

Modular UPS

**EAST UPS
Guard
Power Well**



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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 m² 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 Patent 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

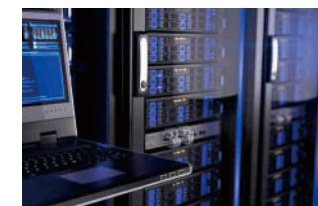
Our Team

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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25 kVA ~ 200 kVA



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50 kVA ~ 800 kVA

EA660

25 kVA ~ 200 kVA
PF 1.0



Highlights

High power factor 1.0

High efficiency 96%

High power density

3-level technology

2 U power module

Power flexibility from 25 – 200 kW

Scalability & Modular hot-swappable

Low total cost of ownership

EA660 Series modular UPS is ideal for reliable, saving, intelligent and easy solutions. It ensures that a scalable, secure, high quality power supply is available for any critical high-density computer and IT environment applications, such as data centers and other critical loads.

EA660 Series (25 kVA ~ 200 kVA) UPS is a high-end modular UPS with latest dual-core DSP control technology. It adopts a highly intelligent modular design which mainly contains power modules, bypass module and control module, all modules support “plug & play” to simplify UPS servicing and maintenance. The available UPS power and redundancy level can expand vertically from 25 kVA / 25 kW to 200 kVA / 200 kW in one single power cabinet with flexible configuration for meeting different needs. Based on superior electrical performance, perfect hardware and software protection function, EA660 Series UPS can adapt to different grid environment and provides maximum protection and high quality power for critical loads in data centers or other important applications.

Features

- Advanced dual-core DSP control technology
- True On-line, double conversion power protection, and with strong load capacity
- Compact footprint, modular Hot-swappable design simplifying maintenance and scalability
- High efficiency up to 96% in on-line mode, 99% efficiency in ECO mode
- Dual input design, independent bypass available, improving bypass availability
- Output power factor 1.0, input power factor ≥ 0.99 , input THDi $\leq 3\%$, output THDv $\leq 1\%$
- 138 ~ 485 Vac wide input voltage range, 50 Hz / 60 Hz grid self-adaptive
- Frequency conversion available: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Advanced digital parallel technology, improving redundancy and reliability in system
- Flexible charger parameter and battery configuration settings, battery number 30 ~ 46 pcs selectable
- Compatible with lead-acid battery and lithium battery, suitable for different types of battery configuration requirements
- Support cold start with battery and auto restart with mains power
- Settable delay time for startup when the mains power is restored, reducing the impact on the grid or generators
- Fan speed varies intelligently with temperature, reducing noise and extending the service life of the fan
- Fault-tolerant design for fan system, taking 35% loads when any one of fans fails
- Superior hardware and software protection function, robust self-diagnostic function, and abundant event log
- Hibernation function to improve the system efficiency at light loads and extend the service life of UPS
- Powerful background software for parameters configuration and online updating
- 7 inches LCD touch screen, friendly human-machine interface
- Multi-platform communications: RS232, RS485, CAN, NET, dry contacts, SNMP, Wi-Fi and GPRS communication interfaces; Real-time monitoring UPS available through the mobile App after installing Wi-Fi card and GPRS card
- Intelligent battery management, automatic floating/equalizing charge control, battery self-diagnosis control, SOC detection, SOH detection and charger hibernation control, extending battery lifespan

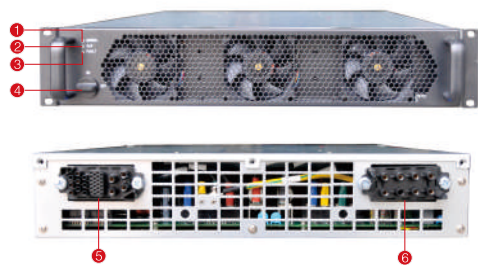
Available Options

Parallel cables, LBS cables, Battery temperature sensor, Wi-Fi card, GPRS card, EMD and SMS alarms





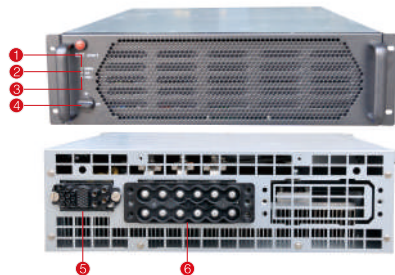
Power Module



- ① Run indicator ② Alarm indicator ③ Fault indicator
④ Ready switch ⑤ Output port ⑥ Input port

Dimensions (W x D x H) (mm)	442 x 620 x 86
Weight (kg)	20.26 kg
Charging current	10 A
Capacity	25 kVA / 25 kW
Power density	17.2 W / inch ³

Bypass Module



- ① Run indicator ② Alarm indicator ③ Fault indicator
④ Ready switch ⑤ Signal terminal ⑥ Power terminal

Dimensions (W x D x H) (mm)	442 x 500 x 130
Weight (kg)	18 kg
Capacity	200 kVA / 200 kW

Control Module



- ① Parallel port ② LED indicator ③ DRY_IN ④ DRY_OUT ⑤ BTG port ⑥ BCB port
⑦ EPO port ⑧ Switch state port of power distribution cabinet ⑨ SPD port ⑩ Battery temperature compensation port ⑪ CAN port ⑫ R232 port
⑬ R485 port 1 ⑭ R485 port 2 ⑮ Ethernet port ⑯ USB port ⑰ LCD screen port ⑱ System board plug switch
⑲ Dry contact board plug switch ⑳ Monitoring board plug switch ㉑ Ground terminal

Specifications

MODEL	EA66100	EA66200
Rated capacity	100 kVA / 100 kW	200 kVA / 200 kW
Number of power module	4	8
Rated capacity of power module	25 kVA / 25 kW	
INPUT		
Input wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Voltage range	138 ~ 305 Vac (linear derating at 40% ~ 100% load), 305 ~ 485 Vac (no derating)	
Frequency range	40 ~ 70 Hz	
Input power factor	≥ 0.99	
THDi	≤ 3%	
Bypass input voltage range	-60% ~ +25% (settable)	
Battery voltage	± 240 Vdc (± 180 ~ ± 276 Vdc settable)	
Number of battery	40 pcs 12 V batteries (30, 32, 34, 36, 38, 40 42, 44, 46 pcs settable)	
OUTPUT		
Output wiring	Three-phase five-wire (3Φ + N + PE)	
Rated voltage	380 / 400 / 415 Vac	
Output voltage regulation accuracy	± 1%	
Output frequency accuracy	Synchronized with utility in mains power mode; 50 Hz / 60 Hz ± 0.1% in battery mode	
Output power factor	1	
Output waveform distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)	
Crest factor	3:1	
Overload capacity	105% < load ≤ 110% for 60 min, 110% < load ≤ 125% for 10 min, 125% < load ≤ 150% for 1 min, load > 150% for 0.2 s	
SYSTEM		
Max. efficiency	96% in on-line mode, 99% in ECO mode	
Transfer time	0 ms	
Max. number of parallel connections	2	
Protections	Short-circuit – overload – over-temperature – battery low voltage – undervoltage – overvoltage – fan failure protection	
Communications	Standard configurations: RS232, RS485, CAN, NET, parallel port, LBS port, SNMP card, dry contacts port, EPO and battery temperature compensation port Optional configurations: Wi-Fi card, GPRS card, Battery temperature sensor, EMD and SMS alarms	
Display	7 inches LCD touch screen	
ENVIRONMENTAL		
Operating temperature	0℃ ~ 40℃	
Storage temperature	-25℃ ~ +55℃ (without battery)	
Relative humidity	0% ~ 95% (non-condensing)	
Altitude	≤ 1000 m, above 1000 m, derating 1% for each additional 100 m	
Protection level	IP 20	
Noise	≤ 65 dB (at 1 m)	
OTHERS		
Cabinet dimensions (W×D×H) (mm)	600×850×1200	600×850×2000
Net weight (kg)	260	430

● All specifications are subject to change without notice.

EA660

50 kVA ~ 800 kVA
PF 1.0



Highlights

High power factor 1.0

High efficiency 96.5%

High adaptability

Power flexibility from 50 – 800 kW

Modular hot-swappable & Scalability

High MTBF and low MTTR

EA660 modular UPS is ideal for reliable, saving, intelligent and easy solutions. It ensures that a scalable, secure, high quality power supply is available for any critical high-density computer and IT environment applications, such as data centers and other critical loads.

EA660 modular UPS is a scalable three-phase / three-phase uninterruptible power supply system with DSP technology and provides true on-line double conversion power protection. The available UPS power and redundancy level can expand vertically from 50 to 800 kVA / 800 kW in one single power cabinet, and four power cabinets can be connected in parallel, increasing the capacity up to 3.2 M kW. It features modular hot-swappable design, all modules support “plug & play”, including power modules, bypass module, and control module, simplifies UPS servicing and maintenance.

Features

- DSP digital control technology
- Pure sine wave double conversion, with strong load capacity
- Flexible modularity and easy scalability with all hot-swappable module design
- High efficiency at low load rate: 96% at 40% rated load and 95% at 20% rated load
- High power density of 50 kVA / 3U power module
- High grid adaptability, strong load adaptability and strong overload capability
- Small footprint (500 kVA system only 1.02 m² footprint)
- Inbuilt integrated PDU system, easy installation and saving investment
- Input power factor > 0.99, THDi < 3%, environment friendly and high-efficiency and energy-saving
- Wide input voltage range, 50 Hz / 60 Hz frequency auto-sense, adapt to all kinds of grid
- Soft-start technology improves generator matching up to 1:1.1
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Intelligent hibernation design enables UPS to operate efficiently at low load rate
- Advanced parallel expansion technology, support 4 units in parallel
- Share battery pack in parallel operation, saving user's battery cost
- Flexible charger parameter and battery configuration setting, numbers of battery 30 ~ 46 pcs selectable
- Intelligent battery management (Intelligent charge/discharge management and float charging voltage temperature compensation), extending battery lifespan
- Support battery cold start and utility self boot
- Self-aging function, easy debugging and test on site
- Fault-tolerant design for fan system: 30% load can be driven when 2 fans fail and 50% load when 1 fan fails
- Front accessible maintenance, top/bottom cable entry compatible
- Complete hardware and software protection function, robust self-diagnostic function, and abundant event log for check
- 7 inches LCD touch screen, friendly human-machine interface
- Monitoring unit with built-in SNMP, supports RS485 and dry contacts





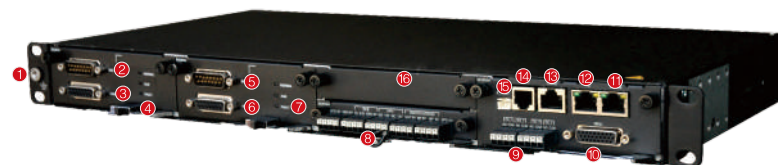
Power Module



Bypass Module



Control Module



- | | | | | | |
|-------------------|--------------------|---------------------------|--------------------------------|--------------|--------------------------|
| ① Ground terminal | ② BSC port 1 | ③ Parallel port 1 | ④ Indicator | ⑤ BSC port 2 | ⑥ Parallel port 2 |
| ⑦ Indicator | ⑧ Dry contact card | ⑨ Dry contact port | ⑩ MDU port | ⑪ RS485 port | ⑫ FE port (support SNMP) |
| ⑬ COM2 Port | ⑭ COM1 Port | ⑮ Temperature sensor port | ⑯ Optional board subrack cover | | |

Specifications

MODEL	EA66200	EA66300	EA66400	EA66500	EA66600	EA66800
Rated capacity	200 kVA/200 kW	300 kVA/300 kW	400 kVA/400 kW	500 kVA/500 kW	600 kVA/600 kW	800 kVA/800 kW
Numbers of power modules	4	6	8	10	12	16
Rated capacity of power module	50 kVA					
INPUT						
Input wiring	3 Ph + N + PE					
Rated voltage	380 / 400 / 415 Vac					
Voltage range	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading; 138 ~ 305 Vac with linear downgrading 40%)					
Input frequency	40 ~ 70 Hz					
Power factor	≥ 0.99					
Current distortion	< 3%					
BATTERIES						
Battery voltage	± 240 Vdc (± 180, ± 192, ± 204, ± 216, ± 228, ± 252, ± 264, ± 276 selectable)					
Number of battery	40 pcs 12 V batteries (30 / 32 / 34 / 36 / 38 / 42 / 44 / 46 pcs selectable)					
OUTPUT						
Output wiring	3 Ph + N + PE					
Rated voltage	380 / 400 / 415 Vac ± 1%					
Frequency	Synchronized with utility in mains power mode: 50 Hz / 60 Hz ± 0.25% in battery mode					
Power factor	1					
Voltage distortion	≤ 1% with linear load / ≤ 3 % with non-linear load					
Crest factor	3:1					
Inverter overload capacity	105% < load ≤ 110%: transfer to bypass in 60 min 110% < load ≤ 125%: transfer to bypass in 10 min 125% < load ≤ 150%: transfer to bypass in 1 min Load > 150%: transfer to bypass in 200 ms					
Bypass overload capacity	Load ≤ 135% for long term; < 1000% load for 100 ms					
SYSTEM						
Efficiency	96.5 %					
Max. number of parallel connections	4 units					
Transfer time	0 ms					
Protections	Short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output over/low voltage protection, fans failure protection etc.					
Communications	RS485, dry contacts, SNMP					
Display	7 inches LCD touch screen					
OTHERS						
Operating temperature	0 ~ 40℃					
Storage temperature	-40℃ ~ +70℃					
Humidity	0 ~ 95% (non-condensing)					
Altitude	≤ 1000 m. Above 1000 m, derating 1% for each additional 100 m					
Protection level	IP 20					
Noise level at 1 m	< 65 dB	< 68 dB				
Cabinet dimensions (W × D × H) (mm)	600 × 850 × 2000	1200 × 850 × 2000			1400 × 850 × 2000	2400 × 850 × 2000
UPS module dimensions (W × D × H) (mm)	442 × 620 × 130					
Cabinet weight (kg)	233	415	465	617	1025	
Power module weight (kg)	32.5					

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