## **PW300H SERIES**



Uninterruptible Power Supplies

IGBT RECTIFIER DSP CONTROL POWER FACTOR : 1



## **General Specifications :**

- Advanced dual-core DSP control technology
- Output power factor 1.0
- Input power factor up to 0.99
- System efficiency improved to 96%, energy saving rate is doubled
- Dual input design, supporting independent bypass
- Wide input voltage range, 50 / 60 Hz auto-sensing frequency
- Flexible battery configuration setting, selectable battery numbers: 30 ~ 46 pcs
- Ability to switch on the UPS by battery in the absence of mains power (Cold start)
- Zero switching time for UPS power supply mode when the mains power is unstable
- 5 inches LCD colorful touch screen, friendly human & machine interface

## **Technical Specifications**

Rated capacity       30kVA/30k         Input       Input wiring         Rated voltage       Input wiring         Rated voltage range       Input wiring         Frequency range       Power factor         Total harmonic of input current (THDi)       Input wiring         Bypass frequency range       Input wiring         Output       Input wiring         Rated voltage       Input wiring         Rated voltage       Input waveform distortion (THDv)         Output waveform distortion (THDv)       Input waveform distortion (THDv)         Crest factor       Input waveform distortion (THDv)         Battery me       Input waveform distortion (THDv)         Battery waveform distortion (THDv)       Input waveform distortion (THDv)         Battery voltage       Input waveform distortion (THDv)         Inverter overload capability       Input waveform distortion (THDv)         Battery       Input waveform distortion (THDv)         Battery voltage       Input waveform distortion (THDv)         Battery voltage       Input waveform distortion (THDv)         Input waveform distortion (THDv)       Input waveform distortion (THDv)         Input waveform distortion (THDv)       Input waveform distortion (THDv)         Input waveform distortion (THDv)       Input waveform d	138 Vac ~ ≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110% 125%	380Vac/400Vac/4 304 Vac ~ 485 Va 304 Vac ( linear do 40 ~ @100% resistive load @100% resistive load @100% resistive load (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	70 Hz d, ≥ 0.97@50% resis d, ≤ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 $\Phi$ + N + PE) 5 Vac ±1% (line volta ss input in synchron ond the frequency tr 1 6 resistive load ::01 attery mode: 0 ms; (synchronous switch	) - 100% load) stive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	120 kVA/120 kW			
Input wiring       Rated voltage         Rated voltage       Voltage range         Voltage range       Power factor         Frequency range       Power factor         Total harmonic of input current (THDi)       Bypass frequency range         Bypass frequency range       Output         Output       Output         Output viring       Rated voltage         Output frequency       Battery mode         Power factor       Output waveform distortion (THDv)         Crest factor       Switching time         Inverter overload capability       Inverter overload capability         Battery type       Battery voltage         Equalizing charge voltage       Floating charge voltage	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	380Vac/400Vac/4 304 Vac ~ 485 Va 304 Vac ( linear do 40 ~ @100% resistive load @100% resistive load @100% resistive load (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	15Vac (line voltage) ic (no downgrading) wngrading at 40% ~ 70 Hz d, ≥ 0.97@50% resis d, ≤ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 Φ + N + PE) 5 Vac ±1% (line volta is input in synchron ond the frequency tr 1 6 resistive load i:01 attery mode: 0 ms; (synchronous switch	) - 100% load) stive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Rated voltage         Rated voltage         Voltage range         Frequency range         Power factor         Total harmonic of input current         (THDi)         Bypass frequency range         Output         Output wiring         Rated voltage         Output frequency         Power factor         Output frequency         Power factor         Output waveform distortion (THDv)         Crest factor         Switching time         Inverter overload capability         Battery         Battery voltage         Equalizing charge voltage         Floating charge voltage	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	380Vac/400Vac/4 304 Vac ~ 485 Va 304 Vac ( linear do 40 ~ @100% resistive load @100% resistive load @100% resistive load (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	15Vac (line voltage) ic (no downgrading) wngrading at 40% ~ 70 Hz d, ≥ 0.97@50% resis d, ≤ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 Φ + N + PE) 5 Vac ±1% (line volta is input in synchron ond the frequency tr 1 6 resistive load i:01 attery mode: 0 ms; (synchronous switch	) - 100% load) stive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Voltage range	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	304 Vac ~ 485 Va 304 Vac ( linear do 40 ~ @100% resistive loar @100% resistive loar @100% resistive loar (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyond ≤ 1%@100% 3 Mains mode - bande mode - bypass mode mode - ECO mode (so < load 110%, switch < load 125%, switch	wngrading at 40% ~ 70 Hz d, ≥ 0.97@50% resis d, ≤ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 Φ + N + PE) Vac ±1% (line volta as input in synchron ond the frequency tr 1 6 resistive load col attery mode: 0 ms; (synchronous switch	2 100% load) stive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Voltage range	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	2 304 Vac ( linear do 40 ~ @100% resistive loa @100% resistive loa (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	wngrading at 40% ~ 70 Hz d, $\geq$ 0.97@50% resis d, $\leq$ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 $\Phi$ + N + PE) 5 Vac ±1% (line volta as input in synchron ond the frequency tr 1 6 resistive load ::01 attery mode: 0 ms; (synchronous switch	- 100% load) istive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Frequency range         Power factor         Total harmonic of input current         (THDi)         Bypass frequency range         Output         Output wiring         Rated voltage         Output frequency         Power factor         Output waveform distortion (THDv)         Crest factor         Switching time         Inverter overload capability         Battery type         Battery voltage         Equalizing charge voltage         Floating charge voltage	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	2 304 Vac ( linear do 40 ~ @100% resistive loa @100% resistive loa (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	wngrading at 40% ~ 70 Hz d, $\geq$ 0.97@50% resis d, $\leq$ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 $\Phi$ + N + PE) 5 Vac ±1% (line volta as input in synchron ond the frequency tr 1 6 resistive load ::01 attery mode: 0 ms; (synchronous switch	- 100% load) istive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Power factor       Image: Constraint of the second se	≥ 0.99( ≤ 3%( ±5 Hz 3 Mains n de or frequency conv Inverter m Inverter 105% 110%	40 ~ @100% resistive loar @100% resistive loar (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - bande node - bypass mode mode - ECO mode (so < load 110%, switch < load 125%, switch	70 Hz d, ≥ 0.97@50% resis d, ≤ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 $\Phi$ + N + PE) 5 Vac ±1% (line volta ss input in synchron ond the frequency tr 1 6 resistive load ::01 attery mode: 0 ms; (synchronous switch	stive load tive load settable) age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Power factor       Image: Constraint of the second se	≤ 3%( ±5 Hz 3 Mains n de or frequency conv de or frequency conv Inverter m Inverter 105% 110% 125%	@100% resistive load (±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas ersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	d, $\leq$ 5%@50% resis /±4 Hz/±5 Hz/±6 Hz line (3 $\Phi$ + N + PE) Vac ±1% (line volta is input in synchron ond the frequency tr 1 % resistive load ::01 attery mode: 0 ms; (synchronous switch	tive load settable) age) nous state; racking range: 50 ching): 0 ms;	Hz/60 Hz ± 0.1%			
(THDi)       Bypass frequency range         Output       Output         Output wiring       Rated voltage         Output frequency       Battery mode         Power factor       Output waveform distortion (THDv)         Crest factor       Switching time         Inverter overload capability       Inverter overload capability         Battery       Battery voltage         Equalizing charge voltage       Floating charge voltage	±5 Hz 3 Mains n de or frequency conv inverter m Inverter 105% 110% 125%	(±1 Hz/±2 Hz/±3 Hz/ Three-phase five 80 Vac/400 Vac/415 node: tracking bypas ersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	$44 \text{ Hz/\pm5 Hz/\pm6 Hz}$ line (3 $\Phi$ + N + PE) 5 Vac ±1% (line volta ss input in synchron ond the frequency tr 1 6 resistive load 5:01 attery mode: 0 ms; (synchronous switch	settable) age) nous state; racking range: 50 ching): 0 ms;	Hz/60 Hz ± 0.1%			
Output       Output wiring         Rated voltage       Rated voltage         Output frequency       Battery model         Power factor       Output waveform distortion (THDv)         Crest factor       Switching time         Inverter overload capability       Inverter overload capability         Battery       Battery voltage         Equalizing charge voltage       Floating charge voltage	3 Mains n de or frequency conv Inverter m Inverter 105% 110% 125%	Three-phase five i80 Vac/400 Vac/415 mode: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - ba mode - bypass mode mode - ECO mode (so < load 110%, switch < load 125%, switch	line (3 Φ + N + PE) 5 Vac ±1% (line volta as input in synchron and the frequency tr 1 6 resistive load 5:01 attery mode: 0 ms; (synchronous switch	age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Output         Output wiring         Rated voltage         Output frequency         Battery mode         Power factor         Output waveform distortion (THDv)         Crest factor         Switching time         Inverter overload capability         Battery         Battery type         Battery voltage         Equalizing charge voltage         Floating charge voltage	3 Mains n de or frequency conv Inverter m Inverter 105% 110% 125%	Three-phase five i80 Vac/400 Vac/415 mode: tracking bypas rersion mode or beyon ≤ 1%@100% 3 Mains mode - ba mode - bypass mode mode - ECO mode (so < load 110%, switch < load 125%, switch	line (3 Φ + N + PE) 5 Vac ±1% (line volta as input in synchron and the frequency tr 1 6 resistive load 5:01 attery mode: 0 ms; (synchronous switch	age) nous state; racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Rated voltage	Mains n de or frequency conv Inverter m Inverter 105% 110% 125%	80 Vac/400 Vac/415 node: tracking bypas ersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode - ECO mode (s < load 110%, switch < load 125%, switch	vac ±1% (line volta ss input in synchron and the frequency tr broad the frequency tr control the	age) nous state; racking range: 50 ching): 0 ms;	Hz/60 Hz ± 0.1%			
Output frequency       Battery model         Power factor       Dutput waveform distortion (THDv)         Crest factor	Mains n de or frequency conv Inverter m Inverter 105% 110% 125%	node: tracking bypas ersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	ss input in synchron ond the frequency tr 1 6 resistive load c01 attery mode: 0 ms; (synchronous switch synchronous switch	nous state; racking range: 50 ching): 0 ms;	Hz/60 Hz ± 0.1%			
Power factor       Battery model         Output waveform distortion (THDv)       Crest factor         Crest factor	de or frequency conv Inverter m Inverter 105% 110% 125%	ersion mode or beyo ≤ 1%@100% 3 Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	ond the frequency tr 1 6 resistive load 1:01 attery mode: 0 ms; (synchronous switch synchronous switch	racking range: 50 shing): 0 ms;	Hz/60 Hz ± 0.1%			
Power factor       Battery model         Output waveform distortion (THDv)       Crest factor         Crest factor	Inverter m Inverter 105% 110% 125%	≤ 1%@100% 3 Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	1 6 resistive load 1:01 attery mode: 0 ms; (synchronous switc synchronous switch	ching): 0 ms;	Hz/60 Hz ± 0.1%			
Power factor	Inverter m Inverter 105% 110% 125%	≤ 1%@100% 3 Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	1 6 resistive load 1:01 attery mode: 0 ms; (synchronous switc synchronous switch	ching): 0 ms;				
Crest factor Crest factor Switching time Battery Battery Battery type Battery voltage Equalizing charge voltage Floating charge voltage	Inverter 105% 110% 125%	3 Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	:01 attery mode: 0 ms; (synchronous switc synchronous switch					
Switching time	Inverter 105% 110% 125%	Mains mode - ba node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	attery mode: 0 ms; (synchronous switc synchronous switch					
Inverter overload capability  Battery Battery type Battery voltage Equalizing charge voltage Floating charge voltage	Inverter 105% 110% 125%	node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	(synchronous switc synchronous switch					
Inverter overload capability  Battery Battery type Battery voltage Equalizing charge voltage Floating charge voltage	Inverter 105% 110% 125%	node - bypass mode mode -ECO mode (s < load 110%, switch < load 125%, switch	(synchronous switc synchronous switch					
Inverter overload capability  Battery Battery type Battery voltage Equalizing charge voltage Floating charge voltage	Inverter 105% 110% 125%	mode -ECO mode ( < load 110%, switch < load 125%, switch	synchronous switch					
Battery         Battery type         Battery voltage         Equalizing charge voltage         Floating charge voltage	105% 110% 125%	< load 110%, switch < load 125%, switch	•	Inverter mode -ECO mode (synchronous switching): 0 ms;				
Battery         Battery type         Battery voltage         Equalizing charge voltage         Floating charge voltage	110% 125%	< load 125%, switch		105% < load 110%, switching to bypass in 60 minutes;				
Battery         Battery type         Battery voltage         Equalizing charge voltage         Floating charge voltage	125%		110% < load 125%, switching to bypass in 10 minutes;					
Battery type Battery voltage Equalizing charge voltage Floating charge voltage		125% < load 150%, switching to bypass in 1 minute;						
Battery type Battery voltage Equalizing charge voltage Floating charge voltage	Load > 150%, switching to bypass in 0.2 seconds							
Battery voltage       Equalizing charge voltage       Floating charge voltage								
Equalizing charge voltage Floating charge voltage		Lead-ad	cid battery					
Equalizing charge voltage Floating charge voltage	360 Vdc ~	552 Vdc (30 ~ 46 p	cs selectable, 40 pc	s by default)				
		2.31 V/Cell (settable	e to 2.30 ~ 2.40 V/Ce	ell)				
Maximum charging current 12A		2.25 V/Cell (settable	e to 2.23 ~ 2.27 V/Ce	ell)				
	12 A	24 A	24 A	3	6 A			
Charging temperature	-3 mV/°C for T ≥ 25°C ( -1 ~ -8 mV /°C settable), 0 mV per°C for T < 25 °C							
compensation	-51110/ 0101 1 2	20 C ( -1 0 IIIV /			,			
System								
Display	5.0 inch touch color screen							
Protections Output short	Output short circuit protection, output overload protection, over-temperature protection, low battery protection, output over/under-voltage protection, fan fault protection, etc							
Max. number of parallel connections	4							
Environmental								
Operating temperature	0 ~ 40°C							
Storage temperature	-25 ~ 55°C (without battery)							
Humidity	$0 \sim 95\%$ (non-condensing)							
	≤ 1000 m; for above 1000 m, downgrading 1% for each additional 100 m; Max. 5000 m; 0 ~ 5000 m settable							
IP rating		IF	P 20					
Noise	≤ 65 dB (at 1 m)							
Communication								
Communication interface	Standard: RS232, RS485, USB, CAN, NET, EPO, LBS, parallel, input/output dry contacts, dual smart card slot, 1-way battery temperature sampling interface; Optional: SNMP card, GPRS card, Wi-Fi card, battery temperature sensor, parallel cable, etc.							
Physical		,	, , , , , , , , , , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·			
Wiring mode	Bottom cable entry							
		Bottom of	250x790x990 360 × 850 × 950 360 × 850 × 1200 440 × 850 × 1200					
Net weight (kg) 75	i0x790x990		360 × 850 × 1200	440 ~ 0.				

\* Specifications are subject to be changed without prior notes

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