POWERCENT

Commercial Energy Storage System

ALL IN ONE DESIGN 100kW/215kWh

Energy Storage System Solution

Zero Carbon Industrial Park

- Environmental Sustainability
- Economic Development
- Innovation
- Cost Savings
- Community Benefits
- Brand Image

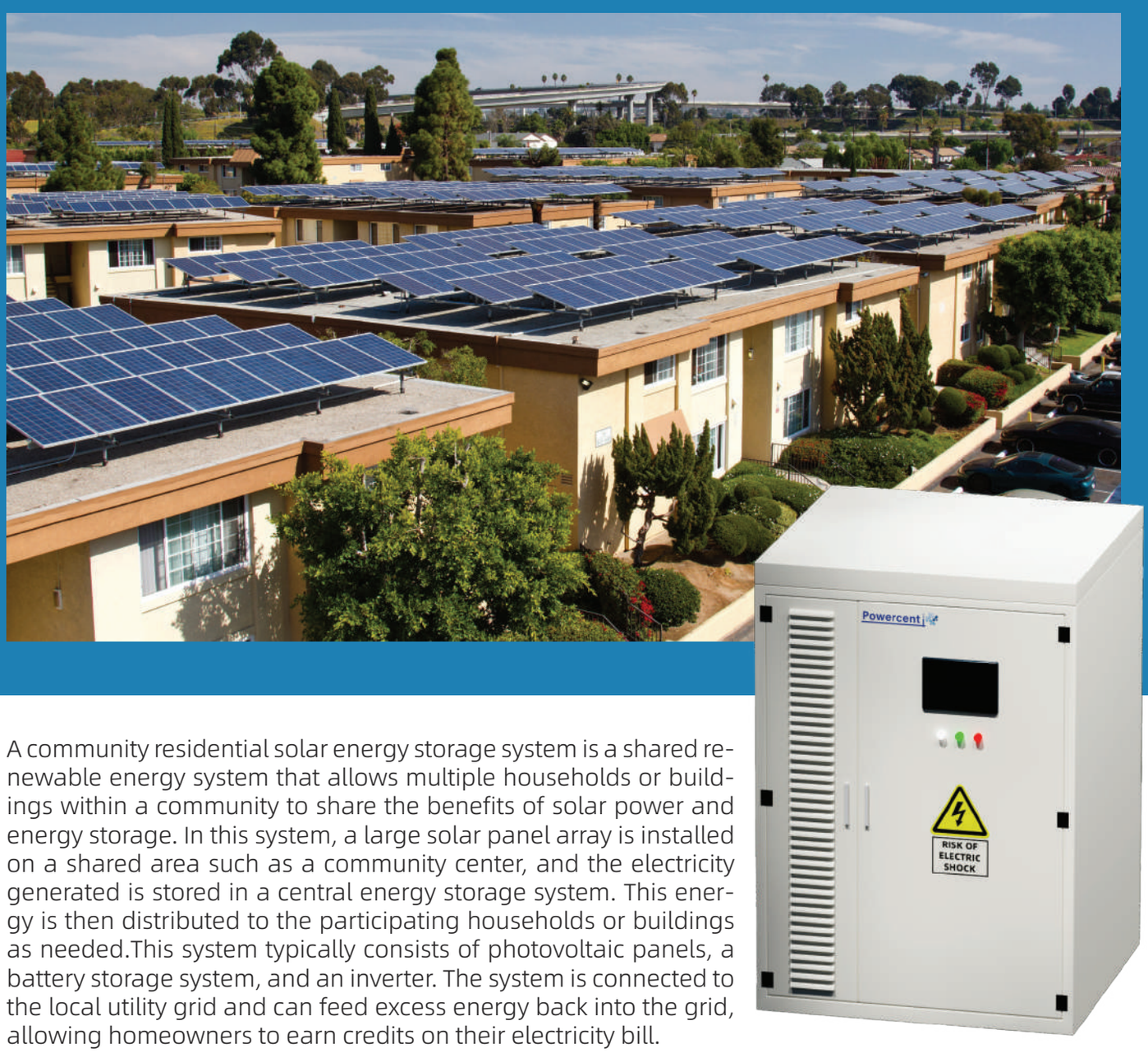
New Energy Zero Carbon Industrial Park is a type of industrial park that focuses on the development and utilization of new energy sources while achieving zero carbon emissions. It is a new model of green and sustainable industrial development that aims to achieve economic growth while protecting the environment and reducing carbon emissions.

In a New Energy Zero Carbon Industrial Park, various new energy technologies and resources, such as solar power, wind power, geothermal energy, and biomass energy, are fully utilized to power the industries in the park. At the same time, advanced technologies and management strategies are adopted to minimize or eliminate carbon emissions from the industrial processes and activities. The park also integrates various ecological and environmental protection measures, such as wastewater treatment, waste recycling, and green space planning, to create a healthy and sustainable environment.

New Energy Zero Carbon Industrial Parks have become increasingly popular around the world as countries seek to address the challenges of climate change and transition to a low-carbon economy. They are seen as an effective way to promote sustainable industrial development while reducing greenhouse gas emissions and improving the quality of the environment.

Community Residential Solar Energy Storage System

- Energy cost savings
- Environmental benefits
- Increased energy independence
- Resilience during power outages
- Increased property value



A community residential solar energy storage system is a shared renewable energy system that allows multiple households or buildings within a community to share the benefits of solar power and energy storage. In this system, a large solar panel array is installed on a shared area such as a community center, and the electricity generated is stored in a central energy storage system. This energy is then distributed to the participating households or buildings as needed.This system typically consists of photovoltaic panels, a battery storage system, and an inverter. The system is connected to the local utility grid and can feed excess energy back into the grid, allowing homeowners to earn credits on their electricity bill.

Overall, the community residential solar+storage system is a promising model for increasing access to renewable energy and promoting sustainability within a community.

On-farm Solar Energy Storage System

- Cost savings
- Energy independence
- Environmental benefits
- Resilience
- Increased property value
- Government incentives

On-farm Solar energy storage system refers to a type of renewable energy system that utilizes solar energy to generate electricity for on-farm use, with excess energy being stored in a battery storage system for later use. This system typically consists of solar panels, an inverter, and a battery storage system. The solar panels convert sunlight into direct current (DC) electricity, which is then converted into alternating current (AC) electricity by the inverter for use on the farm. The battery storage system allows excess energy to be stored and used during times when solar energy generation is lower, such as at night or during periods of low sunlight. This type of system can help reduce energy costs for farmers and increase their energy independence, while also promoting the use of renewable energy sources and reducing greenhouse gas emissions.

Product Advantages

SAFE AND RELIABLE

- PACK-level independent fire-fighting design, fire-proof isolation between modules of the integrated cabinet
- Support LVRT/HVRT, strong grid adaptability

SMART INTERNET

- Short communication link times and multiple options
- Integrated RS485, Ethernet, EtherCAT, CAN and other communication ports
- Cloud platform remote monitoring, real-time battery life evaluation, quality assurance visualization

ECONOMICALLY FRIENDLY

- Integrated design, low layout requirements, ready to use.
- PCS+ battery water cooling, high power density + energy density, small footprint
- Standardized modular module design, on-demand splicing / convenient maintenance / system expansion

INTELLIGENT AND EFFICIENT

- Three-level topology, highest efficiency >99%
- Fast power response, ±100% charge-discharge transition <25ms, faster dispatch
- Support 1.1 times long-term overload, 1.2 times short-term overload
- With functions such as off-grid V/F output, VSG and black start
- Support constant voltage, constant current, constant AC power, constant DC power and other charging and discharging modes
- Advanced neutral point offset technology effectively reduces DC ripple voltage
- Possess functions such as fault recording/waveform reading and analysis, and fast fault location
- Support arbitrary parallel connection of multiple machines

Application Scenario

DC BATTERY SYSTEM PARAMETERS	
CELL TYPE	LFP 3.2V/280AH
BATTERY PACK CONFIGURATION	1P48S/43KWH
BATTERY SYSTEM CONFIGURATION	100KW/215KWH
BATTERY VOLTAGE RANGE	672V-876V
BATTERY SYSTEM CAPACITY	280AH
TEMPERATURE CHECK	CELL + COPPER BAR
AC PARAMETERS (GRID-CONNECTED)	
RATED POWER	100KW (@50℃)
MAXIMUM OUTPUT POWER	110KW (@45 DEGREES)
RATED GRID VOLTAGE	380V
ALLOWABLE GRID VOLTAGE	-15%~+10% OR 323V-418V
RATED GRID FREQUENCY	50/60HZ
ALLOW GRID FREQUENCY FLUCTUATIONS	±5HZ
POWER FACTOR	-1 (ADVANCE) ~ 1 (LAG)
AC CURRENT HARMONICS (THDI)	<3% (RATED OUTPUT POWER)
ACCESS METHOD	THREE-PHASE FOUR-WIRE
FULL POWER CHARGE AND DISCHARGE TRANSITION TIME	<20MS
AC PARAMETERS (OFF GRID)	
RATED OUTPUT VOLTAGE	380V
RATED OUTPUT POWER	100KW
RATED OUTPUT FREQUENCY	50/60HZ
AC VOLTAGE HARMONICS (THDU)	<3% (LINEAR LOAD)
OVERLOAD CAPACITY	1.1 TIMES LONG-TERM (@45 DEGREES)
SYSTEM PARAMETERS	
CONVERTER MAXIMUM EFFICIENCY	98%
SYSTEM EFFICIENCY	91%
CHARGE AND DISCHARGE RATE	CHARGE AND DISCHARGE RATE W 0.5P
PROTECT	
DC INPUT	LOAD SWITCH + FUSE
OVERVOLTAGE PROTECTION	DC TYPE II / AC TYPE II
FIRE FIGHTING SYSTEM	AEROSOL/PERFLUOROHEXANONE/WATER FIRE OPTIONAL
GENERAL PARAMETERS	
DIMENSIONS (W X D X H)	1400MMX1300MMX2000MM (INCLUDING FEET)
LINE IN AND OUT	BOTTOM IN AND OUT
ALLOWABLE AMBIENT TEMPERATURE	-30 D31~+60 °C (OVERLOAD 110% BELOW +45 °C CAN
ALLOWABLE RELATIVE HUMIDITY	0%RH~100%RH
MAXIMUM WORKING ALTITUDE	4000M (MORE THAN 2000M NEED DERATING)
QUALITY	2.2 TONS
DEGREE OF PROTECTION	IP65
COOLING METHOD	WATER COOLING
COMMUNICATION	
COMMUNICATION INTERFACE	RS485, ETHERNET, ETHERCAT, CAN
COMMUNICATION PROTOCOL	MODBUS-RTU/MODBUS-TCP/CAN2.0B/IEC61850

Get in touch.

We're available to answer your questions and help you make informed decisions that meet your needs. Your satisfaction is our top priority.Contact us today!

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