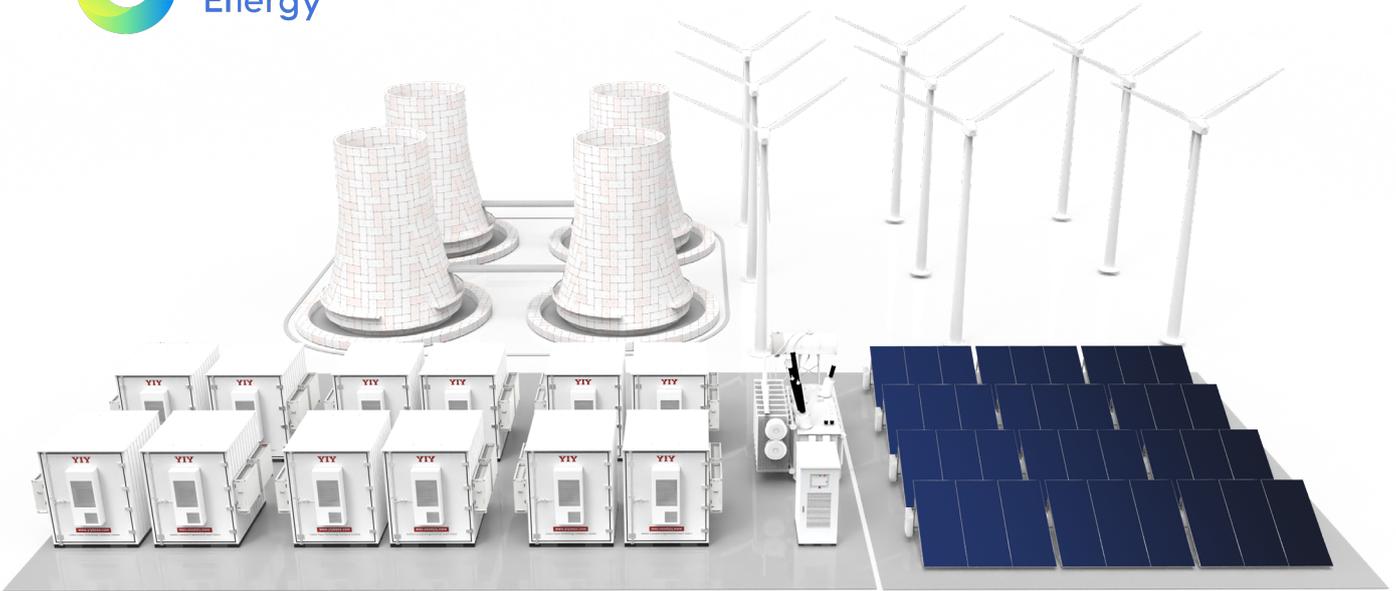


GENERATION-SIDE



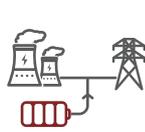
• Overview

Generation-side energy storage is the strategic cornerstone of power system transformation, fundamentally enhancing grid flexibility and reliability.

For thermal power plants, it serves as an "efficiency enhancer," providing millisecond-level frequency regulation that maintains optimal operations. This reduces fuel consumption, minimizes equipment wear, and creates new revenue through ancillary services—transforming thermal generation from a rigid power source into a "flexible market partner."

For renewable energy, storage acts as both a "stabilizer" and "value amplifier." It smoothes output fluctuations to meet grid standards and enables "energy time-shifting" by storing surplus renewable power for high-demand periods. By providing critical grid services such as voltage support and inertia, storage elevates renewables from "uncontrollable sources" into "grid-friendly primary power" that is both dispatchable and security-enhancing.

At the macro level, generation-side storage provides essential flexible capacity that optimizes system-wide investment while strengthening grid resilience under extreme conditions. It bridges the gap between conventional and renewable energy, accelerating the transition toward a cleaner, more reliable, and secure power future.



Load shifting



Renewable energy integration

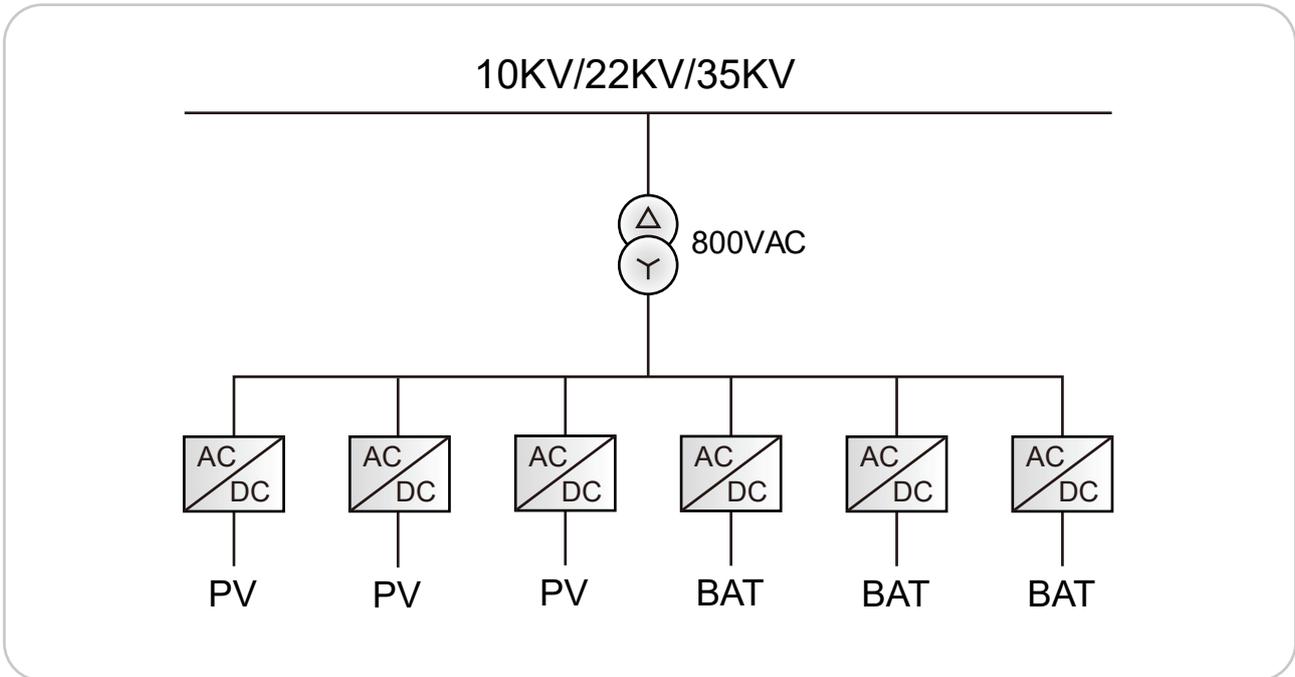


Capacity stability

50MW/100MWH SOLUTIONS

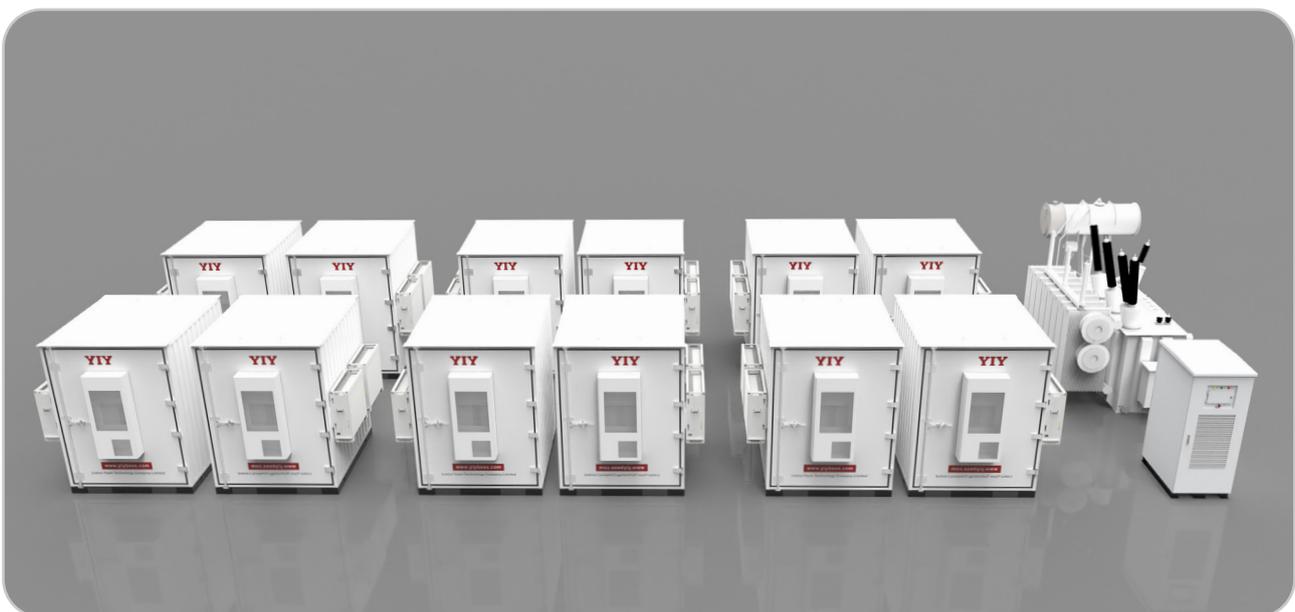
BESS-T 430KW/832KWH

• System Electrical Topology

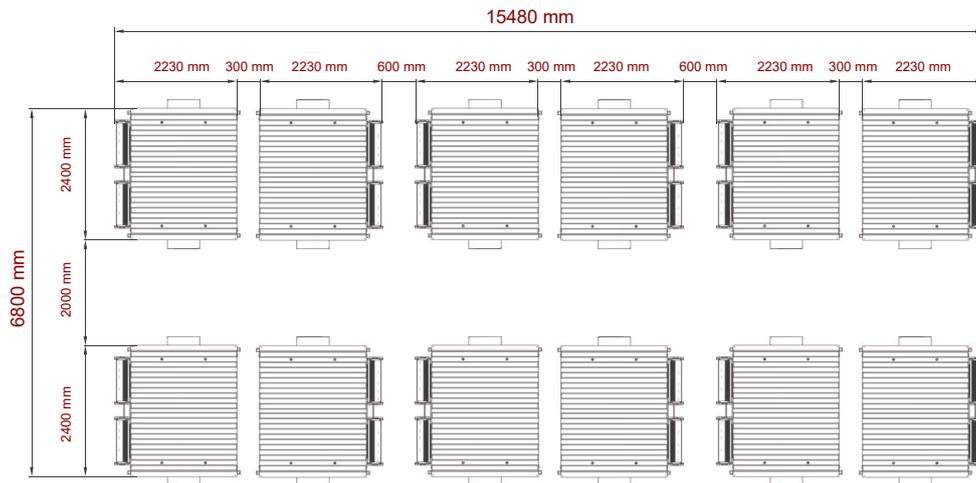


• Applications

5MW/10MWH

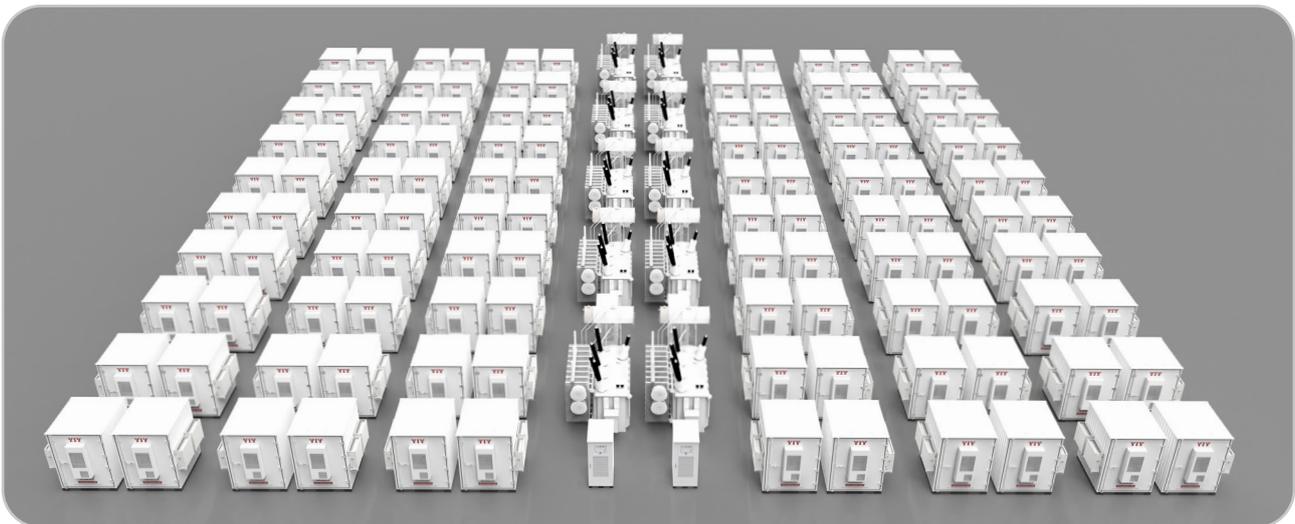


• Dimension Drawing



• Applications

50MW/100MWH



TRANSMISSION & DISTRIBUTION SIDE



• Overview

Transmission & distribution side Energy Storage System is a strategic infrastructure for building a new power system. Its core value lies in reshaping grid capabilities—from planning and operation to emergency response—in a flexible and precise manner.

First and foremost, it serves as an "all-around regulator" for grid operation. It not only achieves efficient peak shaving and valley filling, and provides high-quality frequency regulation with millisecond-level response, directly ensures the real-time balance and power quality of the grid. More importantly, energy storage acts as a "virtual transmission line" for optimizing grid investment. By shifting energy across time and space at critical congestion points, it effectively alleviates transmission and distribution bottlenecks, significantly delaying or replacing costly traditional grid upgrades, thereby enhancing the efficiency of existing assets. Ultimately, it functions as a "safety insurance" for grid resilience, serving as a black-start power source and emergency support for critical loads, greatly strengthening the grid's ability to cope with extreme failures and disasters.

In short, transmission & distribution end Energy Storage System is fundamentally upgrading the operational paradigm of the grid, transforming it from a rigid transmission network into a more flexible, economical, and reliable intelligent system.



Peak shaving



Black start capability

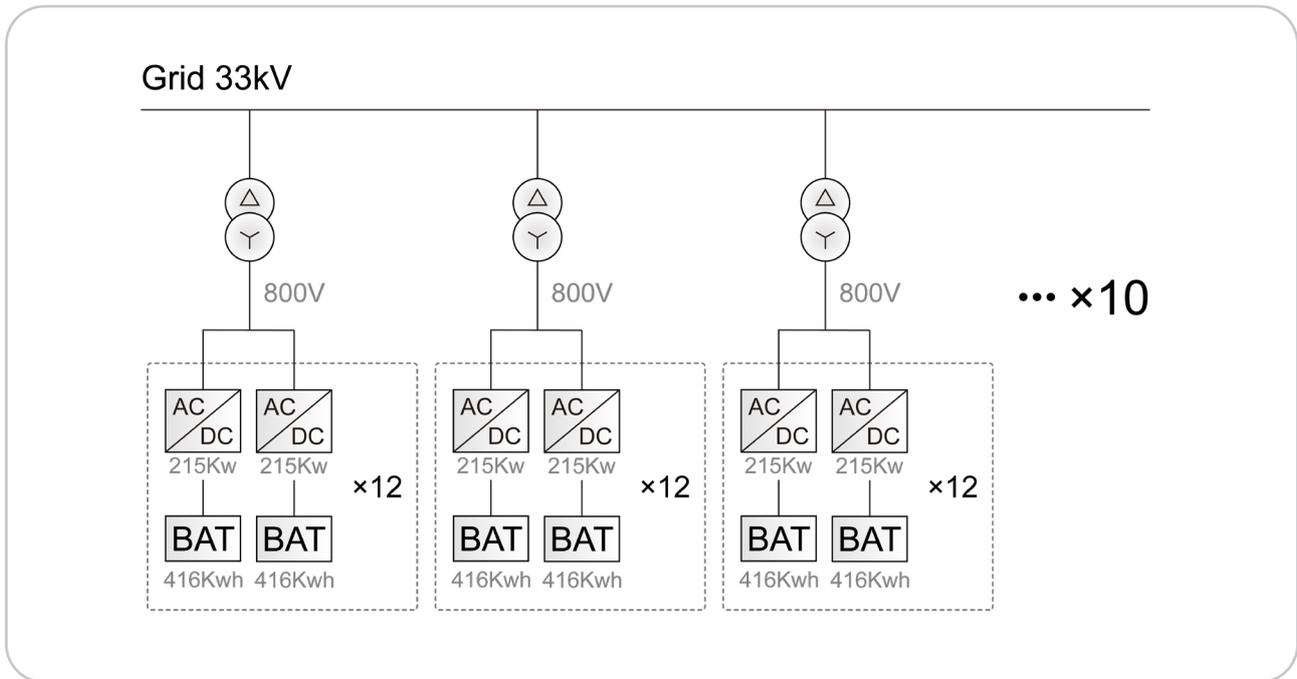


Ancillary services

50MW/100MWH SOLUTIONS

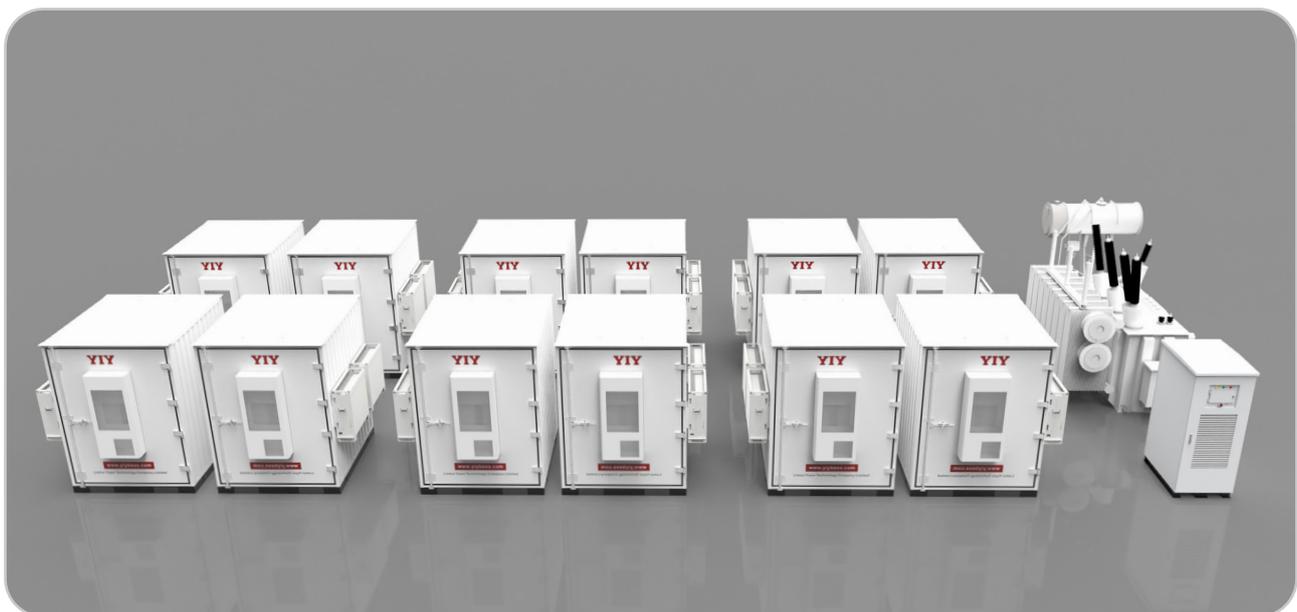
BESS-T 430KW/832KWH

• System Electrical Topology

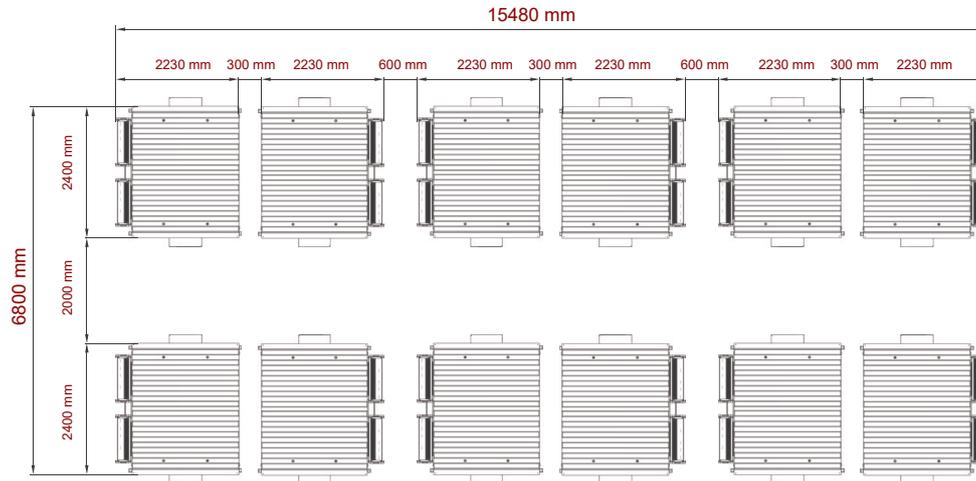


• Applications

5MW/10MWH



• Dimension Drawing



• Applications

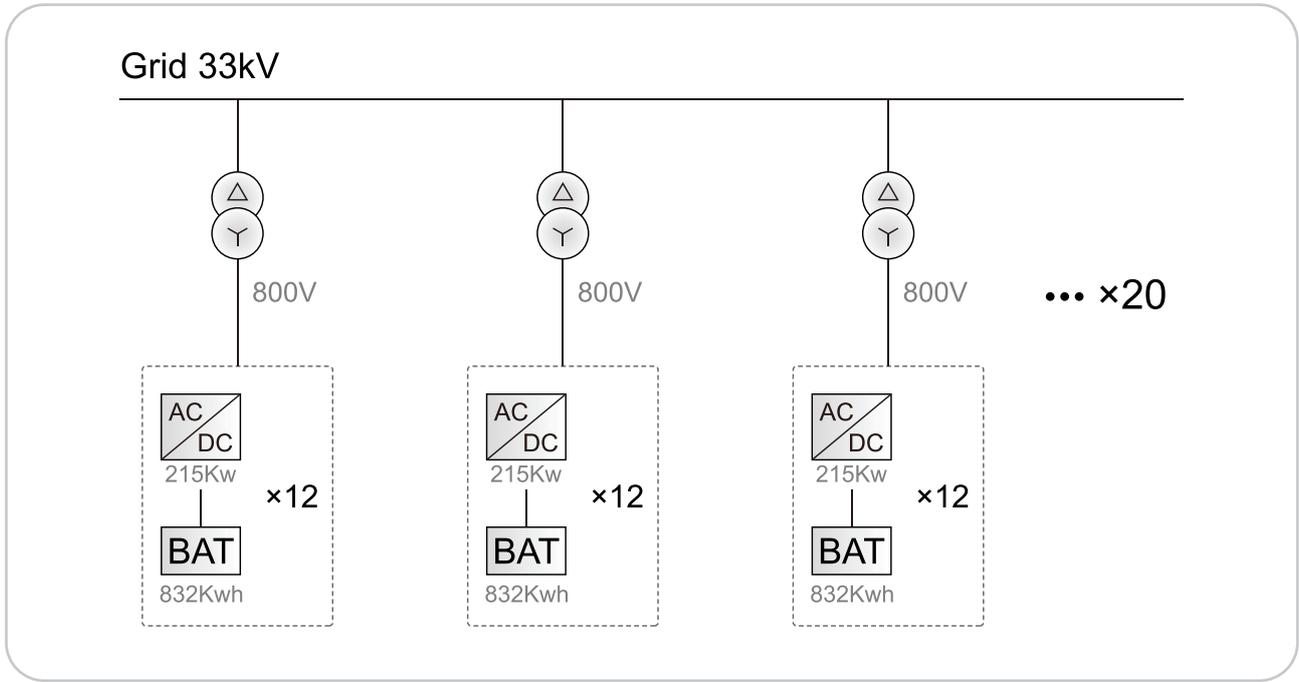
50MW/100MWH



50MW/200MWH SOLUTIONS

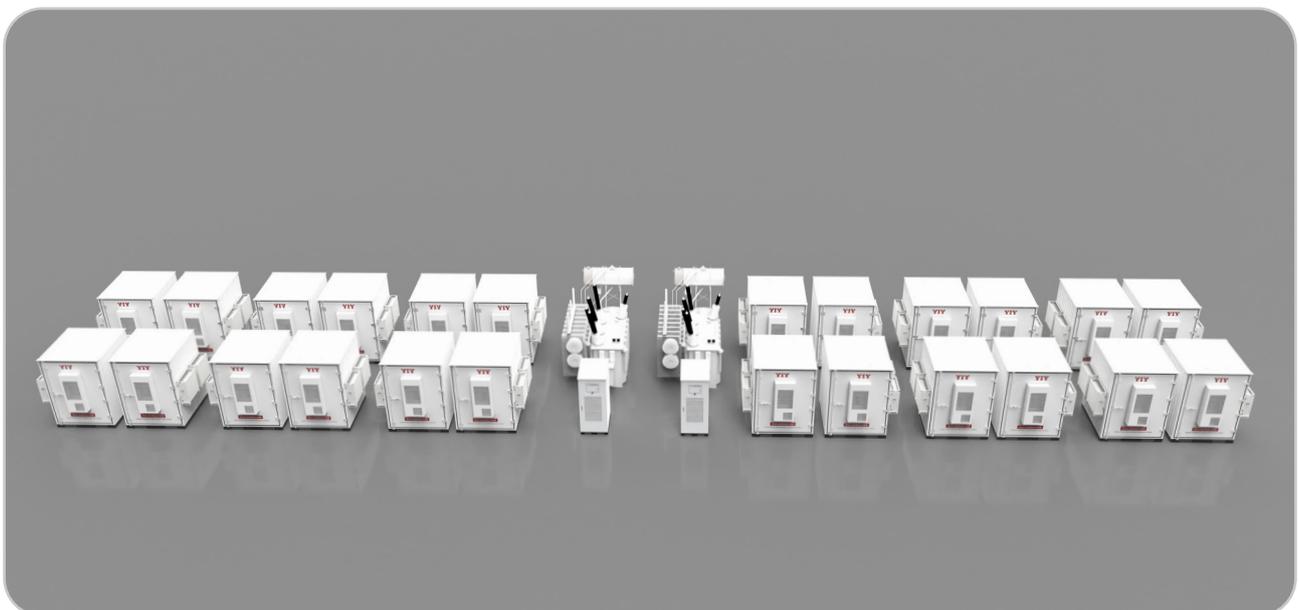
BESS-T 215KW/832KWH

• System Electrical Topology



• Applications

5MW/20MWH



• Dimension Drawing



• Applications

50MW/200MWH



PCS

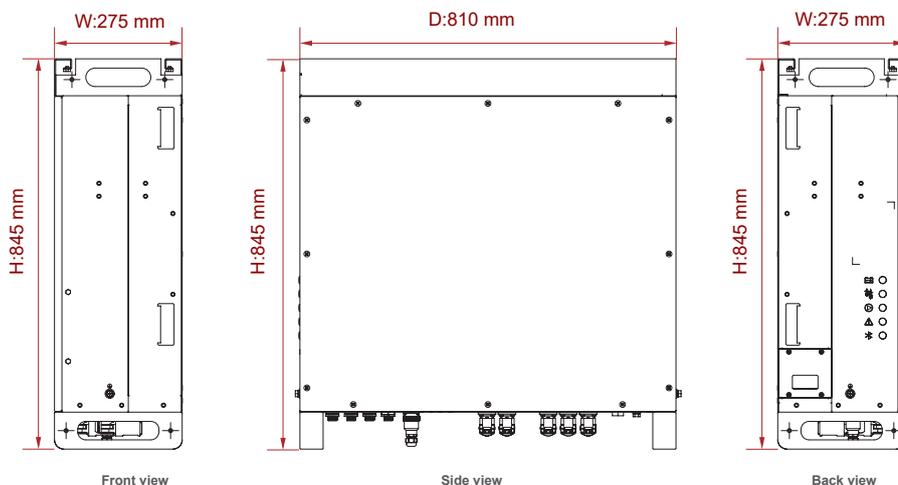
Three Phase Power Conversion System EPCS125/150/215/250-AM-HX



• Features

- Three-level topology, high conversion efficiency, and good power quality.
- Modular design, smooth expansion, and strong scalability (scalable to the MW level).
- Longer system lifespan and highly competitive cost per kilowatt-hour (LCOE).
- The device features derating design, good stability and long service life.
- Support high and low voltage crossing and actively adapt to weak power grids.
- Cluster-level battery management, cluster-level battery optimization.

• Product Dimensions




• Technical Parameter

EPCS125/150/215/250-AM-HX				
Model	EPCS125-AM-HX	EPCS150-AM-HX	EPCS215-AM-HX	EPCS250-AM-HX
Dc Side				
Full-load charging working voltage range	600V~1500V	725V~1500V	1000V~1500V	1150V~1500V
Full-load discharge operating voltage range	615V~1200V	730V~1500V	1060V~1500V	1200V~1500V
Maximum current	245A	245A	245A	245A
Maximum charge/discharge power	137.5kW	165kW	237kW	275kW
Communication Side				
Rated voltage	400V	480V	690V	800V
Rated voltage range	-15%~+10%			
Wiring method	Three-phase three-wire			
Rated power	125kW	150kW	215kW	250kW
Maximum power	137.5kW	165kW	237kW	275kW
Rated current	180A	180A	180A	180A
Maximum current	198A	198A	198A	198A
Frequency range	50Hz±5Hz/60Hz±5Hz			
Power factor	0.99/-1~1			
Current distortion rate	< 3% (@Rated power)			
Overload capacity	110% long-term			
Maximum efficiency	97.6%	97.8%	99%	99%
Protective Features				
Protective function	Ac overcurrent protection、AC overvoltage protection、AC short-circuit protection、DC surge protection Dc overcurrent protection、DC overvoltage protection、over-temperature protection, etc			
Conventional Parameters				
Dimension(W*D*H)	275*845*810mm			
Weight	108kg			
Altitude	4000m (derated when > 3000m)			
Working temperature	-30°C to 60°C (derating when above 50°C)			
Storage temperature	-40°C ~70°C			
Humidity	0%RH to 100%RH, no condensation			
Cooling method	Intelligent air cooling			
Protection grade	IP66			
Communication method	CAN/RS485/ Ethernet/Bluetooth /4G			
Communication protocol	IEC61850、CAN2.0B、Modbus TCP/RTU			

BESS-T

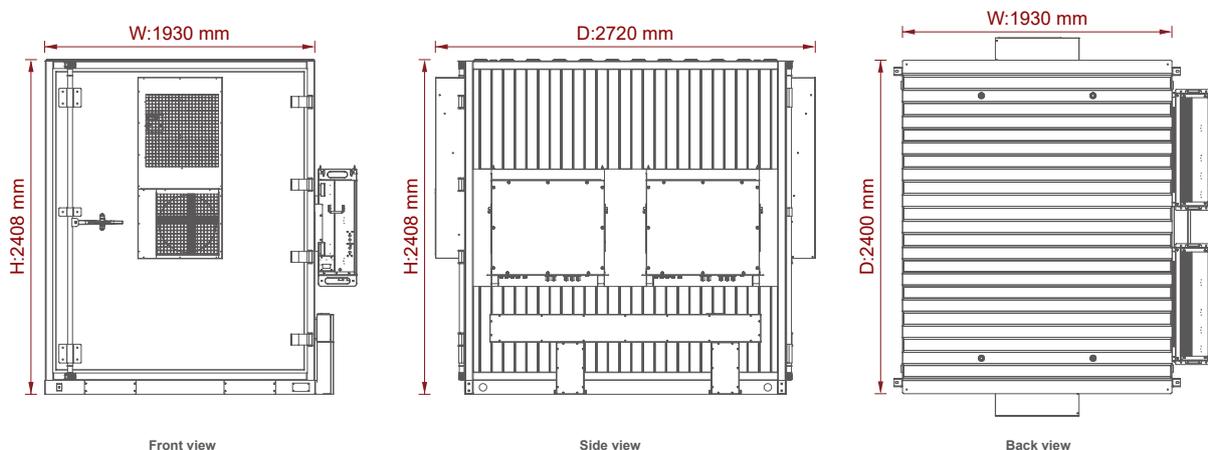
On-grid All-in-one Energy Storage System BESS-T 430-832



• Features

- Multi level BMS built-in.
- IP55 fire and explosion proof cabinet.
- Scalable in power and capacity.
- Easy for on site installation.
- Fire proof devices in each modular and in the cabinet.

• Product Dimensions




• Technical Parameter

BESS-T 430-832					
Battery Parameters					
Battery Module	Voltage	57.6V			
	Capacity	314 Ah			
	Energy	18 kWh			
	Cooling method	Air cooling			
Battery Cluster	Rated voltage	1324.8Vdc			
	Grouping method	2P 414 S			
	Rated capacity	314 Ah			
	Output voltage range	1159.2VDC~1490.4VDC			
	Rated energy	832kWh			
	Max continuous charging current	190A*2			
	Max continuous discharge current	190A*2			
	Charge cut-off voltage	1449V			
	Discharge cut-off voltage	1242V			
Work Environment	Charging operation temperature range	0~45°C			
	Discharging operation temperature range	-20~50°C			
	Working humidity	RH≤80%			
Storage Environment	Storage temperature(<6month)	0~35°C			
	Short-term storage temperature(<1month)	-20~55°C			
	Storage humidity	RH≤80%			
Cabinet	Protection level	IP54			
PCS Parameters					
PCS Parameter	Rated current	180A			
	PCS overload capacity	110% long-term			
	PCS output power	125kW	150kW	215kW*2	250kW*2
	AC-side voltage of PCS	400V	480V	690V	800V
	Frequency	50Hz/60Hz			
	Power factor	-1~1			
	Battery side voltage	600V~1500V	725V~1500V	1000V~1500V	1150V~1500V
	Maximum efficiency	97.6%	97.8%	99%	99%
System Parameters					
System Parameters	Dimension(W*D*H)	1890*2000*2450mm			
	Weight	7500kg			
	Display	7-inch HMI			
	Fire protection systems	Aerosol Fire Module			
	Degree of protection	IP55			
	Certification	CE;IEC62619;UN38.3			
	Working temperaturerange	-30~60°C(> 45°C derating)			
	Cooling	Intelligent Thermal Management System			
	Relative humidity	5~95%(No Condensing)			
	Highest altitude	4000m(>2000m derating)			