

Mobile Energy Storage Power Supply Solution



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The cubox is a new tecloman's generation of mobile energy storage power supply that helps operators significantly reduce fuel consumption and CO₂ emissions while providing excellent performance, low noise and low maintenance costs. Cubox uses high-density lithium-ion batteries and high-efficiency inverter systems to achieve outstanding energy storage and distribution goals.

Compared with traditional products, cubox has a more compact structure, lower weight, and standard container size design for easy transportation. They are well suited for noise-sensitive locations and other stationary applications, such as peaking at electric charging stations, workplace backup, peak arbitrage, and so on.



Compact Structure

10/20 feet container standard size, low shipping cost, no waste of space.



Low Weight

Minimum 10T, forklifting or hoisting transport, shipping box.



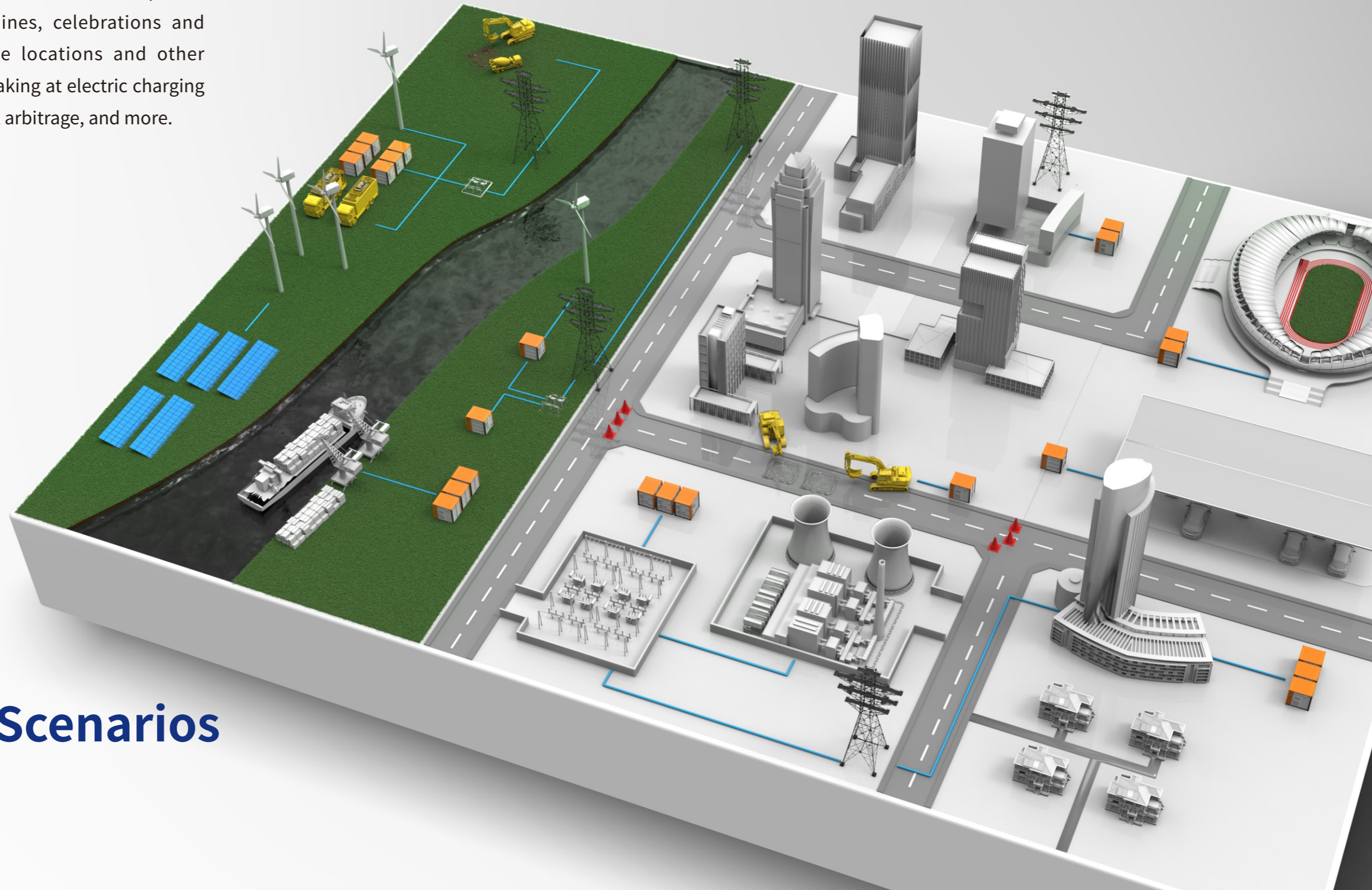
Quiet and Environment Friendly

Operating noise level ≤ 60 dB, much lower than diesel generator (76dB), zero emissions.



Product Feature

The Cubox series is perfectly suited for continuous and demanding loads. Ideal power source for harbour power, electric powered process machines, celebrations and events. Ideal for noise-sensitive locations and other stationary applications such as peaking at electric charging stations, workplace back-ups, peak arbitrage, and more.



Application Scenarios

Adding the Cubox system to the diesel generator system can reduce the start-up time of the diesel engine, improve the power generation efficiency, provide silent power supply at rest time, and reduce fuel consumption.

Hybrid Power System

We offer multiple output interfaces, through which you can quickly connect to generators and loads. The Cubox can be used in parallel to flexibly increase power and capacity.

Environmental Protection

In hybrid mode, users can reduce fuel consumption by up to 80% per day and reduce CO₂ emissions by more than 200 tons over the device service life.

Multifunction


The Cubox energy storage system realizes multi-functional intelligent load management. Helps generators reach peak power, optimizes their performance, extends their service life by 15%, and reduces general maintenance and overhaul workload by 50%. This means a 40 percent reduction in generator use. The Cubox is also ideal for managing low load conditions.

Environmental Benefit:

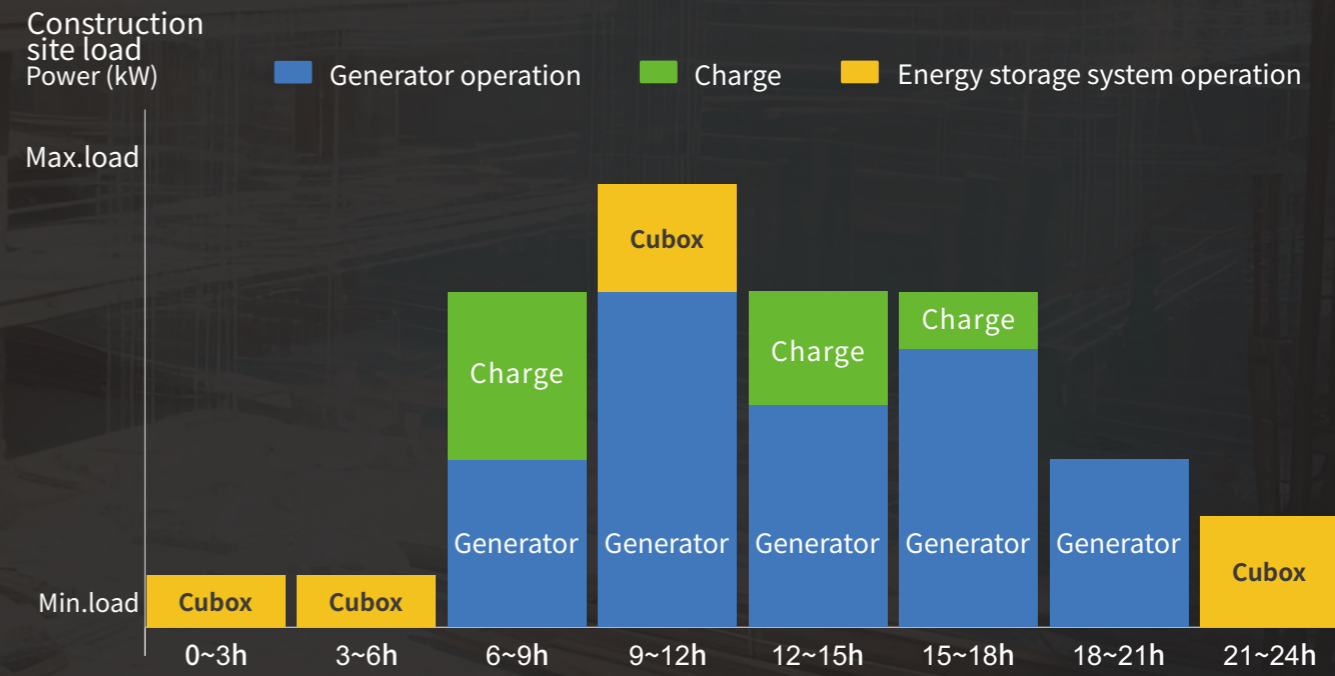
*Over the life cycle of each device, the environmental benefits in the hybrid mode are equivalent

 **200**
tons of CO₂

 **900**
trees

 **70**
cars

 **100**
m³ of waste



Typical application mode on construction site:

Oil Generator Coordination Mode (Hybrid Mode)

Use the power stored in its own battery to independently power the load. The island mode enables the energy storage system to be used as a standalone power solution. It is the ideal way to meet the needs of zero-noise environments, such as night operations, remote telecommunications applications, and to address low load challenges.

The compact structural design enables easy transportation and ensure efficient energy distribution. Can replace or reduce the number of generators. Charging from the grid during periods of low electricity prices can significantly reduce electricity costs.

Islanding Mode

Quiet And Environment Friendly

The Cubox is very quiet during operation, enabling low noise emissions to improve working conditions for workers. They are perfect for noise-sensitive applications such as commercial events and urban construction sites, increasing working time by more than 50%.

High-energy Density

Lithium-ion batteries allow us to achieve higher energy density in compact Spaces, making products easier to transport and 50 percent lighter than other battery technologies. In mobile applications, the modular design facilitates rapid combination of systems with different power and capacities.

Quick Charge

In island mode, the device needs to be charged as soon as possible to reduce load interruption and power supply interruption. The Cubox is compatible with multiple power inputs and can be fully charged within 3 hours.

Clean Technologies

When used in island mode, CO2 savings can be up to 100% if the unit is charged with renewable energy, and you can scale the energy solution with a smart microgrid control system to meet the specified requirements energy needs.



The Cubox system can be directly connected to in the microgrid system to improve the power generation efficiency and power output stability of photovoltaic and wind power generation, and solve the problem of nighttime power generation of off-grid photovoltaic systems.

In the microgrid system, Cubox can automatically adjust the power according to the load and power supply demands. Ensuring power balance and increase the power supply capacity, typical applications such as: electric vehicle charging station with rooftop photovoltaic. Islands and reefs with photovoltaic and wind power generation conditions and field sites.



Microgrid Mode

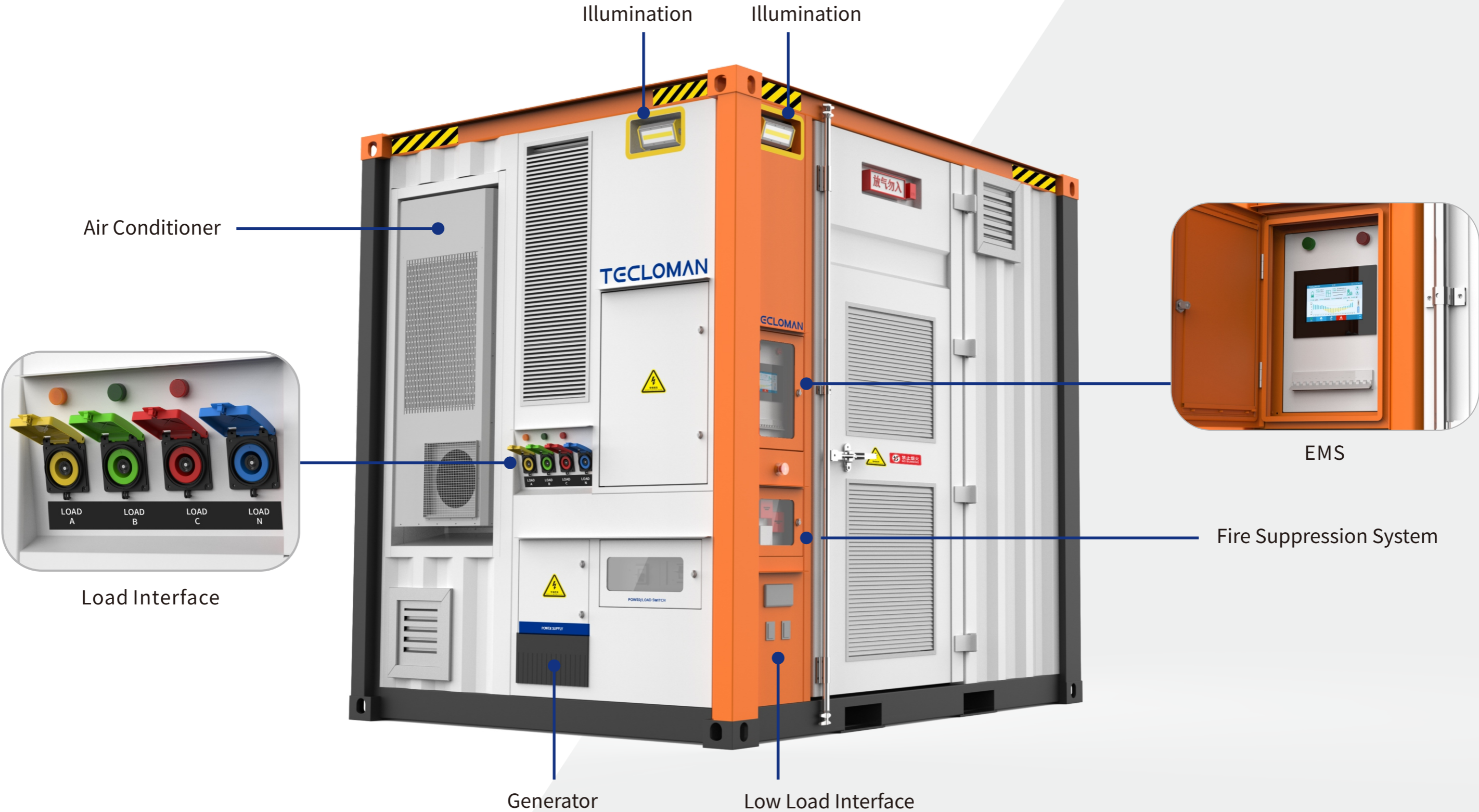
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The Cubox system can be directly connected to the grid, charged from the power grid or feed to the power grid, and can be used for load regulation, area capacity expansion, peak shaving and other scenarios.

The mobile feature is ideal for seasonal and sudden expansion needs.



On-grid Mode







Product Detail Design

Tecloman Smart O&M Cloud System is a professional remote operation and maintenance monitoring platform independently developed for energy storage products, which adopts self-developed edge computing terminals for bi-directional data communication, and encrypts and decrypts the transmitted data through encryption algorithms to ensure the security of communication.

Users can view the equipment operation status, alarm records, historical data and other information at any time through browser, applet or APP, and can also perform remote parameter setting, control, timing, firmware upgrading and other operations on the equipment, realizing the monitoring and operation and maintenance of the whole life cycle of the equipment.



Tecloman Smart O&M Cloud System

-  Full-time data monitoring + beidou positioning, Remote visualization of equipment status and location
-  Intelligent operation strategy, can be customized Strategy, to achieve automatic control of equipment
-  Intelligent O&M, intelligent equipment health status Assessment based on historical data
-  Fault alarm information active push, support public, Sms,email multiple message reminder function

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Cubox

Mobile Energy Storage Power Supply

TVSS-20-71/TVSS-60-129

TVSS-300-602/645


TVSS-630-1204/1290





Product Overview


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Compared with traditional products, Cubox has a more compact structure, lower weight, and standard container size design for easy transportation. They are ideal for noise-sensitive environments such as construction site telecommunications at events or in large cities, or rental applications, or working with generators to solve low load problems.


 Integrated, high protection structure design, meet the outdoor environment installation and long-term use and long-term use;

 One-piece transportation, easy installation, meet a variety of application scenarios;

 Compatible with diesel generators and power grid inputs to easily cope with complex working conditions;

 High-density lithium iron phosphate battery system, supporting multiple sets of parallel use, covering the 20kW~1.2MW power range;

 Quiet design, ideal for noise-sensitive applications;

 Intelligent human-machine interaction design, cloud-based technology plus, remote maintenance and monitoring.



Model	TVSS-20-71	TVSS-60-129	TVSS-300-602	TVSS-300-645	TVSS-630-1204	TVSS-630-1290
Rated capacity	71kWh	129kWh	602kWh	645kWh	1204 kWh	1290 kWh
Battery cell	LFP 3.2V 280Ah					
Rated power	20kVA	60kVA	300kVA	300kVA	630kVA	630kVA
AC mode	3W+N+PE					
Input voltage	340 ~ 440V					
Allowable input frequency	50/60Hz±5HZ					
Rated input current	29A	90A	432A	432A	909A	909A
Power factor	±0.99					
Overload capacity	110% for long-term; 120% for 1min					
On/off-grid switching	Possess					
Rated output voltage	400V					
Rated output frequency	50/60Hz					
Output voltage deviation	≤2%					
Output voltage unbalance	≤1%					
Harmonic (THD)	≤3% (Pure resistive load)					
Cooling	Intelligent Air Conditioner					
Communication interface	RS485 / CAN / Ethernet					
HMI	Touch screen					
Remote data monitoring	Equipped					
Cloud platform access	Equipped					
Operating temperature	-20°C ~ 50°C (Capacity reduction above 45°C)					
Operating humidity	≤95% Without condensing					
Altitude	≤4000m, >2000m derated					
Weight	≤850kg	≤15000kg	≤11000kg		≤20000kg	
Dimensions(W×D×H)	1000×1670×1100mm	1100×2300×1730mm	2991×2438×2896mm		6058×2438×2896mm	
Fire suppression system	Aerosol fire extinguishing system					