

# EAST GROUP CO., LTD.

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### **Our Products**

EAST is ISO 9001: 2015 and ISO 14001: 2004 certified, and committed to providing green, energy-saving, stable, reliable and continuous power supply products and solutions. Our main products and services include:

- 1) UPS & Data center solutions
- 2) Solar inverters & PV energy solutions
- 3) Electric vehicle charging station
- 4) Energy storage & Smart micro-grid system
- 5) Stabilizer(AVR
- 6) EPS(Emergency power supply)
- 7) Lead-acid maintenance-free battery

### Our Team

EAST R&D team consists of 600 professional engineers and power experts. A Postdoctoral Scientific Research Workstation granted by the National Ministry of Personnel, and four R & D and operation bases in Dongguan, Hefei, Kunshan and Nanjing city have been established, which constantly bring in talent all over the world to join us.

### Our Mission

Customer's satisfaction is our permanent pursuit. In order to consistently create maximum value for customers, we focus on our customers' market challenges and needs by providing excellent power supply solution and high quality products as well as best service, and giving top priority to meeting customer requirements to enhance their competitiveness and profitability.

# CONTENTS





- 03 EA200 400 VA ~ 3000 VA
- 05 EA200Pro 400 VA ~ 1500 VA
- 07 EA200Plus 600 VA ~ 1000 VA
- 09 EA200Pro+
- 11 EA200R 600 VA ~ 2000 VA
- 13 EA600 500 VA ~ 3000 VA



15 Outdoor UPS

Pure Sine Wave Line Interactive

500 VA ~ 3000 VA



- 17 Pure Sine Wave Inverter 300 W ~ 3500 W
- 19 Pure Sine Wave Inverter 300 W ~ 600 W
- 21 Modified Sine Wave Inverter 1200 VA ~ 2400 VA
- 23 Software & Accessories
  Monitoring Software UPSmart
  SNMP Card

# DC UPS-18W

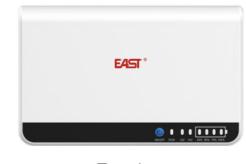


### Features

- Built in lithium battery
- Auto start when connected to the adapter
- Auto shutdown when battery undervoltage
- Support charging when the machine shutdown
- Undervoltage & short circuit protection
- Push the switch to switching rated output voltage
- Auto close output with LED flashing to remind short-circuit
- Support battery self replacement by opening the cover
- CE certification proves the high quality and reliability
- Compact and contemporary design, easy to install and use
- User friendly multi-LED status indicators
- 5V USB DC output for charging cell phones, PDA, PSP, IPOD, MP4, etc.
- Application: router, modem, wireless phone, CCTV







Top view

MODEL	DC1	8W		
CE certification	Sup	port		
Input (DC)	12V	±1V		
Output (DC)	12V	15V		
Battery capacity	2200mAH x 3			
INPUT				
Rated voltage	12V±1V			
Input current	MAX 2A±0.15A			
ОИТРИТ				
Rated voltage	5521_DC socket: DC 12V/15V	USB 5V		
Output power (Max.)	18W	10W		
Output current (Max.)	12V 1.5A/15V 1.2A	5V 2A		
Short - circuit protection	Output closure v	vith LED flashes		
BATTERY				
Battery type	Ternary lithium	battery 18650		
Rated voltage	3.	7V		
Battery capacity / quantity	2200mAH	3 cells		
Battery combination method	Series co	nnection		
Rated output voltage of battery pack	11.	1V		
Battery protection board	In -	built		
Battery undervoltage protection	9.1V:	±0.2V		
No-load charging current	2.1A	Max.		
Full load charging current	0.3A	Max.		
Charge time	1H (90%), 1	.5H (100%)		
Discharge time	18W / 7	70mins		
Auto start when connected to the adapter	Sup	port		
Battery disassembly	Support battery replacen	nent by opening the cover		
Shutdown charging	Sup	port		
DISPLAY				
Battery level display	Four green LED lights indicate bat	tery level of 25%, 50%, 75%, 100%		
12V / 15V output display	Two green LED light	s indicate 12V / 15V		
Charging / battery mode display	Green LED light indicates charging mod	e / red LED light indicates battery mode		
Charging display	Battery level light fla	shes while charging		
OPERATION ENVIRONMENT				
Operation environment	Temperature 0°C - 40°	C, humidity 20% - 90%		
Noise level	< 40	)dB		
DIMENSION				
Length x width x height (mm)	141 x 8	38 x 27		
Net weight (g)	2	75		
HOUSING MATERIAL AND COLOR				
Housing material	ABS -	15E1		
Housing color	White RA	AL - 9010		
Charging DC port color	Bla	ack		
OUT DC port color	Bla	ack		
Toggle switch color	Black toggle switch does no	ot protrude from the housing		



- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC

### Rear Panel

- 1. Output Outlets (selectable)
- 2. TEL/Modem/Fax surge protection (optional)
- 3. USB (optional)
- 4. AC Input
- 5. Fuse

7. Fan









Optional outlets



400 VA ~ 800 VA Plastic case



1200 VA ~ 1500 VA Plastic case



600 VA ~ 800 VA Metal case



1200 VA ~ 2000 VA Metal case



3000 VA Metal case

### Specifications

MODEL		EA240	EA260	EA280	EA2120	EA2150	EA2200	EA2300
Capacity		400 VA 240 W	600 VA 360 W	800 VA 480 W	1200 VA 720 W	1500 VA 900 W	2000 VA 1200 W	3000 VA 1800 W
INPUT								
Voltage		100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional)				onal)		
Frequenc	у			50 / 60	Hz ± 10% (auto	-sensing)		
OUTPUT								
Voltage			100 /	110 / 120 Vac	± 10% or 220 /	230 / 240 Vac	± 10%	
Frequenc	у			50 / 60	Hz ± 1% (auto-	sensing)		
Waveform	1		Mains mod	e: pure sine w	ave; Battery m	ode: simulate	d sine wave	
Transfert	ime			Турі	cal 8 ms, 10 ms	s max.		
BATTERI	ES							
DC voltag	е		12 V			24 V		48 V
Configura	tion	12 V / 4.5 Ah × 1	12 V / 7.0 Ah × 1	12 V / 8.0 Ah × 1	12 V / 7.0 Ah × 2	12 V / 8.0 Ah × 2	12 V / 9.0 Ah × 2	12 V / 9. Ah × 4
Recharge	time				6~8h			
OTHERS								
Protection	ıs		Short circuit	, battery over	charge, overdi	scharge, over	load, surge	
Communi	cations			USB/	RS232 (option	al)		
Humidity				20 ~ 90% RH	@ 0 ~ 40°C (no	n-condensing	<b>a</b> )	
Noise leve	el				≤ 45 dB (1 m)			
	Net / Gross weight (kg)	3.7 / 4.0	4.3 / 4.6	5.2 / 5.5	8.6/9.0	10.1 / 10.5	1	1
Plastic	Dimensions (W × D × H) (mm)	1	00 × 290 × 14	0	140 × 34	15 × 170	1	1
case	Packaged dimensions (W × D × H) (mm)	1	39 × 335 × 21	0	198 × 40	)6 × 245	/	/
	Quantity / 20 ft		2300 pcs		1000	pcs	/	/
	Net / Gross weight (kg)	1	5.1/5.4	6.3/6.6	9.6 / 10.1	11.3 / 11.7	12.9 / 13.3	19.3 / 20
Metal	Dimensions (W × D × H) (mm)	1	95 × 32	0 × 160	125 × 3	20 × 225	125 × 380 × 225	157.5 × 49 × 211

145 × 375 × 230

2000 pcs

180 × 450

× 295

180 × 390 × 295

1000 pcs

238 × 536

× 295

658 pcs

- •All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

Packaged dimensions

 $(W \times D \times H) (mm)$ 

Quantity/20ft

# EA200Pro

400 VA ~ 1500 VA



### Features

- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge/overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional USB & RJ45 ports
- Unattended safety shutdown: system alarm and auto Power-On/Off by USB interface communicating with PC

### Rear Panel

- 1. Output Outlets (selectable)
- 2. TEL/Modem/Fax surge protection (optional)
- 3. USB (optional)
- 4. AC Input
- 5. Fuse

















MODEL		EA240Pro	EA260Pro	EA280Pro	EA2120Pro	EA2150Pro
Capacity		400 VA 240 W	600 VA 360 W	800 VA 480 W	1200 VA 720 W	1500 VA 900 W
INPUT						
Voltage		100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional)				
Frequenc	у		50 / 6	0 Hz ± 10% (auto-se	ensing)	
OUTPUT						
Voltage		100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10%				
Frequenc	у		50 / 6	0 Hz ± 1% (auto-sei	nsing)	
Waveforn	n	Ma	ins mode: pure sine	e wave; Battery mod	e: simulated sine w	ave
Transfer	time		Турі	cal 2 ~ 7 ms, 10 ms	max.	
BATTER	IES					
DC voltag	је		12 V		24	1 V
Configura	ation	12 V / 4.5 Ah×1	12 V / 7.0 Ah×1	12 V / 8.0 Ah×1	12 V / 7.0 Ah×2	12 V / 8.0 Ah×
Recharge	e time			6 ~ 8 h		
COMMUN	NICATIONS					
USB (opt	ional)	Su	pports Windows <sup>®</sup> 98	3 / 2000 / 2003 / XP /	Vista / 2008 / Wind	ows 7/8/10
OTHERS						
Protectio	ns	Sh	ort circuit, battery o	vercharge, overdisc	charge, overload, su	urge
Humidity			20 ~ 90% R	H @ 0 ~ 40°C (non-o	condensing)	
Noise lev	el			≤ 45 dB (1 m)	ı	
	Net / Gross weight (kg)	3.8 / 4.2	4.2 / 4.6	5.0 / 5.4	9.4 / 9.9	9.8 / 10.3
Plastic	Dimensions (W × D × H) (mm)		90×305×165		115×3	20×220
case	Packaged dimensions (W × D × H) (mm)		133×349×232		161×3	69×290
	Quantity / 20 ft		2300 pcs		1400	) ncs

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- Custom-made specifications are acceptable.



- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional USB & RJ45 ports
- Unattended safety shutdown: system alarm and auto Power-On / Off by USB interface communicating with PC

### Control Panel

- 1. AC Normal Indicator (green)
- 2. Battery Charging Indicator (amber)
- 3. Back-up Indicator (red)
- 4. On / Off button
- 5. Mains state
- 6. Output voltage
- 7. Battery capacity
- 8. Load capacity



### Rear Panel

- 1. UPS output with surge protection
- 2. Bypass output with surge protection
- 3. AC Input
- 4. USB (optional)
- 5. RJ45 (optional)



MODEL	EA260P	EA280P	EA2100P		
Capacity	600 VA / 360 W	800 VA / 480 W	1000 VA / 600 W		
INPUT					
Voltage range	220 /	230 / 240 Vac: 162 - 295 Vac or 145 -	295 Vac		
Frequency range	50 / 60 Hz (auto-sensing)				
ОИТРИТ					
Output voltage (battery mode)		220 / 230 / 240 Vac ± 10%			
Output frequency (battery mode)		50 Hz / 60 Hz ± 1% (auto-sensing	3)		
Waveform	Mains mode: p	ure sine wave; Battery mode: sim	ulated sine wave		
Switching time		2 - 8 ms (typical), 12 ms (max.)			
Outlet(s) - Toal		8 (Bipasso-schuko socket)			
Outlet(s) - Battery &Surge Protected		4 (Bipasso-schuko socket)			
Outlet(s) - Surge Protected		4 (Bipasso-schuko socket)			
BATTERIES					
DC voltage		12 V			
Configuration	12 V / 7.0 Ah×1	12 V / 8.0 Ah×1	12 V / 9.0 Ah×1		
Recharge time		6 ~ 8 h			
INDICATORS					
LED display(LED version)	AC n	node, battery mode, battery charg	e state		
LCD display(LCD version)	Mains state	, output voltage, battery capacity,	load capacity		
PROTECTION					
Full protection	Short circuit, ba	attery overcharge, over discharge	, overload, surge		
OPERATING ENVIRONMENT					
Operating temperature		0 - 40°C			
Relative humidity		5 - 90%			
PHYSICAL					
Dimensions ( W × D × H) (mm)		205×285×94			
Packaged Dimensions ( W × D × H) (mm)		255×350×144			
Net/Gross weight (kg)	4.5 / 4.8	5.5/5.8	5.8 / 6.2		

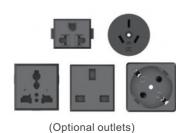


- LED display
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional USB ports
- Unattended safety shutdown: system alarm and auto Power-On / Off by USB interface communicating with PC

### Panel interface

- 1. USB(optional)
- 2. AC input
- 3. Battery charge state (red)
- 4. Battery Mode (amber)
- 5. AC Mode (green)
- 6. On / Off button
- 7. Output outlets





Specifications

MODEL	EA260Pro+
Capacity	600VA / 360W
INPUT	
Voltage range	100 / 110 / 120 Vac: 80 - 150 Vac; 220 / 230 / 240 Vac: 162 - 295 Vac or 145 - 295 Vac
Frequency range	50 / 60 Hz (auto-sensing)
ОUТРUТ	
Output voltage (battery mode)	100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10%
Output frequency (battery mode)	60 Hz / 50 Hz ± 1% (auto-sensing)
Waveform	Mains mode: pure sine wave; Battery mode: simulated sine wave
Switching time	2 - 8 ms (typical), 12 ms (max.)
BATTERIES	
DC voltage	12 V
Configuration	12 V / 7.0 Ah×1
Recharge time	6 ~ 8 h
INDICATORS	
LED display	AC mode, battery mode, battery charge state
PROTECTION	
Full protection	Short circuit, battery overcharge, over discharge, overload, surge protections
OPERATING ENVIRONMENT	
Operating temperature	0 - 40℃
Relative humidity	5 - 90%
PHYSICAL	
Dimensions ( W × D × H) (mm)	175×255×93
Net/Gross weight (kg)	4.2 / 4.5



- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC

### Rear Panel

- 1. Output Outlets (selectable)
- 2. TEL/Modem/Fax surge protection (optional)
- 3. USB (optional)
- 4. AC Input















MODEL		EA260R	EA280R	EA2120R	EA2150R	EA2200R
Capacity		600 VA 360 W	800 VA 480 W	1200 VA 720 W	1500 VA 900 W	2000 VA 1200 W
INPUT						
Voltage		100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional)				ac optional)
Frequenc	су		50/6	0 Hz ± 10% (auto-se	ensing)	
ОИТРИТ	r					
Voltage		100 / 110 / 120 Vac±10% or 220 / 230 / 240 Vac±10%				
Frequenc	су		50 /	60 Hz±1% (auto-ser	nsing)	
Waveforr	m	Ma	ins mode: pure sin	e wave; Battery mod	e: simulated sine wa	ive
Transfer	time		Тур	ical 2 ~ 7 ms, 10 ms	max.	
BATTER	IES					
DC volta	ge	12	. V		24 V	
Configura	ation	12 V / 7.0 Ah×1	12 V / 8.0 Ah×1	12 V / 7.0 Ah×2	12 V / 8.0 Ah×2	12 V / 9.0 Ah×2
Recharge	e time			6 ~ 8 h		
OTHERS						
Protectio	ins	Sh	ort circuit, battery o	vercharge, over disc	charge, overload, su	rge
Commun	ications		US	3 / RS232 / SNMP (c	optional)	
Humidity			20 ~ 90% F	tH @ 0 ~ 40℃ (non-c	condensing)	
Noise lev	rel			≤ 45 dB (1 m)		
	Net / Gross weight (kg)	7.0/7.5	8.2/8.7	11.6 / 12.1	13.3 / 13.8	14.9 / 15.4
Rack	Dimensions (W × D × H) (mm)	308 × 43	38 × 88		308 × 438 × 132	2
mount	Packaged dimensions (W × D × H) (mm)	395 × 52	5 × 185		395 × 525 × 225	5

- •All specifications are subject to change without notice.
- •Custom-made specifications are acceptable.



- Pure sine wave output
- DSP digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Adjustable charging current and battery shutdown point
- Settable ECO mode and no-load shutdown
- Humanized alarm system

- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Intelligent battery management
- Short circuit and overload protection
- Automatic charging in OFF mode
- USB & RJ45, AS400 / SNMP (optional) communication port

### Rear Panel

- 1. USB / RJ45
- 2. Output Outlets
- 3. EXT Battery (optional)
- 4. AC Breaker
- 5. Input
- 6. SNMP (optional)
- 7. Fan













### Specifications

MODE	L	EA605	EA610	EA615	EA620	EA630
Capac	ity	500 VA / 300 W	1000 VA / 800 W	1500 VA / 1200 W	2000 VA / 1600 W	3000 VA / 2400 W
DC INF	PUT					
Rated	voltage	12 V	24	· V	36 V (S) 48 V (H)	48 V
DC inp	out range (default)	10 ~ 15 V	20 ~	30 V	30 ~ 45 V (S) 40 ~ 60 V (H)	40 ~ 60 V
AC INF	PUT					
AC inp	ut range (bypass mode)				115 / 120 Vac ± 10 Vac 230 / 240 Vac ± 10 Vac	
AC inp	ut range (mains mode)	100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac 120 V: 90 ~ 150 Vac 200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac				
Freque	ency input range		50 / 60 Hz (au	uto-sensing), 50 / 60 H	z ± 5% ~ 15%	
Genera	ator connection		Available (g	generator input power	is settable)	
OUTP	UT					
Inverte	er output range		100 / 110 / 115 / 120	/ 200 / 220 / 230 / 240	Vac ± 5% (settable)	
AC out	put range (bypass mode)			44 Vac for 100 / 110 / 1	115 / 120 Vac ± 10 Vac	
AC out	tput range (mains mode)		0 ~ 110 Vac 110 V: 99 ~ 6 ~ 226 Vac 220 V: 188			
Output	t frequency		50	60 Hz ± 0.3 Hz (setta	ble)	
Wavefo	orm			Pure sine wave		
Inverte	er efficiency	Max. 75%	Max.	80%	Max	85%
Energy	y saving mode		Settal	ole (< 3% load), enter i	n 80 s	
No-loa	id shutdown		Settable	(< 3% load), shut dow	/n in 80 s	
Transf	er time	≤ 10 ms				
THDV	(resistive load)			≤ 5%		
Protec	tions	Overload, s	hort circuit (inverter), b	attery low voltage, ba	ttery overcharge, over	temperature
Overlo	ead (mains mode)	1	10% for 120 s, 125% fo	r 60 s, 150% for 10 s (t	ransfer to bypass mod	le)
Overlo	oad (inverter mode)		110% for 60 s, 125%	for 10 s, 150% for 5 s	(shut down directly)	
Mute			Automa	atic mute in 60 s or by	manual	
BATTE	ERIES					
Inbuilt b	pattery (standard model)	/	12 V / 7 Ah x 2	12 V / 9 Ah x 2	12 V / 9 Ah x 3	12 V / 9 Ah x 4
	,		Stand	dard model (S): 1 A (de	efault)	
Chargi	ing current	Lor	ng time model (H): 10 A (	default); < 10 A, set ste	ep 1 A; ≥ 10 A, set step	5 A
Ü		Max. 10 A (H)	Max. 15 A (H)	1	Max. 20 A (H)	Max. 25 A (H)
Equaliz	zing charge voltage		. ,	1 Vdc (default), 13.6 ~		
Floatin	ng charge voltage		Single battery 13.5	Vdc (default), 13.2 ~	14.6 Vdc adjustable	
	oltage alarm point			.8 Vdc (default), 9.6 ~		
	oltage shutdown point			2 Vdc (default), 9.6 ~ 1		
OTHER				, , ,		
Comm	unications		USB & RJ45 (sta	ndard), dry contacts / S	SNMP (optional)	
	ting temperature			5°C ~ 40°C		
	ting humidity		F	Relative humidity ≤ 93°	%	
Noise I	level			≤ 50 dB (1 m)	I	I
			144 × 345 × 215 (S / H)		144 × 410 × 215 (S) 144 × 345 × 215 (H)	157.5 x 460x 221.5 (S 190 x 467 x 335.5 (H
	Dimensions (W × D × H) (mm)					
Tower	Dimensions (W × D × H) (mm)  Packaged dimensions (W × D × H) (mm)		236 × 427 × 316 (S / H)	)	236 × 492 × 316 (S) 236 × 427 × 316 (H)	238 x 550 x 305 (S) 320 x 592 x 462(H)
	Packaged dimensions	7.0 (H)	236 × 427 × 316 (S / H)	14.2 (S)	` '	
	Packaged dimensions (W × D × H) (mm)	7.0 (H) 8.0 (H)	1	,	236 × 427 × 316 (H)	320 x 592 x 462(H)
	Packaged dimensions (W × D × H) (mm) Net weight (kg)	` '	12.2 (S) 11.6 (H)	14.2 (S)	236 × 427 × 316 (H) 18.5 (S) 17.8 (H)	320 x 592 x 462(H) 23.6 (S) 28.0 (H)
Tower	Packaged dimensions (W × D × H) (mm)  Net weight (kg)  Gross weight (kg)  Dimensions (W × D × H) (mm)  Packaged dimensions (W × D × H) (mm)	` '	12.2 (S) 11.6 (H) 13.2 (S) 12.6 (H)	14.2 (S)	236 × 427 × 316 (H) 18.5 (S) 17.8 (H) 19.8 (S) 18.8 (H)	320 x 592 x 462(H) 23.6 (S) 28.0 (H)
Tower	Packaged dimensions (W × D × H) (mm)  Net weight (kg)  Gross weight (kg)  Dimensions (W × D × H) (mm)  Packaged dimensions (W × D × H) (mm)	` '	12.2 (S) 11.6 (H) 13.2 (S) 12.6 (H) 440 × 338 × 88 (S)	14.2 (S)	236 × 427 × 316 (H) 18.5 (S) 17.8 (H) 19.8 (S) 18.8 (H) 440 × 410 × 132 (S)	320 x 592 x 462(H) 23.6 (S) 28.0 (H)

3 kVA(H) 3 kVA(S) RT

<sup>S means standard model, in means long time model.
All specifications are subject to change without notice.
Custom-made specifications are acceptable.</sup> 

# **Outdoor UPS**

Pure Sine Wave Line Interactive 500 VA ~ 3000 VA



Pure sine wave interactive outdoor UPS is specially designed for outdoor communication equipment, networking equipment, traffic control system and other applications of city corner, countryside, or mountainous area. High temperature resistance, frost resistance, corrosion resistant, dust prevention, and water resistance are based. With advanced functions like wide range of input voltage and frequency, high reliability, energy saving, environmental protection, anti-thunder, remote control, remote detection, etc. Our UPS can guarantee stable power supplying to communication, networking, traffic control and other devices. It is a type of ideal helpmate for running these important outdoor devices.

### Features

- Strong environmental adaptability
- High reliability, energy saving, environmental protection
- Wide adaptability to power grid
- Unattended and intelligent monitoring (optional)
- Inverter isolation & pure sine wave technology
- Online UPS protection function
- Intelligent no-load shutdown (optional)
- Auto restart when mains power is restored



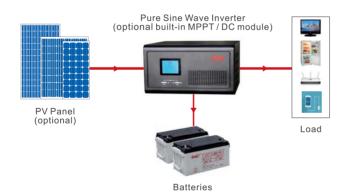
### **Specifications**

MODEL	500 VA	1000 VA	2000 VA	3000 VA		
Capacity	300 W	600 W	1200 W	1800 W		
DISPLAY						
Panel indicator		L	.ED			
MAINS STATES						
Applications		PC, banking system, ATM, medical system				
Input voltage range	100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 Vac ± 25%					
Input frequency range	45 ~ 65 Hz (o	ver-frequency autor	matically transfer to inve	rter power)		
Stable output voltage range	1		210 ~ 260 Vac ±10 Vac for 2 05 ~ 130 Vac ±10 Vac for 10			
Input P.F. (AC/DC)		g	18%			
Efficiency		Mains m	ode ≥ 96%			
Mains overload	1	10% for 120 s, 125%	% for 60 s, 150% for 10 s			
Short circuit		Inpi	ut fuse			
INVERTER STATES						
Inverter output voltage	100 / 110 / 11	5 / 120 /200 / 220 / 23	0 / 240 V ac ± 5% (battery	r ≥ 11 Vdc)		
Output frequency			% (auto-sensing)	,		
Output power factor			0.6			
Waveform distortion		Linear	oad ≤ 5%			
Transfer time			0 ms			
Efficiency		Inverter	node≥ 80%			
Inverter overload			% for 10 s, 150% for 5 s			
No-load shutdown (option)		-	shutdown in 1 min			
Short circuit			matically shut down			
ALARM						
Mains abnormal		1/4s.be	silent in 40 s			
Low battery		· · · · · · · · · · · · · · · · · · ·	0.2 s			
Overload			/ 1 s			
BATTERIES						
DC voltage	24 Vdc		48 V	dc.		
Inner battery space	2 × 12 V 38 Ah /	120 Ah	4 × 12 V 38 Ah / 120 Ah	4 × 12 V 120 Ah		
Charging current	2 112 7 007(117		c. 12 A	4 · 12 v 1207(II		
OTHERS		Widz	X. 12 A			
Installing		Floor standing	or wall-mounted			
Surge protection			ass C			
Communications	Г		/ USB / SNMP (optional)			
Protection grade			P 55			
Environmental temperature			~ 50°C			
Environmental humidity			% (no cooling)			
Noise			50 dB			
Weight (kg)	17.5 / 36.		36.7 / 60.7	60.7		
Dimensions (W × D × H) (mm)	430 × 245 × 550 / 4		470 × 245 × 900 / 470 × 460 × 900	470 × 460 × 900		
Packaged dimensions (W × D × H) (mm)	500 × 335 × 636 / 5	40 × 330 × 980	540 × 330 × 980 / 550 × 560 × 950	550 × 560 × 950		

<sup>•</sup> All specifications are subject to change without notice.



The Pure Sine Wave Inverter is desirable long backup power solution for home and office appliances. It is not only an inverter but also contains a powerful intelligent charger. It provides pure sine wave power to all kinds of loads. And it can be used as UPS for computers as well.



### Features

- DSP digital control technology
- Pure sine wave output
- Suitable for all kinds of loads, such as resistive, inductive and rectified loads and motors
- Use of pulse by pulse technology, improving load shock ability
- Charge current Max.60 A. Settable charge current and charge voltage on front panel
- Settable no-load shutdown and energy saving mode
- Short circuit, overload and low battery protection
- Intelligent long backup time up to 10 hrs (based on battery bank and loads)
- Compatible with generators, and matching of inverter and generator is settable
- Unique functions: optional built-in MPPT module enables the inverter to work as off-grid solar inverter, optional DC module enables the inverter to apply to communications, router, switch, mobile charging, DC fans and illumination





### Rear Panel

- 1. Input
- 2. Output
- 3. Battery Breaker
- 4. Battery Input
- 5. Fuse
- 6. AC Breaker
- 7. Fan
- 8. DC Output (optional)
- 9. MPPT Module (optional)

MODEL	300 W	600 W	1000 W	1600 W	2500 W	3500 W
DC INPUT	i	40.1/			2414	
Nominal input voltage		12 V 10 ~ 15 V			24 V	
DC input voltage range		10 13 V		20 ~ 30 V		
AC INPUT	0	~ 264 Vac for 220	/ 220 / 240 \/aa 0	- 122 Van for 100	/110/115/120\	/00
Bypass voltage			<u> </u>			
AC voltage	68 ~ 128 Vac f	150 ~ 282 Vac for 220 Vac, 156 ~ 294 Vac for 230 Vac,163 ~ 307 Vac for 240 Vac, 68 ~ 128 Vac for 100 Vac, 75 ~ 141 Vac for 110 Vac, 79 ~ 148 Vac for 115 Vac, 82 ~ 154 Vac for 120 Vac, 50 / 60 Hz (auto-sensing & settable: 5% ~ 15%, default 15%), 42.5 ~ 57.5 Hz for 50 Hz, 51 ~ 69 Hz for 60 Hz				
Frequency	· ·					
Input voltage of generator		282 Vac for 220 Va for 100 Vac, 50 ~ 14				
nput frequency of generator			40 ~	70 Hz		
nput power limitation		Rated power	10% ~ 150%, reg	julating step 10%	, default 120%	
оитрит						
DC mode output voltage		220 / 230 / 240 \	/ac ± 5% or 100 /	110 / 115 / 120 Va	c ± 5% (settable)	
AC mode output voltage	174 ~ 79 ~ 109 Vac	- 242 Vac for 220 V for 100 Vac, 87 ~ 12	/ac, 182 ~ 253 Va 21 Vac for 110 Vac	o for 230 Vac, 190 , 93 ~ 125 Vac for	~ 264 Vac for 240 115 Vac, 95 ~ 133	Vac, Vac for 120 Vac
Nominal output frequency		50/	60 Hz ± 0.3 Hz (aı	uto-sensing & sett	table)	
Output waveform			Pure sine v	vave		
Output power	300 W	600 W	1000 W	1600 W	2500 W	3500 W
Efficiency		Max. 95	% (mains mode);	Max. 80% (invert	er mode)	
ECO mode			Settable, load <	3%, enter in 80 s	·	
No-load shutdown		Settable, time	can be set (1 ~ 99	min), load can be	e set (3% ~ 50%)	
Transfer time		≤ 10			≤ 15	ms
Power factor		_ 101		.0		
THDv			< 5% (lir	near load)		
nductive load	< 5% (linear load)					
nuuctive toau	Yes					
				es		
Inductive load  Motor load  Rectifier load			Υ	es es		
Motor load Rectifier load	Ma	ains mode: 110% f	Y Y or 120 s, 125% fo	r 60 s, 150% for 1	0 s (switch to bypa	ass)
Motor load Rectifier load Overload	Ma	ains mode: 110% f Inverter mode: 11	Y Y or 120 s, 125% fo	r 60 s, 150% for 1	0 s (switch to bypa for 10 s (shut dow	ass) n)
Motor load Rectifier load Overload		Inverter mode: 11	Y Y or 120 s, 125% fo 0% for 60 s , 125	r 60 s, 150% for 1 % for 10 s , 150%	for 10 s (shut dow	n)
Motor load Rectifier load Overload BATTERIES	Default 10 A	Inverter mode: 11	Y Y or 120 s, 125% fo 0% for 60 s , 125 Default 20 A, reg	r 60 s, 150% for 1 % for 10 s , 150%	for 10 s (shut dow 10 A) / 5 A (> 10 A	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable)		Max. 30 A	Y or 120 s, 125% fo 0% for 60 s , 125 Default 20 A, regu Max. 40 A	r 60 s, 150% for 1 % for 10 s , 150% ulating step 1 A (<	for 10 s (shut dow 10 A) / 5 A (> 10 A Max. 50 A	n)
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage	Default 10 A	Max. 30 A Single battery	Y Y or 120 s, 125% fo 0% for 60 s , 125 Default 20 A, rego Max. 40 A 14.4 Vdc (default),	r 60 s, 150% for 1 % for 10 s , 150% ulating step 1 A (< Max. 40 A	for 10 s (shut dow 10 A) / 5 A (> 10 A Max. 50 A Istable	(n) ()
Motor load  Rectifier load  Overload  BATTERIES  Charging current (selectable)  Equalizing charge voltage  Floating charge voltage	Default 10 A	Max. 30 A Single battery	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default),	r 60 s, 150% for 1 % for 10 s , 150% lating step 1 A (< Max. 40 A 13.6 ~ 15 Vdc adju 13.2 ~ 14.6 Vdc ad	for 10 s (shut dow 10 A) / 5 A (> 10 A Max. 50 A Istable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode	Default 10 A	Max. 30 A Single battery Single battery	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch	r 60 s, 150% for 1 % for 10 s , 150% ulating step 1 A (< Max. 40 A 13.6 ~ 15 Vdc adjutation 13.2 ~ 14.6 Vdc adjutation 13.2 ~ 14.6 Vdc adjutation 13.2 ~ 14.6 Vdc adjutation 14.6 Vdc a	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable  djustable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD	Default 10 A	Max. 30 A Single battery Single battery Single battery	Y  or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu  Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default)	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% will alting step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjutes 13.2 ~ 14.6 vdc adjutes 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 14.2 ~ 1	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD	Default 10 A	Max. 30 A Single battery Single battery Single battery	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), 10.2 Vdc (default),	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% with the step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjuut 13.2 ~ 14.6 Vdc acharge mode efault), 9.6 ~ 13 Vullet adjuut 13.5 Vdc adjuut 13.5 Vd	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning	Default 10 A	Max. 30 A Single battery Single battery Single battery	Y  or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu  Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default)	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% with the step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjuut 13.2 ~ 14.6 Vdc acharge mode efault), 9.6 ~ 13 Vullet adjuut 13.5 Vdc adjuut 13.5 Vd	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL)	Default 10 A	Max. 30 A Single battery Single battery Single battery	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), Buz	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% with the step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjuut 13.2 ~ 14.6 Vdc acharge mode efault), 9.6 ~ 13 Vullet adjuut 13.5 Vdc adjuut 13.5 Vd	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model	Default 10 A	Max. 30 A Single battery Single battery Single battery  Single battery  10 A / 20 A /	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), Buz	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% will alting step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjuur 13.2 ~ 14.6 Vdc adjuur 13.2 ~ 14.6 Vdc adjuur 13.6 ~ 13 Vdc adjuur 13.6 ~ 13 Vdc adjuur 13.6 ~ 11.5 Vdc adjuur	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc)	Default 10 A	Max. 30 A Single battery Single battery Single battery  Single battery  10 A / 20 A / 40 V	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), Buz	r 60 s, 150% for 1 % for 10 s , 150% for 10 s	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp)	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery  Single battery  10 A / 20 A / 40 V  18 V ~ 32 V	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regt Max. 40 A  14.4 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% will alting step 1 A ( Max. 40 A 13.6 ~ 15 Vdc adjuur 13.2 ~ 14.6 Vdc adjuur 13.2 ~ 14.6 Vdc adjuur 13.6 ~ 13 Vdc adjuur 13.6 ~ 13 Vdc adjuur 13.6 ~ 11.5 Vdc adjuur	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery  Single battery  10 A / 20 A / 40 V	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regt Max. 40 A  14.4 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz	r 60 s, 150% for 1% for 10 s , 150% with for 10 s ,	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable	(n) ()
Motor load Rectifier load Overload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL)	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, reg Max. 40 A 14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), Buz 730 A / 40 A	r 60 s, 150% for 1 % for 10 s , 150% for 10 s	for 10 s (shut down 10 s) / 5 A (> 10 A) / 5 A (> 10 A) Max. 50 A Istable dijustable //dc settable ustable	(n) ()
Rectifier load Diverload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL)	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V	Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, reg Max. 40 A 14.4 Vdc (default), 13.7 Vdc (default), 3 stage chattery 10.8 Vdc (default), Buz 730 A / 40 A	fes r 60 s, 150% for 1 for 10 s , 150%  lating step 1 A (<    Max. 40 A   13.6 ~ 15 Vdc adju   13.2 ~ 14.6 Vdc adju   13.2 ~ 14.5 Vdc adju   29.6 ~ 13 Vdc adju   29.7 ~ 48.7 Vdc adju   240.8 Vdc adv   240.8	for 10 s (shut down 10 s) / 5 A (> 10 A) / 5 A (> 10 A) Max. 50 A Istable dijustable //dc settable ustable	(n) ()
Motor load Rectifier load Diverload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL) Model	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regt Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (default), Buz  230 A / 40 A	fes r 60 s, 150% for 1 for 10 s , 150%  lating step 1 A (<   Max. 40 A     13.6 ~ 15 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.6 ~ 15 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.2 ~ 14.6 Vdc adjual   14.6 Vdc adjual   15.5 Vdc adjual   16.7 Vdc adjual   17.5 Vd	for 10 s (shut down and shut and	/ / / / / / / / / / / / / / / / / / /
Motor load Rectifier load Diverload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL) Model DTHERS	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regt Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (default), Buz  230 A / 40 A	fes r 60 s, 150% for 1 for 10 s , 150%  lating step 1 A (<   Max. 40 A     13.6 ~ 15 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.6 ~ 15 Vdc adjual   13.2 ~ 14.6 Vdc adjual   13.2 ~ 14.6 Vdc adjual   14.6 Vdc adjual   15.5 Vdc adjual   16.7 Vdc adjual   17.5 Vd	for 10 s (shut down and shut and	/ / / / / / / / / / / / / / / / / / /
Motor load Rectifier load Dverload  BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL) Model DTHERS Protections Human-machine interface	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /	Y Y Y or 120 s, 125% fo 0% for 60 s , 125"  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz  230 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage LCD &	r 60 s, 150% for 1 % for 10 s , 150% for 10 s	for 10 s (shut down and shut	/m)  // Max. 60 A
Rectifier load  Overload  BATTERIES  Charging current (selectable)  Equalizing charge voltage  Floating charge voltage  Charge mode  OOD  EOD  Reverse warning  MPPT MODULES (OPTIONAL)  Model  Max. PV input voltage (Voc)  PV optimum operating voltage (Vmp)  Max. PV power  DC MODULES (OPTIONAL)  Model  OTHERS  Protections  Human-machine interface  Operating temperature	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /	Y Y Y or 120 s, 125% fo 0% for 60 s , 125"  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz  230 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage LCD &	r 60 s, 150% for 1 % for 10 s , 150% for 10 s	for 10 s (shut down and shut	/m)  // Max. 60 A
Rectifier load  Overload  BATTERIES  Charging current (selectable)  Equalizing charge voltage  Floating charge voltage  Charge mode  OOD  EOD  Reverse warning  MPPT MODULES (OPTIONAL)  Model  Max. PV input voltage (Voc)  PV optimum operating voltage (Vmp)  Max. PV power  DC MODULES (OPTIONAL)  Model  OTHERS  Protections  Human-machine interface  Operating temperature	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A 14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz  7 30 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage LCD & 0°C	r 60 s, 150% for 1 % for 10 s , 150% for 10 s	for 10 s (shut down and shut	/m)  // Max. 60 A
Rectifier load Diverload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD EOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL) Model OTHERS Protections Human-machine interface Operating humidity	Default 10 A Max. 15 A	Max. 30 A Single battery Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A 14.4 Vdc (default), 13.7 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz  7 30 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage LCD & 0°C	fes r 60 s, 150% for 1 for 10 s , 150% for 10 s , 150%  lating step 1 A (<   Max. 40 A     13.6 ~ 15 Vdc adju     13.2 ~ 14.6 Vdc adju     13.2 ~ 14.6 Vdc adju     13.6 ~ 15 Vdc adju     13.2 ~ 14.6 Vdc adju     14.6 Vdc adju     15.5 Vdc adju     29 V ~ 48 V     240W / 480W / 720W / 960W     V / 24 V (1 A), 12     17.5 Vdc adju     18.5 Vdc adju     19.6 ~ 13 Vdc adju     29 V ~ 48 V     240W / 480W / 720W / 960W     29 V ~ 48 V     240W / 480W / 720W / 960W     24 V (1 A), 12 Vdc adju     19.6 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     24 U V (1 A), 12 Vdc adju     25 Vdc adju     26 Vdc adju     27 Vdc adju     28 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     24 V V (1 A), 12 Vdc adju     25 Vdc adju     26 Vdc adju     27 Vdc adju     28 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     24 V V (1 A), 12 Vdc adju     25 Vdc adju     26 Vdc adju     27 Vdc adju     28 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     24 V V (1 A), 12 Vdc adju     25 Vdc adju     26 Vdc adju     27 Vdc adju     28 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     24 V V (1 A), 12 Vdc adju     25 Vdc adju     26 Vdc adju     27 Vdc adju     28 Vdc adju     29 V ~ 48 V     24 U V (1 A), 12 Vdc adju     20 V V (1 A), 12 Vdc adju	for 10 s (shut down and shut	/m)  // Max. 60 A
Motor load Rectifier load Overload BATTERIES Charging current (selectable) Equalizing charge voltage Floating charge voltage Charge mode DOD Reverse warning MPPT MODULES (OPTIONAL) Model Max. PV input voltage (Voc) PV optimum operating voltage (Vmp) Max. PV power DC MODULES (OPTIONAL) Model OTHERS Protections Human-machine interface Operating humidity Net weight (kg)	Default 10 A Max. 15 A  120 W  Overload,:  8.0 / 8.5 / 7.4 9.0 / 9.5 / 8.4	Max. 30 A Single battery Single battery Single battery  Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W /  5 V (2 A), 9  short-circuit, overvol	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regr Max. 40 A  14.4 Vdc (default), 3 stage cf attery 10.8 Vdc (d 10.2 Vdc (default), Buz  230 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage  LCD & 0°C  Relative he	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% with the for 10 s	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A  Max. 50 A  Istable  djustable  /dc settable  ustable  V / 24 V (10 A)	/ Max. 60 A
Motor load	Default 10 A Max. 15 A  120 W  Overload,:  8.0 / 8.5 / 7.4 9.0 / 9.5 / 8.4	Max. 30 A Single battery Single battery Single battery  10 A / 20 A / 40 V 18 V ~ 32 V // 240 W / 360 W / 5 V (2 A), 9	Y Y Y or 120 s, 125% fo 0% for 60 s , 125  Default 20 A, regu Max. 40 A  14.4 Vdc (default), 3 stage ch attery 10.8 Vdc (d 10.2 Vdc (default), Buz  230 A / 40 A  480 W  V / 12 V (1 A), 15  tage, undervoltage LCD & 0°C Relative ho 14.0 / 14.6	r 60 s, 150% for 1 % for 10 s , 150% for 10 s , 150% will alting step 1 A (<    Max. 40 A     13.6 ~ 15 Vdc adjuication     13.2 ~ 14.6 Vdc adjuication     13.6 ~ 15 Vdc adjuication     13.2 ~ 14.6 Vdc adjuication     13.2 ~ 14.6 Vdc adjuication     13.2 ~ 14.6 Vdc adjuication     13.6 ~ 13 Vdc adjuication     13.6 ~ 13 Vdc adjuication     14.6 Vdc adjuication     15.0 Vdc adjuication     15.	for 10 s (shut down 10 A) / 5 A (> 10 A) Max. 50 A Istable djustable //dc settable ustable  V / 24 V (10 A)  emperature, excession 32.0	/ / / / / / / / / / / / / / / / / / /

<sup>•</sup> All specifications are subject to change without notice.

<sup>•</sup> Custom-made specifications are acceptable.



The Pure Sine Wave Inverter is desirable long backup power solution for home and office appliances. It is not only an inverter but also contains a powerful intelligent charger. It provides pure sine wave power to all kinds of loads. And it can be used as UPS for computers as well.

### Features

- Tower / rack mounted design
- DSP digital control technology
- Pure sine wave output
- Suitable for all kinds of loads, such as resistive, inductive and rectified
- Use of pulse by pulse technology, improving load shock ability
  Charge current Max. 30 A. Settable charge current and charge voltage on front panel
- Settable no-load shutdown and energy saving mode
- Short circuit, overload and low battery protection
- Intelligent long backup time up to 10 h (based on battery bank and
- Compatible with generators, and matching of inverter and generator is
- Usable as off-grid solar inverter if combined with EAST charge controller



### **Specifications**

MODEL	300W	600W		
DC INPUT				
Nominal input voltage	12	2 V		
DC input voltage range	10 ~ 15 V			
AC INPUT				
Bypass voltage	0 ~ 264 Vac for 220 / 230 / 240 Vac, 0 ~ 132 Vac for 100 / 110 / 115 / 120 Vac			
AC voltage	150 ~ 282 Vac for 220 Vac, 156 ~ 294 Vac for 230 Vac, 163 ~ 307 Vac for 240 Vac, 68 ~ 128 Va for 100 Vac, 75 ~ 141 Vac for 110 Vac, 79 ~ 148 Vac for 115 Vac, 82 ~ 154 Vac for 120 Vac			
Nominal input frequency	50 / 60 Hz (auto-sensing), 42.5 ~ 57	.5 Hz for 50 Hz, 51 ~ 69 Hz for 60 Hz		
OUTPUT				
DC mode output voltage	220 / 230 / 2	240 Vac ± 5%		
AC mode output voltage	220 / 230 / 240 Vac ± 5% or 1	100 / 110 / 115 / 120 Vac ± 5%		
Nominal output frequency	50 / 60 Hz ± 0.3 (aut	co-sensing & settable)		
Output waveform	Pure sii	ne wave		
Output power	300W	600W		
Efficiency	Max. 95% (mains mode);	Max. 80% (inverter mode)		
ECO mode	Settable (< 3% loa	ad) to enter in 80 s		
No-load shutdown	Settable, time can be set (1 ~ 99	min), load can be set (3% ~ 50%)		
Transfer time	≤ 1(	0 ms		
Power factor	1	.0		
THD	< 5% (lin	near load)		
Inductive load	Y	es		
Motor load	Y	es		
Rectifier load	Y	es		
Overload capability		r 60 s, 150% for 10 s (switch to bypass) o for 10 s, 150% for 10 s (shut down)		
BATTERIES				
Charging current (selectable)	Max. 15 A	Max. 30 A		
Equalizing charge voltage	Single battery 14.4 Vdc (defa	nult), 13.6 ~ 15 Vdc adjustable		
Floating charge voltage	Single battery 13.7 Vdc (defau	ult), 13.2 ~ 14.6 Vdc adjustable		
Charge mode	3 stage ch	arge mode		
EOD	Single battery 10.2 Vdc (defa	ult), 9.6 ~ 11.5 Vdc adjustable		
Reverse warning	Buz	zzer		
OTHERS				
Human-machine interface	LCD & E	BUZZER		
Operating temperature	0℃~	- 40°C		
Operating humidity	5% ~ 9	95% RH		
Forced air cooling	Variable s	speed fans		
Net weight (kg)	7.5	10.5		
Gross weight (kg)	8.3	11.3		
Dimensions (W×D×H) (mm)	400×2	10×127		
Packaged dimensions				
(W×D×H) (mm)	490×29	90×195		

• All specifications are subject to change without notice.



The Modified Sine Wave Inverter is a DC-to-AC inverter with auto line-to-battery transfer and integrated charging system, serving as an extended-run UPS, is a standalone power source or a home inverter as well. It supplies power from AC power and DC source. When AC cable is connected to a wall outlet, utility power goes to connected equipment and/or charges the batteries via the charging system. In battery mode, it automatically converts battery energy into AC power for backing up the connected devices.

### Features

- Automatic line to battery transfer
- Rack / Tower design, installation versatility
- Adjustable wider input voltage range and charging current
- Intelligent charging control, efficient charging
- Auto restart when mains power is restored
- Superior protection: low battery, overcharge, overload, overtemperature and short circuit
- High load-bearing capacity, supporting various household loads and IT equipment (< 50% half-wave load, < 30% inductive load)

### **Specifications**

MODEL	1200 VA	1500 VA	2400 VA		
Capacity	720 W	900 W	1440 W		
INPUT					
Rated voltage		220 / 230 / 240 Vac (selectable)			
Voltage range	220 / 230 / 240 Vac, -22% / -59% ~ +26%, ± 5 Vac (selectable)				
Rated frequency		50 / 60 Hz (auto-sensing)			
Frequency range	<u> </u>	± 10% (default), ± 5% ~ 15% (selectab	ile)		
ОИТРИТ		,	,		
Power factor		0.6			
Output voltage		ode: 220 / 230 / 240 Vac±10% (sode: synchronized with utility pow			
Output frequency		y mode: 50 / 60 Hz±1% (selectab) mode: synchronized with utility p			
Output waveform	Battery mode: squa	are wave; Mains mode: synchroni	zed with utility power		
Inversion efficiency	≥83%	(max.)	≥85% (max.)		
IT equipment		Yes			
Half-wave load		≤50% (rated load)			
Inductive load		≤30% (rated load)			
BATTERIES					
Rated voltage	12	Vdc	24 Vdc		
Charging current (Max.)	20 / 10 A ± 3 A	A (selectable)	15 / 10 A ± 3 A (selectable)		
Equalizing charge voltage	Single batte	ery 14.2 ± 0.3 Vdc (default), 13.6 ~ 15.			
Floating charge voltage		Single battery 13.6 ± 0.3 Vdc	(		
Low voltage alarm	Single batte	ery 10.8 ± 0.3 Vdc (default), 9.6 ~ 13.0	Vdc (selectable)		
Low voltage shutdown		ery 10.2 ± 0.3 Vdc (default), 9.6 ~ 12.0	*		
Overvoltage protection	3	Single battery 15.0 ± 0.3 Vdc	,		
Overvoltage recovery		Single battery 13.6 ± 0.3 Vdc			
SYSTEM		<u> </u>			
Transfer time		≤ 8 ms (typical), ≤ 15 ms (max.)	)		
Protections	Overload, short circuit, over	er-temperature, output over/under-vo			
Overload times (Mains mode)	≥ 110% for 120	s, ≥ 125% for 60 s, ≥ 150% for 10	s. ≥ 200% for 1 s		
Overload times (Battery mode)		% for 60 s, ≥ 125% for 5 s, ≥ 150°			
Communication interface		No	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Panel display		LCD + LED			
OTHERS					
Operating temperature		0 ~ 45℃			
Operating humidity		0 ~ 95% (non-condensing)			
Altitude	≤ 1000 m (Abov	ve 1000 m, derating 1% for each a	dditional 100 m)		
IP rating		IP20	,		
Cooling		Forced-air cooling			
Noise		< 45 dB			
Dimensions (W x D x H) (mm)		245 x 220 x 80			
Packaged dimensions (W x D x H) (mm)		315 x 290 x 156			
Net weight (kg)	2.66	2.68	2.82		
Gross weight (kg)	3.02	3.04	3.18		

<sup>•</sup> Note: "Selectable" can be customized according to customer requirements.

# Software & Accessories

# **Monitoring Software UPSmart**





### **Product Introduction**

UPSmart is monitoring software for single UPS developed on RS232/USB interface. When mains input is normal, UPSmart can display the input voltage, output voltage, frequency, load, battery capacity and many other parameters with real time data curves. When mains input is abnormal or other fault occurs, UPSmart can save the document automatically, make system turned off safely and automatically send alarm information by email or SMS messages. With UPSmart, users don't need to worry about any loss to the system cause by the abnormal mains power; users can make the necessary processing at the first time, and learn the historical operation information of equipment through query historical data and events saved in the system.

### Application platform

Windows 98; Windows NT; Windows 2000; Windows ME; Windows XP; Windows 2003; Windows Vista; Windows 7

### Features

- Working status: mains, battery, inverter, bypass, self test, etc.
- Real time monitoring: voltage, frequency, load, battery and other information
- Automatically securely saves data for common applications before shut down the system
- Multiple test methods for UPS diagnostic testing
- Automatic sequence turning on / off time of computer and UPS is configurable
- Historical parameters, operations and events can be inquired
- Local alarm and remote alarm functions are available
- Auto restart is settable

# NANO-SNMP Card (iDA-Star series)





Internal card

External card

### **Specifications**

MODEL	iDA-ST200P	iDA-ST200E			
Туре	Internal card	External card			
Communication interface	RJ45, RS2	RJ45, RS232, RS485			
Network interface	10/100Mbps high-sp	eed Ethernet adaptive			
Serial interface		port for SMS and temperature-humidity module, rotocol conversion			
SNMP MIB	RFC	C1628			
Network protocol	TCP/IP, UDP, SNMP, SNTP, HTTP, SM	MTP, DHCP, DNS, FTP, ARP, ICMP, etc.			
Input power (DC)	9~	28V			
Power consumption	Max.	. 1.5W			
Operating environment	Temperature: 0°C~50	0°C, humidity: 10~90%			
Other configuration	Real-time s	system clock			
Program upgrade	FTP remote network up	grade through web page			
Multi-language	Support simplified Chinese	, traditional Chinese, English			
System security	Offer IP-based filtering mechanism and passwo	rd for system operation and control management			
Applicable for	EAST full range conv	entional UPS products			
Dimensions	10 × 42	× 81mm			

### Application schematic diagram

