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Version: September 21, 2026, Jobsite Energy Storage Systems

ROYPOW

Jobsite ESS: A Complete Family of Mobile Energy Storage Systems

From **15kW / 33kWh** through **500kW / 474kWh**



ROYPOW Jobsite ESS Solutions

Committed to providing cutting-edge energy storage solutions to the world, ROYPOW has developed safe, efficient, and economical jobsite energy storage systems for the growing demands, helping to optimize the energy structure, enhance the reliability of the power system, reduce the cost of energy use, etc.



The solutions include:



PowerBoost Series

High Power Inductive Load Mobile Energy Storage System

Designed to replace conventional diesel generators by turning sharp peaks into stable loads—efficient, emission-free, quick to deploy, and future-ready, making energy management smarter and greener. With a strong load capacity, the system handles high current peaks during crane start-up and lifting operations for smooth performance. Supports energy monitoring via the EMS display and mobile app for power reliability. Ideal for construction sites, it powers cranes, hoists, placing booms, static pile drivers, and other inductive loads with strong performance and safety.



PowerFusion Series

Modular DG Hybrid Mobile Energy Storage System

Designed to work with the diesel generators and make them more efficient and energy-saving. It can powerfully save much fuel consumption, eliminate the need for larger-sized diesel gensets, and reduce the genset maintenance frequency, significantly saving your total cost of ownership of up to 50%. Suitable for construction sites, remote areas, events and emergencies, rental services, etc.



PowerGo Series

Modular Scalable Mobile Energy Storage System

Integrated with powerful technologies and functions into a compact, rugged cabinet for off-grid, small- and medium-sized energy support scenarios. Can be placed on a trailer to enable mobile efficiency and flexible deployment for rapid power supply anywhere. Helps reduce carbon and noise emissions, promoting a greener environment. The power and capacity can be customized to fit specific demands. Suitable for agriculture & ranches, emergencies, construction sites, rental applications, etc.



PowerRescue Series

DC Fast Charger Mobile Energy Storage System

Traditional solutions for low-speed vehicles and industrial equipment face multiple limitations: short runtime causing frequent downtime, fixed charging systems that are slow, costly, and often require site modifications or grid upgrades, space constraints in complex environments, and concerns over battery lifespan that can lead to excess idle assets. ROYPOW solves these challenges with on-demand fast charging and mobile power solutions that work in complex locations without large-scale infrastructure or grid upgrades. Mobile rental options further lower initial investment and ease range concerns.

High Power Inductive Load
Mobile Energy Storage System

Designed for enhanced tower crane operation efficiency



ROYPOW PowerBoost Series Advantages

Designed for Heavy Inductive Loads

- Powers one or more machines independently without support from the grid or DG.
- Seamlessly replaces both DG and mains grid, with stable output for peak demands.

Cost-Saving & Flexible Power Source

- Off-grid operation requires only a small DG to recharge the ESS, reducing costs and emissions.
- Supports flexible charging: 20-40kW three-phase or 6.6 kW single-phase.
- Cuts genset rental and fuel use; avoids expensive upgrades or expansions.

Clean, Quiet, Compact & Easy-to-Deploy

- Zero emissions & silent: ideal for noise-sensitive or eco-regulated areas; supports green building and ESG goals.
- Saves up to 70% of space and weight compared to traditional gensets, easy to transport and relocate.
- Plug & play: no modifications to cranes or hoists; simplified maintenance with fewer risks.

Power Challenges on Construction Sites

Mismatched Power Supply

- Grid access is often limited and costly to expand, while heavy machinery like tower cranes and hoists generate high and fluctuating demand, particularly during peak hours, resulting in instability, voltage drops, and the need for oversized backup systems.

Inefficient Power Sources

- Diesel generators are widely used in construction operations but are highly inefficient under partial or fluctuating loads, leading to excessive fuel consumption, higher maintenance costs, and shortened lifespan.

Environmental Impact

- Noise and emissions affect the worksite and surroundings. Growing pressure to reduce carbon footprint and meet regulations.

Lack of Energy Management

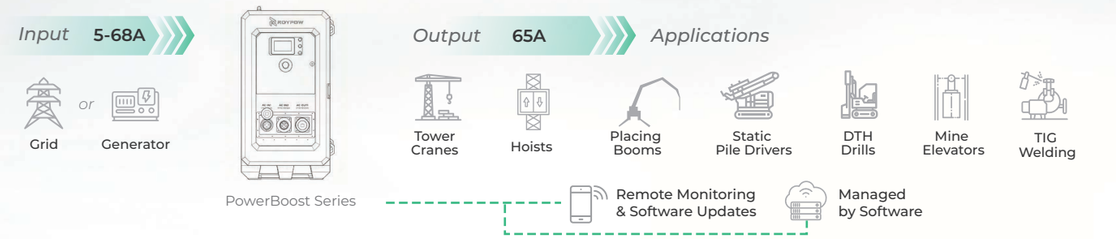
- No buffering of peak loads or intelligent control. Difficult to optimize power use or integrate renewables.

PowerBoost Series

High Power Inductive Load
Mobile Energy Storage System

30kVA / 30kWh | 30kVA / 15kWh





Powerful Performance

Rated 30kVA with a 45kVA/65A burst capacity, the system delivers instant high-current output for tower cranes and high-inrush loads, while with 4,000 cycle life, it ensures long-term stability and lower cost of ownership.

Built for Tough Outdoor Jobsites

The cabinet enclosure is IP54-rated, while the battery pack, OBC, and PCS modules achieve IP65 for reliable outdoor deployment. Engineered to perform in the harshest jobsite conditions, it operates flawlessly from -20°C to 55°C and at altitudes up to 4000m.

Comprehensive Protection

Aerosol fire suppression combined with multi-sensor detection quickly identifies heat or smoke and extinguishes fires before they spread. The battery is fully safeguarded against over voltage, under voltage, over current, and over temperature, keeping thermal runaway risks firmly under control.

Simplified Installation & Maintenance

The highly integrated cabinet combines battery, PCS, controller, and charging modules for plug-and-play installation and simplified on-site maintenance. Multiple communication options including CAN, Bluetooth, Wi-Fi, and 4G enable remote monitoring, configuration, and firmware updates via APP or web.

No Need for Inefficient Diesel Generators

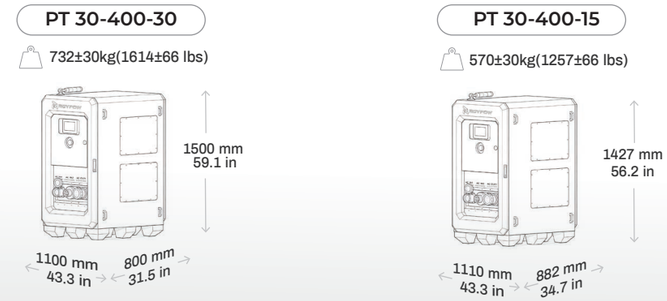
The system eliminates the low efficiency, high fuel consumption, and costly maintenance of diesel generators at low loads, and delivers higher efficiency under fluctuating site conditions, significantly reducing fuel and operational costs while extending equipment life.

Minimized Emissions & Noise

Eliminate diesel exhaust and noise pollution to improve the site and surrounding environments. Meets tightening environmental regulations, supports corporate carbon reduction goals, and helps build a greener job site.

Dimensions and Weight

Dimensions and weight are for reference only. Please refer to the actual product.



Technical specifications

Product model	PT 30-400-30	PT 30-400-15
Battery Parameters		
Rated energy	30kWh	15kWh
Rated voltage	460.8V	230.4V
Voltage range	403.2~525.6V	201.6~262.8V
Cycles	4000 (90% DOD & 70% EOL@25℃)	
AC Input Charging Parameters		
Single-phase input power	6.5kW (Optional)	
Single-phase input voltage range	90 - 265V	
Single-phase input current	Max. 32 A	
Three-phase input power	Max. 30kW	
Three-phase input voltage range	320 - 480V (3-phase 3-wire)	
Three-phase input current	Max. 45A	
Frequency	50Hz/60Hz	
AC Output Parameters		
Rated output power	30kVA	
Apparent output power (5min)	36kVA	
Peak power (10s)	45kVA	41kVA
Rated output current	43.5 A@400V	
Max. output power(5min)	52A@400V	
Max. peak current (10s)	65A@400V	
Rated output voltage	400V, 3L/N/PE	
Frequency	50/60Hz	
THDV	≤3%	
General parameters		
Input Interface	CEE 32A (1P3W) & CEE 125A(3P5W)	
Output Interface	CEE125A (3P5W)	
Display	7in	
Communication method	CAN/Bluetooth/Wi-Fi/4G	
Warranty	5 years	
Enclosure corrosion classificaition	C4	
Ingress protection rating	IP54	
Cooling method	Forced air cooling	
Operating temperature	-20~55℃[1]	
Relative humidity	10%~95% (No condensation)	
Altitude	<4000m[2]	
Packaging, Transportation, and Installation		
Packaging	Complete machine wooden box packaging	
Transportation	Sea transport, land transport	
Installation method	Hoisting and ground fastening	

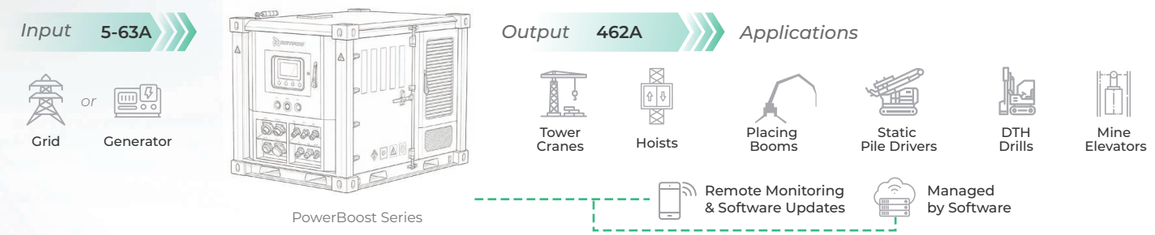
Note: [1] [2] The system automatically adapts its output based on the actual operating environment and working conditions.
All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.

PowerBoost Series

High Power Inductive Load
Mobile Energy Storage System

135kVA / 54kWh | 270kVA / 108kWh





Safe, Stable, Efficient

The third-gen SiC inverter delivers <15 ms response and constant power, current, and voltage control, with Black Start for reliable energy.

Up to 462A Output

Powerful performance for demanding applications, with high peak output for surge loads. Independent three-phase and single-phase charging modules enable flexible charging and simultaneous charge/discharge.

Dual-Side Liquid Cooling

Advanced variable-frequency liquid cooling keeps the temperature difference within 3°C and extends cell lifespan by up to 30%.

Fast Deployment & Intelligent Management

Supports plug-and-play installation with simplified maintenance on-site. Smart monitoring and control optimize performance and operational reliability.

Enhance On-Site Safety

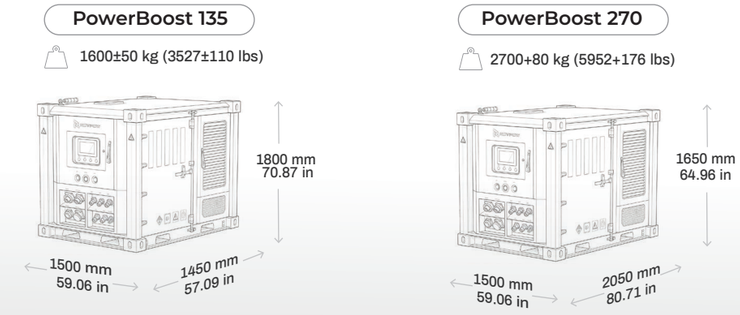
Reduces reliance on diesel power and lowers the diesel fire risks. Built-in multi-level protections for personnel and equipment safety.

Minimized Carbon Footprint

Achieves lower emissions, advancing sustainable operations to support ESG goals.

Dimensions and Weight

Dimensions and weight are for reference only. Please refer to the actual product.



Technical specifications

Product model	PowerBoost 135	PowerBoost 270
Battery Parameters		
Rated Energy	54kWh	108kWh
Rated voltage	832V	
Voltage range	728~949V	
Cycles	4000 (90%DOD & 70%EOL)	
AC Input Charging Parameters		
Single-phase input power	6.6kW(Optional)	
Single-phase input voltage range	85 - 264V	
Single-phase input current	Max. 32 A	
Three-phase input power	Max. 40kW	
Three-phase input voltage range	260 - 530V (3Phase 3wire)	
Three-phase input current	Max. 63A	
Frequency	50Hz/60Hz	
AC Output Parameters		
Rated output power	135kVA	270kVA
Max. Output Power(5min)	145kVA	290kVA
Peak power(5s)	160kVA	320kVA
Rated output current	195 A@400V	390A@400V
Max. output power(5min)	210 A@400V	420A@400V
Max. Peak current(5s)	231A@400V	462A@400V
Rated output voltage	400V，3L/N/PE	
Frequency	50/60Hz	
THDV	≤3%	
General parameters		
Input Interface	CEE 32A(1P3W) & CEE 63A(3P3W)	CEE 32A(1P3W) & CEE 63A(3P3W)
Output Interface	CEE 32A(1P3W)& CEE 63A(3P5W)/ Powerlock 630A(3P5W)	CEE 32A(1P3W)& CEE 63A(3P5W)/ Powerlock 630A(3P5W)
Display	10in	
Communication method	Dry contact/Bluetooth/Wi-Fi/4G	
Warranty	5 years	
Enclosure corrosion classificaition	C4	
Enclosure rating	IP54	
Cooling method	Liquid cooling + air cooling	
Operating temperature	-20~60°C[1]	
Relative humidity	10%~95%, No condensation.	
Altitude	<4000m[2]	
Packaging, Transportation, and Installation		
Packaging	Complete machine wooden box packaging	
Transportation	Sea transport, land transport	
Installation Method	Hoisting and ground fastening	

Note: [1] [2] The system automatically adapts its output based on the actual operating environment and working conditions.
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PowerBoost Series

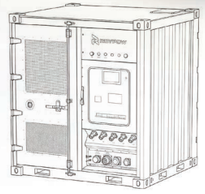
High Power Inductive Load
Mobile Energy Storage System

405kVA / 216kWh



Input **Max. 152A**

Grid or Generator



PowerBoost Series

Output **Max. 721A** *Applications*

Tower Cranes · Hoists · Placing Booms · Static Pile Drivers · DTH Drills · Mine Elevators

Remote Monitoring & Software Updates

Managed by Software

Safe, Stable, Efficient

The third-gen SiC inverter delivers <15 ms response and constant power, current, and voltage control, with Black Start for reliable energy.

Up to 721A Output

Powerful performance for demanding applications, with high peak output for surge loads. Independent three-phase and single-phase charging modules enable flexible charging and simultaneous charge/discharge.

Dual-Side Liquid Cooling

Advanced variable-frequency liquid cooling keeps the temperature difference within 3°C and extends cell lifespan by up to 30%.

Fast Deployment & Intelligent Management

Supports plug-and-play installation with simplified maintenance on-site. Smart monitoring and control optimize performance and operational reliability.

Enhance On-Site Safety

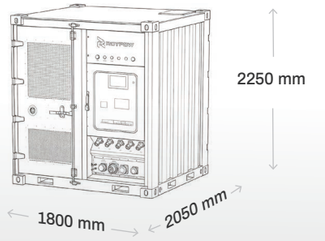
Reduces reliance on diesel power and lowers the diesel fire risks. Built-in multi-level protections for personnel and equipment safety.

Minimized Carbon Footprint

Achieves lower emissions, advancing sustainable operations to support ESG goals.

Dimensions and Weight

Dimensions and weight are for reference only. Please refer to the actual product.



KG 5000±100kg

Technical specifications

Product model	PowerBoost 405
Battery Parameters	
Rated energy	216kWh
Rated voltage	832V
Voltage range	728~949V
Recommended charge current	260A
Recommended discharge current	520A
Max. discharge current	846A
Cycles	4000 (25°C 90% DOD 70% EOL)
AC Input Charging Parameters	
Single phase charge power	6.6kW (Optional)
Input voltage range	90 - 265 V
Input current range	Max. 32A
Three phase charge power	Max. 80kW
Input voltage range	320 - 530 V (3-phase 3-wire)
Input current range	Max. 152A
Frequency	50Hz/60Hz
AC Output Parameters	
Rated output power	405kVA
Apparent output power (5min)	445kVA
Peak power (5s)	500kVA
Rated output current	584A@400 V
Max. output current (5min)	642A@400 V
Max. peak current (5s)	721A@400 V
Rated output voltage	220/380V; 230/400V, 3L/N/PE
Frequency	50/60Hz
THDi	≤3%
PF	0.99 / -1~1
General Parameters	
Input interface	CEE 32A (1P3W) & CEE 250A (3P5W)
Output interface	CEE 32A (1P3W) & CEE 63A (3P5W) / POWERLOCK800A (3P5W)
Display	10in
Communication method	Dry contact / Bluetooth / Wi-Fi / 4G
Warranty	5 years
Scalable	2-8
Enclosure rating	IP54
Cooling method	Liquid cooling
Operating temperature	-20~60°C[1] @charging & discharging
Relative humidity	5%~95%, no condensation.
Altitude	4000m[2]
Fire protection system	Aerosol, multi-sensor
Packaging, Transportation, and Installation	
Packaging	Complete machine wooden box packaging
Transportation	Sea transport, land transport
Installation method	Hoisting and ground fastening

Note: [1] [2] The system automatically adapts its output based on the actual operating environment and working conditions.
All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.

Modular Scalable Mobile Energy Storage System

15kW / 33kWh

Ideal for microgrids, load shifting, renewable energy consumption, energy buffers, off-grid power supply, backup power applications, etc.

Easy to Deploy, Simple to Operate & Maintain

Plug-and-play installation with minimal on-site maintenance. Remote monitoring and control for optimized performance and reliability.

Reduce OPEX and Carbon Footprint

Reduces diesel fuel consumption and maintenance costs while simultaneously lowering Scope 1 Emissions.

Improved Reliability

Eliminates downtime from generator breakdowns and maintenance, and protects sensitive drives from poor power variations in voltage from the grid.

Automatic Charging Control

Automatic charge control from grid, solar PV, or diesel generator. Diesel generator will auto start/stop for maximum efficiency with zero manual control required.

Enhanced Safety and Redundancy

Reduces risk from diesel fires and spills, noise, and noxious fumes, while providing power redundancy to complete critical evolutions in the event of generator breakdowns or grid power outage.

Compact & Lightweight Scalable Modular Configuration

Compact size and lightweight with ability to scale by paralleling up to 6 units for more power and energy in an easy to deploy modular system.

*Up to **6** Units in Parallel:*

From 15kW / 33kWh to 90kW / 198kWh

Modular Scalable Mobile Energy Storage System

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.











VS

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

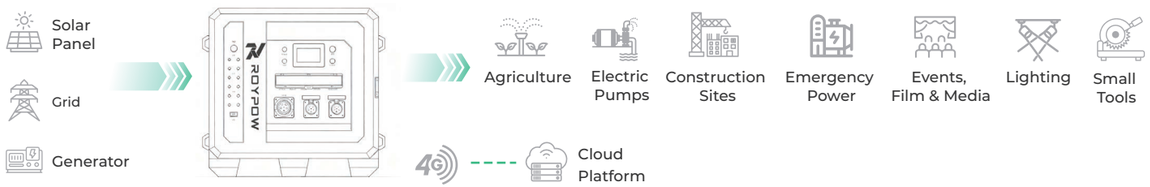
- Bulky size and heavy weight. Difficult to carry Suitable for use in fixed locations
- Cannot be moved frequently
- Poor vibration resistance
- High initial purchase cost
- Require professional personnel for operation



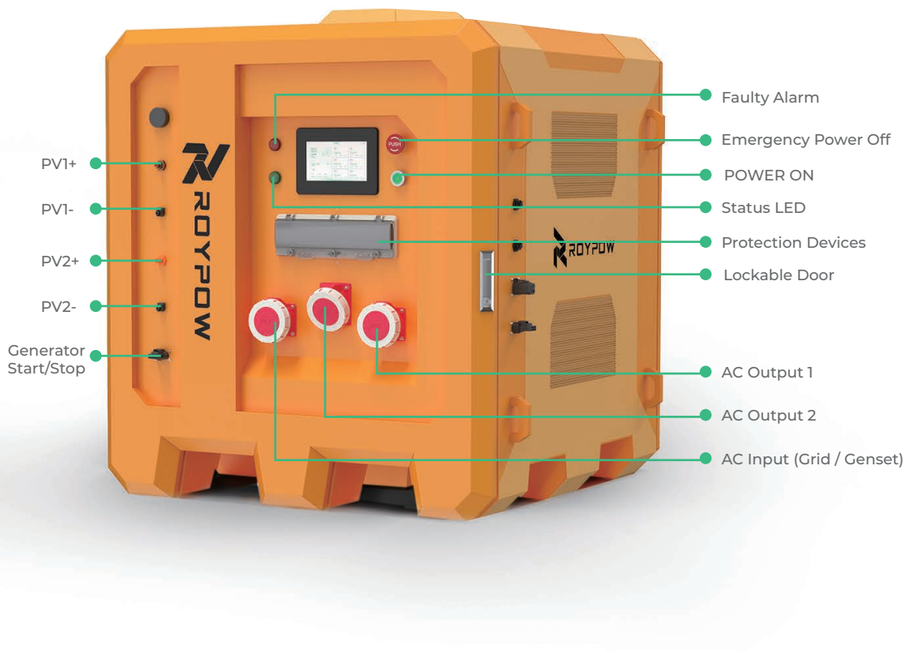
Portable Power Solution

- 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

PC15KT System Topology



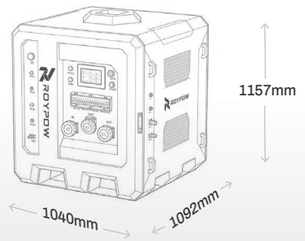
System Composition



PC15KT-E/A

Dimensions and Weight

Dimensions and weight are for reference only. Please refer to the actual product.



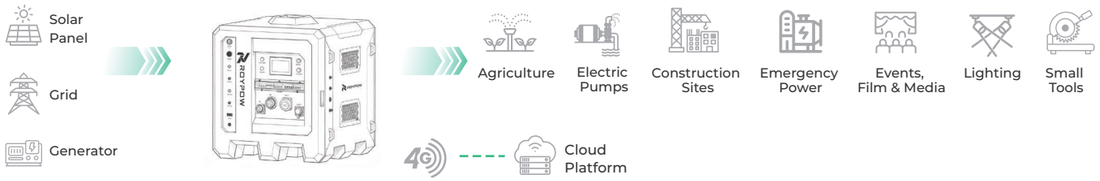
670 kg

Specifications

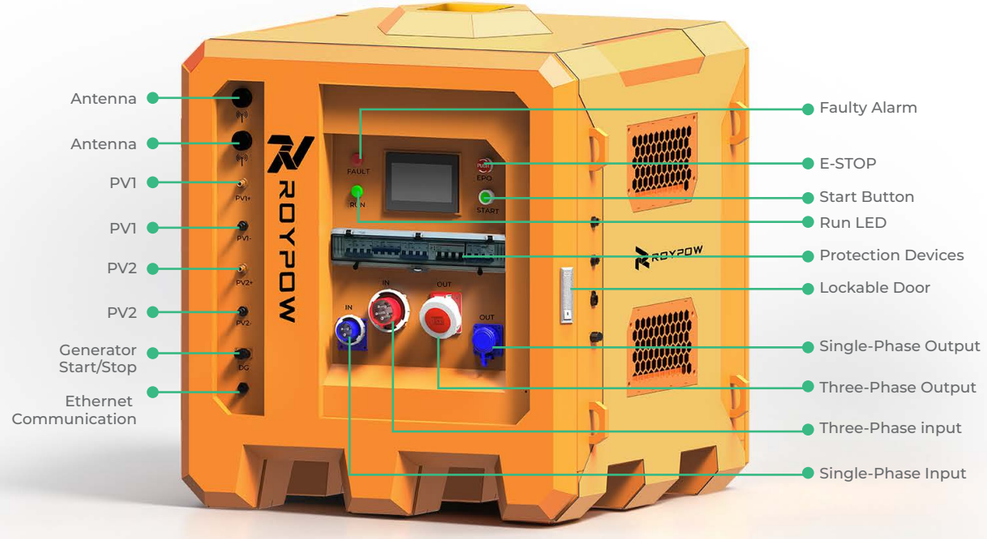
Model	PC15KT-E/A
AC Output (Discharging)	
Rated Power (kW)	15
Rated Voltage / Frequency	380 / 400 V, 50 / 60 Hz
Rated Current (A)	21.8
Single-Phase	220 / 230 V, Rate power 5 kW; Max 7.5 kW for 1 hour
Rated Bypass Power (kVA)	22.5
AC Connection	3P+N+PE
Overload Capacity	120% for 10min / 150% for 10S
AC Input (Charging)	
Rated Power (kW)	15
Rated Voltage / Current	380 / 400 V, 22.5 A
Rated Input Apparent Power (KVA)	22.5
THDI	≤3%
AC Connection	3P+ N+PE
Battery	
Battery Chemistry	$LiFePO_4$
DoD	90%
Rated Capacity (kWh)	33
Voltage (VDC)	550 ~ 950
DC Input (PV)	
Max. Power (kW)	30
MPPT Voltage Range	160 ~ 950 V
Max. Input Current (A)	30 / 30
Number of MPPT	2
Number of String per MPPT	1
Start-up Voltage (V)	180
Physical	
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)	≤ 45
Cooling	Natural Cooling
Altitude (m)	4000 (>2000 Derating)
AC Connection	CEE Standard Industrial Sockets
Standard Compliance	EN IEC 61000-6-2/4, EN IEC62109-1/2

Note: All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.

PC15KT (Single-Phase Charging) System Topology



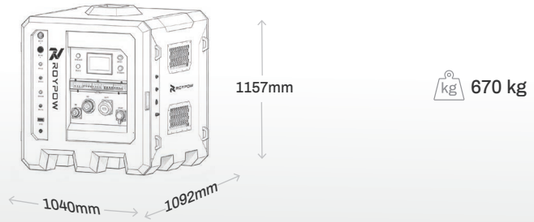
System Composition



PC15KT-EA (Single-Phase Charging)

Dimensions and Weight

Dimensions and weight are for reference only. Please refer to the actual product.



670 kg

Specifications

Model	PC15KT-EA (Single-Phase Charging)
AC Output (Discharging)	
Rated Power (kW)	15
Rated Voltage / Frequency	380 / 400 V, 50 / 60 Hz
Rated Current (A)	21.8
Single-Phase	220 / 230 V, Rate power 5 kW; Max 7.5 kW for 1 hour
Rated Bypass Power (kVA)	22.5
AC Connection	3P+N+PE
Overload Capacity	120% for 10min / 150% for 10S
AC Input (Charging)	
Rated Power (kW)	15
Rated Voltage / Current	380 / 400 V, 22.5 A
Rated Input Apparent Power (KVA)	22.5
Single-Phase Input Power	3.3 kW
Single-Phase Input Voltage	220 / 230 VAC
THDI	≤3%
AC Connection	3P+ N+PE
Battery	
Battery Chemistry	$LiFePO_4$
DoD	90%
Rated Capacity (kWh)	33
Voltage (VDC)	550 ~ 950
DC Input (PV)	
Max. Power (kW)	30
MPPT Voltage Range	160 ~ 900 V
Max. Input Current (A)	30 / 30
Number of MPPT	2
Number of String per MPPT	1
Start-up Voltage (V)	180
Physical	
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)	≤ 45
Cooling	Natural Cooling
Altitude (m)	4000 (>2000 Derating)
Weight	670 kg / 1477 lbs
Dimensions (LxWxH)	1040 x 1092 x 1157 mm / 40.94 x 42.99 x 45.55 inch
AC Connection	CEE Standard Industrial Sockets
Standard Compliance	EN IEC 61000-6-2/4, EN IEC62109-1/2

Note: All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.

3 PowerFusion Series

Modular DG Hybrid Mobile Energy Storage System

250kVA / 153.6kWh

Makes diesel genset energy saving and efficient



Saving Total Cost of Ownership up to **50%**

Why PowerFusion Series?

High Power Motors
have been widely used in industries, such as construction, mechanical manufacturing, mining, rail transit, petrochemical, etc.



How to choose a DG

Assumed load: **Peak Power:** 530 kW, **Rated power:** 200 kW

Traditional Proposal

If a Diesel Generator is adopted as power source:



- **Initial Overpurchase** for a high power DG is necessary to match the maximum starting current of the motors
- **High Fuel Consumption** is certain because of frequent motor starts and long-term operation at low power
- **Capacity Expansion is not possible** for the conventional diesel generators
- **High Maintenance Costs** due to frequent motor starts and high inrush current



Not suitable due to the high starting current of the load

ROYPOW Proposal



No need to purchase high capacity DG due to the mutual power output from X250KT



Hybrid Solution

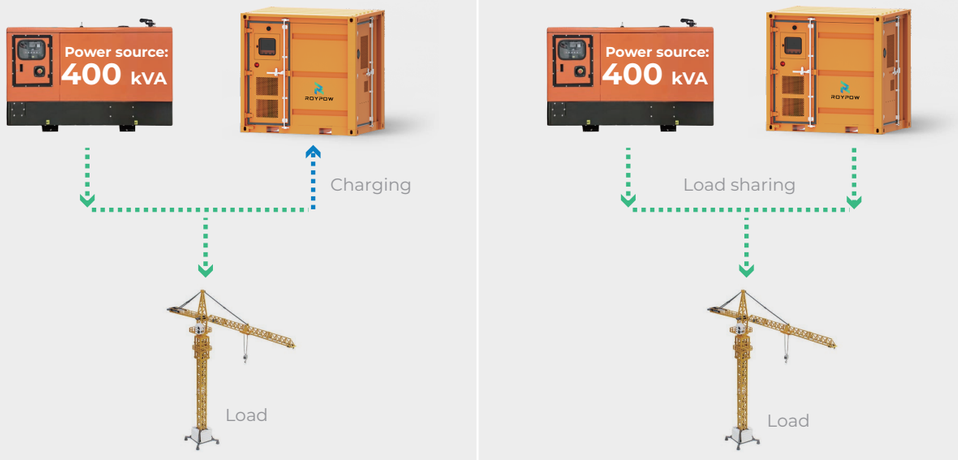


- Lower initial investment for a low-power DG
- Lower fuel consumption
- Support multiple DGs working in parallel
- Lower maintenance costs

Working modes

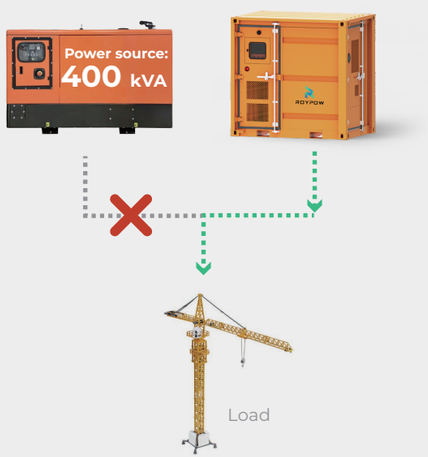
Diesel Hybrid Mode

Generator prioritizes load supply while charging the battery. The X250KT supports the generator during peak demand.



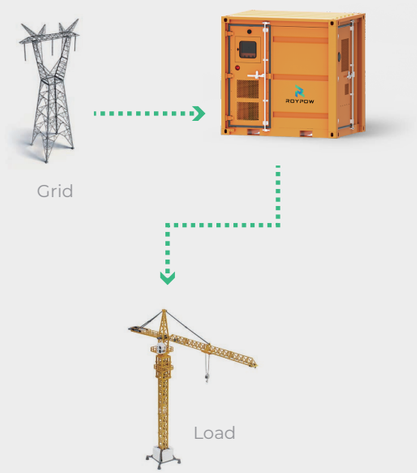
Island Mode

Battery powers the load independently.



Grid Mode

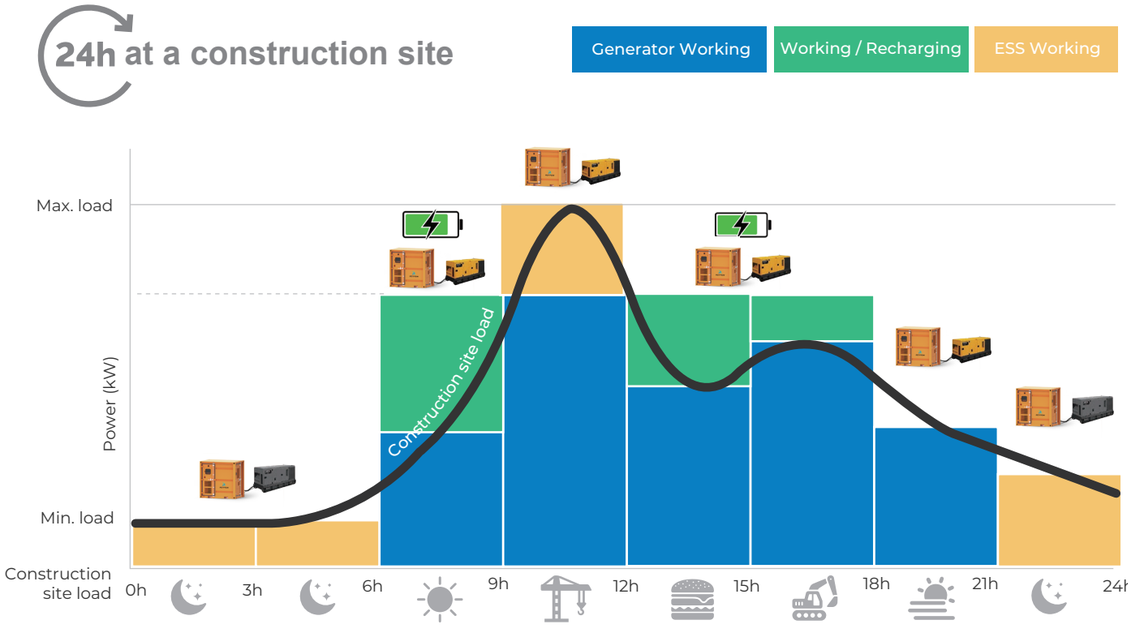
The grid charges the X250KT, and the X250KT supplies power to the load.



Hybrid Mode

In hybrid mode, the ESS successfully manages energy coming from different sources, including renewables (like solar), the power grid, and diesel generators. The ESS provides resilient and reliable energy on demand, helping operators lower their emissions, meet regulations, and cut costs.

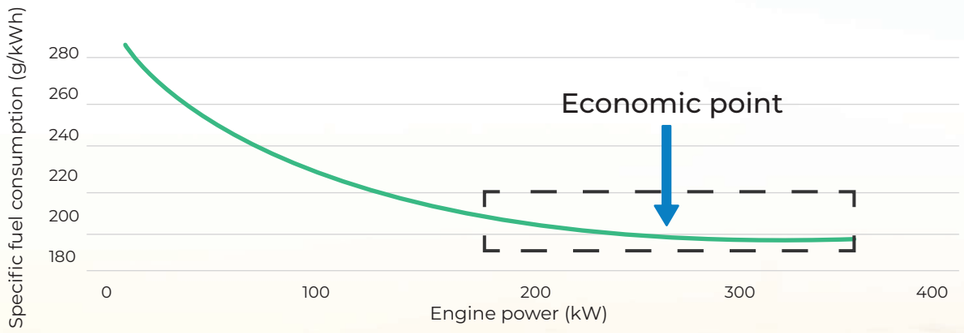
Fuel Saving **Reduced Generator Runtime** **Lower Emissions**



Modular DG Hybrid Mobile Energy Storage System

Saving Total Cost of Ownership up to 50%

ROYPOW hybrid ESS intelligently and efficiently manages the output power of the engine at 50% to 80% of the rated power of the diesel generator (DG) sets, ensuring that the DG operates at the lowest fuel consumption rate and helping achieve fuel consumption reduction. This also helps reduce the high motor startup currents and load impacts to the DG, extend the DG lifespan, reducing failure rates, and decrease maintenance frequency and costs, thereby lowering the total cost of ownership by up to 50%.



Relationship between engine power and fuel consumption

Advantages of ROYPOW Solution

Easy to Deploy, Simple to Operate & Maintain

Plug-and-play installation with minimal on-site maintenance. Remote monitoring and control for optimized performance and reliability.

Reduce OPEX and Carbon Footprint

Reduces diesel fuel consumption and maintenance costs while simultaneously lowering Scope 1 Emissions.

Improved Reliability

Eliminates downtime from generator breakdowns and maintenance, and protects sensitive drives from poor power variations in voltage from the grid.

Designed for Ruggedness and Durability

The robust, industrial-grade design ensures long-term reliability in harsh jobsite environments, minimizing unplanned downtime and maintenance.

Flexible Power for Diverse Jobsites

Easily integrates with solar, diesel generators, and grid power, and scales up to 8 units in parallel, to meet the energy needs of various jobsites.

Enhanced Safety and Redundancy

Reduces risk from diesel fires and spills, noise, and noxious fumes, while providing power redundancy to complete critical evolutions in the event of generator breakdowns or grid power outage.

PowerRescue Series

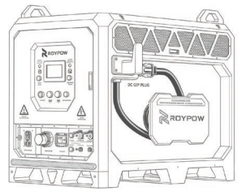
DC Fast Charger
Mobile Energy Storage System

200A Charging / 38kWh



Input **Max. 50A@ 200-500Vdc**

Charging Station or Grid or Generator



200A DC Charging

Vehicle Charging (24V, 36V, 48V, 72V, 76.8V, and max. 100V Low-Speed Vehicles & Construction Machinery)

Forklift · Aerial Work Platform · Excavator · Backup Power · Skid Steer Loaders

Remote Monitoring & Software Updates · Managed by Software

Mobile DC Fast Charging for 20V~100V Equipment

Delivers rapid and reliable power to a wide range of electric equipment with voltage requirements from 20V to 100V, reducing reliance on fixed charging infrastructure, minimizing downtime, and maximizing operational efficiency.

Reduce OPEX and Carbon Footprint

Reduces diesel fuel consumption and maintenance costs while simultaneously lowering Scope 1 Emissions.

Compact Size, Lightweight, and Flexibility Simplifies One-Site Charging

Quickly mobilize DC Fast Charging capacity to exactly where you need it, when you need it.

Designed for Ruggedness and Durability

The robust, industrial-grade design ensures long-term reliability in harsh jobsite environments, minimizing unplanned downtime and maintenance.

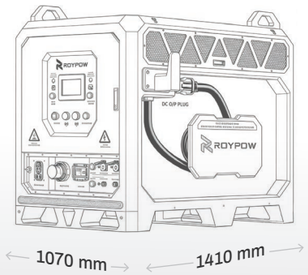
Intelligent Management

Supports communication via 4G, Bluetooth, WiFi, and dry contacts, enables remote management through APP and WEB, and allows OTA upgrades.

Comprehensive Safety by Design

Featuring BMS, thermal and insulation monitoring, over-voltage/over-current/short-circuit protection, fire detection, and door safety interlock. IP54-rated for outdoor environments.

Dimensions and Weight



950 kg

Specifications

Model	MC100200-38-EU		
DC Charging			
Power	20kW	Interface	REMA320 Plug
Voltage Range	20～100V	Cable Length	5m
Current	5~200A	BMS Communication Mode	CAN
Max. Efficiency	93%		
AC Output			
Nominal Power	3kVA	THDi	3%
Nominal Voltage	230V (Single Phase, L-N-PE)	Output Interface	EU Socket (2)
Output Current	13A		
DC Output			
DC Voltage	24V	Output Interface	2-Pin Micro Waterproof Aviation Connector
Output Current	20A		
Battery Capacity			
Energy	38kWh	Heating Function	Yes
Chemistry	LFP	Warranty	4,000 Cycles / 5 Years
Working Voltage	384V/300~438V		
DC Fast Charging			
Input Power	Max. 20kW	Charge Rated	0.5P
Input Voltage Range	200～500V	Input Interface	CCS2
Input Current	Max. 50A	Communication Signals / Protocol	PLC / IEC61851-24
AC Charging Pile			
Max. Input Power	6.6kW	Charging time	≤6h (25℃)
Input Voltage	230V (L-N-PE)	Input interface	TYPE 2
Input Current	Max. 32A	Communication signals/ protocol	CP (PWM) IEC61851-24
OBC Charging			
Max. Input Power	6.6kW	Input Current	Max. 32A
Input Voltage	230V (L-N-PE)	AC Input Interface	CEE 32A plus
Operating Temperature	-40℃~65℃		
General Parameters			
Protection Mode	Charging Cable Temperature Detection, Overvoltage/Undervoltage Protection, Overload Protection, Over-temperature Protection, Surge Protection, Insulation Monitoring Protection, Emergency Stop Protection, etc.		
Display	Display Touch Screen 7-inch & LED Indicator (Y/G/R Indicator)	Operating Temperature	-20℃~55℃
Button	SYSTEM-POWER/STOP INPUT/START/STOP OUTPUT/ EMG-STOP	Storage Temperature	-30℃~60℃
Communication Method	4G/WIFI/Bluetooth	Relative Humidity	5%～95%, Non condensation
Cooling Method	Forced Air Cooling	Altitude	≤2000m
Enclosure Level	IP54	Noise Level	75dB
Fire Protection Function	Smoke Detection and Aerosols		

Note: All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.



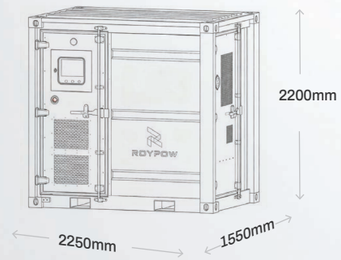
System Topology



Dimensions and Weight

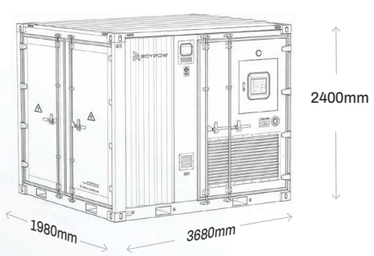
X250KT-AU

5000 kg



X500KT-E/A

8500 kg



Technical Specifications

Model	X250KT-AU	X500KT-E/A
AC Output Data (On-grid Mode)		
Rated Power	150 kW	500 kW
Peak Apparent Power	250 kVA for 210s, R Load	500 kVA
Rated Voltage	400 V (±10%)	400 V (±10%)
Rated Current	217 A	721 A
Grid Frequency	50 Hz	50 Hz
AC Connection	3 P + N + PE	
AC Output Data (Off-grid Mode)		
Rated Power	150 kW	500 kW
Peak Apparent Power	250 kVA for 210s, R Load	500 kVA
Rated Voltage / Frequency	400 V / 50 Hz	400 V / 50 Hz
THDV (Linear Load)	≤3%	≤3%
Power Factor	-1 ~ +1	-1 ~ +1
Battery Data		
Battery Chemistry	$LiFePO_4$	$LiFePO_4$
Nominal Energy	153.6 kWh	474.2 kWh
Working Voltage Range	600 V ~ 876 V	728 V ~ 936 V
Nominal Charging Current	100 A	285 A
Nominal Discharging Current	200 A	570 A
Max. Discharging Current	300 A	570 A
DOD	90%	90%
Compatible Generator		
Max. Apparent Power	≤400 kVA	≤850 kVA
Rated Voltage	400 Vac (3P + N)	400 Vac (3P + N)
Rated Frequency	50 Hz	50 Hz
General		
Parallel Capability	Up to 8 units	Up to 8 units
EMS / HMI	SEMS3000 with 12 inch LCD Touch Panel	SEMS3000 with 12 inch LCD Touch Panel
Ingress Rating	IP54	IP54
Topology	Transformer-based	Transformer-based
Operating Temperature	-20 ~ 50°C (-4 ~ 122°F)	-20 ~ 50°C (-4 ~ 122°F)
Storage Temperature	-40 ~ 65°C (-40 ~ 149°F)	-40 ~ 65°C (-40 ~ 149°F)
Relative Humidity	5 ~ 95% RH (Non-condensing)	5 ~ 95% RH (Non-condensing)
System Noise	<65 dB	<65 dB
Cooling	Intelligent Thermal Management	Liquid Cooling
Fire Suppression System	Integrated	Included
Altitude	2,000m	2,000m
Dimensions (LxWxH)	2,250 x 1,550 x 2,200 mm (88.6 x 61.1 x 86.7 inch)	144.9 x 78 x 94.5inch / 3680 x 1980 x 2400mm
Weight	5,000 kg (11,023.2 lbs)	18739.29 lbs (8,500 kg)

Note: All data are based on ROYPOW standard test procedures, actual performance may vary according to local conditions.