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ROYPOW

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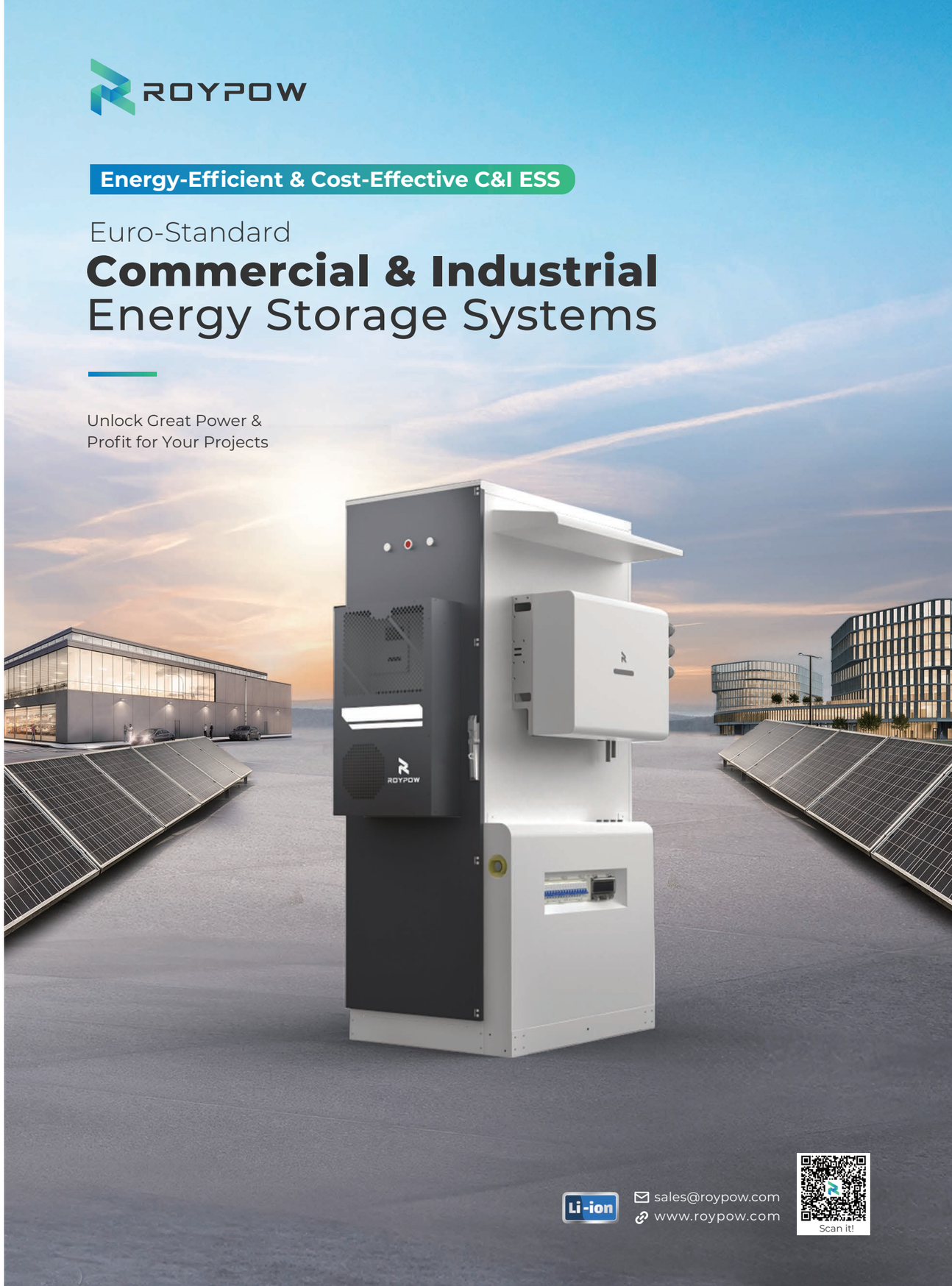
ROYPOW

Energy-Efficient & Cost-Effective C&I ESS

Euro-Standard
Commercial & Industrial
Energy Storage Systems

Unlock Great Power &
Profit for Your Projects



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ROYPOW,
Your Trusted Partner

Contents

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 ㎡ Headquarters Floor Area

2,500 ㎡ Testing Center

231 Patents

Quality Control Certificates:

- Environmental Management System: **ISO 14001:2015**
- Occupational Health and Safety Management System: **ISO45001:2018**
- 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	UL EMC	FCC, IEC/EN 61000-6, BS EN IEC 61000-6
IEEE 1547	GRID Function Safety	IEC 60730, ISO 13849-1
IEC 62619	CB Transport	UN 38.3
EN 62477, EN 62040, (EU) 2023/1542, EN 62109-1, EN 62109-2	CE RoHS	RoHS Directive 2011/65/EU & (EU) 2015/863

R&D and Manufacturing Highlights

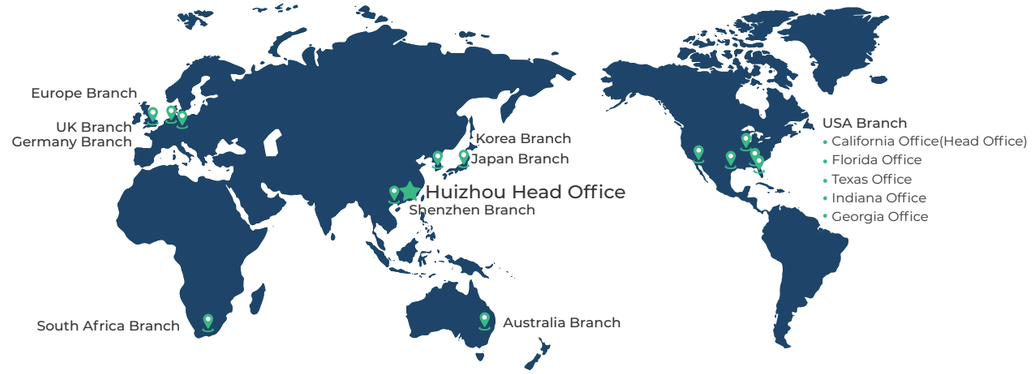
As a result of these investments, ROYPOW is capable of “end-to-end” integrated delivery, making our products out-perform the industry norms.

- 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 C&I ESS Solutions

Committed to providing cutting-edge energy storage solutions to the world, ROYPOW has developed safe, efficient, and economical commercial and industrial energy storage systems for both on-grid and off-grid scenarios, helping to optimize the energy structure, enhance the reliability of the power system, reduce the cost of energy use, etc.

Comprehensive Solutions

ROYPOW provides comprehensive energy storage solutions, which allows businesses to choose the right combination of products tailored to their specific power and cost needs, whether for energy efficiency, peak shaving, or backup power.

High Quality for Lower TCO

ROYPOW solutions, backed by strong R&D, manufacturing, testing, and quality control strengths, ensure safety, reliability, and energy efficiency in demanding conditions, extending service life and reducing total cost of ownership (TCO).

Go for a Sustainable Future

With a focus on clean, renewable energy integration, ROYPOW empowers industries to achieve their sustainability goals and lower carbon footprints while benefiting from reliable, cost-effective energy storage solutions.

The solutions include:

Battery Energy Storage System

Air-Cooled Energy Storage System

Air-Cooled Energy Storage System

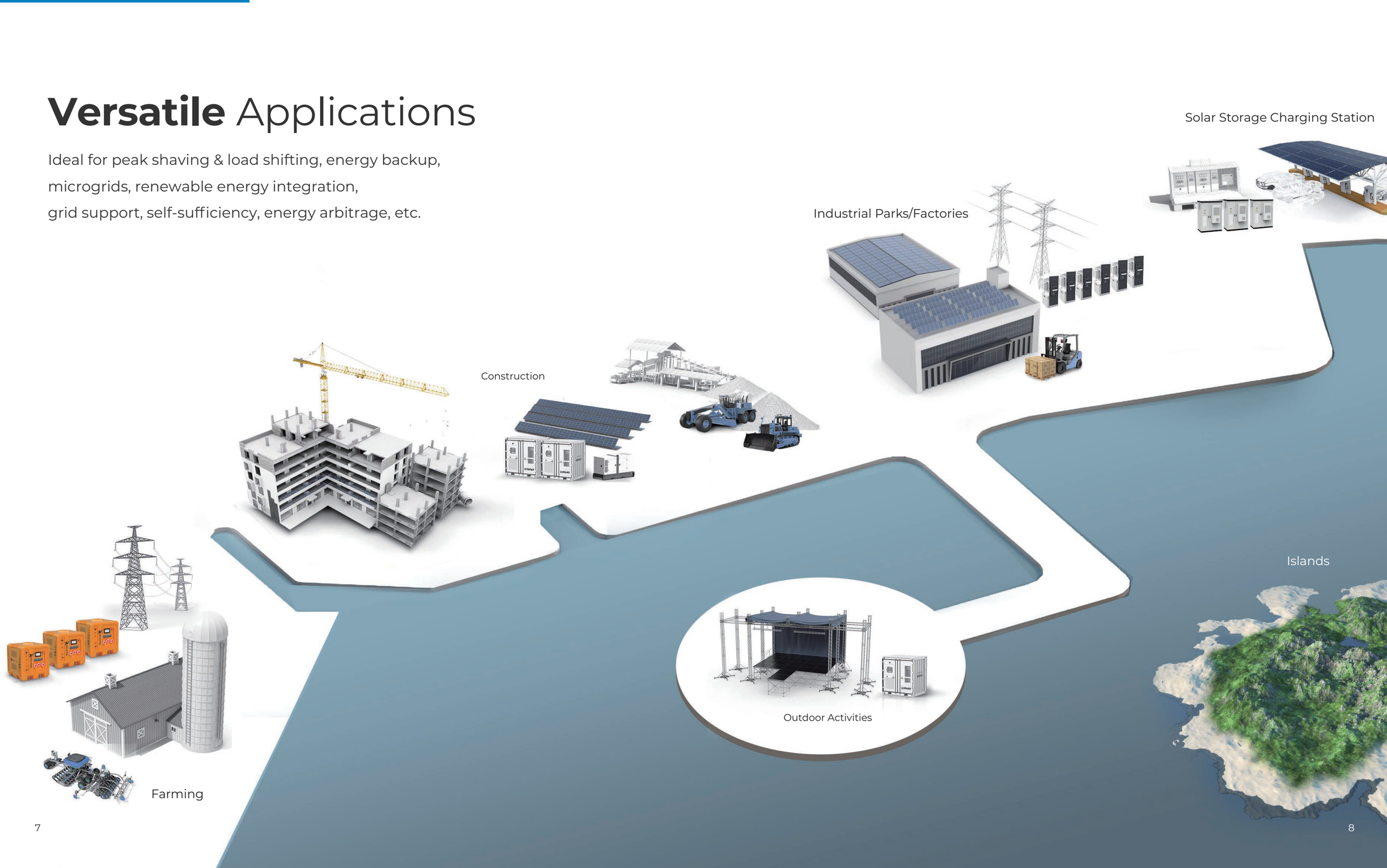
Liquid-Cooled Energy Storage System

Diesel Generator Hybrid Energy Storage System

Mobile Energy Storage System

Versatile Applications

Ideal for peak shaving & load shifting, energy backup, microgrids, renewable energy integration, grid support, self-sufficiency, energy arbitrage, etc.



1 Air-Cooled C&I ESS | 20 / 25 / 30kW 60kWh

Air-Cooled
Energy Storage System

20kW / 45.6kWh | 25kW / 60.8kWh | 30kW / 60.8kWh

The all-in-one air-cooled ESS cabinet integrates long-life battery modules, a high-performance inverter, fire protection, air conditioning, and more into a single unit, enabling long-term operation with safety, stability, and reliability for various scenarios, including commercial buildings, industrial facilities, and emergency backup systems.

System

- Prestalled all-in-one design for the ease of installation and deployment
- Parallel connection of up to 6 cabinets, reaching 180kW / 360kWh
- 20ms off-grid switching time for seamless power support
- IP54 ingress rating for indoor and outdoor installation
- Cell-level and cabinet-level hot aerosol fire extinguishing system for fire safety

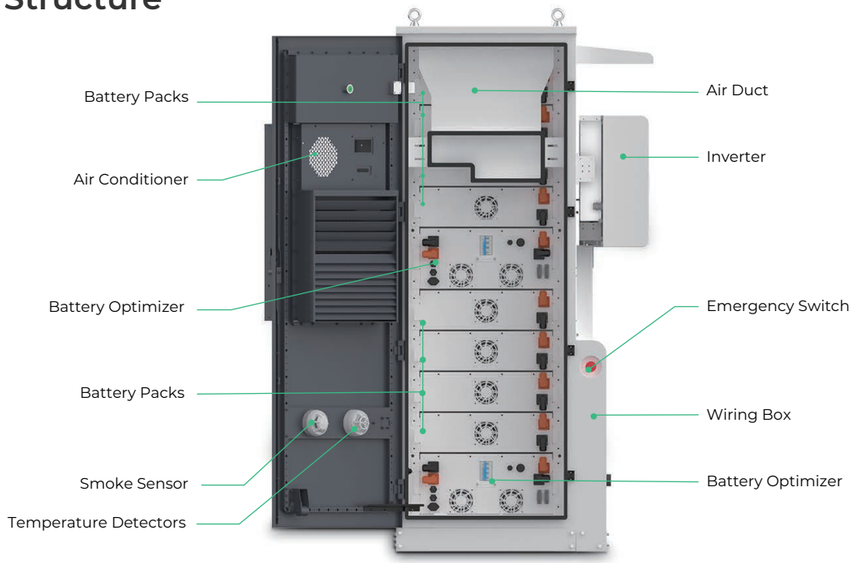
Inverter Module

- Three-phase output
- Max. 99% PV-to-grid efficiency
- Intelligent management via Bluetooth on the App
- IP65 Ingress rating
- Multiple safety protections, including anti-islanding, over-current, short-circuit, and over-voltage protection

Battery Module

- 10 years of warranty
- Advanced LFP cells with high safety, long life, stable and reliable characteristics
- Long lifespan with over 6,000 times of cycle life
- Multiple safety protections, including over-current, short-circuit, over-voltage, and output short-circuit protection

System Structure



Technical Specifications

Model	CS2045-E/H	CS2560-E/H	CS3060-E/H
Battery Parameters			
Nominal Energy	45.6 kWh	60.8 kWh	60.8 kWh
Nominal Voltage/Voltage Range	316.8 V / 277.2 - 361.35 V	422.4 V / 369.6 - 481.8 V	422.4 V / 369.6 - 481.8 V
Charge Discharge Rate		0.5P / 0.5P	
Number of Battery Optimizer	2	2	2
Number of Battery Pack	6	8	8
Battery Pack Model		**RBmax7.6MH**	
Nominal Energy		7.6 kWh (33S1P, 3.2 V 72 Ah)	
Nominal Voltage/Voltage Range		105.6 V / 92.4 - 120.45 V	
Max. Continuous Working Current		50 A	
Cycle Life		6000 @ 25℃,90% DOD, 0.5P / 0.5P, 70% EOL	
Dimension (W×D×H)		500 x 760 x 148.3 mm	
Net Weight		65 kg	
Battery Optimizer Model		**RMH95050**	
DC Working Voltage		550 - 950 V	
Nominal Power		15 kW	
Dimension (W×D×H)		650 x 250 x 250 mm	
Net Weight		15 kg	
Inverter Model	**SUN20000T-EI**	**SUN25000T-EI**	**SUN30000T-EI**
Input (PV)			
Max. Power (W)		45000	
MPPT Range (Full Load) (V)	340 ~ 800	270 ~ 800	340 ~ 800
MPPT Range (V)		160 ~950	
Max. DC Voltage (V)		1000	
Start Voltage (V)		180	
Max. DC Current (A)	30 / 30	30 / 30 / 30	30 / 30 / 30
MPP Tracker No.	2	3	3
String No.	2+2	2+2+2	2+2+2

Input (DC BUS)			
Compatible Battery Type		Lithium-ion	
Bus Voltage Range (V)		550-950	
Max. Charge / Discharge Current (A)		50	
Lithium Battery Charge Curve		Self-adaption to BMS	
Output (On Grid)			
Nom. Power (Output) (W)	20000	25000	30000
Maximum Apparent Power (Output) (VA)	22000	27500	33000
Nominal Voltage (V)		380 / 400 V (Three Phase)	
Nominal AC Frequency (Hz)		50 / 60 Hz	
Nominal Current (Output) (A)	3 * 33.33 / 3 * 28.9	3*41.67/3*36.3	3*43.5/3*43.5
Maximum Current (Input) (A)		3*63	
Output (BackUp)			
Nom. Power (VA)	20000	25000	30000
Maximum Power (5min) (VA)	24000	30000	36000
Apparent Power (10s) (VA)	30000	37500	45000
Nom. Bypass Power (VA)		45000	
Nominal Back-up Voltage (V)		380 / 400 V (Three phase)	
Nominal Back-up Frequency (Hz)		50 / 60 Hz	
Nominal Back-up Current (A)	3* 33.33 / 3 * 28.9	3 * 41.67 / 3 * 36.3	3 * 43.5 / 3 * 43.5
THDV		<3% (R Load), 5% (RCD Load)	
Efficiency			
Max. Efficiency (PV to Grid)	98.8%	98.8%	98.8%
Eur. Efficiency (PV to Grid)	97.2%	97.9%	97.9%
Max. Charge Efficiency (PV to Battery)	98%	98%	98%
Max. Charge/Discharge Efficiency (Grid to Battery)	98%	98%	98%

General			
Temp. Range	-25~60℃	Noise Emission	45 dB
Max. Operation Altitude	4000 m	Humidity	0-100%
Topology	Transformerless	Cooling	Smart Fan
Protection	IP65		

HMI & COM	
Display	LED+APP (Bluetooth)
Communication Interface	LED + APP (Bluetooth), BMS (CAN / RS485), Wi-Fi / GPRS / 4G / Ethernet (optional), DI (DRM / RCR), Meter (RS485), 1 * DO, USB (Firmware Upgrade)

Protection					
Protection	Anti-islanding Protection, AC Over-current Protection, AC Short-circuit Protection, AC Over-voltage Protection, Insulation Detection, GFCI				
SPD	DC Type 2, AC Type 2	AFCI	Optional	RSD	Optional

Mechanical					
W x H x D	650 x 500 x 265 mm	Weight	40 kg	DC Switch	Internal

System Parameters	
Ambient Temperature	-20℃~50℃ (>45℃ Derating)
Parallel	6
Storage Environment Temperature	0℃~40℃
Relative Humidity of Working Environment	5~95%, Non-condensing
Cooling Method	Intelligent Air-cooled Air conditioner
Noise Level	60dB
Firefighting Methods	Cell-level + Cabinet-level Gas Fire Protection (Aerosol)
Off-Grid Switching Time	20 ms
Working Altitude	4000m (>2000m Derating)
Installation Method	Floor-to-ceiling Installation
Communication Model	RS485, CAN, Dry, WI-FI
Enclosure Rating	IP54
Weight	<1000kg
Size (L x W x H)	1050 x 685 x 2000 mm

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

1 Air-Cooled C&I ESS | 100kW / 215kWh

Air-Cooled
Energy Storage System

The all-in-one air-cooled ESS cabinet is suitable for various applications, including empowering microgrid scenarios, enhancing power quality, performing peak shaving and load shifting, and ensuring load power supply. It delivers an economical, reliable, and secure energy solution for users.

All-In-One

Highly integrated and pre-installed with battery packs, a high-voltage battery box, an intelligent cooling unit, and more in a single cabinet, saving both space and installation time for faster deployment.

Flexible Configuration

For on-grid ESS projects, the system supports up to 12 cabinets in parallel, reaching 1,200kW/2,580kWh. For off-grid applications, it supports up to 4 cabinets in parallel, providing 400kW/860kWh.

Ultimate Safety

Built-in pack-level and cabinet-level fire extinguishing systems and environmental control units mitigate potential risks, ensuring safety for both facility and personnel during operation.

Customizable Solution

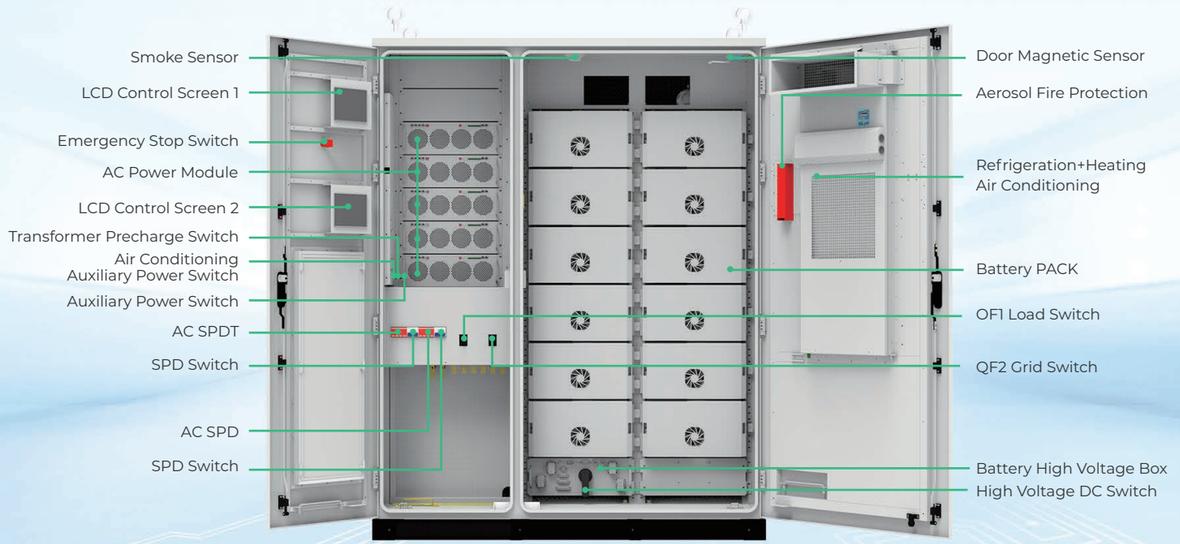
The standardized structure design with menu-based function configuration can be customized with optional components, including a PV charging module, off-grid switching module, power frequency transformer, and more, creating a fully integrated PV storage system cabinet.

IP54 Rated Protection

Designed with an IP54 rating, providing robust protection against dust and water ingress. This ensures reliable performance in tough environmental conditions, making it ideal for both indoor and outdoor installations.

Air-Cooled

Energy Storage System Structure



Cabinet Internal Structure

ROYPOW

Technical Specifications

Model	CS100KT 215-E/H
Battery System Specifications	
Battery Rated Energy Storage Capacity	215kWh
System Rated Voltage	768V
System Voltage Range	672-876V
Battery Type	Lithium iron phosphate battery (LFP-280Ah)
Battery Pack Series and Parallel Connection	1P20S/12S
Battery Pack Capacity	17.92kWh
Maximum Charge and Discharge Current	184A
PV Specifications	
Maximum DC Power	55kW*2
DC Working Voltage Range	200V~1000V
Low Voltage Side Full Load Voltage Range	312V~850V
Maximum Current at Low Voltage Side	80A*2/2
Low Voltage Side Input Channels	2 (2 channels can be independent, can be paralleled as 1 channel)
AC Input	
Rated AC Power	100kW
Rated AC Current	144A
Rated AC Voltage	400V, 3W+N+PE
Rated AC Frequency	50/60Hz
Overload Capacity	110%, normal operation; 120%, 1 minute
Maximum Efficiency	98.80%
Current Total Harmonic Distortion Rate THDI	<5% (Rated power)
Power Factor	-1 leading~+1 lagging
Voltage Total Harmonic Distortion THDU	<3% (Linear load)
General Specifications	
Enclosure Rating	IP54
Protection Class	Class 1
Isolation Method	Transformer isolation
Power Consumption during Shutdown	＜100W (Without transformer)
HMI	Touch screen
Relative Humidity	0~95% (No condensation)
Noise	Less than 80dB
Operating Temperature	-20℃~55℃ (Derating above 50°C)
Cooling Method	Intelligent air cooling
Altitude	2000m (over 2000m derating)
BMS Communication	CAN
EMS Communication	Ethernet / 485
Cloud Platform	Optional
Dimensions (W x D x H)	1800*1200*2300mm
Weight	Approx. 3300kg

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

Liquid-Cooled
Energy Storage System

100kW/232kWh 100kW/261kWh

The all-in-one liquid-cooled ESS cabinet features advanced cabinet-level liquid cooling and temperature balancing strategies, which enhance temperature consistency and extend battery life. The modular design offers greater flexibility in parallel solutions, significantly improving cost-effectiveness, safety, and ease of construction for C&I ESS projects.

All-In-One

Highly integrated and pre-installed with battery packs, a high-voltage battery box, a liquid cooling unit, and more in a single cabinet, saving both space and installation time for faster deployment.

Efficient Cooling

Advanced variable frequency liquid cooling technology keeps the cabinet's temperature difference within 3°C, extending cell life by up to 30%.

Ultimate Safety

Built-in pack-level and cabinet-level fire extinguishing systems and environmental control units mitigate potential risks, ensuring safety for both facility and personnel during operation.

Flexible Configuration

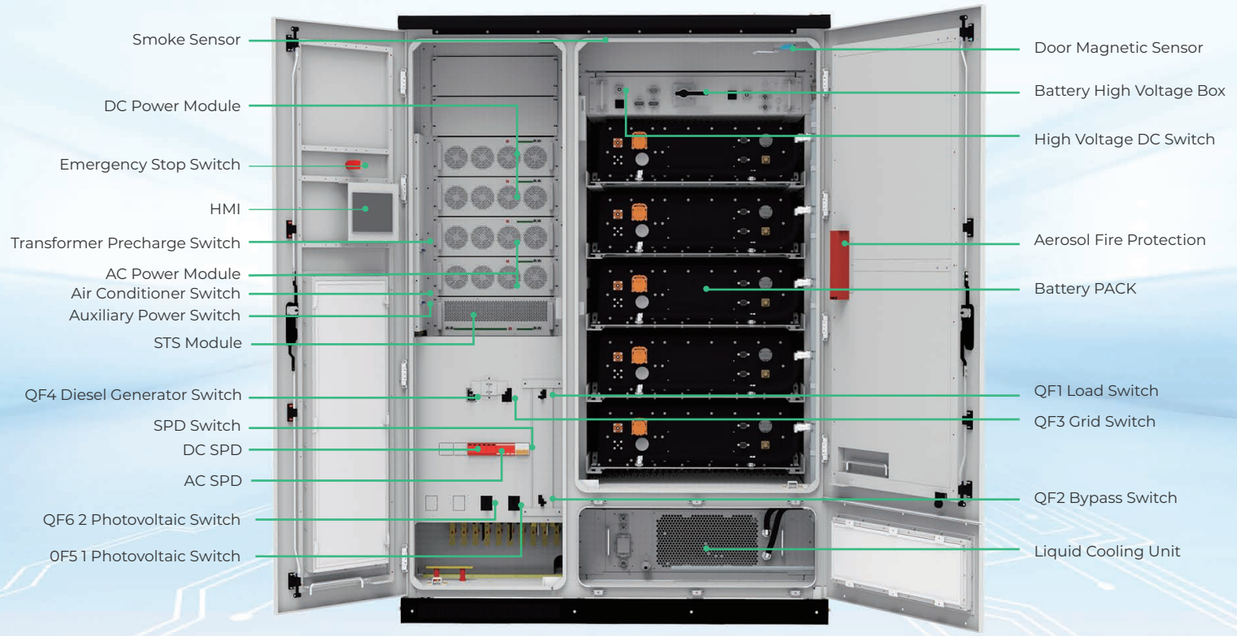
For on-grid ESS projects, the system supports up to 12 cabinets in parallel, reaching 1,200kW/2,784kWh. For off-grid applications, it supports up to 4 cabinets in parallel, providing 400kW/928kWh.

IP54 Rated Protection

Designed with an IP54 rating, providing robust protection against dust and water ingress. This ensures reliable performance in tough environmental conditions, making it ideal for both indoor and outdoor installations.

Liquid-Cooled

Energy Storage System Structure



ROYPOW

Technical Specifications

Model	CS100KT232-E/H	CS100KT 261-E/H
Battery Parameters		
Battery Rated Energy Storage Capacity	232 kWh	261kWh
System Rated Voltage	832 V	
System Voltage Range	728 - 936 V	
Battery Type	Lithium iron phosphate battery (LFP-280 Ah)	Lithium iron phosphate battery (LFP-314Ah)
Battery Pack Series and Parallel Connection	1P52S/5S	
Battery Pack Capacity	46.592 kWh	52.249kWh
Maximum Charge and Discharge Current	140 A	157A
PV Specifications		
Maximum DC Power	55 kW * 2	
DC Working Voltage Range	200 V ~ 1000 V	
Low Voltage Side Full Load Voltage Range	312 V ~ 850 V	
Maximum Current at Low Voltage Side	80 A * 2 / 2	
Low Voltage Side Input Channels	2 (2 channels can be independent, can be paralleled as 1 channel)	
AC Output		
Rated AC Power	100kW, 50kW per module	
Rated AC Current	144A	
Rated AC Voltage	400V, 3W+N+PE	
Rated AC Frequency	50 / 60Hz	
Overload Capacity	110%, normal operation; 120%, 1 minute	
Maximum Efficiency	98.80%	
Current Total Harmonic Distortion Rate THDI	<5% (Rated power)	
Power Factor	-1 leading~+1 lagging	
Voltage Total Harmonic Distortion THDU	<3% (linear load)	
General Specifications		
Enclosure Rating	IP54	
Protection Class	Class 1	
Isolation Method	Transformer isolation	
Power Consumption during Shutdown	＜100W (without transformer)	
HMI	Touch screen	
Relative Humidity	0 ~ 95% (no condensation)	
Noise	<70 dB	
Operating Temperature	-20°C~55°C (Derating above 50°C)	
Cooling Method	Intelligent air cooling	
Altitude	2000m (over 2000m derating)	
BMS Communication	CAN	
EMS Communication	Ethernet / 485	
Cloud Platform	Optional	
Dimensions (W x D x H)	1612 x 1350 x 2300 mm	1650*1350*2300 mm
Weight	Approx. 3000 kgtt	Approx. 3300kg

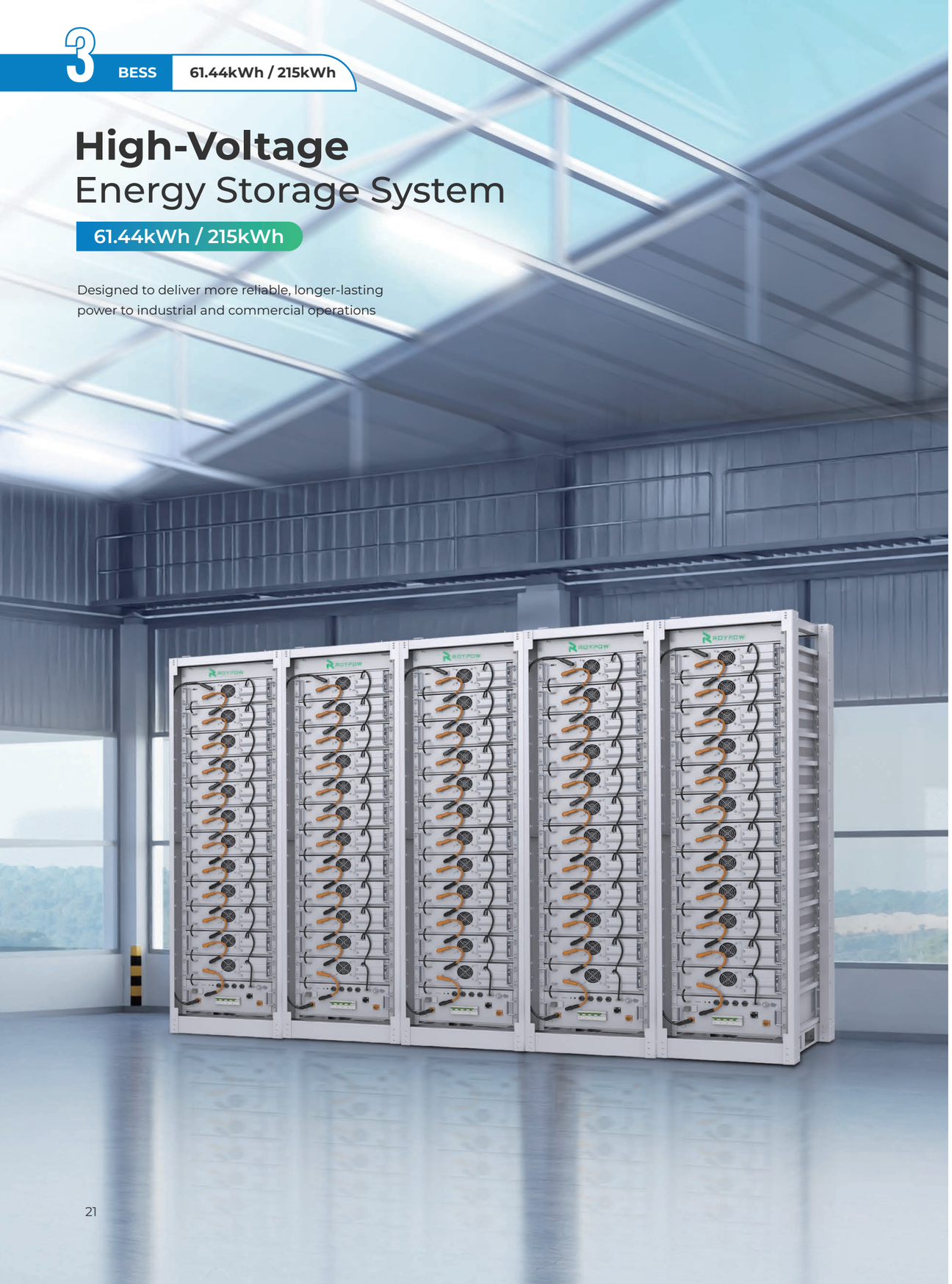
Note: All data are based on ROYPOW standard test procedures. Actual performance may vary according to local conditions

3 BESS 61.44kWh / 215kWh

High-Voltage
Energy Storage System

61.44kWh / 215kWh

Designed to deliver more reliable, longer-lasting power to industrial and commercial operations



Features

- Advanced LFP cells for high efficiency and safety and zero maintenance.
- Up to 8 racks working in parallel to reach 491.52kWh for larger capacity.
- Up to 15 years of design life with over 6,000 cycles for a longer lifespan.
- Compatible with leading inverter brands such as Deye, Solis, and Solinteg.
- Supports 1C continuous discharge rate for enhanced power output during high-demand periods
- Integrated air duct to dissipate the heat for stable performance
- Modular design for easier expansion and installation and supports plug and play

Technical Specifications

Model	CBmax60H-BR	CBmax215H-BR
Battery Parameters		
Cell Type	$LiFePO_4$	
Nominal Energy	61.44 kWh (192s1p)	215kWh(240s1p)
Nominal Capacity	104 Ah	280Ah
Nominal Voltage	614.4 Vdc	768V
Voltage Range	547.2 Vdc ~ 691.2 Vdc	672-876V
Max. Charging/Discharge Current	50 A / 100 A	140A/140A
DOD	95%	
Communication	CAN,RS485	
Parallel Capacity Expansion	8 in Parallel	
Size (L x W x H)	580 x 650 x 2200 mm	1100 x 1000 x 2200 mm
Weight	≈685 kg	2100 kg
Operating Temperature	Charge: 0~50 °C; Discharge: -20~50 °C	
Humidity	5~95% RH, No Condensation	
Altitude	＜2000 m	
Enclosure Rating	IP20	
Installation Type	Indoors, Rack Installation	
Cycle	＞6000 @25 °C @0.5 C	

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

4 Mobile C&I ESS | 15kW / 33kWh

PC15KT

Mobile Energy Storage System

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

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

All-in-one

Mobile battery system, hybrid inverter, solar MPPT, 4G modem, fire extinguishing system, distribution system, LCD screen, and smart EMS.

Flexible Configuration

Adjustable configurations to achieve optimal cost-effectiveness. Up to 6 batteries in parallel for capacity expansion. Up to 6 cabinets for parallel use.

High Safety Standard

Using high-safety performance lithium iron phosphate batteries. Meets standards such as NFPA855, EN50549, and UL.

Enhanced Reliability

The battery offers excellent vibration resistance, and the inverter has been reinforced for added durability.

Intelligent Management

Integrated EMS & 4G LTE modem, supporting remote monitoring of devices through web and app.

Plug and Play

The system is pre-installed. Just make simple settings to use.

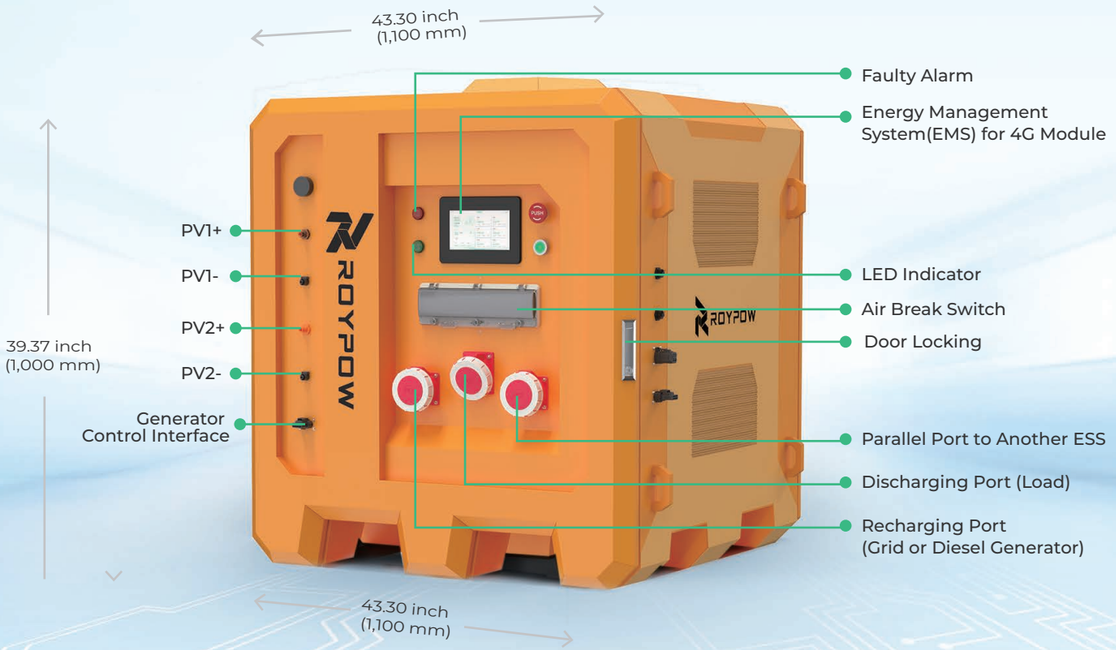
Three-phase Power Output

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

Generator Connection

Can be connected to diesel/gasoline generators. Support automatic control, starting charging when low and shutting off once fully charged.

PowerCompact Series
System Composition



1477.1 lbs
670KG

Specifications

Yellow

Model	PC15KT-E/A
AC Output (Discharging)	
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
AC Input (Charging)	
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
Battery	
Battery Chemistry	$LiFePO_4$
DoD	90%
Rated Capacity	33 kWh (Max. 198 kWh / 6 in Parallel)
Voltage	550 ~ 950 VDC
DC Input (PV)	
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
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)	≤ 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 System: CE-EMC (EN 61000-6-2/4); CE-LVD(EN 62477-1; EN 62109-1/2;)

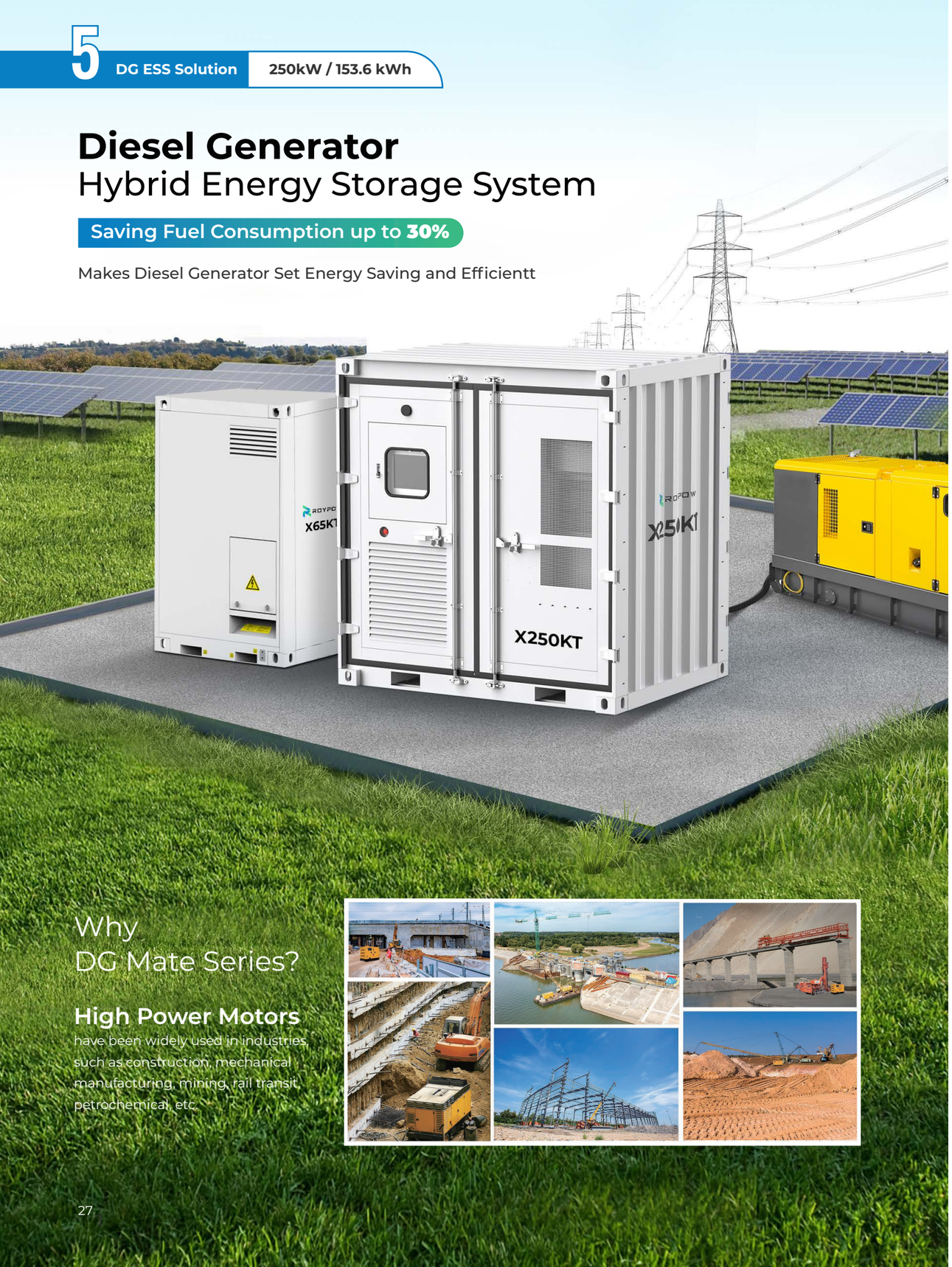
1. All pictures shown are for reference only and data are based on ROYPOW standard test procedures.
2. Actual performance may vary according to local conditions. Only authorized personnel are allowed to operate or make adjustments to the batteries.
3.We reserve the right to make revisions as well as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

5 DG ESS Solution | 250kW / 153.6 kWh

Diesel Generator
Hybrid Energy Storage System

Saving Fuel Consumption up to 30%

Makes Diesel Generator Set Energy Saving and Efficientt



Why DG Mate 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

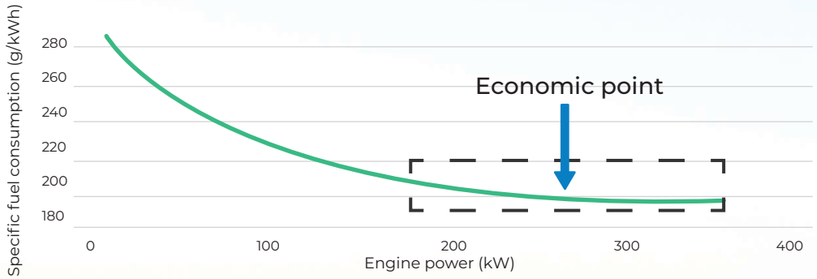
Hybrid Solution +

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

X250KT Diesel Generator + Energy Storage System Solution

30% Savings on Diesel Fuel Consumption

ROYPOW X250KT intelligently and efficiently manages the output power of the engine at 50% to 70% of the rated power of the DG, ensuring that the DG operates at the lowest fuel consumption rate and helping achieve fuel consumption reduction.



Relationship between engine power and fuel consumption

250 kW Output

ROYPOW X250KT supports up to 250 kW continuous power output for 30 seconds to address the issues of high motor startup currents and load impacts, extending the lifespan of diesel generators, reducing failure rates, and decreasing maintenance frequency and costs.

Saving Fuel Consumption up to

30%+

Advantages of X250KT DG + ESS Solution

All-In-One
Integrated Battery + SEMS + SPCS

Hybrid Mode
Uninterrupted Power Supply

AC-Coupling
Connect to Diesel Generators, Grid, and PV

Up to 4 Sets in Parallel
Scalable Power and Capacity to Support Demanding Load

Load Sharing
Synchronize the Output Power with DG

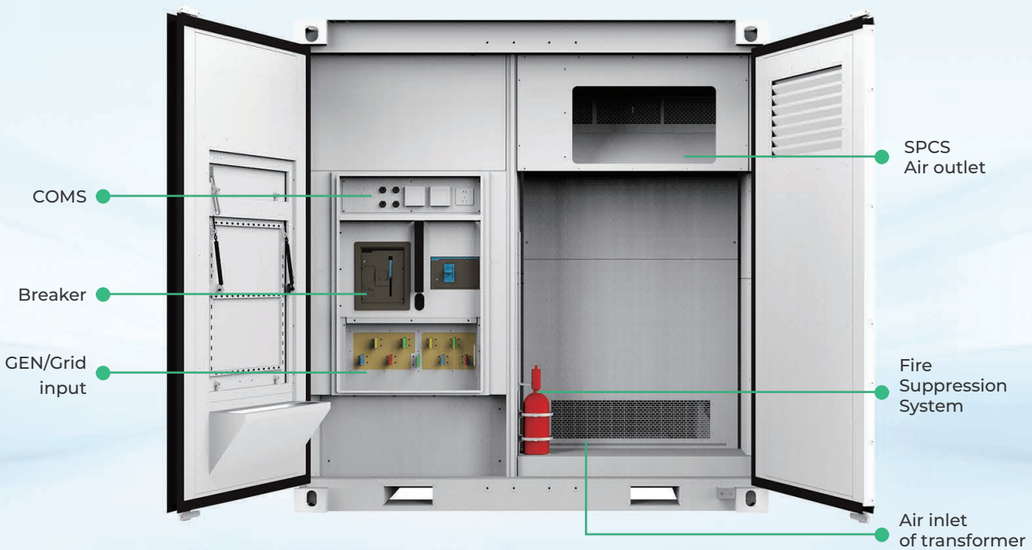
Intelligent Management
Remote Monitoring via App and Web

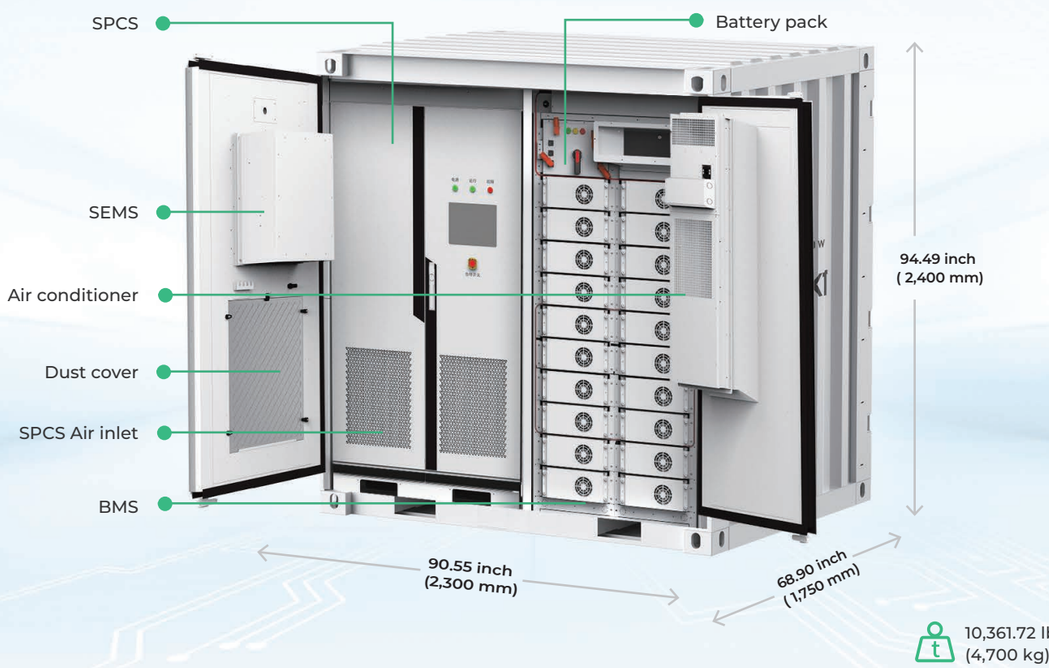
Rapid Deployment
Support Lifting and Forklift Transporation

Plug and Play
No Additional Complex Installation Required

Excellent Adaptability
Stable Performance in Harsh Environments

X250KT
DG + ESS Solution Structure





Technical Specifications

Orange/ Yellow / Gray Optional

Model	X250KT-E/A
AC Output Data (On-grid Mode)	
Rated Power	150 kW
Max. Rated / Apparent Power	250 kW / 280 kVA [1]
Rated Voltage	400 V (±15%)
Rated Current	220 A
Grid Frequency	50 Hz
AC Connection	3 W + N
THDI	≤ 3%
Power Factor	-1 ~ +1
AC Output Data (Off-grid Mode)	
Rated Power	250 kW
Max. Rated / Apparent Power	250 kW / 250 kVA [1]
Rated Voltage / Frequency	400 V / 50 Hz
THDV (Linear Load)	≤3%
Battery Data	
Battery Chemistry	$LiFePO_4$
Nominal Energy	153.6 kWh
Working Voltage Range	600 V ~ 876 V
Nominal Charging Current	100 A
Nominal Discharging Current	200 A
Max. Discharging Current	300 A
DOD	90%
Compatible Diesel Generator	
Rated Power	≤400 kVA
Rated Voltage	400 V
Rated Frequency	50 Hz
General	
Parallel Capable	Yes (Up to 4)
EMS	SEMS3000 12 inch LCD Touch Panel
Ingress Rating	IP54
Topology	Transformer
Working Temperature	-4 ~ 122°F (-20 ~ 50°C)
Storage Temperature	-40 ~ 149°F (-40 ~ 65°C)
Relative Humidity	5 ~ 95% (No condensing)
System Noise	<65dB
Cooling	Air cooling (Inverter room)
Fire Suppression System	Included
Altitude	5,000 (>3,000 derating)
Dimensions, LxWxH	90.55 x 68.90 x 94.49 inch (2,300 x 1,750 x 2,400 mm)
Weight	10,361.72 lbs (4,700 kg)

[1] Depends on the output power of the battery system.

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

5 DG ESS Solution 65kW / 76.8kWh

X65KT

65 kW Output
Diesel Generator + Energy Storage System Solution

All-In-One
Integrated Battery + SEMS + SPCS

Rapid Deployment
Support Lifting and
Forklift Transporation

AC-Coupling
Connect to Diesel Generators,
Grid, and PV

Up to 4 Sets in Parallel
Scalable Power and Capacity to
Support Demanding Load

Plug and Play
No Additional Complex
Installation Required

Intelligent Management
Remote Monitoring via App and Web

2866.0 lbs
(1,300 kg)

Saving Fuel
Consumption up to
30%+

Technical Specifications

Orange/ Yellow / Gray Optional

Model	X65KT-E/A
AC Output Data (On-grid Mode)	
Rated Power	65 kW
Apparent Power	71.5 kVA
Rated Voltage	400 V
Rated Current	95 A
Grid Frequency	50 Hz
AC Connection	3 W + N
THDI	≤ 3%
Power Factor	-1 ~ +1
AC Output Data (Off-grid Mode)	
Rated / Apparent Power	65 kW / 71.5 kVA
Rated Voltage / Frequency	400V / 50Hz
THDV (Linear Load)	≤3%
Battery Data	
Battery Chemistry	$LiFePO_4$
Nominal Energy	76.8 kWh
Nominal Charging Current	50 A
Nominal Discharging Current	100 A
Working Voltage Range	600 V ~ 876 V
Max. Output Power	65 kW
DOD	90%
Compatible Diesel Generator	
Rated Power	≤120 kVA
Rated Voltage	400 V
Rated Frequency	50 Hz
General	
Parallel Capable	Yes (Up to 4)
EMS	SEMS3000 12 inch LCD Touch Panel
Ingress Rating	IP54
Topology	Transformer
Working Temperature	4 ~ 122°F (-20 ~ 55°C)
Storage Temperature	104 ~ 149°F (-40 ~ 65°C)
Relative Humidity	5 ~ 95% (No condensing)
System Noise	<65 dB
Cooling	Intelligent temperature control (Battery room) Air cooling (Inverter room)
Fire Suppression System	Included
Altitude	5,000 (>3,000 derating)
Dimensions, W x H x D	45.27 x 78.74 x 49.21 inch (1150 x 2000 x 1250 mm)
Weight	2,866 lbs (1,300 KG)

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