

EA660

20KVA ~ 160KVA
PF 1.0



With extendable capacity up to 160KVA/160KW in each closet and full DSP control technology, EA660 series is the third generation of three phase high frequency modular UPS. All internal modules (power module, charger module and monitor module) are modularly designed and hot swappable. In addition, they are constructed with small modules, assuring both system compactness and reliability. Its full isolation design between fragile components and air flue makes the best of combination of reliability, functionality and flexibility. Moreover, this system adopts advanced "N+X" wireless parallel and redundancy technology, avoiding single point failure, and further strengthening the reliability.

Features

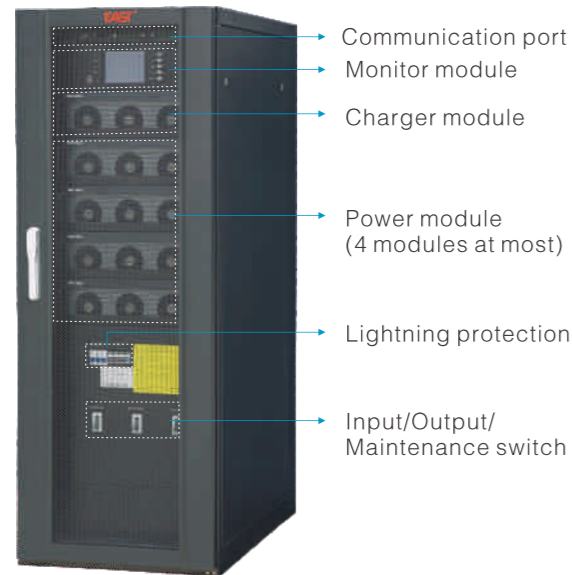
- High frequency online double-conversion with DSP control
- Hot swappable operation for all modules
- Inbuilt integrated PDU system, easy installation and economic initial investment
- Wide input voltage range, 50Hz / 60Hz auto sensing frequency
- Support two modes of frequency conversion: 50Hz input/60Hz output and 60Hz input / 50Hz output
- Input power factor > 0.99, input THDi ≤ 3%, output THDV ≤ 5%
- Advanced "N+X" wireless parallel and redundancy technology easily set up different numbers of redundancy UPS module via LCD
- Inbuilt battery module available, 40 × 12V/9AH for each module
- Share battery pack in parallel operation, saving user's battery cost
- System capacity up to 160KVA/160KW constructed by each module 20KVA / 20KW, single charger module be equipped with 30 A charging current, 4 modules be configured maximally
- Flexible charger parameter and battery configuration setting, selectable battery number: 32 pcs / 34 pcs / 36 pcs / 38 pcs / 40 pcs
- Advanced intelligent battery management technique, prolong the working life of battery effectively
- Support battery cold start and mains auto restart
- Complete isolation between key components and air duct effectively improve the system reliability
- Fragile components can be replaced easily as modules at low maintenance cost
- Front accessible maintenance, top / bottom cable entry compatible
- Perfect protection for hardware and software (C class lightning protection, circuit breaker, fuse, software and hardware protection), robust self detection, abundant event log for future check
- 5.7 inches LCD touch screen, friendly human machine interaction
- Standard emergency power off (EPO)
- Standard RS232/USB/RS485/dry contacts communication port
- Optional SNMP communication port
- Optional battery temperature compensation

Specifications

MODEL	EA6680	EA66160
Capacity	80 KVA / 80 KW	160 KVA / 160 KW
Numbers of parallel module	1 ~ 4	1 ~ 8
Numbers of redundancy module	0 ~ 3	0 ~ 7
UPS power module	20 KVA / 20 KW	
INPUT		
Rated voltage	380 V / 400 V / 415 Vac	
Voltage range	204 ~ 242 Vac (load ≤ 50%); 242 ~ 277 Vac (50% < load ≤ 70%); 277V ~ 520 Vac (70% < load ≤ 100%)	
Rated frequency	50 / 60 Hz (auto-sense)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Total harmonic distortion (THDI)	≤ 3%	
Bypass voltage Range	Rated output voltage -40% ~ rated output voltage +20% (settable via LCD)	
OUTPUT		
Voltage	380 V / 400 V / 415 Vac	
Voltage regulation	± 1%	
Frequency	Synchronized with utility in mains mode; 50 / 60 Hz ± 0.1% in battery mode	
Power factor	1.0	
Waveform	Pure sine wave	
Crest factor	3:1	
Total harmonic distortion (THDV)	≤ 1% (linear load); ≤ 5% (non-linear load)	
Transfer time	0 ms	
Inverter overload capability	110% ~ 130%: transfer to bypass in 10 mins; 130% ~ 150%: transfer to bypass in 1 min; > 150%: transfer to bypass in 0.5 s	
Bypass overload capability	≤ 150%: long time running > 150%: power off in 10 s	
BATTERIES		
DC voltage	± 240 Vdc (options: ± 192 Vdc / ± 204 Vdc / ± 216 Vdc / ± 228 Vdc)	
Inbuilt battery of standard model	40 × 12 V / 9 Ah for each module	
Charging current	1 ~ 30 A / 60 A (settable via LCD)	
SYSTEM		
Efficiency	≥ 94%	
Display panel	5.7 Inches LCD touch screen	
Alarm	Battery mode, low battery, fans fault etc.	
EMI	EN62040-2	
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (surge)	
COMMUNICAITONS		
RS232 / RS485 / USB / dry contacts (standard)	Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / Windows® 7 / 8 / 10	
SNMP (option)	Power management from SNMP manager and web browser	
OTHERS		
Humidity	0 ~ 95% RH @ 0 ~ 40°C (non-condensing)	
Noise level	≤ 60 dB	
Module dimensions (mm) W × D × H	482 × 590 × 131	
Module weight	28 kg / power module, 27 kg / charger module, 7 kg / monitoring module	
UPS dimensions (mm) W × D × H	600 × 1000 × 1600	600 × 1000 × 2000
UPS packaged dimensions (mm) W × D × H	700 × 1070 × 1760	700 × 1070 × 2160
UPS Net / Gross weight (kg)	225 / 245	290 / 310
Without inbuilt battery and power module		
Input / output / bypass breaker	Yes	Yes

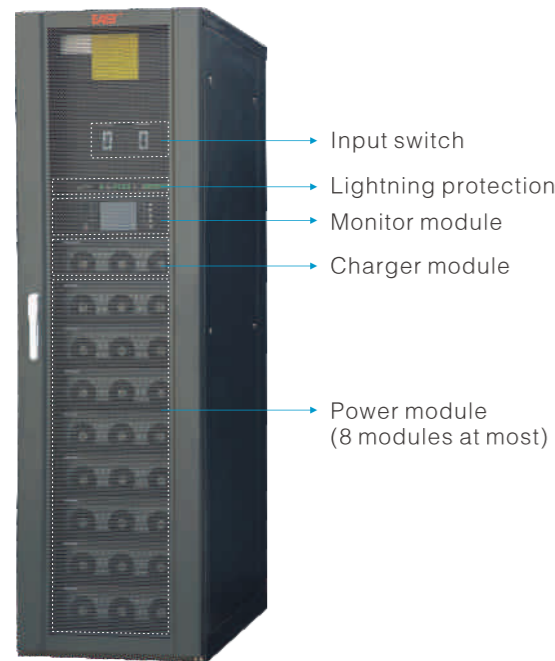
- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

EA660 Internal Structure



EA660~80KVA

80K use cabinet of 1.6 meter tall, and can match 4x20KVA power modules at most, so the biggest capacity is 80KVA. UPS adopt full front operation, and with power distribution inside, can match top cables and bottom cable connection.



EA660~160KVA

160K use cabinet of 2 meter tall, and can match 8x20KVA power modules at most, so the biggest capacity is 160KVA. UPS adopt full front operation, and with power distribution inside, can match top cables and bottom cable connection.

EA660 Battery Module



System front view

- 1.Charger Module
- 2.Battery Module (BAT+)
- 3.Battery Module (BAT-)

Hot swappable battery module is supporting modular UPS design products, the battery module uses the power module size, completely compatible with the power module drawer, without changing the modular cabinet of UPS system can be directly inserted, working on the power module position. Supporting online hot swap, easy maintenance, and support redundant battery module, providing high availability.

Features

- The overall design using the same size as power module, power module slot compatible.
- Keep modular UPS maximum expansion function, readily removable battery module, without changing the system cabinet, can directly increase the power module to expand system power .
- Each battery module equipped with circuit breaker, with short circuit protection function, more safety and reliability.
- Battery module has low voltage & over discharge protection function, to prevent damage to the battery.
- Battery module using hot swap design.Simple operation, easy maintenance.
- Hot swappable and parallelizability battery module function, provide higher availability through redundancy battery module.
- Internal battery module using high performance free maintenance lead-acid batteries, with long service life.
- Battery module according to the 2 groups of multiple selection, each battery module contains 2 battery pack, and each battery pack containing 10PCs 12V/9AH batteries.



Battery Pack with 10pcs 12V/9AH



Battery Module with 20pcs 12V/9AH



Hot swap connector