

# Power Cubox

TVSS-250-559/TVSS-250-602/TVSS-250-645/TVSS-500-1304/TVSS-500-1404/TVSS-500-1505



## Product Overview

The Power Cubox is a new Tecloman's generation of mobile energy storage power supply that helps operators significantly reduce fuel consumption and CO<sub>2</sub> emissions while providing excellent performance, low noise and low maintenance costs. Power Cubox uses high-density lithium-ion batteries and high-efficiency inverter systems to achieve outstanding energy storage and distribution goals.

Compared with traditional products, Power 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.



### 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  $\leq 60$ dB, much lower than diesel generator (76dB), zero emissions.



The Power Cubox series is perfectly suited for continuous and critical loads. It is the ideal power source for port electric, electric construction machinery and celebrations. Ideal for noise sensitive locations and other fixed applications, such as EV charging station peak loading, factory backup, peak shaving arbitrage, etc.



## Islanding 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.

### Quiet and environment friendly

The Power 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 Power Cubox is compatible with multiple power inputs and can be fully charged within 3 hours.


### Clean technologies

When used in island mode, CO<sub>2</sub> 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.



## Oil generator coordination mode (Hybrid mode)


Adding the Power 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 Power Cubox can be used in parallel to flexibly increase power and capacity.

 **Environmental protection**

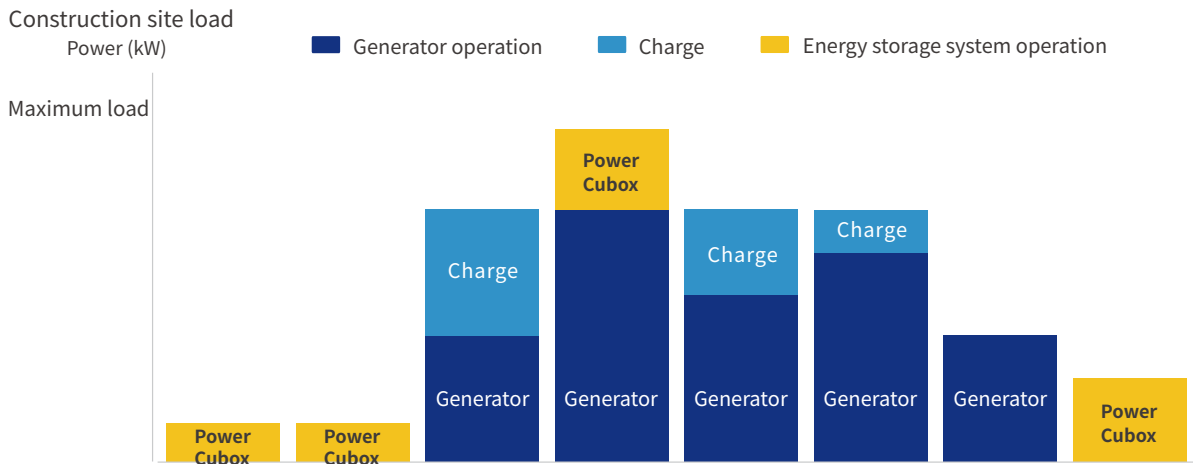
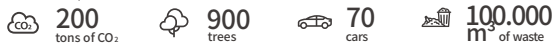
In hybrid mode, users can reduce fuel consumption by up to 80% per day and reduce CO<sub>2</sub> emissions by more than 200 tons over the device service life.

 **Multifunction**

The Power 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 Power 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



Typical application mode on construction site:



## Microgrid mode

The Power 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, Power Cubox can automatically adjust the power according to the load and power supply size needs. Make the system power balance, 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.



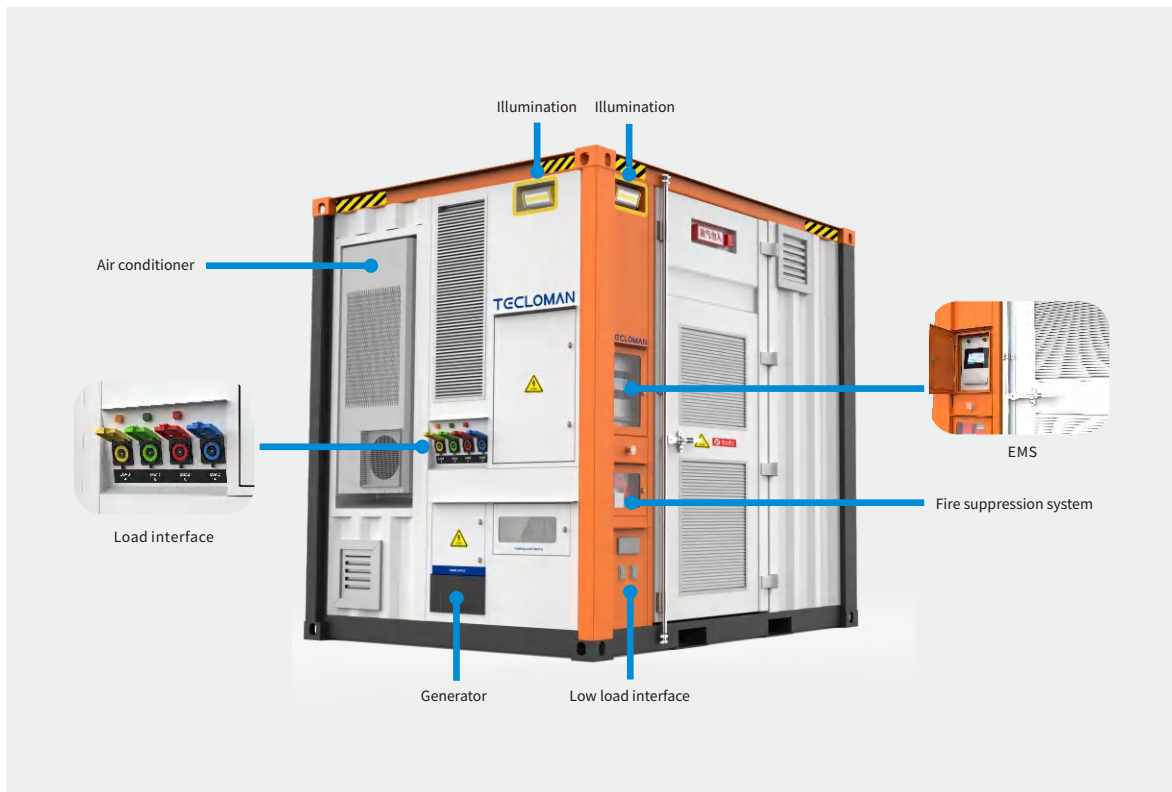
## On-grid mode

The Power 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, distribution station area capacity augmentation, peak valley peak shaving and other scenarios.

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







Power Cubox products use 7 inch industrial touch screen to achieve centralized control, easy to operate, and has cloud data support ability, you can remotely view the device status.

The system is equipped with rich interfaces to facilitate the access of different loads on site, and can also expand the charging pile recharge interface and site lighting functions.



Model	TVSS-250-559	TVSS-250-602	TVSS-250-645	TVSS-500-1304	TVSS-500-1404	TVSS-500-1505
Rated capacity	559 kWh	602 kWh	645 kWh	1304 kWh	1404 kWh	1505 kWh
Battery cell	LFP 3.2V 280Ah					
Rated power	250kVA			630kVA		
Output	3W+N+PE					
Input voltage	340 ~ 440V					
Allowable input frequency	50/60Hz±5Hz					
Rated input current	361A			909A		
Power factor	±0.99					
Overload capacity	110% normal operation; 120% run for 1min					
On/off-grid switching	Possess					
Rated output voltage	400V					
Rated output frequency	50 / 60Hz					
Output voltage deviation	≤2%					
Output voltage unbalanced degree	≤1%					
THD of output voltage	≤3% (Pure resistive load)					
Cooling	Air cooling + Intelligent air conditioning					
Communication interface	RS485 / CAN / Ethernet					
HMI	Touch screen					
Remote data monitoring	Possess					
Cloud platform access	Possess					
Operating temperature	-15°C ~ 50°C ( Capacity reduction above 45°C )					
Operating humidity	≤95% Without condensing					
Altitude	≤4000m, > 2000m Derated					
Weight	≤11000kg			≤20000kg		
Dimensions(W×D×H)	2991×2438×2896 mm			6058×2438×2896 mm		
Fire suppression system	Perfluorohexanone automatic fire extinguishing device, active protection, with temperature sensing, smoke sensing, carbon monoxide detector					