BrightESS

NEW ENERGY POWER

PV ESS+

PROFESSIONAL SOLUTION PROVIDER

- Solar System - Energy Storage System - On grid - Off grid - EV Charging station

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Solar+ ESS+ Integrated system

- Top-line brand , Quality assurance, Safety & reliability
- Flexible deployment, Parallel expansion, independent operation on/off grid
- Smart energy management, Refined management of all batteries
- Active and passive dual fire warning, PACKs & Whole cabinet fire protection
- PV,ESS,and mains power strategy fully automatic intelligent operation

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The integrated system solution meets the requirements of photovoltaic distribution and storage, grid connected/ off grid photovoltaic storage, and other different projects. Featuring high efficiency and energy conservation, high energy density, and small installation space, it is composed of industrial and commercial energy storage systems, inverters, intelligent control cabinets, EMS, and electrical safety auxiliary systems.

Energy storage system parameters	
ESS specifications	130kW/257kWh
ESS Battery DC voltage	819.2VDC
ESS Battery voltage range	691-921VDC
Cell type	LFP 3.2V/314Ah
Single PACK configuration	51.2V 314Ah / 1P16S
Number of system PACKs	16PCS
Total system power consumption	256S1P/257kWh
PCS power	130kW
Charge discharge rate	≥0.5C
Discharge depth & Battery life	90%DOD>6000Times(0.5C@25°C)Energy retention rate≥80%
Thermal management method	Intelligent air cooling
Fire Protection Plan	PACK aerosol /Cabinet aerosol+Perfluorohexane
Communication method	CAN/Eth/RS485(4G Optional)
Operating mode	On/off grid
Photovoltaic parameters (optional with various brands of hybrid inverters or MPPT modules)	
MAX. input power of PV	130kW
MPPT voltage range	200-1000V DC
MAX. PV access voltage	1100VDC
Rated input voltage	620VDC
Open circuit voltage	200VDC
PV access	6/12 Ways
PV input current	6*38A
AC Side parameters	
Rated power	130kW
Rated grid voltage	380V AC
Rated grid frequency	50/60Hz ±5Hz
Access method	Communication bottom inlet / 3phase / 3L+N+PE
NO. of on/off grid connected ESS	15 PCS / 8 PCS
System usage parameters	
Temperature for use	0°C~+50°C
Environmental humidity for use	0~95°CRH
Storage temperature	-20°C~+60°C
Working altitude	2000m (>2000m Reduced usage)
Protection grade	IP54

Solar+ ESS+

ON/OFF Grid System

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BrightESS

The off grid integrated ESS mainly meets the needs of grid type PV storage projects, isolated island PV storage projects, microgrids, integrated PV storage and generator and various projects.ESS has the characteristics of high efficiency and energy conservation, high energy density, strong flexible deployment capability, and can operate independently without relying on the power grid for power supply. The system is mainly composed of industrial and commercial energy storage system, solar inverter/MPPT module, intelligent control cabinet, STS, EMS , and electrical safety auxiliary components.Diversified applications in stable areas without public power grid conditions, as well as in projects such as islands and mining areas.

Energy storage system parameters	
ESS specifications	100kW/215kWh
ESS Battery DC voltage	768VDC
ESS Battery voltage range	636-846VDC
Cell type	LFP 3.2V/280Ah
Single PACK configuration	51.2V280Ah / 1P16S
Number of system PACKs	15PCS
Total system power consumption	240S1P/215kWh
Charge discharge rate	≥0.5C
Discharge depth & Battery life	90%DOD >6000Times(0.5C@25°C)Energy retention rate≥80%
Thermal management method	Intelligent air cooling
Fire Protection Plan	PACK aerosol /Cabinet aerosol+Perfluorohexane
Communication method	CAN/Eth/RS485(4G Optional)
Operating mode	On/off grid
Photovoltaic parameters (optional with various brands of hybrid inverters or MPPT modules)	
MAX. input power of PV	100kW
MPPT voltage range	200-1000V DC
MAX. PV access voltage	1100VDC
Rated input voltage	620VDC
Open circuit voltage	200VDC
PV access	6/12 Ways
PV input current	6*38A
AC Side parameters	
Rated power	100kW
Rated grid voltage	380V AC
Rated grid frequency	50/60Hz ±5Hz
Access method	Communication bottom inlet / 3phase / 3L+N+PE
Off grid parallel operation	4 PCS
System usage parameters	
Temperature for use	0°C~+50°C
Environmental humidity for use	0~95%RH
Storage temperature	-20°C~+60°C
Working altitude	2000m (>2000m Reduced usage)
Protection grade	IP54

Gird+

Grid based system solution

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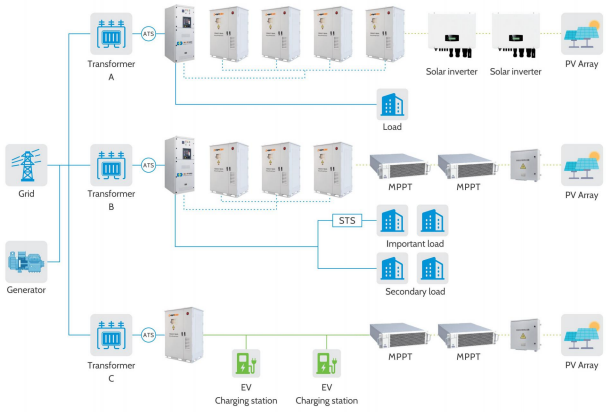

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The grid construction system can connect different power generation equipment, ESS equipment, PV equipment, and load equipment to meet the needs of isolated island PV storage projects, microgrids and various electrical energy projects. The grid construction system can effectively improve the short-circuit capacity and lack of rotational inertia of the power system. The system mainly consists of industrial and commercial energy storage systems, solar inverters/MPPT modules, intelligent control cabinets, STS, EMS, and electrical safety auxiliary systems. Diversified applications in urban power distribution, desert power stations, microgrids, charging stations, emergency backup power stations, communication base stations, and other projects.

Energy storage system parameters	Standard single device	MAX. system configuration
ESS specifications	100kW/215kWh	2.5MW/5MWh
ESS Battery DC voltage	768VDC	1331.2VDC
ESS Battery voltage range	636-846VDC	1040-1500VDC
Cell type	LFP 3.2V/280Ah	LFP 3.2V/314Ah
Single PACK configuration	51.2V280Ah / 1P16S	332.8V314Ah / 1P104S
Number of system PACKs	15PCS	48PCS
Total system power consumption	240S1P/215kWh	416S12P / 5015.9kWh
PCS Power	100kW	5PCS*500kW
Charge discharge rate	⩾0.5C	
Discharge depth & Battery life	90%DOD >6000Times(0.5C@25°C)Energy retention rate⩾80%	
Thermal management method	Intelligent air cooling	
Fire Protection Plan	PACK aerosol /Cabinet aerosol+Perfluorohexane	
Communication method	CAN/Eth/RS485(4G Optional)	
Operating mode	On/off grid	
Photovoltaic parameters (optional with various brands of hybrid inverters or MPPT modules)		
MAX. input power of PV	100kW	
MPPT voltage range	200~1000V DC	
MAX. PV access voltage	1100VDC	
Rated input voltage	620VDC	
Open circuit voltage	200VDC	
PV access	6/12 Ways	
PV input current	6*38A	
AC Side parameters		
Rated power	100~2500kW	
Rated grid voltage	380V AC	
Rated grid frequency	50/60Hz ±5Hz	
Access method	Communication bottom inlet / 3phase / 3L+N+PE	
System usage parameters		
Temperature for use	0°C~+50°C	
Environmental humidity for use	0~95°CRH	
Storage temperature	-20°C~+60°C	
Working altitude	2000m (>2000m Reduced usage)	
Protection grade	IP54	

All in one+
PV+ESS SYSTEM

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PV&ESS All in one system is an integrated PV storage device designed to meet the needs of ESS and PV storage distribution. The equipment has energy-saving, high energy density, fast access to and/or off grid photovoltaics, strong environmental adaptability, small space occupation, and particularly outstanding performance in distribution and storage. The integrated light storage machine consists of a cabinet, air-cooled air conditioning, inverter, BMS, Battery cluster, fire protection system, electrical safety auxiliary system, etc. Diversified applications in optical storage projects and off grid integrated projects.

Product model	DKP-20	DKP-30	DKP-50
System specifications	20kW/51.2kWh	30kW/61.44kWh	50kW/107kWh
System battery DC voltage	512V	614V	716V
Battery voltage range	432-576VDC	490-690VDC	582-806VDC
Cell type	LFP 3.2V/100Ah	LFP 3.2V/100Ah	LFP 3.2V/150Ah
Single PACK configuration	102.4V100Ah/10.24kWh	102.4V100Ah/10.24kWh	102.4V150Ah/15.36kWh
Number of system PACKs	5PCS	6PCS	7PCS
Total system capacity	51.2kWh	61.44kWh	107kWh
Rated power of inverter	20kW	30kW	50kW
MAX. PV input power	26kW	39kW	65kW
Charge discharge rate	≥0.5C	⩾0.5C	⩾0. 5C
Thermal management method	Intelligent air cooling		
Discharge depth&Battery life	90%DOD >6000Times(0.5C@25°C)Energy retention rate⩾80%		
Fire Protection Plan	PACK aerosol /Cabinet aerosol		
Rated grid voltage	380V AC （3L+N+PE)		
Rated grid frequency	50/60Hz ±5Hz		
Communication method	CAN/RS485/WiFi（4G Optional)		
Operating mode	On/off grid		
Access method	Communication bottom inlet / 3phase / 3L+N+PE		
Temperature for use	0℃~+50℃		
Environmental humidity for use	0~95%RH		
storage temperature	-20℃~+60℃		
Working altitude	2000m (>2000mReduced usage)		
protection grade	IP54		
Product size	1100*1260*1525mm	1100*1260*1725mm	1255*1445*1960mm
Product weight	1100kg	1250kg	2100kg

Actual implementation of multiple projects

West Africa1.72MWh PV+ESS +Generator +EV Charging Integrated project

West Africa1MWh PV+ESS +Generator Integrated project

Chad 0.6MWh PV+ESS +Generator Integrated project

Strong integrated solution

BrightESS

Provide integrated optical storage systems for global users