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Energy-Efficient & Cost-Effective C&I ESS

## PowerCompact Series PC15KT Mobile Hybrid Energy Storage System

Unlock Great Power &  
Profit for Your Projects



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[www.roypow.com](http://www.roypow.com)



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# ROYPOW

## For One-stop New Energy Solutions

- R&D, manufacturing and sales of motive power systems and energy storage systems as one-stop solutions
- Fully automatic production lines, a full range of test equipment and an advanced MES
- Covering Low-Speed Vehicles' Batteries, Industrial Batteries, as well as Residential ESS, Commercial & Industrial ESS, and Mobile ESS
- Self-development of power electronics technologies, including PCS, BMS, and EMS



**750+** Employees  
**190+** R&D People  
**105,000 m<sup>2</sup>** Headquarters Floor Area  
**2,500 m<sup>2</sup>** Testing Center  
**231** Patents

### Quality Control Certificates:

- ✓ Environmental Management System: ISO 14001:2015
- ✓ Occupational Health and Safety Management System: ISO 45001:2018
- ✓ Quality Management System: ISO 9001:2015, IATF16949:2016
- ✓ Information Security Management System: ISO/IEC 27001:2022
- ✓ Social Accountability Management System: SA8000:2014
- ✓ Hazardous Substance Process Management: IECQ QC 080000



### Product Certifications:

|  |  |  |   |
|--|--|--|---|
| UL 1973, UL 9540A, UL 9540, UL 2580, UL 2271, UL 1741      |  |  | FCC, IEC/EN 61000-6, BS EN IEC 61000-6    |
| IEEE 1547  |  |  | IEC 60730, ISO 13849-1                    |
| IEC 62619  |  |  | UN 38.3                                   |
| EN 62477, EN 62040, (EU) 2023/1542, EN 62109-1, EN 62109-2 |  |  | RoHS Directive 2011/65/EU & (EU) 2015/863 |

### R&D and Manufacturing Highlights

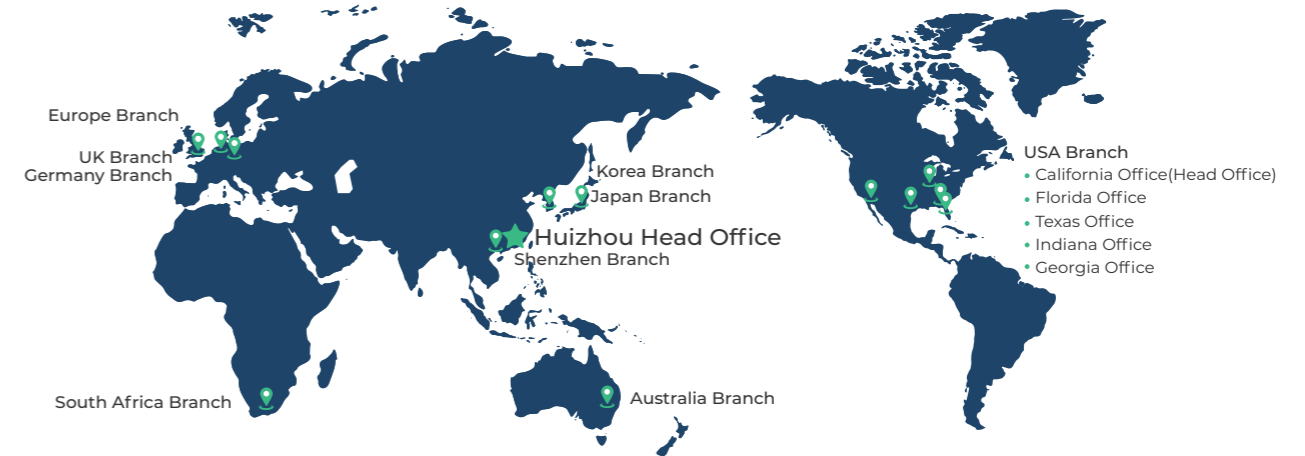
As a result of these investments, ROYPOW is capable of "end-to-end" integrated delivery, making our products out-perform the industry norms.

- Fully Automatic Production Lines
- BMS, PCS, EMS All Designed in House
- All-round Testing
- Advanced MES System

### Global Sales and Service Network

- Timely Delivery
- Hassle-free After-sales Service
- Fast Response Technical Support

ROYPOW has comprehensively unfolded its overseas market layout to ensure the localization of R&D, manufacturing, marketing and service, becoming one of your most reliable and valuable partners.



### Upgrading to New Technology, with Our Turnkey Solutions.

With years of dedication to new energy solutions, we are proud to offer customers professional solutions for:

- Low-speed Vehicle Batteries
- Battery Systems for Off-highway Applications
- Residential Energy Storage Systems
- Mobile Energy Storage Systems
- Industrial Batteries
- Battery Systems for Emerging Applications
- Commercial & Industrial Energy Storage Systems
- Motors, Controllers and Chargers



# ROYPOW Mobile Hybrid ESS Solution

For small-scale C&I energy applications, ROYPOW's mobile hybrid ESS is the ideal choice, offering a compact, flexible, and cost-effective energy storage solution to meet the demands of power backup, peak shaving, and seamless integration with renewable energy sources. Businesses can optimize energy usage, lower costs, enhance sustainability, etc.



## ROYPOW Solution

- ✓ Compact, integrated design for easy installation and transportation
- ✓ Easy parallel connection for specific project needs
- ✓ Connect to DG and solar panels
- ✓ Built tough to withstand harsh working conditions
- ✓ Intelligent management

## ☹ Diesel Generator Solution

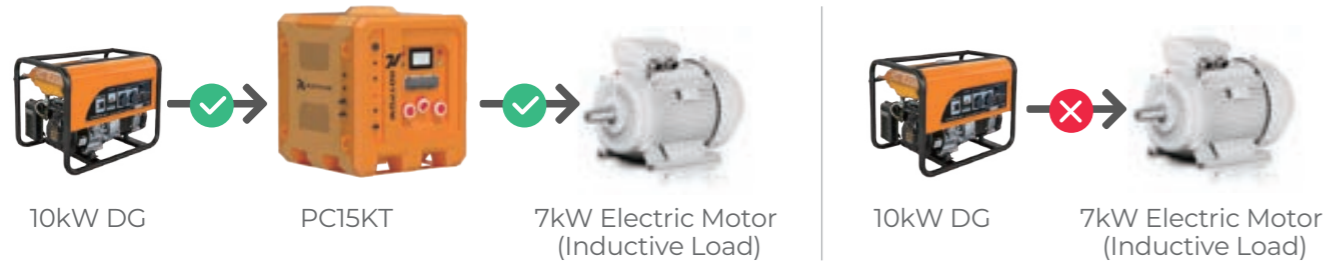
- High fuel consumption and costs
- Remote monitoring not allowed for most DGs
- Frequent maintenance and oil changes required
- Air pollution and excessive noise

## ☹ Standard C&I Energy Solution

- Bulky size and heavy weight. Difficult to carry Suitable for use in fixed locations
- Cannot be moved frequently
- Poor vibration resistance
- High initial purchase cost
- Require professional personnel for operation

## ☹ Portable Power Solution

- Small battery capacity & short battery life
- Low power, not suitable for mechanical equipment
- Not support 3-phase 380V output, generator charging, or remote monitoring
- Poor overload capacity
- Interface not waterproof



## Eliminate the Need for A Higher-Power DG

Starting a 7kW electric motor—an inductive load requiring 3 to 5 times its rated power for startup—is beyond the capacity of a 10kW DG. ROYPOW system delivers up to 30kW of power output for 10 seconds, effortlessly handling demanding loads, eliminating the need for a higher-power DG, and reducing fuel consumption and associated costs.

## Generator Connection with Automatic Charging

When undercharged, the system automatically start the diesel generator for charging and shuts it down once fully charged.



## Rugged and Reliable

Designed with robust internal reinforcements for the inverter and batteries, the system ensures greater vibration resistance and reliability, effectively minimizing risks of instability or damage during frequent transportation.



## Features



### GPS Tracking

Enables real-time monitoring of system location and ensure equipment safety



### High Safety

Equipped with safe lithium-ion batteries and cabinet-level fire extinguishing system.



### Three-phase Power Output

Supports three-phase and single-phase power output and charging



### Flexible & Fast Charging

Charge from PV, generators, and solar panels. Support < 2 hours of fast charge



### Intelligent Management

Supports 4G LTE remote monitoring of energy status via App and Web



### Plug and Play

Pre-installed, no additional complex installation required



### IP54 Ingress Rating

Can be placed in outdoor areas

## Up to **6** Units in Parallel

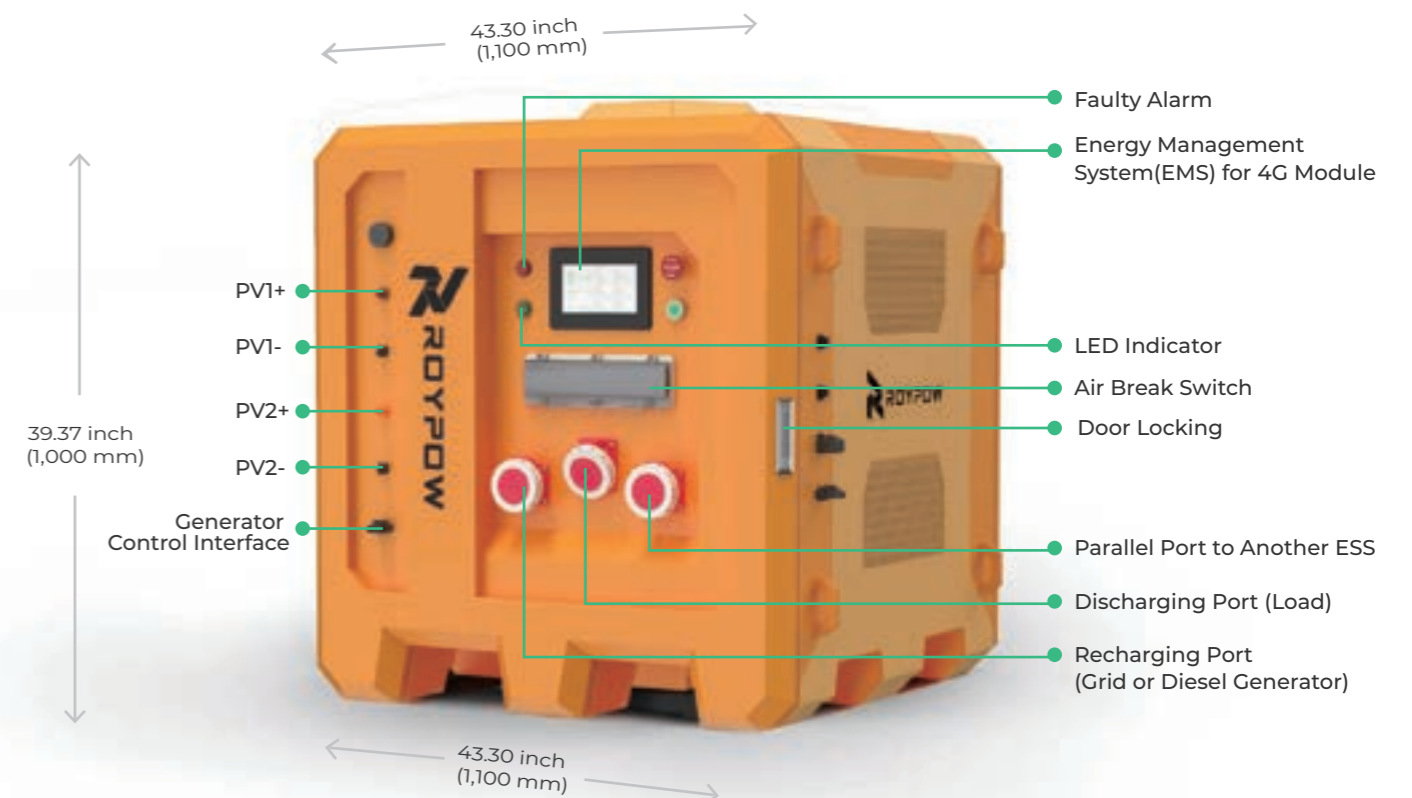
Scalable up to **90kW / 198kWh**. Supports battery-only parallel connection.

## Support **PV** Charging

Work as a supplementary energy solution that reduces fuel usage and environmental impact.



## PowerCompact Series PC15KT System Composition



1477.1 lbs  
670KG

# Specifications

| Model                                 | PC15KT-E/A   |
|---------------------------------------|--|
| <b>AC Output (Discharging)</b>        |  |
| Rated Power                           | 15 kW (90 kW / 6 in Parallel)  |
| Rated Voltage / Frequency             | 380 V / 400 V 50 / 60 Hz   |
| Rated Current                         | 3 x 21.8 A   |
| Single-Phase                          | 220V / 230V AC, Rate power 5KW; Max 7.5KW @ 1 hour   |
| Apparent Power                        | 22500 kVA  |
| AC Connection                         | 3W+N   |
| Overload Capacity                     | 120% @10min / 200% @10S  |
| <b>AC Input (Charging)</b>            |  |
| Rated Power                           | 15 kW  |
| Rated Voltage / Current               | 380 V / 400 V 22.5 A   |
| Single Phase / Current                | 220 V / 230 V 22 A (Optional), Single phase to three phases converter (optional accessory)               |
| THDI                                  | ≤3%  |
| AC Connection                         | 3W+ N  |
| <b>Battery</b>                        |  |
| Battery Chemistry                     | LiFePO <sub>4</sub>  |
| DoD                                   | 90%  |
| Rated Capacity                        | 33 kWh (Max. 198 kWh / 6 in Parallel)  |
| Voltage                               | 550 ~ 950 VDC  |
| <b>DC Input (PV)</b>                  |  |
| Max. Power                            | 30 kW  |
| Number of MPPT / Number of MPPT Input | 2-2  |
| Max. Input Current                    | 30 A / 30 A  |
| MPPT Voltage Range                    | 160 ~ 950 V  |
| Number of String per MPPT             | 2 / 2  |
| Start-up Voltage                      | 180 V  |
| <b>Physical</b>                       |  |
| Ingress Rating                        | IP54   |
| Scalability                           | Max. 6 in Parallel   |
| Relative Humidity                     | 0 ~ 100% Non-condensing  |
| Fire Suppression System               | Hot Aerosol (Cell & Cabinet)   |
| Max. Efficiency                       | 98% (PV to AC); 94.5% (BAT to AC)  |
| Topology Operating Ambient            | Transformerless  |
| Temperature                           | -20 ~ 50°C (-4 ~ 122°F)  |
| Noise Emission (dB)                   | ≤ 70   |
| Cooling                               | Natural Cooling  |
| Altitude (m)                          | 4000 (>2000 Derating)  |
| Weight (kg)                           | 670 kg (1477 lbs)  |
| Dimensions (LxWxH)                    | 1100 x 1100 x 1000 mm (43.3 x 43.3 x 39.3 inch)  |
| Standard Compliance                   | Battery: CB (IEC 62619), UN38.3<br>System: CE-EMC ( EN 61000-6-2/4 ); CE-LVD(EN 62477-1; EN 62109-1/2; ) |

1. All pictures shown are for reference only and data are based on ROYPOW standard test procedures.  
 2. Actual performance may vary according to local conditions. Only authorized personnel are allowed to operate or make adjustments to the batteries.  
 3. We reserve the right to make revisions as well as product alterations and improvements at any time without prior notice.

# Cases



**Construction Site Project**  
Power Supply for Small Electrical Equipment

**Farm Project**  
Power Supply for Water Pumps



**Construction Site Project**  
Support Power Supply and Power Backup

**Temporary Power Supply Project**  
Power Supply for Electric Impact Drills