

# HP40/100/250/500

## HP Series

HP series use in energy storage power station construction. By the battery characteristics of charge and discharge . The system stored the energy when the grid power is not busy. When the grid power is in busy it can released the energy in order to achieve the balance between supply and demand. It can also be used in commercial plants to earn price difference of peak and valley electricity. The system can realize uninterrupted power supply to provide electricity to protect the important load when the power failure.



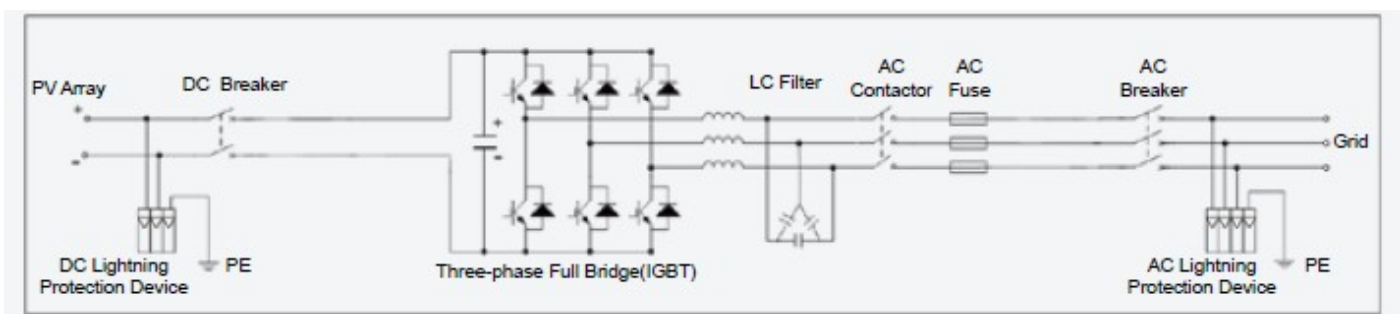
### Features:

- High power IGBT used as the power converter device, with low noise, high efficiency, low harmonics, high reliability, the system is stability
- With the industrial frequency transformer isolation technology, the DC input and AC output is completely isolated, to improve the security of the system
- The 32 bit DSP digital control technology to ensure the control speed and accuracy of the system
- The power range from 40kW-500kW is adapt to different energy storage power station construction
- Lithium iron phosphate battery as an energy storage element, it have many advantage. For example : the conversion of high efficiency, small volume, light weight, long cycle life
- With isolated network operation mode, in the case of power failure it can still ensure a continuous power supply load
- With parallel interface it can be easily set up parallel operation of MW storage power station
- With local control mode and remote control mode, it can realize the energy storage in the whole system control
- Color touch screen display, simple operation, intuitive display
- With the BMS Management system which have float charging and equalized charging, it ensure the safety of lithium batteries
- Have low voltage ride through, anti islanding protection measures to ensure the safety of power network.

### Applications:

- Substation
- Commercial energy storage power station
- Housing estate energy storage and emergency power supply
- Larger Electricity enterprise
- Other places which is high demands on the reliability of the power grid

### Diagram :



## Technical data

Model		HP40	HP100	HP250	HP500	
Rated Power		40kW	100kW	250kW	500kW	
DC parameters	Voltage range	600~864V				
	Rated DC voltage	3.2×battery number (768Vdc)				
	Battery number	240PCS				
	Overcharge limit	3.65V×battery number (876Vdc)				
	Recovery charge value	3.4V×battery number (816Vdc)				
	Over discharge limit	2.6V×battery number (624Vdc)				
	Battery type	Lithium iron phosphate battery (other type battery for optional)				
	Maximum discharge current	78A	155A	387A	775A	
	Maximum charge current	54A	109A	274A	548A	
	The charging current adjustable range	0~Max				
	Charge mode	Constant current limit voltage charging, Intermittent charging, Online float charging (selectable)				
	AC parameters	AC phase	3 phase 5 wires (R+S+T+N+PE)			
Grid connection mode		Allowable voltage range	310~450V			
		Allowable frequency range	49.5~50.5 Hz			
		Current harmonic distortion	<5%			
		Output power factor	+1~1 adjustable			
The maximum grid current			75.9A	152A	378A	757A
		The output voltage distortion	380V±3%			
Out-of-grid mode		The output voltage distortion	<5% (Nominal linear load)			
		Output frequency	50Hz±0.1%			
		Output voltage transient	<12% (0~100% load step)			
		Overload capability	110% (for 10 minutes), 120% (for 1 minute)			
Isolation mode		Transformer isolation				
The maximum efficiency	>95%		>98%			
Maximum short-circuit current peak	< Rated current*2					
Islanding detection	Active, passive					
Display	Color touch screen display DC ,AC parameters and the running state of the equipment					
Communication and centralized monitoring	RS232/485/Ethernet interface					
Communication with the BMS	CAN					
Cooling mode	Fan cooling					
IP class	IP20					
The switching time of islanding operation	10~15ms (5ms optional)					
The installation environment	Indoor					
Dimension (D×W×H) (mm)	600×650×2000	800×1000×2000	900×1800×2000	900×2500×2000		
Weight (kg)	200kg	400kg	800kg	1200kg		
The machine parameters						