



3:3 phase PF: 0.9









Control Panel





Features

Online double conversion

- · Online Double Conversion design helps to output a pure sine wave ,which is immune from the UPS input, so that the load can run steadily.
- · UPS transfers among different working mode without output interruption, thereby powering the load uninterruptedly.

■ Full DSP control

• Full DSP Control avoids the risks caused by analog devices failure and makes the control system more stable and reliable.

■ High power factor

- · The output power factor up to 0.9 better matches the load.
- \cdot The input power factor 0.98 with filter helps to improve the efficiency, reduce the harmonic pollution to the Grid and lower the UPS running cost.

■ Wide input adaptability

- \cdot The range of AC input voltage is (380Va/400Vac/415Vac) (-25%/+20%), minimizing transfer to battery mode, thereby greatly prolonging the battery life.
- · Wide input frequency ranging from 45Hz to 65Hz, ensures stability of UPS while generator connected.

■ Optimized battery management

- · Intelligent battery management system and advanced battery auto float/boost charge technology, reduces the frequency of battery maintenance, greatly improves the battery efficiency and extends battery life.
- · Battery discharge time prediction: the system will display the backup time of battery calculated by discharge current and voltage.

- · Battery self-test: battery is automatically tested at regular intervals
- · Flexible battery configuration ranging from 360-480VDC.

■ N+X parallel redundancy

 \cdot N+ λ parallel redundant design, up to 6 units available, makes the configuration more flexible.

Any unit in parallel system fails, the faulty one will automatically cut off the output, and the load will be powered by the remained units.

- · It is easy to configure the parallel system just by connecting the parallel cables and doing proper settings.
- · Non-fixed Master-Slave relationship: Among several UPS in parallel, the unit startup first is Master UPS, the others are Slave. The master and slave may be exchanged.

■ Strong overload capability

· 110%/125%/150% overload for 60min/ 10min/1min.

■ Power walk in

· Specially designed power walk in function, in which rectifier of each unit in parallel system will be turned on in sequence at intervals to avoid the sudden load on the generator, thereby reducing the cost of the generator required.

■ Generator mode

· Set the maximum output power of the generator when a smaller one than needed is employed to extend the battery duration time. In this case, the load is supplied by both the generator and battery.

■ LBS synchronization

· Synchronize the output of the two independent UPS systems (single unit or parallel) even when the two systems are operating on different modes (bypass/inverter) or on battery.

■ Multi-protection

- · Self-diagnosis function will take place before start-up for safety.
- · Multi-protection: 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.

■ EPO function

 \cdot A concave red EPO button with transparent cover is embodied in the LCD control panel for emergency power off.

■User-friendly network management

- · Chinese/English LCD and LED mimic diagram: real time operation parameters and status
- \cdot RS232 & RS485 communication ports: for local monitor with corresponding software, and MODBUS protocol is optional.
- · SNMP adapter (optional): for remote monitor through network
- · Dry contacts for additional monitoring:
- a) UPS on Inverter
- b) Mains input failure
- c) remote EPO
- d) Battery low voltage alarm
- e) UPS fault
- f) UPS alarm
- g)UPS on battery
- h) UPS on bypass

Note: d)--h) optional

Technical Specifications:

MODEL	EP10	EP20	EP30	EP40	EP60	EP80						
Capacity (VA/Watts)	10k / 9k	20k / 18k	30k / 27k	40k / 36k	60k / 54k	80k/ 72k						
NPUT			I		1	1						
Operating voltage range	380/400/415Vac (380-25%, 415+20%), (3Ph+N+PE)											
Operating frequency range	50/60Hz (±5Hz)											
Power factor	≥0.98(with filter)											
DUTPUT												
Output voltage	380/400/415Vac (±1%)											
Output frequency	50/60Hz (±0.05%)											
Harmonic distortion (THD)	<3% (linear load)											
Crest factor	3:1 (Max.)											
Efficiency	>89% >90% >91%				>92%							
BYPASS		'	"		'							
Rated voltage	380/400/415Vac											
Rated frequency	50/60Hz											
Ashta a a marka aki a mara a a	Upper limit: +20% (+10%,+15%,+20% adjustable)											
Voltage protection range	Lower limit: -40% (-10%, -20%, -30%, -40% adjustable)											
requency protection range	±10% (±2.5%, ±5%, ±10%, ±20% adjustable)											
BATTERY												
Battery voltage			384	1Vdc								
SYSTEM FEATURES												
ransfer time	0ms (Line mode ←→Battery mode)											
Overload	110%/60min ,125%/10min ,150%/1min											
.ED display		Ir	nput, Inverter, Bypass	, Battery, Output, Sta	atus							
_CD display	I/O voltage, frequency, power, power factor, battery voltage, current, battery status, load percentage, UPS status, history record											
Communication interface	Dry contact, RS232, RS485, SNMP card (Optional)											
Optional	Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor,											
TAIN (IDONINATAITAI	Bypass current-sharing inductor											
ENVIRONMENTAL			0	40°C								
Operating temperature	0~40°C											
Storage temperature	−25°C ~55°C											
Humidity range	0~95% (non-condensing)											
Altitude	<1500m											
Noise level		<60dB			<65dB							
PHYSICAL		000 5	70 4405		700 00	20. 4000						
Dimension D × W × H (mm)	247		570 × 1195	220	760 × 880 × 1600							
Net weight (kg)	217	273	316	330	483	525						
Shipping weight (kg)	272	328	371	385	553	595						
STANDARDS			IEO/EN 200 4 -	JEO/ENJOSSES								
Safety	IEC/EN62040-1;IEC/EN60950-1 IEC/EN62040-2;IEC61000-4-2;IEC61000-4-3;IEC61000-4-4;											
EMC			040-2;IEC61000-4-2 EC61000-4-5;IEC610		,							

Specifications are subject to change without prior notice.

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				50	/60Hz (±0.05	%)						
Harmonic distortion (THD)	<2% (linear load)											
Crest factor		3:1 (max)										
Efficiency	>92%	>92%	>92%	>92.5%	>93%	>94%	>95%	>95%	>96%			
BYPASS		ı	1	1			1	1				
Rated voltage	380/400/415Vac											
Rated frequency	50/60Hz (auto-sensing)											
N/ II			Uppe	r limit: +20%	(+10%,+15%	,+20% adjust	able)					
Voltage protection range		Lower limit: -40% (-10%, -20%, -30%, -40% adjustable)										
Frequency protection range	±10% (±2.5%, ±5%, ±10%, ±20% adjustable)											
BATTERY												
Battery voltage			38-	4Vdc				480Vdc				
SYSTEM FEATURES							1					
Transfer time	0ms (Line mode ←→ Battery mode)											
Overload				110%/60min	,125%/10mir	150%/1min,						
LED display			Inpi	ut, Inverter, B	ypass, Batte	ry, Output, St	atus					
	I/O voltage, frequency, power, power factor, battery voltage, current, battery status, load percentage,											
LCD display	UPS status, history record, settings											
Communication interface			Dry co	ontact, RS23	2, RS485, SN	IMP card (Op	tional)					
O.F. and	Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor,											
Optional		Bypass current-sharing inductor										
ENVIRONMENTAL												
Operating temperature	0~40℃											
Storage temperature	-25°C ~ 55°C											
Humidity range	0~95% (non-condensing)											
Altitude	<1500m											
Noise level	<65dB <70dB											
PHYSICAL					1							
Dimension D×W×H (mm)	805 × 1160 × 1600 945 × 1400 × 1900			1040 × 16	640 × 1900	1040 × 28	1040 × 2800 × 1900					
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		I	1	1	1	1						
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										

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