fault ow , Battery bad , Overload & UI Dutput frequency , Load percenta perature card (optional),SNMP Card (op C ~ 55°C on-consending) 1500m 65dB 780x600: 348 -1,IEC/EN60950-1 1000-4-4, IEC61000-4-5. IEC61	pass mode immediately I >150%: Shutdown UPS liately PS Fault age , Battery voltage & tional) x1600 355 000-4-6, IEC61000-4-8		



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.



- 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

Model	PW310TL	PW320TL	PW330TL	PW340TL	PW360TL	PW380TL
Capacity (VA/Watts)	10k/9k	20k/18k	30k/27k	40k/36k	60k/54k	80k/72k
INPUT			ļ	ļ	<u> </u>	
Operating voltage range		380/400/4	15Vac (380-25%	6, 415+20%),(3	ph+N+PE)	
Operating frequency range			50/60Hz	z (±5Hz)		
Power Factor			>0.97 (v	vith filter)		
OUTPUT						
Rated voltage			380/400/41	5Vac(±1%)		
Output Frequency			50/60H(±0.05%)		
Harmonic Distortion (THDv)			< 3% (lin	ear load)		
Crest Factor			3:1 (max)		
Efficiency	>89%	>90%	>9	1%	>9;	2%
BYPASS						
Rated voltage			380/400	/415Vac		
Raed Frequency			50/6	60Hz		
BATTERY						
Battery voltage			384	Vdc		
SYSTEM FEATURES						
Time transfer			Oms (Line mode	↔ Battery mode)		
Overload		11	0%/60mins; 125%	/10mins; 150%/1n	nin	
Communication interface	LCD dis	splay,LED indica	ations,Dry conta	ct,RS232,RS485	5,SNMP Card (o	ptional)
Optional	Harmonic filter	, SNMP adapte	r , LBS cabels , sharing	Battery tempera inductor	ture sensor , Ba	ypass current -
ENVIRONMENTAL						
Operating temperature			0°C ~	40°C		
Storage Temperature			- 25°C	~ 55°C		
Relative Humidity			0-95% (Non	-consending)		
Altitude			<15	00m		
Noise		<60dB			<65dB	
PHYSICAL						
Dimension: (WxDxH) mm		570x80	0x1195		880x76	0x1600



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.



- 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

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				Į				ļ	ļ
Operating voltage range			3	80/400/415V	ac (-25%/+20%	%),(3ph+N+PE	Ξ)		
Operating frequency range				Į	50/60Hz (±5Hz	<u>z)</u>			
Power Factor				>	0.97 (with filte	er)			
OUTPUT						,			
Rated voltage				380	/400/415Vac(:	±1%)			
Max Output Current	152A	182A	243A	304A	456A	608A	760A	912A	1216A
Output Frequency				5	60/60H(±0.05%	6)			
Harmonic Distortion (THDv)				<	2% (linear loa	ıd)			
Crest Factor					3:1 (max)				
Efficiency	>92%	>92%	>92%	>92.5%	>93%	>94%	>95%	>95%	>96%
BYPASS									
Rated voltage				3	80/400/415Va	ac			
Raed Frequency				50/6	0Hz (Auto-ser	nsing)			
Vellana Darkastian Danan			Upp	er limit :+20%	o (+10%,+15%	,+20% adjust	able)		
Voltage Protection Range			Lower	limit : -40% (-	-10%,-20%,-3	0%,-40% adju	stable)		
Frequency Protection Range			±	:10% (±2.5%,	±5%,±10%,±2	0% adjustable	e)		
BATTERY									
Battery voltage			384	4Vdc				480Vdc	
SYSTEM FEATURES							<u> </u>		
Time transfer				Oms (Line	e mode ↔ Batt	ery mode)			
Overload				110%/60min	s; 125%/10min	s; 150%/1min			
LED display			Input	, Inverter , B	ypass , Batter	y, Output, S	Status		
LCD display	Input voltag	e , Input freq v	uency , Outpu oltage , currer	ut voltage , Or nt , Battery sta	utput frequenc atus , UPS sta	y , Power , Po tus , History r	ower factor , L ecord , setting	oad percenta js	ge , Battery
Communication interface			Dry contac	t,RS232,RS4	85,Parallel po	rt,,SNMP Car	d (optional)		
Optional	Harmon	ic filter , SNN	IP adapter , L	BS cabels , B	attery temper	ature sensor ,	Baypass curr	ent - sharing	inductor
ENVIRONMENTAL									
Operating temperature					0°C ~ 40°C				
Storage Temperature					- 25°C ~ 55°C	;			
Relative Humidity				0-95	% (Non-conse	nding)			
Altitude					<1500m				
Noise		<6	5dB				<70dB		
PHYSICAL			r				r		T
Dimension: (WxDxH) mm	1160x805x 1520x830x	(1600 (6P) 1600 (12P)	1400x945x 1640x1040x	x1900 (6P) x1900 (12P)	1640x1040 1760x1040	x1900 (6P) (1900 (12P)	2800x1040	x1900(12P)	3900x1100x 1950 (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							ļ		
Saftey				IEC/EN6	2040-1,IEC/E	N60950-1			
EMC	IEC/E	N62040-2,IE	C61000-4-2,II	EC61000-4-3	IEC61000-4-4	, IEC61000-4	-5, IEC61000	-4-6, IEC610	00-4-8
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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



- 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

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				
		Max.volta	ge: +15%(optional +5%,+10	0%,+25%)			
Bypass Voltage Range	e	Min. vo	oltage: -45% (optional -20%	%,-30%)			
		Fre	quency 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%					
	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% shu					
тно			≤2% with linear load				
			≤5% with non linear load				
Battery							
Voltage		±192V\±204V\±216	6V\±228V\±240VDC ; batte	ry quantity(optional)			
Charge Current(A)	UPS module		Maximum current 6A				
Backup time		Depends	on the capacity of externa	l batteries			
OPERATING ENVIRO	NMENT						
Temperature			0°C~40°C				
Humidity			0~95% non condensing				
Storage temperature			-25°C~55° C				
Altitude			< 1500m				
OTHER							
Efficiency		ECC) mode≥98%;Normal mode	≥92%			
Comunication Interface	UPS module		RS232,RS485,SNMP card	l			
Unit Dimensions(W*H*D)	UPS module		443x131 x580mm				
Weight (Kg)	UPS module	26	30	31			
INDUSTRY STANDAF	RD	CE,EI	N/IEC 62040-2,EN/IEC 620	40-1-1			



PW-M Modular SERIES



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



- · 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.





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

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	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	
(VA/Watts)	Module	10k / 1	9k , 15k / 13.5k , 2	20k / 18k	25k / 22.5k	2	25k / 22.5k , 30k/2	27k	40k/36k		
INPUT											
Nominal volt	tage				380/40	0/415Vac, (3Ph-	+N+PE)				
Operating vo	oltage range					208~478Vac					
Operating fro	equency					40~70Hz					
Power Facto	or					≥ 0.99					
			Max.voltage:	220V + 25%(option	nal +10%,+15%,+	20%) 230V 20%	6 (optional +10%,-	+15%) 240V 15%	(optional 10%)		
Bypass voltage range					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 volta	ge	380/400/415Vac, (3Ph+N+PE)									
Voltage regu	ulation		± 1%								
Output Freq	uency		1. Line mode : ±1% , ±2% , ±4% , ±5% , ±10% of the rated frequency (optional)								
Power Facto	or		0.9/1 (Customized)								
Crest factor			3:1								
Harmonic Distortion			≤ 2% with linear load								
(THDv)			≤ 5% with non-linear load								
Efficiency			95.5% 95%								
BATTERY											
Battery voltage				±192/ ±	204/ ± 216/ ± 22	8/ ± 240Vdc ; ba	atteries quantity (c	ptional)			
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.) 25kV/					kVA:6A (Max.) / 30kVA:10A (Max.) 10A (Max.)				
Backup time	;	Depends on the capacity of external batteries									
SYSTEM FE	ATURES										
Time transfe	er	Utility to Battery: 0ms ; Utility to bypass: 0ms									
	Line mode	Load ≤ 110%: last 60mins, ≤125%: last 10mins, ≤150%: last 1min. ≥ 150% turn to bypass mode immediately									
		Load < 110% last 60mins, =120% last 10mins, =100% last 11min, = 100% latt to bypass mode immediately ,								: last 60mins.	
Overload	Bat. mode	Load s	≤ 110%: last 10mi	ns, ≤125%: last 1m	in, ≤150%: last 1	S , ≥ 150% shut	down UPS imme	≤125%: last 10min, ≤150%: last			
	Bypass mode	e Breaker (10kVA:20A / 15kVA:32A / 20kVA:40A) Breaker (25kVA:40A / 30kVA:60A) (25kVA:40A / 30kVA:60A)						40kVA:95A			
Short circuit		Hold whole system									
Nose suppre	ession	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									
Operating to	ental										
Operating temperature		_ 25°C ~ 55°C									
Relative Humidity		0-95% (Non-consending)									
Altitude		<1500m									
Noise level		<65dB <70dE					'0dB		<7	3B	
PHYSICS										-	
Dimension:	UPS Cabinet	et 840x600x1400 1100x60		0x2000 840x600x1400 1100x600x200			1100x600x2000	0 860x1200x2000			
(DxWxH)	Module				5	80x443x131 (3l	(L				
Net weight	UPS Cabinet	149	152	290	290	158	170	307	750	860	
(kg)	Module	ule 10kVA/26 ; 15kVA/30 ; 20kVA/31 32 25kVA/32 ; 30kVA/33.5					3	4			
STANDARD)										
Saftey											
EMC		IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8									



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.



- 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

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					



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.



- 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

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)					



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



- 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

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	46-54Hz (for 50Hz)							
(operation range adjustable)	56-64Hz (for 60Hz)							
Transfer type	"Break before make"							
Transfer methods available	Automatic / Manual / Remote							
		synchron						
Transfer control	with adjustable delay (non synchron)							
	zero current (non synchron)							
Transfer time	≤	4msec for synchronous source	ces					
	≤ 10msec for non-synchronous sources							
Switching type	1 pl	hase + Neutral switching (2-P	oles)					
Output Current Crest Factor		3:1						
	0 - 100% continuous							
Admissible overload	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 = 605r							
	(hot-swappat	(hot-swappable = 645mm)						
Weight (kgs)	12	12 13 20						
Power cables connection	Clip-on terminals (on the rear panel)							



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.



- 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

MODEL	STS3050	STS3100	STS3150	STS3200	STS3250	STS3300	STS3400	STS3600	STS3800	
	STS4050	STS4100	STS4150	STS4200	STS4250	STS4300	STS4400	STS4600	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)				380-4	00-415 VAC 3	PH+N+Earth				
Input voltage tolerance		180-264 VAC (PH-N)								
Input frequency					50Hz / 60	Hz				
Input frequency range		48-65 Hz (upper and lower limits adjustable)								
Efficiency (at full load)	>99%									
Input voltage THD					<%10					
Transfer type 'Break					'Break before	re make"				
Transfer methods available				Auto	omatic / Manua	al / Remote				
		synchron								
Transfer control				with adj	ustable delay	(non synchron)			
				zer	o 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									
	0%-100% continuous									
Admissible overload	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						otection			
CD 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)	i) <90%									
Protection degree	IP20									
Safety standard	EN62310-1									
EMC	EN62310-2									
Acoustic noise	<52 dBA <55 dBA <60 dBA									
MECHANICAL DATA								1		
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		



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