EAST®
SINCE 1989

# Line Interactive UPS & Inverter

EAST UPS
Guard
Power
Well


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EAST GROUP CO., LTD.
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# COMPANY PROFILE

## About us

EAST Group Co., Ltd. Established in 1989, is a global smart city & smart energy system solutions supplier and excellent listed company (stock code 300376), having registered capital of 2.3 billion CNY and a headquarter with 200,000 ㎡ manufacturing and R&D space in Dongguan city. We keep growing marketing and service network with more than 140 countries' partners and customers spread around the world. We have been awarded Global Top 500 New Energy Enterprises, and won the 117th China Parent Excellence Award with more than 660 patents.

## 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.

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# EA200

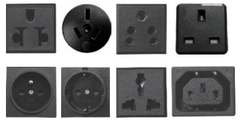
400 VA ~ 3000 VA

## 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 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
6. AC Breaker
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<br>240 W | 600 VA<br>360 W | 800 VA<br>480 W | 1200 VA<br>720 W | 1500 VA<br>900 W | 2000 VA<br>1200 W | 3000 VA<br>1800 W |
| **INPUT** | | | | | | | | |
| Voltage | | 100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional) | | | | | | |
| Frequency | | 50 / 60 Hz ± 10% (auto-sensing) | | | | | | |
| **OUTPUT** | | | | | | | | |
| Voltage | | 100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10% | | | | | | |
| Frequency | | 50 / 60 Hz ± 1% (auto-sensing) | | | | | | |
| Waveform | | Mains mode: pure sine wave; Battery mode: simulated sine wave | | | | | | |
| Transfer time | | Typical 8 ms, 10 ms max. | | | | | | |
| **BATTERIES** | | | | | | | | |
| DC voltage | | 12 V | | | 24 V | | | 48 V |
| Configuration | | 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 / 9.0 Ah × 4 |
| Recharge time | | 6 ~ 8 h | | | | | | |
| **OTHERS** | | | | | | | | |
| Protections | | Short circuit - battery overcharge – overdischarge – overload - surge | | | | | | |
| Communications | | USB / RS232 (optional) | | | | | | |
| Humidity | | 20 ~ 90% RH @ 0 ~ 40℃ (non-condensing) | | | | | | |
| Noise level | | ≤ 45 dB (1 m) | | | | | | |
| Plastic case | Net / Gross weight (kg) | 3.7 / 4.0 | 4.3 / 4.6 | 5.2 / 5.5 | 8.6 / 9.0 | 10.1 / 10.5 | / | / |
| | Dimensions (W × D × H) (mm) | 100 × 290 × 140 | | | 140 × 345 × 170 | | / | / |
| | Packaged dimensions (W × D × H) (mm) | 139 × 335 × 210 | | | 198 × 406 × 245 | | / | / |
| | Quantity / 20 ft | 2300 pcs | | | 1000 pcs | | / | / |
| Metal case | Net / Gross weight (kg) | / | 5.1 / 5.4 | 6.3 / 6.6 | 9.6 / 10.1 | 11.3 / 11.7 | 12.9 / 13.3 | 19.3 / 20.6 |
| | Dimensions (W × D × H) (mm) | / | 95 × 320 × 160 | | 125 × 320 × 225 | | 125 × 380 × 225 | 157.5 × 452 × 211 |
| | Packaged dimensions (W × D × H) (mm) | / | 145 × 375 × 230 | | 180 × 390 × 295 | | 180 × 450 × 295 | 238 × 536 × 295 |
| | Quantity / 20 ft | / | 2000 pcs | | 1000 pcs | | | 658 pcs |

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

# 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

Optional outlets




## Specifications

| MODEL | | EA240Pro | EA260Pro | EA280Pro | EA2120Pro | EA2150Pro |
|---|---|---|---|---|---|---|
| Capacity | | 400 VA<br>240 W | 600 VA<br>360 W | 800 VA<br>480 W | 1200 VA<br>720 W | 1500 VA<br>900 W |
| **INPUT** | | | | | | |
| Voltage | | 100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional) | | | | |
| Frequency | | 50 / 60 Hz ± 10% (auto-sensing) | | | | |
| **OUTPUT** | | | | | | |
| Voltage | | 100 / 110 / 120 Vac ± 10% or 220 / 230 / 240 Vac ± 10% | | | | |
| Frequency | | 50 / 60 Hz ± 1% (auto-sensing) | | | | |
| Waveform | | Mains mode: pure sine wave; Battery mode: simulated sine wave | | | | |
| Transfer time | | Typical 2 ~ 7 ms, 10 ms max. | | | | |
| **BATTERIES** | | | | | | |
| DC voltage | | 12 V | | | 24 V | |
| Configuration | | 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 |
| Recharge time | | 6 ~ 8 h | | | | |
| **COMMUNICATIONS** | | | | | | |
| USB (optional) | | Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / Windows® 7 / 8 / 10 | | | | |
| **OTHERS** | | | | | | |
| Protections | | Short circuit - battery overcharge – overdischarge – overload - surge | | | | |
| Humidity | | 20 ~ 90% RH @ 0 ~ 40℃ (non-condensing) | | | | |
| Noise level | | ≤ 45 dB (1 m) | | | | |
| Plastic case | Net / Gross weight (kg) | 3.8 / 4.2 | 4.2 / 4.6 | 5.0 / 5.4 | 9.4 / 9.9 | 9.8 / 10.3 |
| | Dimensions (W × D × H) (mm) | 90×305×165 | | | 115×320×220 | |
| | Packaged dimensions (W × D × H) (mm) | 133×349×232 | | | 161×369×290 | |
| | Quantity / 20 ft | 2300 pcs | | | 1400 pcs | |

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

# EA200 Plus

600 VA ~ 1000 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

## 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)


## Specifications

| 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) | | |
| **OUTPUT** | | | |
| Output voltage (battery mode) | 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.) | | |
| 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 Mode, Battery Mode, Battery charge state | | |
| Lcd display(LCD version) | Mains state, Output voltage, Battery capacity, Load capacity | | |
| **PROTECTION** | | | |
| Full protection | Short circuit, battery overcharge, over discharge, overload, surge | | |
| **OPERATING ENVIRONMENT** | | | |
| Operating temperature | 0 - 40℃ | | |
| 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 |

# EA200Pro+

400 VA ~ 1000 VA

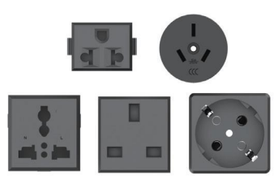


## Features

- 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

(Optional outlets)

## Specifications

| MODEL | EA240Pro+ | EA260Pro+ | EA280Pro+ | EA2100Pro+ |
|---|---|---|---|---|
| Capacity | 400VA / 240W | 600VA / 360W | 800VA / 480W | 1000VA / 600W |
| **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) | | | |
| **OUTPUT** | | | | |
| 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 / 4.5 Ah×1 | 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 | 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) | 3.7 / 4.0 | 4.2 / 4.5 | 5.2 / 5.5 | 5.4 / 5.8 |

# EA200R

600 VA ~ 2000 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 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



## Specifications

| MODEL | | EA260R | EA280R | EA2120R | EA2150R | EA2200R |
|---|---|---|---|---|---|---|
| Capacity | | 600 VA<br>360 W | 800 VA<br>480 W | 1200 VA<br>720 W | 1500 VA<br>900 W | 2000 VA<br>1200 W |
| **INPUT** | | | | | | |
| Voltage | | 100 / 110 / 120 V: 80 ~ 150 Vac; 220 / 230 / 240 V: 162 ~ 295 Vac (145 ~ 295 Vac optional) | | | | |
| Frequency | | 50 / 60 Hz ± 10% (auto-sensing) | | | | |
| **OUTPUT** | | | | | | |
| Voltage | | 100 / 110 / 120 Vac±10% or 220 / 230 / 240 Vac±10% | | | | |
| Frequency | | 50 / 60 Hz±1% (auto-sensing) | | | | |
| Waveform | | Mains mode: pure sine wave; Battery mode: simulated sine wave | | | | |
| Transfer time | | Typical 2 ~ 7 ms, 10 ms max. | | | | |
| **BATTERIES** | | | | | | |
| DC voltage | | 12 V | | 24 V | | |
| Configuration | | 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 time | | 6 ~ 8 h | | | | |
| **OTHERS** | | | | | | |
| Protections | | Short circuit - battery overcharge – overdischarge – overload - surge | | | | |
| Communications | | USB / RS232 / SNMP (optional) | | | | |
| Humidity | | 20 ~ 90% RH @ 0 ~ 40℃ (non-condensing) | | | | |
| Noise level | | ≤ 45 dB (1 m) | | | | |
| Rack mount | Net / Gross weight (kg) | 7.0 / 7.5 | 8.2 / 8.7 | 11.6 / 12.1 | 13.3 / 13.8 | 14.9 / 15.4 |
| | Dimensions (W × D × H) (mm) | 308 × 438 × 88 | | 308 × 438 × 132 | | |
| | Packaged dimensions (W × D × H) (mm) | 395 × 525 × 185 | | 395 × 525 × 225 | | |

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

# EA600

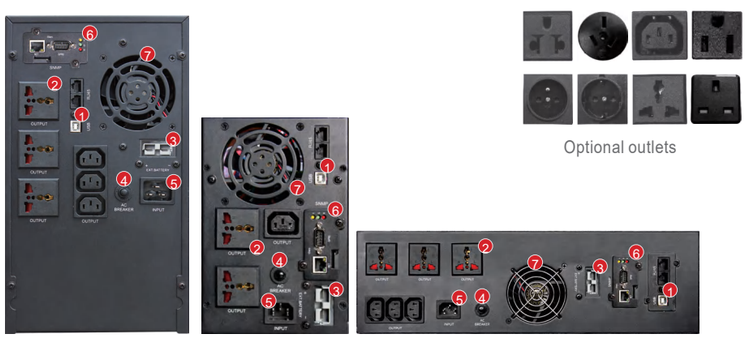
500 VA ~ 3000 VA

## Features

- 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





Optional outlets



## Specifications

| MODEL | EA605 | EA610 | EA615 | EA620 | EA630 |
|---|---|---|---|---|---|
| Capacity | 500 VA / 300 W | 1000 VA / 800 W | 1500 VA / 1200 W | 2000 VA / 1600 W | 3000 VA / 2400 W |
| **DC INPUT** | | | | | |
| Rated voltage | 12 V | 24 V | | 36 V (S) 48 V (H) | 48 V |
| DC input range (default) | 10 ~ 15 V | 20 ~ 30 V | | 30 ~ 45 V (S) 40 ~ 60 V (H) | 40 ~ 60 V |
| **AC INPUT** | | | | | |
| AC input range (bypass mode) | 0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac<br>0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 / 240 Vac ± 10 Vac | | | | |
| AC input range (mains mode) | 100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac 120 V: 90 ~ 150 Vac<br>200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac | | | | |
| Frequency input range | 50 / 60 Hz (auto-sensing), 50 / 60 Hz ± 5% ~ 15% | | | | |
| Generator connection | Available (generator input power is settable) | | | | |
| **OUTPUT** | | | | | |
| Inverter output range | 100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 Vac ± 5% (settable) | | | | |
| AC output range (bypass mode) | 0 ~ 121 / 132 / 138 / 144 Vac for 100 / 110 / 115 / 120 Vac ± 10 Vac<br>0 ~ 242 / 264 / 276 / 288 Vac for 200 / 220 / 230 V / 240 Vac ± 10 Vac | | | | |
| AC output range (mains mode) | 100 V: 90 ~ 110 Vac 110 V: 99 ~ 121 Vac 115 V: 103 ~ 126 Vac 120 V: 108 ~ 132 Vac<br>200 V: 166 ~ 226 Vac 220 V: 188 ~ 245 Vac 230 V: 199 ~ 254 Vac 240 V: 210 ~ 264 Vac | | | | |
| Output frequency | 50 / 60 Hz ± 0.3 Hz (settable) | | | | |
| Waveform | Pure sine wave | | | | |
| Inverter efficiency | Max. 75% | Max. 80% | | Max. 85% | |
| Energy saving mode | Settable (< 3% load) , enter in 80 s | | | | |
| No-load shutdown | Settable (< 3% load), shut down in 80 s | | | | |
| Transfer time | ≤ 10 ms | | | | |
| THDV (resistive load) | ≤ 5% | | | | |
| Protections | Overload, short circuit (inverter), battery low voltage, battery overcharge, overtemperature | | | | |
| Overload (mains mode) | 110% for 120 s, 125% for 60 s, 150% for 10 s (transfer to bypass mode) | | | | |
| Overload (inverter mode) | 110% for 60 s, 125% for 10 s, 150% for 5 s (shut down directly) | | | | |
| Mute | Automatic mute in 60 s or by manual | | | | |
| **BATTERIES** | | | | | |
| Inbuilt battery (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 |
| Charging current | Standard model (S): 1 A (default)<br>Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A | | | | |
| | Max. 10 A (H) | Max. 15 A (H) | / | Max. 20 A (H) | Max. 25 A (H) |
| Equalizing charge voltage | Single battery 14.1 Vdc (default), 13.6 ~ 15 Vdc adjustable | | | | |
| Floating charge voltage | Single battery 13.5 Vdc (default), 13.2 ~ 14.6 Vdc adjustable | | | | |
| Low voltage alarm point | Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc adjustable | | | | |
| Low voltage shutdown point | Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable | | | | |
| **OTHERS** | | | | | |
| Communications | USB & RJ45 (standard), dry contacts / SNMP (optional) | | | | |
| Operating temperature | 5℃ ~ 40℃ | | | | |
| Operating humidity | Relative humidity ≤ 93% | | | | |
| Noise level | ≤ 50 dB (1 m) | | | | |
| Tower – Dimensions (W × D × H) (mm) | 144 × 345 × 215 (S / H) | | | 144 × 410 × 215 (S)<br>144 × 345 × 215 (H) | 190 × 467 × 335.5 (S / H) |
| Tower – Packaged dimensions (W × D × H) (mm) | 236 × 427 × 316 (S / H) | | | 236 × 492 × 316 (S)<br>236 × 427 × 316 (H) | 320 × 592 × 462 (S / H) |
| Tower – Net weight (kg) | 7.0 (H) | 12.2 (S) 11.6 (H) | 14.2 (S) | 18.5 (S) 17.8 (H) | 28.1 (S) 28.0 (H) |
| Tower – Gross weight (kg) | 8.0 (H) | 13.2 (S) 12.6 (H) | 15.2 (S) | 19.8 (S) 18.8 (H) | 30.2 (S) 30.0 (H) |
| Rack-mount – Dimensions (W × D × H) (mm) | / | 440 × 338 × 88 (S) | 440 × 410 × 132 (S) | | |
| Rack-mount – Packaged dimensions (W × D × H) (mm) | / | 611 × 448 × 208 (S) | 611 × 505 × 235 (S) | | |
| Rack-mount – Net weight (kg) | / | 14.6 (S) | 17.2 (S) | 21.3 (S) | 26.7 (S) |
| Rack-mount – Gross weight (kg) | / | 16.8 (S) | 20.4 (S) | 24.5 (S) | 30.5 (S) |

- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

# 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 | LED | | | |
| **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 (over-frequency automatically transfer to inverter power) | | | |
| Stable output voltage range | 174 ~ 216 Vac / 190 ~ 238 Vac / 199 ~ 250 Vac / 210 ~ 260 Vac ±10 Vac for 200 / 220 / 230 / 240 Vac<br>87 ~ 108 Vac / 96 ~120 Vac / 100 ~125 Vac / 105 ~ 130 Vac ±10 Vac for 100 / 110 / 115 / 120 Vac | | | |
| Input P.F.（AC/DC） | 98% | | | |
| Efficiency | Mains mode ≥ 96% | | | |
| Mains overload | 110% for 120 s, 125% for 60 s, 150% for 10 s | | | |
| Short circuit | Input fuse | | | |
| **INVERTER STATES** | | | | |
| Inverter output voltage | 100 / 110 / 115 / 120 / 200 / 220 / 230 / 240 Vac± 5% (battery ≥ 11 Vdc) | | | |
| Output frequency | 50 / 60 Hz ±1% (auto-sensing) | | | |
| Output power factor | ≥ 0.6 | | | |
| Waveform distortion | Linear load ≤ 5% | | | |
| Transfer time | ≤ 10 ms | | | |
| Efficiency | Inverter mode ≥ 80% | | | |
| Inverter overload | 110% for 60 s,125% for 10 s, 150% for 5 s | | | |
| No-load shut-off (option) | Load < 5% auto shutdown  in 1 min | | | |
| Short circuit | the system automatically shut down | | | |
| **ALARM** | | | | |
| Mains abnormal | 1 / 4 s, be silent in 40 s | | | |
| Low battery | 1 / 0.2 s | | | |
| Overload | 1 / 1 s | | | |
| **BATTERIES** | | | | |
| DC voltage | 24 Vdc | 48 Vdc | | |
| Inner battery space | 2 × 12 V 38 Ah / 120 Ah | 4 × 12 V 38 Ah / 120 Ah | 4 × 12 V 120 Ah | |
| Charging current | Max. 12 A | | | |
| **OTHERS** | | | | |
| Installing | Floor standing or wall-mounted | | | |
| Surge protection | Class C | | | |
| Communications | Dry contacts / RS232 / USB / SNMP (optional) | | | |
| Protection grade | IP 55 | | | |
| Environmental temperature | 0℃ ～ 50℃ | | | |
| Environmental humidity | 10% ～ 95% (no cooling) | | | |
| Noise | ≤ 50 dB | | | |
| Weight (kg) | 17.5 / 36.7 | 36.7 | 60.7 | |
| Dimensions<br>(W × D × H) (mm) | 430 × 245 × 550  /  470 × 245 × 900 | 470 × 245 × 900 /<br>470 × 460 × 900 | 470 × 460 × 900 | |
| Packaged dimensions<br>(W × D × H) (mm) | 500 × 335 × 636 / 540 × 330 × 980 | 540 × 330 × 980 /<br>550 × 560 × 950 | 550 × 560 × 950 | |

●All specifications are subject to change without notice.

# Pure Sine Wave Inverter

300 W ~ 3500 W

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 p ulse 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)



## Specifications

| MODEL | 300 W | 600 W | 1000 W | 1600 W | 2500 W | 3500 W |
|---|---|---|---|---|---|---|
| **DC INPUT** | | | | | | |
| Nominal input voltage | 12 V | | | 24 V | | |
| DC input voltage range | 10 ~ 15 V | | | 20 ~ 30 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,<br>68 ~ 128 Vac for 100 Vac, 75 ~ 141 Vac for 110 Vac, 79 ~ 148 Vac for 115 Vac, 82 ~ 154 Vac for 120 Vac | | | | | |
| Frequency | 50 / 60 Hz (auto-sensing & settable: 5% ~ 15%, default 15%), 42.5 ~ 57.5 Hz for 50 Hz, 51 ~ 69 Hz for 60 Hz | | | | | |
| Input voltage of generator | 99 ~ 282 Vac for 220 Vac, 104 ~ 294 Vac for 230 Vac, 108 ~ 307 Vac for 240 Vac,<br>45 ~ 128 Vac for 100 Vac, 50 ~ 141 Vac for 110 Vac, 52 ~ 148 Vac for 115 Vac, 54 ~ 154 Vac for 120 Vac | | | | | |
| Input frequency of generator | 40 ~ 70 Hz | | | | | |
| Input power limitation | Rated power 10% ~ 150%,regulating step 10%, default 120% | | | | | |
| **OUTPUT** | | | | | | |
| DC mode output voltage | 220 / 230 / 240 Vac ± 5% or 100 / 110 / 115 / 120 Vac ± 5% (settable) | | | | | |
| AC mode output voltage | 174 ~ 242 Vac for 220 Vac, 182 ~ 253 Vac for 230 Vac, 190 ~ 264 Vac for 240 Vac,<br>79 ~ 109 Vac for 100 Vac, 87 ~ 121 Vac for 110 Vac, 93 ~ 125 Vac for 115 Vac, 95 ~ 133 Vac for 120 Vac | | | | | |
| Nominal output frequency | 50 / 60 Hz ± 0.3 Hz (auto-sensing & settable) | | | | | |
| Output waveform | Pure sine wave | | | | | |
| Output power | 300 W | 600 W | 1000 W | 1600 W | 2500 W | 3500 W |
| Efficiency | Max. 95% (mains mode); Max. 80% (inverter mode) | | | | | |
| ECO mode | Settable, load < 3%, enter in 80 s | | | | | |
| No-load shutdown | Settable, time can be set (1 ~ 99 min), load can be set (3% ~ 50%) | | | | | |
| Transfer time | ≤ 10 ms | | | | ≤ 15 ms | |
| Power factor | 1.0 | | | | | |
| THDv | < 5% (linear load) | | | | | |
| Inductive load | Yes | | | | | |
| Motor load | Yes | | | | | |
| Rectifier load | Yes | | | | | |
| Overload | Mains mode: 110% for 120 s, 125% for 60 s, 150% for 10 s (switch to bypass)<br>Inverter mode: 110% for 60 s, 125% for 10 s, 150% for 10 s (shut down) | | | | | |
| **BATTERIES** | | | | | | |
| Charging current (selectable) | Default 10 A | Default 20 A, regulating step 1 A (< 10 A) / 5 A (> 10 A) | | | | |
| | Max. 15 A | Max. 30 A | Max. 40 A | Max. 40 A | Max. 50 A | Max. 60 A |
| Equalizing charge voltage | Single battery 14.4 Vdc (default), 13.6 ~ 15 Vdc adjustable | | | | | |
| Floating charge voltage | Single battery 13.7 Vdc (default), 13.2 ~ 14.6 Vdc adjustable | | | | | |
| Charge mode | 3 stage charge mode | | | | | |
| DOD | Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc settable | | | | | |
| EOD | Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable | | | | | |
| Reverse warning | Buzzer | | | | | |
| **MPPT MODULES (OPTIONAL)** | | | | | | |
| Model | 10 A / 20 A / 30 A / 40 A | | | | / | |
| Max. PV input voltage (Voc) | 40 V | | | 60 V | / | |
| PV optimum operating voltage (Vmp) | 18 V ~ 32 V | | | 29 V ~ 48 V | / | |
| Max. PV power | 120 W / 240 W / 360 W / 480 W | | | 240 W / 480 W /<br>720 W / 960 W | / | |
| **DC MODULES (OPTIONAL)** | | | | | | |
| Model | 5 V (2 A), 9 V / 12 V (1 A), 15 V / 24 V (1 A), 12 V / 24 V (10 A) | | | | | |
| **OTHERS** | | | | | | |
| Protections | Overload - short-circuit - overvoltage - undervoltage - overcharge - overtemperature - excessive low battery | | | | | |
| Human-machine interface | LCD & BUZZER | | | | | |
| Operating temperature | 0℃ ~ 40℃ | | | | | |
| Operating humidity | Relative humidity ≤ 93% | | | | | |
| Net weight (kg) | 8.0 / 8.5 / 7.4 | 10.9 / 11.4 / 11 | 14.0 / 14.6 | 18.0 / 18.5 | 32.0 | 36.0 |
| Gross weight (kg) | 9.0 / 9.5 / 8.4 | 11.9 / 12.4 / 12 | 15.0 / 15.6 | 19.0 / 19.5 | 34.0 | 38.0 |
| Dimensions (W × D × H) (mm) | 280×258×120 (w / o option)<br>293×280×160 (w / option)<br>400×210×127 (Wall mounted) | | 293 × 280 × 160 | | 302 × 479 × 209 | |
| Packaged dimensions (W × D × H) (mm) | 330×352×200 (w / o option)<br>370×355×235 (w / option)<br>490×290×195 (Wall mounted) | | 370 × 355 × 235 | | 353 × 582 × 287 | |

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

# Pure Sine Wave Inverter

300 W ~ 600 W

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 loads and motors
- 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 loads)
- Compatible with generators, and matching of inverter and generator is settable.
- Usable as off-grid solar inverter if combined with EAST charge controller


## Specifications

| MODEL | 300 W | 600 W |
|---|---|---|
| **DC INPUT** | | |
| Nominal input voltage | 12 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 Vac 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 / 240 Vac ± 5% | |
| AC mode output voltage | 220 / 230 / 240 Vac ± 5% or 100 / 110 / 115 / 120 Vac ± 5% | |
| Nominal output frequency | 50 / 60 Hz ± 0.3 (auto-sensing & settable) | |
| Output waveform | Pure sine wave | |
| Output power | 300 W | 600 W |
| Efficiency | Max. 95% (mains mode); Max. 80% (inverter mode) | |
| ECO mode | Settable (< 3% load) to enter in 80 s | |
| No-load shutdown | Settable, time can be set (1 ~ 99 min), load can be set (3% ~ 50%) | |
| Transfer time | ⩽ 10 ms | |
| Power factor | 1.0 | |
| THD | < 5% (linear load) | |
| Inductive load | Yes | |
| Motor load | Yes | |
| Rectifier load | Yes | |
| Overload capability | Mains mode: 110% for 120 s, 125% for 60 s, 150% for 10 s (switch to bypass)<br>Inverter mode: 110% for 60 s, 125% 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 (default), 13.6 ~ 15 Vdc adjustable | |
| Floating charge voltage | Single battery 13.7 Vdc (default), 13.2 ~ 14.6 Vdc adjustable | |
| Charge mode | 3 stage charge mode | |
| EOD | Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable | |
| Reverse warning | Buzzer | |
| **OTHERS** | | |
| Human-machine interface | LCD & BUZZER | |
| Operating temperature | 0℃ ~ 40℃ | |
| Operating humidity | 5% ~ 95% RH | |
| Forced air cooling | Variable speed fans | |
| Net weight (kg) | 7.5 | 10.5 |
| Gross weight (kg) | 8.3 | 11.3 |
| Dimensions (W×D×H) (mm) | 400×210×127 | |
| Packaged dimensions (W×D×H) (mm) | 490×290×195 | |

- All specifications are subject to change without notice.

# Modified Sine Wave Inverter

## 1200 VA ~ 2400 VA


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 | ± 10% (default), ± 5% ~ 15% (selectable) | | |
| **OUTPUT** | | | |
| Power factor | 0.6 | | |
| Output voltage | Battery mode: 220 / 230 / 240 Vac±10% (selectable)<br>Mains mode: synchronized with utility power | | |
| Output frequency | Battery mode: 50 / 60 Hz±1% (selectable);<br>Mains mode: synchronized with utility power | | |
| Output waveform | Battery mode: square wave; Mains mode: synchronized 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 (selectable) | | 15 / 10 A ± 3 A (selectable) |
| Equalizing charge voltage | Single battery 14.2 ± 0.3 Vdc (default), 13.6 ~ 15.0 Vdc (selectable) | | |
| Floating charge voltage | Single battery 13.6 ± 0.3 Vdc | | |
| Low voltage alarm | Single battery 10.8 ± 0.3 Vdc (default), 9.6 ~ 13.0 Vdc (selectable) | | |
| Low voltage shutdown | Single battery 10.2 ± 0.3 Vdc (default), 9.6 ~ 12.0 Vdc (selectable) | | |
| Overvoltage protection | Single battery 15.0 ± 0.3 Vdc | | |
| Overvoltage recovery | Single battery 13.6 ± 0.3 Vdc | | |
| **SYSTEM** | | | |
| Transfer time | ≤ 8 ms (typical) , ≤ 15 ms (max.) | | |
| Protections | Overload, short circuit, over-temperature, output over/under-voltage, excessive low battery | | |
| Overload times (Mains mode) | ≥ 110% for 120 s, ≥ 125% for 60 s, ≥ 150% for 10 s, ≥ 200% for 1 s | | |
| Overload times (Battery mode) | ≥ 110% for 60 s, ≥ 125% for 5 s, ≥ 150% for 1 s | | |
| Communication interface | No | | |
| Panel display | LCD + LED | | |
| **OTHERS** | | | |
| Operating temperature | 0 ~ 45℃ | | |
| Operating humidity | 0 ~ 95% (no-condensing) | | |
| Altitude | ≤ 1000 m (Above 1000 m, derating 1% for each additional 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 |

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

## SNMP Card


Internal SNMP card


Internal SNMP card


External SNMP card

### Application schematic diagram