## **EA660**

## 50KVA ~ 800KVA PF 0.9



EA660 is the third generation of three phase high frequency on-line double-conversion modular UPS. Its single unit is extendable to 800 KVA, system capacity can be expanded to 3.2 MVA constructed by each power module 50 KVA. All internal modules (Power module, bypass module and control module) are modularly designed and hot-swappable.

## Features

- DSP digital control technology
- Pure sine wave double conversion, with strong load capacity
- Flexible modularity and easy scalability with all hotswappable module design
- Keep high efficiency operation at low load rate: 96% at 40% rated load and 95% at 20% rated load
- High power density of 50 KVA / 3U power module
- 500 KVA system only 1.02 m² footprint
- saving investment

  Input power factor > 0.99. THDi < 3%, environment
- Input power factor > 0.99, THDi < 3%, environment friendly and high-efficiency and energy-saving

• Inbuilt integrated PDU system, easy installation and

- Wide input voltage range, 50 Hz / 60 Hz frequency auto-sense, adapt to all kind 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 enable 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, battery number 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

## Specifications

MODEL	EA66200	EA66300	EA66400	EA66500	EA66600	EA66800	
Rated capacity	200KVA	300KVA	400KVA	500KVA	600KVA	800KVA	
Numbers of power modules	4	6	8	10	12	16	
Rated capacity of power module	50 KVA						
INPUT							
Input wiring	3Ph + N + PE						
Rated voltage	380 / 400 / 415 Vac						
	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading;						
Voltage range	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	3Ph + N + PE						
Rated voltage	380 / 400 / 415 Vac ± 1%						
-	Synchronized with utility in mains power mode:						
Frequency	50 Hz / 60 Hz ± 0.25% in battery mode:						
Power factor	0.9						
Voltage distortion	≤ 1% with liner load / ≤ 3% with non-linear load						
Crest factor	3:1						
105% < load ≤ 110%: transfer to bypass in 6							
Inverter overload capacity	110% < load ≤ 125%: transfer to bypass in 10 mins						
	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 %						
Max. number of parallel	4 units						
Transfer time	0 ms						
	Short circuit protection, overload protection, over-temperature protection, battery low						
Protection	voltage	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°C ~ 70°C						
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)		1	200 × 850 × 200		1400 × 850 × 2000	2400 × 850 ×	
UPS module dimensions (W $\times$ D $\times$ H) (mm)	442 × 620 × 130						
Cabinet weight (kg)	233	Λ	15	465	617	1025	
UPS module weight (kg)	200	4		32	1 017	1020	

All specifications subject to change without notice.

35)