

EPower

10-80 kVA

High output power factor 0.9
Three-phase/Three-phase

Highlights

- True online UPS (Double conversion)
- IGBT inverter & Output isolation transformer
- 3 Phase UPS allow 100% unbalance load
- Fully static transfer switch
- Zero time Transfer Switch bypass
- Economy mode & On line Mode
- LED & LCD Large Display panel
- Advanced working mode
- Full DSP Control
- High output power factor 0.9
- Strong environmental adaptability
- EPO function
- Optimization of high-performance battery
- N+X Parallel redundancy up to 6 units
- Strong overload capability
- Compatible with the generator
- LBS synchronization
- 6 or 12 Pulse rectifier (optional)
- Bypass isolation transformer (Optional)
- Comprehensive and reliable protection
- User-friendly network management



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, and without power fluctuation interference, providing the load with more comprehensive protection.
- Zero transfer time of output, satisfy high standard power requirements of precision equipment.
- Input power factor is 1.0 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, saving the user's investment.

Strong environmental adaptability

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

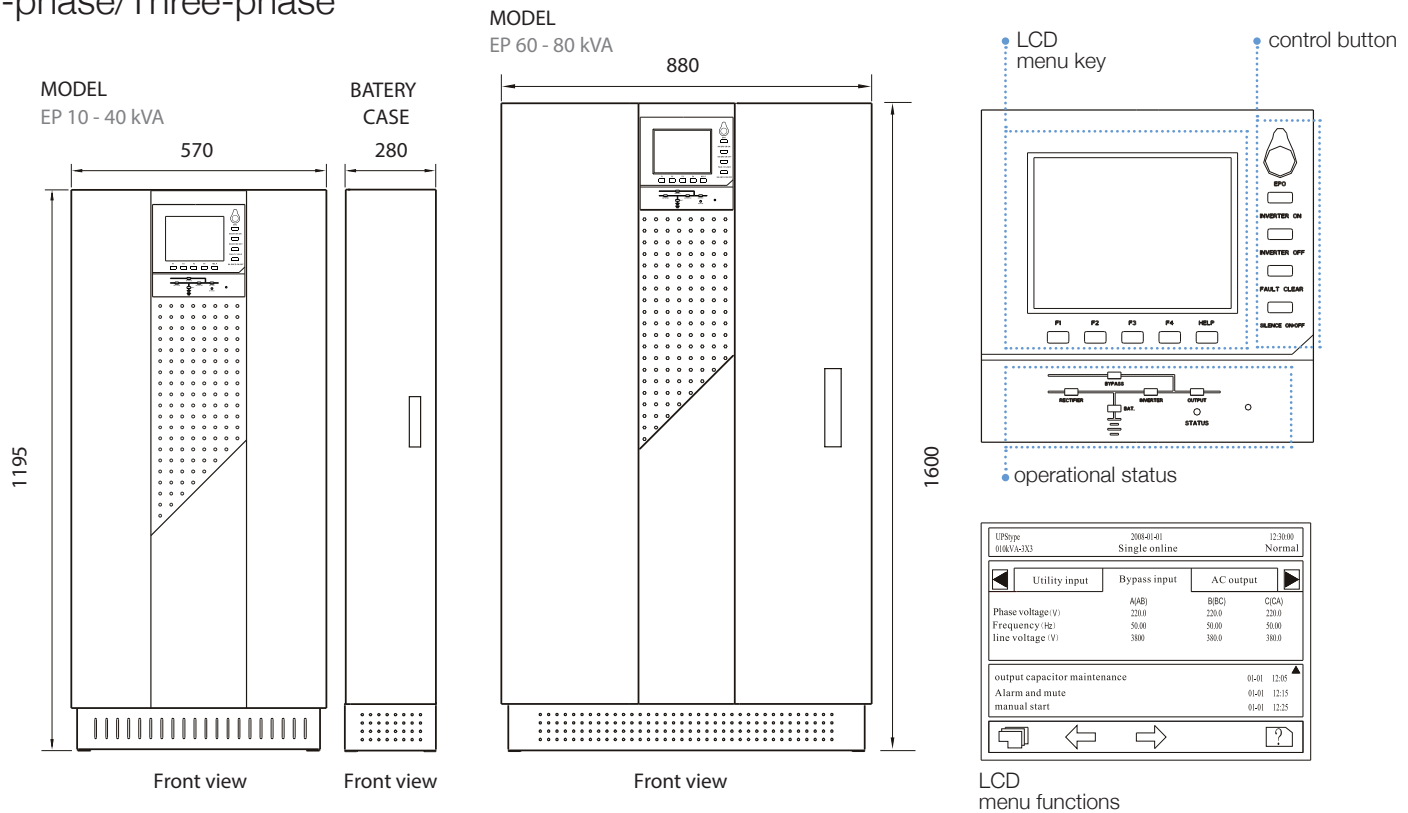
EPO function

- 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.

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Optimization of high-performance battery

- Adapt intelligent battery management (ABM) technology, thus extending 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 discharging, the system detects the discharge current and predicts the discharge time according to the battery intelligent management, thus 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.

Strong overload capability

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

N+X Parallel redundancy

- Adapt N+X parallel redundant design. Users can configure different redundancy number according to the importance of load.
- Easy to realize the parallel function. The parallel can be achieved just by connecting the parallel cables and doing the setting on UPS. 6 units can be connected in parallel at most.
- Non-fixed Master-Slave relationship: Among the 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.

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

- The LBS synchronization function supports the two independent power inputs, which improves the reliability of the system.

Comprehensive and reliable protection

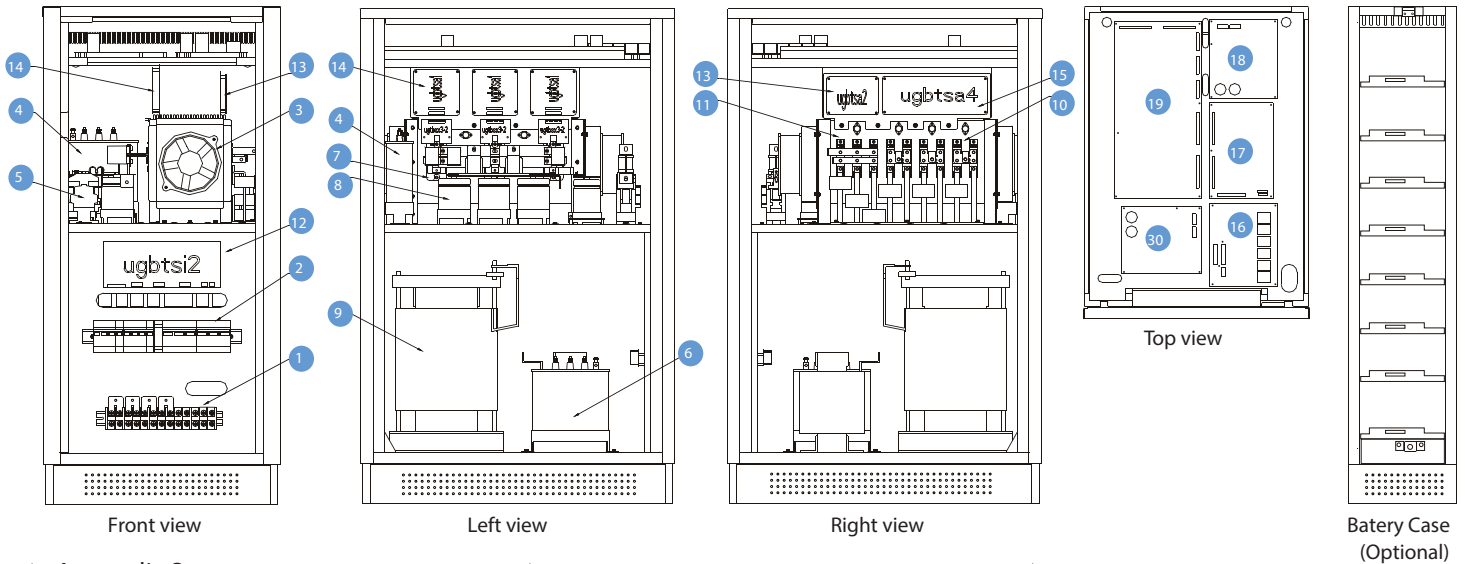
- Self-diagnosis function before start-up, avoid the risks that the failure may lead to.
- The multi-protections such as AC input under/over voltage, overload, short-circuit, over-current, over bus voltage, over-temperature, fan failure, auxiliary power failure, battery under voltage, battery over-charge 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.

User-friendly network management

- 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.

Epower 10-40 kVA

Three-phase/Three-phase



Appendix Structure

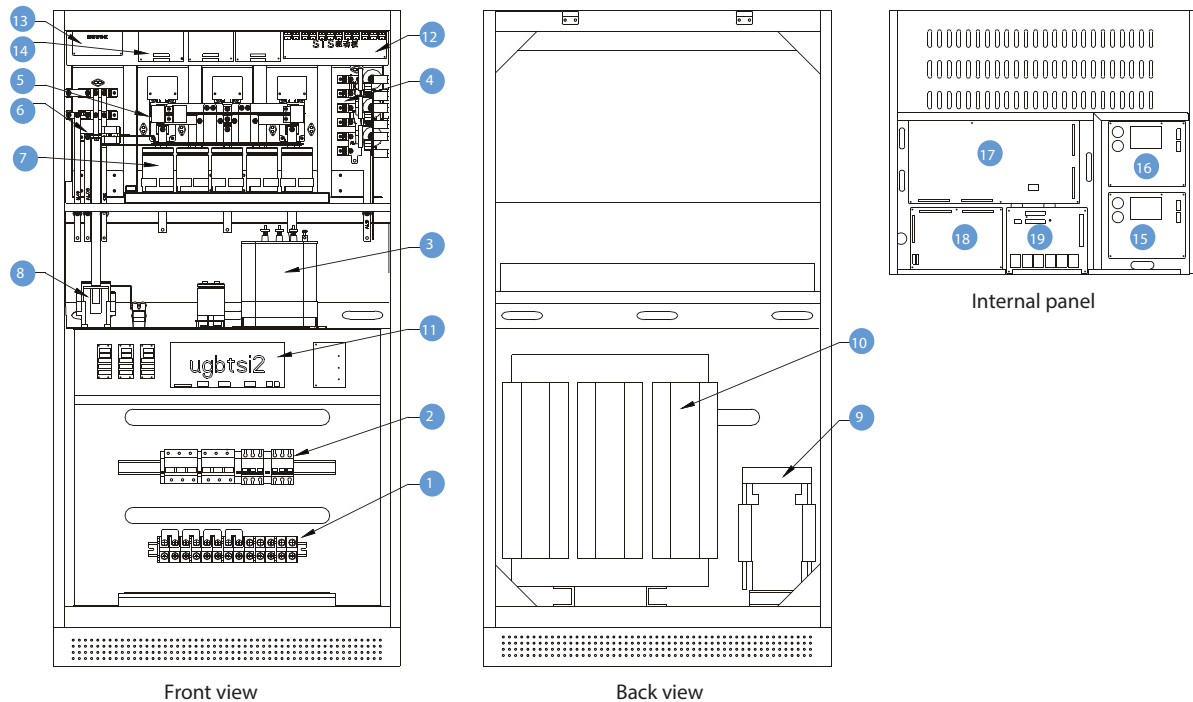
1. terminal
2. switch (SWIN,SWBY, SWOUT,SWMB)
3. fan
4. AC cap.
5. battery contactor
6. inductor

7. INV. (IGBT)
8. DC bus
9. O/P Isolation transformer
10. STS
11. rectifier
12. signal protection board
13. REC. driver board

14. INV. driver board
15. STS driver board
16. parallel board
17. DSP board
18. power supply board
19. signal detection board
30. power supply board (reserved)

Epower 60-80 KVA

Three-phase/Three-phase



Appendix Structure

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2. switch (SWIN,SWBY, SWOUT,SWMB)
3. AC cap.
4. STS
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MODELS	EP10	EP20	EP30	EP40	EP60	EP80
Capacity (VA)	10KVA	20KVA	30KVA	40KVA	60KVA	80KVA
Power (W)	9KW	18KW	27KW	36KW	54KW	72KW
INPUT						
Voltage range	(380Vac/400Vac/415Vac) : 380Vac \pm 25% 3 Phase 4 Wires + PE					
Frequency range	50/60Hz \pm 5Hz auto-sensing					
Power factor	>0.8 (without filter), 1(with filter)					
Rated output current	15A	30A	45A	60A	90A	120A
OUTPUT						
Voltage range	(380Vac/400Vac/415Vac) : 380Vac \pm 1% 3 Phase 4 Wires + PE					
Frequency	Auto tracking the input frequency					
Frequency regulation (battery mode)	50Hz/60Hz \pm 0.05%					
Waveform	Pure sine wave					
Power factor	0.9 (lag)					
THD	Linear load<3%, Non-linear load<5%					
Overload	110%/125%/150% : 60min/10min/1min					
Crest factor	3:1 (max)					
Efficiency	88%	89%	90%	90%	91%	91%
TRANSFER TIME						
AC mode \rightarrow Battery mode	0ms (zero time)					
BYPASS						
Rated voltage	380 / 400 / 415 Vac					
Voltage range	Upper limit : +10%, +15%, +20% (can be set) Lower limit : -10%, -20%, -30%, -40% (can be set)					
Rated frequency	50/60Hz (auto-sensing)					
Frequency range	\pm 10% (\pm 2.5%, \pm 5%, \pm 20% can be set)					
Transfer time	0ms (zero time)					
BATTERY						
Battery voltage (VDC)	384V					
DISPLAY						
LED	Input, inverter, bypass, battery, output status					
LCD	Input & output voltage, frequency, power factor, battery voltage, battery current, battery status, load percentage, UPS status, history record, parameters setting					
COMMUNICATION						
Interface	Dry contact, RS232, RS485, SNMP card slot					
ENVIRONMENT						
Working temperature	0~40 $^{\circ}$ C					
Humidity	0~95% non-condensing					
Storage temperature	-25 $^{\circ}$ C~55 $^{\circ}$ C					
Noise (1m)	< 63dBA			< 67dBA		
PHYSICAL CHARACTERISTICS						
Net weight (Kg)	225	275	320	335	490	575
Gross weight (Kg)	280	330	375	390	560	645
Dimension (WxDxH) mm	570x800x1195				880x760x1600	
OPTIONS						
Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor, battery ground fault detection						
EMC SAFETY STANDARDS						
EMI	IEC62040-2; the output of UPS required by EMC (>16A)					
EMS	IEC61000-4-2(ESD): Anti-static ability IEC61000-4-3(RS): Anti-radiation interference ability IEC61000-4-4(EFT): Anti-interference of power pulse ability IEC61000-4-5(Surge): Lightning / surging protection ability					
Industry Standard	CE, EN / IEC 62040-2, EN / IEC 62040-1-1					



TIS. 1291 (TYPE 1) 2553
TIS. 1291 (TYPE 2) 2553
TIS. 1291 (TYPE 3) 2555

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.
- Manufactured by factory with
ISO 9001, ISO 14001, OHSAS 18001, CE, STANDARD