

# EPOWER SERIES

10 ~ 800kVA

Topology: Three-phase in to Single-phase out, power frequency, double conversion online



500kVA



300kVA

## Features

### ■ Advanced working mode

- Double Conversion on-line design, which makes the output a pure sine wave source with tracking frequency, phase-lock and voltage regulation, noise suppression, but no power fluctuation interference, providing the load with more comprehensive protection.
- Zero transfer time of output, satisfies high standard power requirements of precision equipment.
- Input power factor is 0.98; with the filter, which improves the energy efficiency, reduces the harmonic pollution of the power grid and lowers the UPS running cost.

### ■ Full DSP Control

- The digital control brings the excellent performance, avoids the risks because of analog devices failure and makes the control system more stable and reliable.

### ■ High output power factor

- The output power factor can reach 0.9 (lagging), which has a higher actual load capacity, and saves the user's investment.

### ■ Wide adaptability

- The range of AC input voltage is (380Va/400Vac/415Vac)  $\pm 25\%$ ,  $+20\%$  thereby reducing the battery using frequency and greatly extending the battery life.
- Wide input frequency ranging from 45Hz to 65Hz, ensures all types of fuel generators connected work stable.

### ■ Optimization of high-performance battery

- Adapt intelligent battery management (ABM) technology, thus it extends battery life and reducing battery maintenance times.
- Advanced floating switching and charging technology maximums the activation of the battery, thus saves the charging time and extends the battery life.

- Battery discharge time prediction; When battery discharges, the system detects the discharge current and predicts the discharge time according to the battery intelligent management. Thus it informs the users to do the appropriate measures.

- The battery self-test on a regular basis to detect battery problems in time, Set the start time and self-test duration according to the different time periods (monthly or weekly).

- Wide battery voltage range: 320~490Vdc makes the configuration of battery quantity more flexible.

### ■ N+X Parallel redundancy

- Adapt N+X parallel redundant design. Users can configure different redundancy numbers according to the importance of load.
- Easy to realize the parallel function. It can be achieved just by connecting the parallel cables and doing

the setting on UPS. Up to 6 units can be connected in parallel at most.

- Non-fixed Master-Slave relationship: Among several UPS in parallel, the unit startup first is Master UPS, the others are Slave UPS. The master and slave can be exchanged. If the inverter of one UPS fails, the UPS will automatically cut off the output, then the load will be powered by remained UPS.

### ■ Strong overload capability

- When the overload is 110%/125%/150%, it can be maintained 60min/10min/1min.

### ■ Compatible with the generator

- Specially designed power walk in function reduces the in-rush current when system starts, thus lowers the requirement of the generator that the parallel system demands.

### ■ LBS synchronization

- It is to keep the output of two independent

UPS systems (single unit or multiple unit) in synchronization even when the two systems are operating on different modes (bypass/inverter) or on batteries.

It is usually used with an STS (Static Transfer Switch) connected to the critical load to achieve Dual Bus configuration, in which the output of the two independent UPS connected to the STS input and the STS output connected to the load.

### ■ Comprehensive and reliable protection

- Self-diagnosis function before start-up, avoids the risks that the failure may lead to.
- The multi-protections such as AC input under/over voltage, overload, short-circuit, over-current, over bus voltage, over-temperature, fan failure, auxiliary power failure, battery under voltage, battery over-charge and so on greatly ensure the system stability and reliability.
- Bypass function. When overload or UPS fails, it can transfer to bypass without interruption to provide AC power to load and provide the alarm information as well.

### ■ EPO function

- An EPO button is embodied in the LCD display panel. Press the EPO button in emergency can shut down the UPS. The EPO button adapts the concave design with a transparent cover, which can avoid misuse.

### ■ User-friendly network management

- Chinese/English (optional) LCD accurately displays the status of operation and data for users.
- Communication with computer can be realized by RS232 with corresponding monitoring software. The various parameters can be shown on the communication interface.
- External SNMP adapter. The UPS with remote network management capability can provide real-time data for communication and management through a variety of network management systems.

## Technical Specifications:

MODEL	EP100	EP120	EP160	EP200	EP300	EP400	EP500 /12P	EP600 /12P	EP800 /12P
Capacity (VA/Watts)	100k / 90k	120k / 108k	160k / 144k	200k / 180k	300k / 270k	400k / 360k	500k / 450k	600k / 540k	800k / 720k
INPUT									
Operating voltage range	380/400/415Vac (–25%/+20% ), (3Ph+N+PE)								
Operating frequency range	50/60Hz ( ± 5Hz)								
Power factor	≥0.98(with filter)						≥0.85		
OUTPUT									
output voltage	380/400/415Vac( ± 1%)								
Max. output current	152A	182A	243A	304A	456A	608A	760A	912A	1216A
Output frequency	Auto tracking the input frequency (line mode) 50/60Hz ± 0.05% (battery mode)								
Harmonic distortion (THD)	<3% ( Linear load)								
Crest factor	3:1 (max)								
Efficiency	>92%	>92%	>92%	>92.5%	>93%	>94%	>95%	>95%	>96%
BYPASS									
Rated voltage	380/400/415Vac								
Voltage protection range	Upper limit: +20% (+10%,+15%,+20% adjustable) Lower limit: –40% (–10%, –20%, –30%, –40% adjustable)								
Rated frequency	50/60Hz (auto–sensing)								
Frequency protection range	± 10% ( ± 2.5%, ± 5%, ± 10%, ± 20% adjustable)								
BATTERY									
Battery voltage	384Vdc						480Vdc		
SYSTEM FEATURES									
Transfer time	0 ms (AC mode →Battery mode)								
Overload	110%/60min ,125%/10min ,150%/1min								
LED display	Input, Inverter, Bypass, Battery, Output, Status								
LCD display	I/O voltage, frequency, power, power factor, battery voltage, current, battery status, load percentage, UPS status, history record, settings								
Communication interface	Dry contact, RS232, RS485, SNMP card (Optional)								
Optional	Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor, Bypass current–sharing inductor								
ENVIRONMENTAL									
Operating temperature	0 ~ 40℃								
Storage temperature	–25℃ ~ 55℃								
Humidity range	0 ~ 95% (non condensing)								
Altitude	<1500m								
Noise level	<65dB				<70dB				
PHYSICAL									
Dimension D × W × H (mm)	1160 × 805 × 1600		1400 × 945 × 1900		1640 × 1040 × 1900		2800 × 1040 × 1900		3900 × 1100 × 1950
Net weight (kg)	800	903	1219	1425	1800	2050	3700	4500	6400
Shipping weight (kg)	890	993	1349	1555	1950	2200	3950	4750	6700
STANDARDS									
Safety	IEC/EN62040–1;IEC/EN60950–1								
EMC	IEC/EN62040–2;IEC61000–4–2;IEC61000–4–3;IEC61000–4–4; IEC61000–4–5;IEC61000–4–6;IEC61000–4–8								

Specifications subject to change without prior notice.