

**KSTAR**



EPOWER-H Series  
10 ~ 600kVA

# EPOWER-H Series ▶▶

10 ~ 600kVA

3:3 phase PF: 0.9



## Operating mode

- Adopt IGBT rectifier/inverter technology, output inverter isolation transformer, double-conversion online design, zero transfer time.

## DSP full-digital control

- Double DSP control makes the whole system more stable and reliable.

## Strong environmental adaptability

- Conformal coating, wide mains input range: 346~456vac, 45~65Hz, can work stably with various fuel generator.

## Optimized battery management

- Intelligent battery management system, extend battery life; Auto float/boost charge technology, activates the battery maximally; Temperature compensation, discharging time prediction, timed self-testing function, etc.

## N+X parallel redundancy

- N+X parallel redundancy design, up to 6 units available, two sets of UPS parallel current sharing less than 3%.

## Smart and friendly human-machine interface

- Standard 7-inch touch screen, displays the running status, working parameters and historical records of the machine; Chinese/English display; Intuitive LED flow chart.

## Generator mode

- Power walk in function, reduces the impact current when starting the parallel system and reduces the demand of the generator capacity.

## Multi-protection

- Self-diagnosis when startup, AC input over/under voltage, overcurrent, bus overvoltage, overheat, output overload, short-circuit, auxiliary power failure, battery undervoltage early warning and battery overcharge etc., make sure the system's stable and reliable operation.

## EPO function

- EPO emergency power off function.

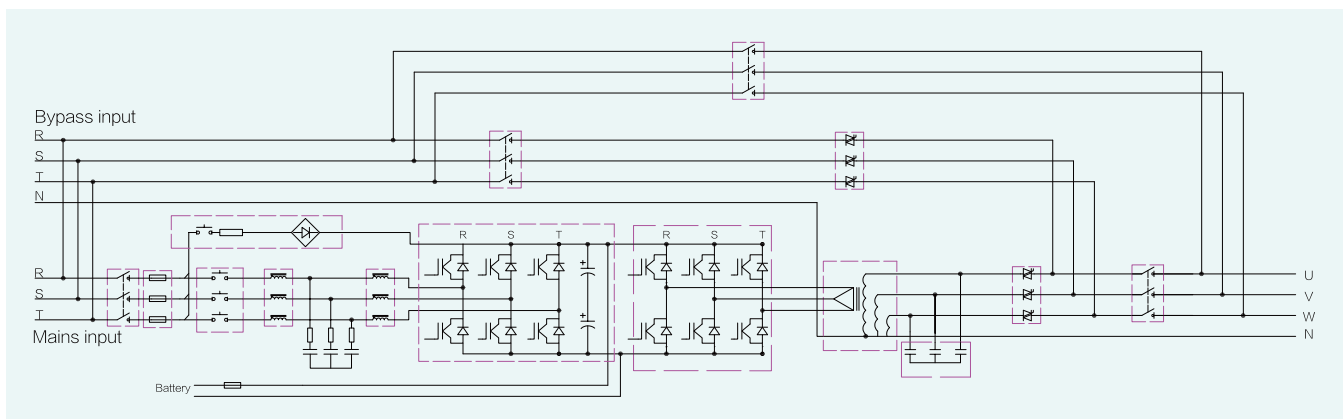
## Manual maintenance bypass design

- Maintenance bypass passage, holds the power supply when maintenance.

## Communication port

- USB, RS485 (MODBUS), SNMP adapter (Optional), 6 dry contacts (Optional)

## Topological Schematic



**Technical Specifications :**

MODEL	EP10-H	EP20-H	EP30-H	EP40-H	EP60-H	EP80-H	EP100-H	EP120-H	EP160-H
Capacity (kVA/kW)	10/9	20/18	30/27	40/36	60/54	80/72	100/90	120/108	160/144

**INPUT**

Nominal voltage & range (Vac)	380/400/415 (346~456), (3Ph+PE, without N)								
Frequency & range (Hz)	50/60 (45~65)								
Power factor	≥0.99								
Harmonic distortion (THDi)	≤3%								
Power walk-in	0~200s (Settable)								

**BYPASS INPUT**

Voltage (Vac)	380/400/415 , (3Ph+N+PE)								
Frequency tolerance (Hz)	±2 (0.5, 1, 2, 3 settable)								
ECO mode	Support								

**OUTPUT**

Voltage (Vac)	380/400/415 (±1%),(3Ph+N+PE)								
Frequency	50/60 (±0.05%)								
Voltage regulation	≤1%								
Waveform	Pure Sinewave								
Harmonic distortion (THDv)	≤2% (100% Linear load)				≤1% (100% Linear load)				
Frequency tracking speed	0.5~2Hz/s settable; 2Hz/s when paralleling								
Bypass transfer time	0ms (Inverter and bypass in synchronization) <15ms (Inverter and bypass out of synchronization)								
Battery transfer time	0ms								
Efficiency (Max.)	88%	89%	90%	90.5%	92%	92.5%			
Overload	105%~110%, last 60min; 110%~125%, last 10min; 125%~150%, last 1min								

**BATTERY**

Battery voltage (Vdc)	600 (600~624)								
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**ENVIRONMENTAL**

Operating temperature	0~40°C								
Storage temperature	-25~55°C (No battery)								
Humidity range	0~95% (Non-condensing)								
Altitude	<1500m								
Noise level	<58dB				<68dB				

**OTHERS**

Alarm function	Output overload, utility abnormal, DC (Battery)low, UPS fault alarm & history, etc								
Protection function	Short circuit, overload, over temperature, DC (Battery) low, output low voltage, fan fault alarm (Optional)								
Communication function	USB, RS485, EPO, dry contact (Optional), SNMP card (Optional)								
Optional accessory	SNMP adapter, battery temperature sensor, bypass current-sharing inductor								

**PHYSICAL**

Dimension W x D x H (mm)	720 x 690 x 1400			890 x 775 x 1600			1200 x 800 x 1600		
Net weight (kg)	245	265	304	355	470	600	706	900	980
Shipping weight (kg)	260	280	325	380	495	635	741	960	1080

**STANDARDS**

Safety	IEC/EN 62040-1; IEC/EN 62477-1								
EMC	IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)								

1. Specifications are subject to change without prior notice

2. Data above are typical values for reference only, not as a basis for engineering design

**Technical Specifications:**

MODEL	EP200-H	EP300-H	EP400-H	EP500-H	EP600-H
Capacity (kVA/kW)	200/180	300/270	400/360	500/450	600/540

**INPUT**

Nominal voltage & range (Vac)	380/400/415 (346~456), (3Ph+PE, without N)				
Frequency & range (Hz)	50/60 (45~65)				
Power factor	≥0.99				
Harmonic distortion (THDi)	≤3%				
Power walk-in	0~200s (Settable)				

**BYPASS INPUT**

Voltage (Vac)	380/400/415, (3Ph+N+PE)				
Frequency tolerance (Hz)	±2 (0.5, 1, 2, 3 settable)				
ECO mode	Support				

**OUTPUT**

Voltage (Vac)	380/400/415 (±1%), (3Ph+N+PE)				
Frequency	50/60 (0.05%)				
Voltage regulation	≤1%				
Waveform	Pure Sinewave				
Harmonic distortion (THDv)	≤2% (100% Linear load)				
Frequency tracking speed	0.5~2Hz/s settable; 2Hz/s when paralleling				
Bypass transfer time	0ms (Inverter and bypass in synchronization) <15ms (Inverter and bypass out of synchronization)				
Battery transfer time	0ms				
Efficiency (Max.)	92.5%	93%		93.5%	
Overload	105%~110%, last 60min; 110%~125%, last 10min; 125%~150%, last 1min				

**BATTERY**

Battery voltage (Vdc)	600 (600~624)				
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**ENVIRONMENTAL**

Operating temperature	0~40°C				
Storage temperature	-20~55°C (No battery)				
Humidity range	20~95% (Non-condensing)				
Altitude	<1500m				
Noise level	<70dB		<75dB		

**OTHERS**

Alarm function	Output overload, utility abnormal, DC (Battery) low, UPS fault alarm & history, etc				
Protection function	Short circuit, overload, over temperature, DC (Battery) low, output low voltage, fan fault alarm (Optional)				
Communication function	USB, RS485, EPO, dry contact (Optional), SNMP card (Optional)				
Optional accessory	SNMP adapter, battery temperature sensor, bypass current-sharing inductor				

**PHYSICAL**

Dimension W x D x H (mm)	1200 x 800 x 1600	1400 x 1000 x 1900		2280 x 1000 x 1900	
Net weight (kg)	1030	1310	1790	3010	3330
Shipping weight (kg)	1130	1440	1920	3230	3630

**STANDARDS**

Safety	IEC/EN 62040-1; IEC/EN 62477-1				
EMC	IEC/EN 62040-2 (IEC 61000-2-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)				

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