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ROYPOW

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ROYPOW

Energizing The Future

Energy Storage Solutions

sales@roypow.com
www.roypow.com

Scan it!

ROYPOW,
Your Trusted Partner

Contents

ROYPOW
For One-stop New Energy Solutions

750+ Employees

200+ R&D People

105,000㎡ Headquarters Floor Area

2,500㎡ Testing Center

284 Patents

R&D and Manufacturing Highlights

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

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**

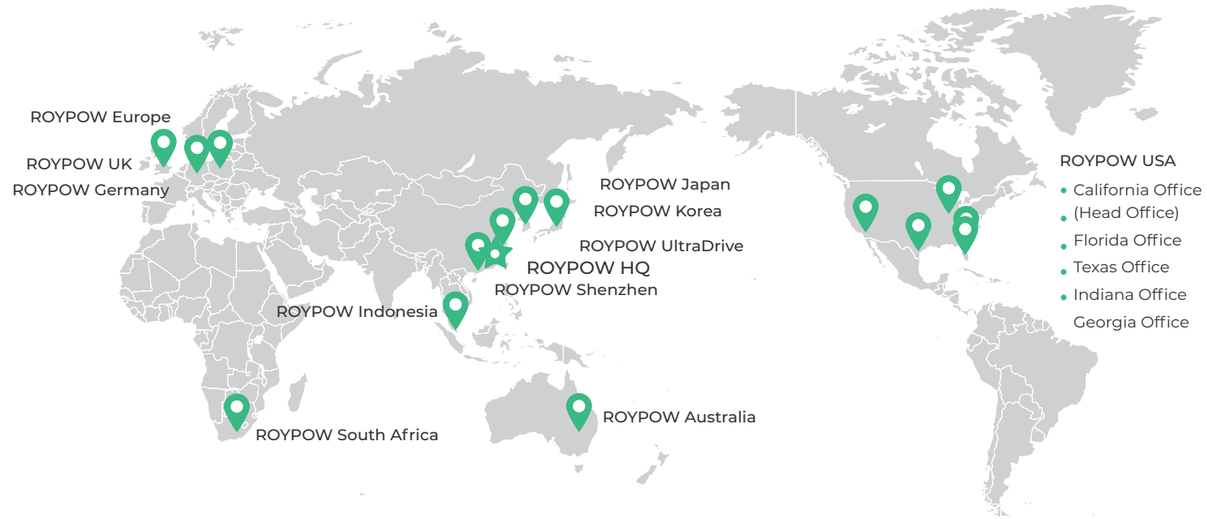
Product Certifications:

UL 1973, UL 9540A, UL 9540, UL 2580, UL 2271, UL 1741	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

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.



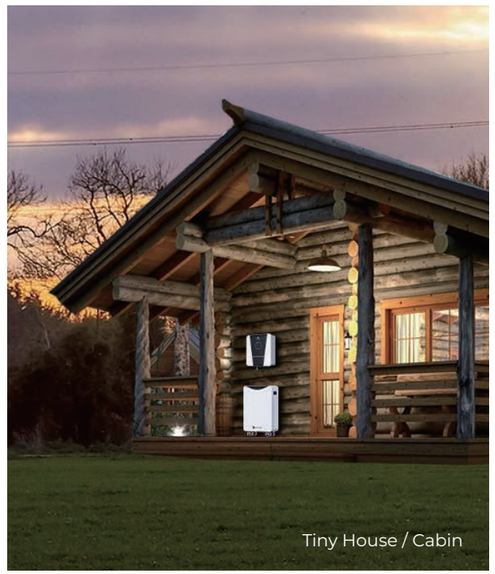
Upgrading to New Technology, with Our Turnkey Solutions.

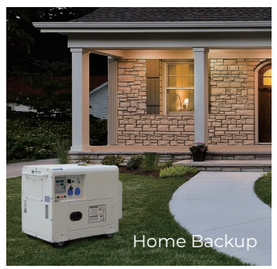
With years of dedication to new energy solutions, we are proud to offer customers professional solutions for:

- Residential Energy Storage Systems
- Commercial & Industrial Energy Storage Systems

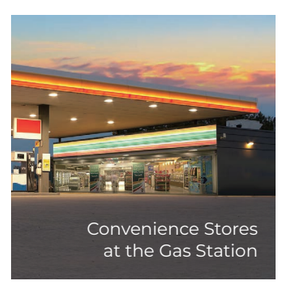
Energizing the Future:
Efficient, Reliable, Smart, Sustainable ESS

Residential
Energy Storage Systems





Commercial & Industrial
Energy Storage Systems



1 Residential ESS 5kW / 6kW / 6.5kW

PowerBase Series

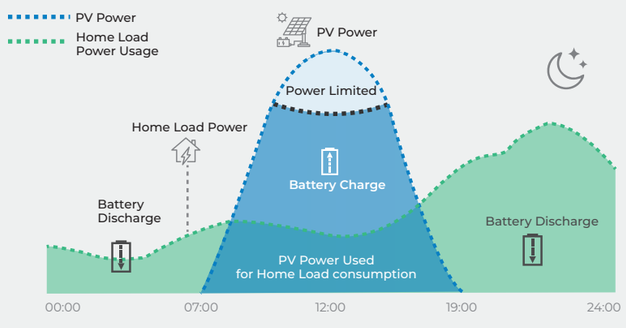
Hybrid Inverter 5kW / 6kW / 6.5kW Single-Phase

Support **Various Single-Phase** Loads

12 Units in Parallel

3/5 Years Warranty

- Support App Monitoring & OTA Upgrades
- Support PV Oversizing for Burst Power Output
- Intelligent Fan Cooling
- High Performance with 2X Rated Power Peak for 10 Seconds



Off-Grid Working Mode: Works as a traditional off-grid inverter. Supports output settings by utility, battery, or solar first.

Hybrid Working Mode: Works as a hybrid. Supports solar and utility sharing the load, with self-consumption mode or charge priority mode optional.

System Specification

Model	PowerBase I5	PowerBase I6	PowerBase I6.5
Input - DC (PV)			
Max. Input Power (W)		8000	
Max. Input Voltage (V)		500	
MPPT Voltage Range (V)		85~450	
MPPT Voltage Range (Full load)		266~450	
Rated Voltage (V)		380	
Max. Input Current（A)	22.7	30	30
Max. Short Current（A)		32	
Maximum Solar Charging Current (A)		120	
No. of MPPT/No. of String per MPPT		1/1	
Input - DC (Battery)			
Norminal Voltage (V)		48	
Operation Voltage Range (V)		40-60	
Max. Charge / Discharge Power (W)	5000 / 5000	7000 / 6000	7000 / 6000
Max. Charge Current / Discharge Current (A)	105 / 112	120 / 135	120 / 145
Battery Type		Lead-acid/Lithium-ion	
Grid (AC Input)			
Max. Intput Power (W)	10000	11500	11500
Max. Bypass Input Current (A)	43.5	50	50
Rated Grid Voltage (Vac)	230	230	230
Rated Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60
Backup Output (AC Output)			
Rated Output Power (W)	5000	6000	6500
Surge Rating (VA)	10000	12000	13000
Rated Output Current (A)	22.7	27.3	29.5
Rated Output Voltage (V)		220 / 230 / 240 (Optional)	
Rated Frequency (Hz)		50/60	
THDV (@linear load)		< 3%	
Back-up Switch Time (ms)		10 (Typical)	
Overload Capacity (s)		5@≥150% Load ; 10@≥105%～150% Load	
Inverter Efficency (Peak)		95%	
General Data			
Dimensions (WxDxH, mm / inch)		346.6 x 444.7 x 120 / 13.65 x 17.51 x 4.72	
Net Weight (kg / lbs)		12 / 26.46	
Operating Temperature Range (℃)		-10~60 (50 derating)	
Relative Humidity		0~95%	
Max. Altitude (m)		2000	
Electronics Protection Degree		IP54	
Communication		RS485 / CAN / Wi-Fi	
Cooling Mode		Fan Cooling	
Three-phase string		Yes	
Noise Level (dB)		55	
Certification		EN IEC 61000-6-1, EN IEC 61000-6-3	

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PowerBase Series

Hybrid Inverter 5kW / 6kW / 6.5kW Single-Phase

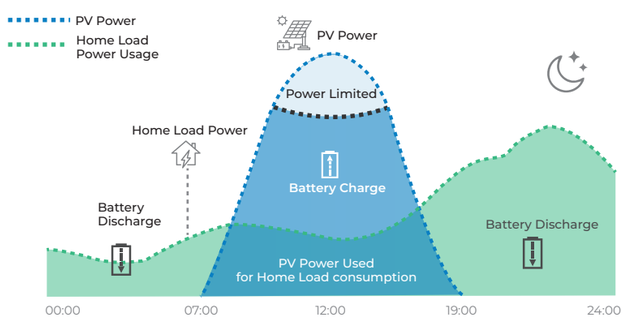
Support **Various Single-Phase** Loads

12 Units in Parallel

IP65 Protection Degree

5/10 Years Warranty

- Support App Monitoring & OTA Upgrades
- Support PV Oversizing for Burst Power Output
- High Performance with 2X Rated Power Peak for 10 Seconds
- IP65-Rated to Withstand Tough Environments
- Support Energy Storage from Diesel Generators
- Intelligent Fan Cooling



Off-Grid Working Mode: Works as a traditional off-grid inverter. Supports output settings by utility, battery, or solar first.

Hybrid Working Mode: Works as a hybrid. Supports solar and utility sharing the load, with self-consumption mode or charge priority mode optional.

System Specification

Model	PowerBase I5	PowerBase I6	PowerBase I6.5
Input - DC (PV)			
Max. Input Power (W)		9750	
Max. Input Voltage (V)		500	
MPPT Voltage Range (V)		85~450	
MPPT Voltage Range (Full load)		223~450	
Rated Voltage (V)		380	
Max. Input Current （A)	22.7	30	30
Max. Short Current （A)		32	
Maximum Solar Charging Current (A)		120	
No. of MPPT/No. of String per MPPT		2/1	
Input - DC (Battery)			
Norminal Voltage (V)		48	
Operation Voltage Range (V)		40-60	
Max. Charge / Discharge Power (W)	5000 / 5000	7000 / 6000	7000 / 6000
Max. Charge Current / Discharge Current (A)	105 / 112	120 / 135	120 / 145
Battery Type		Lead-acid/Lithium-ion	
Grid (AC Input)			
Max. Intput Power (W)	10000	12000	13000
Max. Bypass Input Current (A)	43.5	54.5	60
Rated Grid Voltage (Vac)		220 / 230 / 240	
Rated Grid Frequency (Hz)		50 / 60	
Backup Output (AC Output)			
Rated Output Power (W)	5000	6000	6500
Surge Rating (VA, 10s)	10000	12000	13000
Rated Output Current (A)	22.7	27.3	29.5
Rated Output Voltage (V)		220/230/240 (Optional)	
Rated Frequency (Hz)		50/60	
THDV (@linear load)		< 3%	
Back-up Switch Time (ms)		10 (Typical)	
Overload Capacity (s)		5@≥150% Load ; 10@≥105%～150% Load	
Inverter Efficency (Peak)		95%	
General Data			
Dimensions (WxDxH, mm / inch)		576 x 516 x 220 / 22.68 x 20.31 x 8.66	
Net Weight (kg / lbs)		20.5 / 45.19	
Operating Temperature Range (℃)		-10~50 (45 derating)	
Relative Humidity		0~95%	
Max. Altitude (m)		2000	
Electronics Protection Degree		IP65	
Communication		RS485 / CAN / Wi-Fi	
Cooling Mode		Fan Cooling	
Three-phase string		Yes	
Noise Level (dB)		55	
Certification		EN IEC 61000-6-1, EN IEC 61000-6-3, EN IEC62109-1	

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PowerBase Series

Rack-Mounted LiFePO₄ Battery 5.12 kWh

Up to **16** Units
Flexible Capacity Expansion

>6,000 Times
Cycle Life

10 Years
Warranty

Support
Bluetooth Upgrades

Advanced LiFePO₄ Technology
New Grade A LFP Cells from REPT

Intelligent BMS
Intelligent Monitoring & Multiple Protections

High Compatibility
Compatible with Many Brands of Inverter Protocols

Easy Installation
Stackable with Flexible Brackets

APP Support
Remote Monitoring of Battery Status

Wake-up Function
Reactivate and Recharge Asleep Batteries

System Specification

Model	PowerBase R5
Electric Data	
Nominal Energy (kWh)	5.12
Usable Energy (kWh)	4.79
Depth Of Discharge (DoD)	95%
Cell Type	LFP ($LiFePO_4$)
Nominal Voltage (V)	51.2
Operating Voltage Range (V)	44.8 ~ 56.8
Max. Continuous Charge Current (A)	100
Max. Continuous Discharge Current (A)	100
Scalability	16
General Data	
Weight (kg / lbs.)	45 / 99.2
Dimensions (W × D × H) (mm / inch)	442 x 560 x 173 / 17.4 x 22.05 x 6.81
Operating Temperature (°C)	0~ 55℃ (Charge) -20~55℃ (Discharge)
Storage Temperature (°C) Delivery SOC State (20~40%)	>1 Month: 0~35℃, ≤1 Month: -20~45℃
Relative Humidity	≤ 95%
Altitude (m / ft)	4000 / 13,123 (>2,000 / >6,561.68 derating)
Enclosure Rating	IP20
Installation Location	Indoor
Communication	CAN, RS485
Display	LCD
Certificates	UN38.3, IEC61000-6-1/3

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PowerBase Series

Wall-Mounted LiFePO₄ Battery 5.12 kWh

Support **Wi-Fi** Remote Monitoring and Upgrades

Up to **16** Units Flexible Capacity Expansion

>6,000 Times Cycle Life

10 Years Warranty

Safe
- Grade A LFP Cells from Global Top 10 Brands
- Upper Cover Protection for Terminals

Reliable
- Long Design Life
- Zero Maintenance and No Frequent Swapping

Convenient
- Modular Design for Easy Scalability
- Wall-Mounted Installation

Intelligent
- Support Automatic DIP Switch Address Allocation
- Support Real-Time Monitoring and OTA Upgrades via ROYPOW App

System Specification

Model	PowerBase 5
Electric Data	
Nominal Energy (kWh)	5.12
Usable Energy (kWh)	4.79
Depth Of Discharge (DoD)	95%
Cell Type	LFP ($LiFePO_4$)
Nominal Voltage (V)	51.2
Operating Voltage Range (V)	44.8~56.8
Max. Continuous Charge Current (A)	100
Max. Continuous Discharge Current (A)	100
Scalability	16
General Data	
Weight (kg / lbs.)	50 / 110.23
Dimensions (W × D × H) (mm / inch)	510 x 510 x 166 / 20.08 x 20.08 x 6.54
Operating Temperature (°C)	0~ 55 (Charge) -20~55 (Discharge)
Storage Temperature (°C) Delivery SOC State (20~40%)	>1 Month: 0~35, ≤1 Month: -20~45
Relative Humidity	≤ 95%
Altitude (m / ft)	4000 / 13,123 (>2,000 / >6,561.68 derating)
Enclosure Rating	IP20
Installation Location	Indoor
Communication	CAN, RS485, WiFi
Display	LCD
Certificates	UN38.3, IEC61000-6-1/3

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PowerBase Series

Wall-Mounted LiFePO4 Battery 11.7kWh

Support **Wi-Fi** Remote Monitoring and Upgrades

Up to **16** Units Flexible Capacity Expansion

>6,000 Times Cycle Life

10 Years Warranty

Safe
- Grade A LFP Cells from Global Top 10 Brands
- Upper Cover Protection for Terminals

Reliable
- Long Design Life
- Zero Maintenance and No Frequent Swapping

Convenient
- Modular Design for Easy Scalability
- Wall-Mounted Installation

Intelligent
- Support Automatic DIP Switch Address Allocation
- Support Real-Time Monitoring and OTA Upgrades via ROYPOW App

System Specification

Model	PowerBase 11
Electric Data	
Nominal Energy (kWh)	11.7
Usable Energy (kWh)	11.1
Depth Of Discharge (DoD)	95%
Cell Type	LFP ($LiFePO_4$)
Nominal Voltage (V)	51.2
Operating Voltage Range (V)	44.8~56.8
Max. Continuous Charge Current (A)	200
Max. Continuous Discharge Current (A)	200
Scalability	16
General Data	
Weight (kg / lbs)	105 / 231.49
Dimensions (W × D × H) (mm / inch)	720 x 530 x 205 / 28.35 x 20.87 x 8.07
Operating Temperature (°C)	0~ 55 (Charge) -20~55 (Discharge)
Storage Temperature (°C) Delivery SOC State (20~40%)	>1 Month: 0~35, ≤1 Month: -20~45
Relative Humidity	≤ 95%
Altitude (m / ft)	4000 / 13,123 (>2,000 / >6,561.68 derating)
Protection Degree	IP20 / IP65
Installation Location	Outdoor/indoor
Communication	CAN, RS485, WiFi
Display	LCD
Certificates	UN38.3, IEC61000-6-1/3

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PowerBase Series

Floor-Mounted LiFePO4 Battery 16kWh

Support **Wi-Fi** Remote Monitoring and Upgrades

Up to **16** Units Flexible Capacity Expansion

>6,000 Times Cycle Life

10 Years Warranty

Safe
- Grade A LFP Cells from Global Top 10 Brands
- Upper Cover Protection for Terminals

Reliable
- Long Design Life
- Zero Maintenance and No Frequent Swapping

Convenient
- Modular Design for Easy Scalability
- Floor-mounted Installation

Intelligent
- Support Automatic DIP Switch Address Allocation
- Support Real-Time Monitoring and OTA Upgrades via ROYPOW App

System Specification

Model	PowerBase 16
Electric Data	
Nominal Energy (kWh)	16.07
Usable Energy (kWh)	15.27
Depth Of Discharge (DoD)	95%
Cell Type	LFP ($LiFePO_4$)
Nominal Voltage (V)	51.2
Operating Voltage Range (V)	44.8~56.8
Max. Continuous Charge Current (A)	150
Max. Continuous Discharge Current (A)	150
Scalability	16
General Data	
Weight (kg / lbs)	125 / 275.58
Dimensions (W × D × H) (mm / inch)	890 x 530 x 240 / 35.04 x 20.87 x 9.45
Operating Temperature (°C)	0~ 55 (Charge) -20~55 (Discharge)
Storage Temperature (°C) Delivery SOC State (20~40%)	>1 Month: 0~35, ≤1 Month: -20~45
Relative Humidity	≤ 95%
Altitude (m / ft)	4000 / 13,123 (>2,000 / >6,561.68 derating)
Protection Degree	IP20 / iP65
Installation Location	Outdoor / indoor
Communication	CAN, RS485, WiFi
Display	LCD
Certificates	UN38.3, IEC61000-6-1/3

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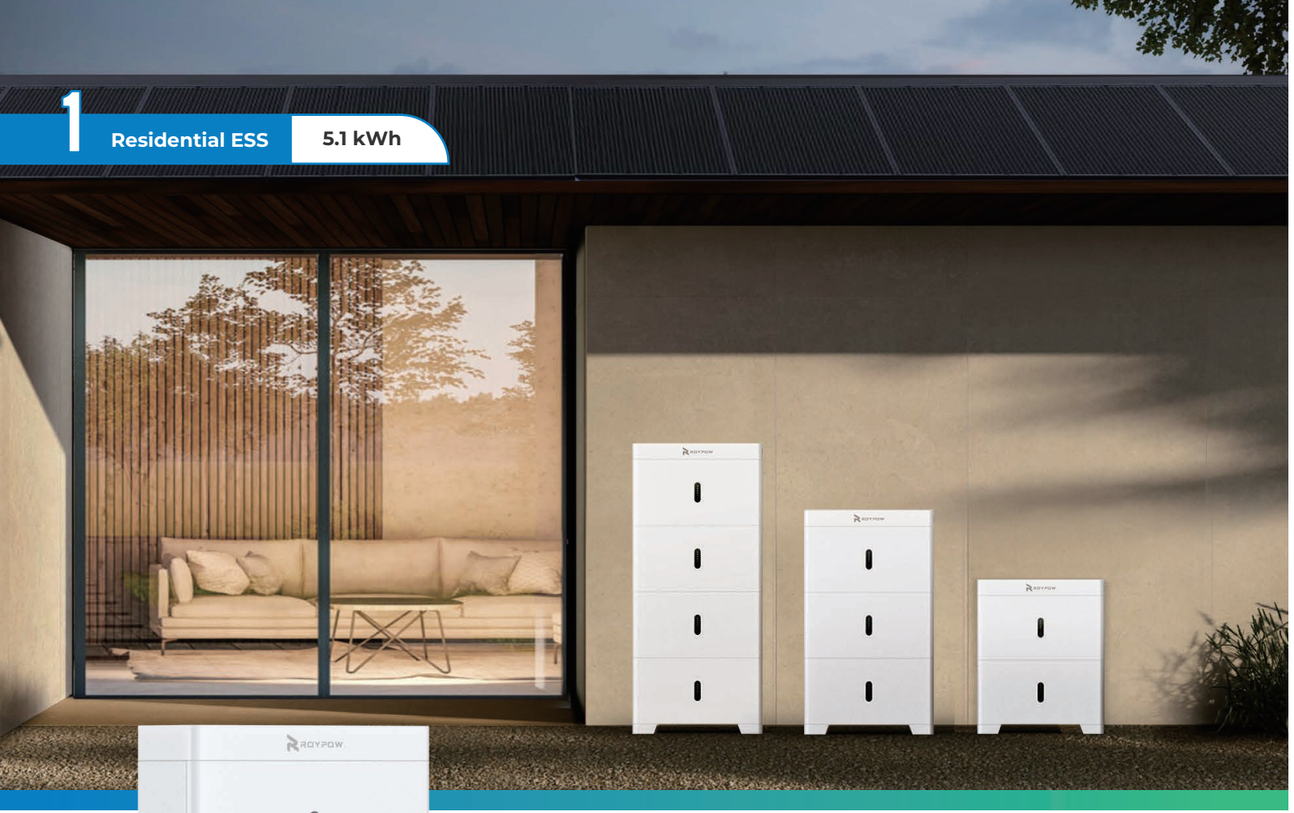

PowerHome

LiFePO₄ Battery 5.1 kWh

Empowering Sustainable Energy Storage for Homes

Up to **16** Batteries
Flexible Capacity Expansion

>6,000 Times
Cycle Life

IP65
Ingress Rating

10 Years
Warranty

Advanced LiFePO₄ Technology
Safe, Cobalt-free Battery Chemistry

Modular and Stacked Design
Easier Installation

Safe Protection
Intelligent BMS & Built-in Fire Extinguishing System

High Compatibility
Compatible with Inverters of Leading Brands

Technical Specifications

Model	1*RBmax5.1L	2*RBmax5.1L2	3*RBmax5.1L2	4*RBmax5.1L2	5*RBmax5.1L2	6*RBmax5.1L2	7*RBmax5.1L2	8*RBmax5.1L2
Nominal Energy (kWh)	5.12	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Energy (kWh)	4.79	9.58	14.37	19.16	23.95	28.74	33.53	38.32
Scalability (kWh)	Max. 16 in parallel, Max. 81kWh							
Nominal Charge/ Discharge Current (A)	50 / 50	100 / 100	150 / 150	200 / 200	250 / 250	300 / 300	350 / 350	400 / 400
Max. Charge/ Discharge Current(A)	100 / 100	100 / 200	150 / 300	200 / 400	250 / 400	300 / 400	350 / 400	400 / 400
Cell type	Lithium iron phosphate (LFP)							
Nominal voltage (V)	51.2							
Operating voltage range (V)	44.8 ~ 56.8							

General Data

Weight (Kg / lbs.)	48.5 Kg 106.9 lbs.	94.3 Kg 207.89 lbs.	140 Kg 308.64 lbs.	185.7 Kg 409.39 lbs.	234.3 Kg 516.54 lbs.	280 Kg 617.29 lbs.	325.7 Kg 718.04 lbs.	371.4 Kg 818.79 lbs.
Dimensions (W × D × H mm / inch)	650x240x460 mm 25.6 x 9.5 x 18.1 inch	650x240x790 mm 25.6x9.4x31.1 inch	650x240x1120 mm 25.6x9.4x44.1 inch	650x240x1450 mm 25.6x9.4x57.1 inch	650x240x790 + 650x240x1120 mm 25.6x9.4x31.1 inch+ 25.6x9.4x44.1 inch	650x240x1120 + 650x240x1120 mm 25.6x9.4x44.1 inch+ 25.6x9.4x44.1 inch	650x240x1120 + 650x240x1450 mm 25.6x9.4x44.1 inch+ 25.6x9.4x57.1 inch	650x240x1450 + 650x240x1450 mm 25.6x9.4x57.1 inch+ 25.6x9.4x57.1 inch
Operating temperature (°F/°C) [1]	Charge: 32 ~ 131°F (0 ~ 55°C), Discharge: 4 ~ 131°F (-20 ~ 55°C)							
Storage temperature (°F/°C)	≤1 month: -4 ~ 113°F (-20 ~ 45°C), >1 month: 32 ~ 95°F (0 ~ 35°C)							
Installation location	Indoor/Outdoor, Floor standing or Wall mounted							
Communication	CAN, RS485							
Relative humidity	0 ~ 95%							
Max. altitude (m / ft.)	4000 m / 13,123 ft (>2,000 m / >6,561.68 ft derating)							
Ingress rating	IP 65							
Certification	IEC 62619, UL 1973, EN 61000-6-1, EN 61000-6-3, FCC Part 15, UN38.3							

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UL FC UN38.3

1 Residential ESS | 3-5kW / 5-40kWh

PowerHome

Intelligent Residential All-In-One Energy Storage System

2 MPPTs

35 dB Max. Noise

10 Years Warranty

7 kVA Max. AC Input

7 kW Max. PV Input

IP65 Protection

Integrated Multiple Protections

Natural Cooling

Smart Load Function

Modular & Integrated Design

Smart App & Web Management

Battery System Specification

Model	1*RBmax5.1L	2*RBmax5.1L2	3*RBmax5.1L2	4*RBmax5.1L2	5*RBmax5.1L2	6*RBmax5.1L2	7*RBmax5.1L2	8*RBmax5.1L2
Nominal Energy (kWh)	5.12	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Usable Energy (kWh)	4.79	9.58	14.37	19.16	23.95	28.74	33.53	38.32
Scalability (kWh)	Max. 16 in parallel, Max. 81kWh							
Nominal Charge/ Discharge Current (A)	50 / 50	100 / 100	150 / 150	200 / 200	250 / 250	300 / 300	350 / 350	400 / 400
Max. Charge/ Discharge Current(A)	100 / 100	100 / 200	150 / 300	200 / 400	250 / 400	300 / 400	350 / 400	400 / 400
Cell type	Lithium iron phosphate (LFP)							
Nominal voltage (V)	51.2							
Operating voltage range (V)	44.8 ~ 56.8							

General Data

Weight (Kg / lbs.)	48.5 Kg 106.9 lbs.	94.3 Kg 207.89 lbs.	140 Kg 308.64 lbs.	185.7 Kg 409.39 lbs.	234.3 Kg 516.54 lbs.	280 Kg 617.29 lbs.	325.7 Kg 718.04 lbs.	371.4 Kg 818.79 lbs.
Dimensions (W × D × H mm / inch)	650x240x380/ 25.59x9.44x14.96	650x240x710/ 25.59x9.44x27.95	650x240x1040/ 25.59x9.44x40.94	650x240x1370/ 25.59x9.44x53.94	650x240x710+ 650x240x1120/ 25.59x9.44x27.95+ 25.59x9.44x44.09	650x240x1040+ 650x240x1120/ 25.59x9.44x40.94+ 25.59x9.44x44.09	650x240x1040+ 650x240x 450/ 25.59x9.44x40.94+ 25.59x9.44x57.09	650x240x1370+ 650x240x1450/ 25.59x9.44x53.94+ 25.59x9.44x57.09
Operating temperature (°F/°C) [1]	Charge: 32 ~ 131°F (0 ~ 55°C), Discharge: 4 ~ 131°F (-20 ~ 55°C)							
Storage temperature (°F/°C)	≤1 month: -4 ~ 113°F (-20 ~ 45°C), >1 month: 32 ~ 95°F (0 ~ 35°C)							
Installation location	Indoor/Outdoor, Floor standing or Wall mounted							
Communication	CAN, RS485							
Relative humidity	0 ~ 95%							
Max. altitude (m / ft.)	4000 m / 13,123 ft (>2,000 m / >6,561.68 ft derating)							
Ingress rating	IP 65							
Certification	IEC 62619, UL 1973, EN 61000-6-1, EN 61000-6-3, FCC Part 15, UN38.3							

[1] When the ambient temperature is too low or too high, the performance of battery may be limited.

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

Inverter Specification

Model	SUN3000S-E/I	SUN3600S-E/I	SUN4000S-E/I	SUN4600S-E/I	SUN5000S-E/I
PV terminal parameters					
Max. Input Power (W)	4600	4600	6000	6000	7000
Max. Input Voltage (Vdc)			580		
MPPT Voltage Range (Vdc)			120~550		
MPPT Voltage Range (Full Load)	180~550V	180~550V	200~550V	200~550V	200~550V
Start Voltage (Vdc)			150		
Max. Input Current（Adc)			13.5 / 13.5		
Max. Short Current（Adc)			16 / 16		
No. of MPPT			2		
No. of String per MPPT			1		
Battery input/output parameters					
Battery Type			Lithium-ion		
Maximum Voltage (Vdc)			60		
Norminal Voltage (Vdc)			48		
Operation Voltage Range (Vdc)			40-60		
Max. Charge / Discharge Power (W)	3000 / 3000	3600 / 3600	4000 / 4000	4600 / 4600	5000/5000
Max. Charge / Discharge Current (Adc)	62.5 / 62.5	75/75	83.3 / 83.3	95.8 / 95.8	100/100
Battery Charge Method			Self-Adaption to BMS		
Grid terminal input parameters					
Max. Continuous Input Active Power(W)	6200	7000	7000	7000	7000
Max. Input Apparent Power (VA)	6200	7000	7000	7000	7000
Max. Input Current (Aac)			30		
Max. Continuous Input Current from Grid to Battery（Aac）	13.6	16	18.2	20.9	22
Max. Continuous Input Power from Grid to Battery（W）	3000	3600	4000	4600	5000
Grid terminal output parameters					
Rated Grid Voltage（Vac）			230 Vac / L+N+PE		
Rated Grid Frequency (Hz)			50		
Rated Apparent Power (VA)	3000	3600	4000	4600	5000
Rated Output Power (W)	3000	3600	4000	4600	5000
Rated Output Current （Aac）	13	15.7	17.4	20	21.7
Max. Output Apparent Power (VA)	3000	3600	4000	4600	5000
Max. Output Active Power [W]	3000	3600	4000	4600	5000
Max. Output Current (Aac)	13	15.7	17.4	20	21.7
Adjustable Power Factor			0.8 leading to 0.8 lagging		
THDI (Rated Power)			<3%		
Backup terminal parameters					
Rated Output Power (W)	3000	3600	4000	4600	5000
Rated Apparent Power (VA)	3000	3600	4000	4600	5000
Rated Output Current (Aac)	13	15.7	17.4	20	21.7
Rated Output Voltage (Vac)			230		
Rated Frequency (Hz)			50		

Model	SUN3000S-E/I	SUN3600S-E/I	SUN4000S-E/I	SUN4600S-E/I	SUN5000S-E/I
Backup terminal parameters					
Maximum Continuous Output Current (Aac)	13	15.7	17.4	20	21.7
Maximum Output Active Power (W)	3000	3600	4000	4600	5000
Maximum Output Apparent Power（VA）	3000	3600	4000	4600	5000
THDV (@Linear Load)			< 3%		
Back-up Switch Time			< 20ms (Typical 10ms)		
Overload Capacity			105%＜Load≤125%, 10min. 125%＜Load≤150%, 1min. 150%<Load Rate, 10S		
Efficency					
Max. Efficiency（BAT to AC）			93.8%		
Max. Efficiency (PV to BAT)			94.5%		
Max. Efficiency（PV to AC）			97.0%		
Euro. Efficiency			96.2%		
Max. MPPT Efficency			99.9%		
Protection					
DC Switch			Yes		
GFCI			Yes		
Anti-islanding Protection			Yes		
DC Reverse-polarity Protection			Yes		
Output Over/Under Voltage Protection			Yes		
Output Over Current Protection			Yes		
AC Short Circuit Protection			Yes		
Insulation Resistor Detection			Yes		
DC/AC Surge Protection			Type Ⅲ / Type Ⅲ		
General Data					
PV Connection			MC4/H4		
DC Switch			Integated		
Dimensions (WxDxH, mm)			650 x 240 x 620		
Net Weight (kg)			35		
Operating Temperature Range			-25~60℃（45℃ derating）		
Relative Humidity			0~95%		
Max. Altitude(m)			3000		
Electronics Protection Degree			IP65		
Topology Type			Transformer (Bat to AC)		
Night Self Consumption (W)			<10		
Cooling			Natural		
Noise（dB)			<35		
Display			WiFi + APP / LCD		
Communication			RS485/CAN/WiFi		
Standard Compliance					
Safety / EMC			IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-3		
Grid Connection Standard			VDE-AR-N 4105, NRS 097, EN 50549, G98, G99, AS 4777.2		

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 system.
3. We reserve the right to make revisions as well as product alterations and improvements at any time without prior notice.

1 Residential ESS | 8-30kW / 7.6-132kWh

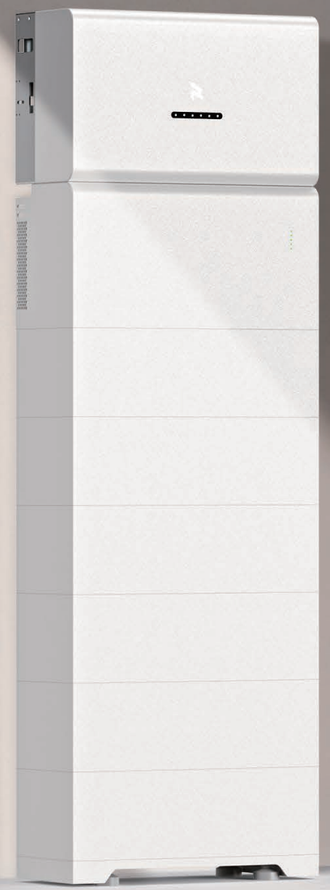
PowerHome

All-In-One ESS

- Three-phase
- 8 / 10 / 12 / 15 / 20 / 25 / 30kW
- 7.6 to 132kWh

FRENCH DESIGN AWARD

American Good Design

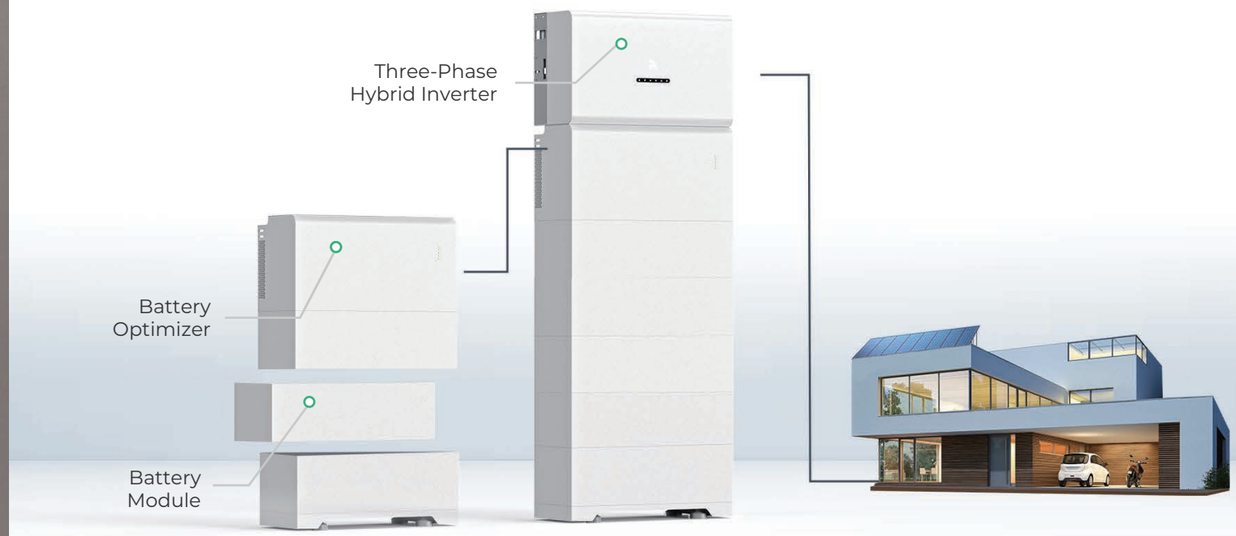


Compatible with **AC-coupling**

Up to **6** in parallel

Generator Energy Storage

Intelligent Remote Monitoring



System Specification

Model	SUN8000T-E/A	SUN10000T-E/A	SUN12000T-E/A	SUN15000T-E/A
Rated AC Output Power (W)	8000	10000	12000	15000
Nominal Energy (kWh)	7.6 to 132.7			
Noise（dB)	<29			
Operating Temperature Range	-18~50℃, >45℃ derating			
Dimensions (WxDxH)	650 x 265 x (780 + 200*N (N=2 to 6)) mm			
Ingress Rating	IP65			
Mounting Options	Indoor/Outdoor, Floor standing			

Model	SUN20000T-E/A	SUN25000T-E/A	SUN30000T-E/A
Rated AC Output Power (W)	20000	25000	30000
Nominal Energy (kWh)	Up to 132		
Noise（dB)	<60		
Operating Temperature Range	-18~50℃, >45℃ derating		
Dimensions (WxDxH)	650 x 265 x (890+200*N (N=2 to 6, single tower) mm		
Ingress Rating	IP65		
Mounting Options	Indoor/outdoor, floor standing		

Hybrid Inverter Specification

Model	SUN8000T-E/I	SUN10000T-E/I	SUN12000T-E/I	SUN15000T-E/I
Input - DC (PV)				
Max. Power (Wp)	20000	20000	30000	30000
Max. DC Voltage (V)		1000		
MPPT Voltage Range (V)		160~950		
MPPT Voltage Range (V, full load)	200~850	240~850	240~850	280~850
Start Voltage (V)		180		
Max. Input Current（A)	30-20	30-20	30-30	30-30
Max. Short Current（A)	40-30	40-30	40-40	40-40
Number of MPPT		2		
Number of String per MPPT	2-1	2-1	2-2	2-2
Input - DC (Battery)				
Compatible Battery		RBmax MH Battery System		
Voltage Range (V)		550-950		
Max. Charge / Discharge Power (W)	11000 / 8800	11000 / 11000	15000 / 13200	15000 / 15000
Max. Charge / Discharge Current (A)	20 / 16	20 / 20	27 / 24	27 / 27
AC (On grid)				
Rated Output Power (W)	8000	10000	12000	15000
Rated Output Apparent Power (VA)	8800	11000	13200	15000
Max. Output Apparent Power (VA)	8800	11000	13200	15000
Max. Output Power (W)	8800	11000	13200	15000
Rated Input Apparent Power (VA)		22500		
Max. Input Current (A)		3*32		
Rated Grid Voltage (V)		220/380, 230/400, 3W+N+PE		
Rated Grid Frequency (Hz)		50 / 60		
Rated Output Current (A)	3*12.8	3*16	3*19.2	3*21.8
Max. Output Current (A)	3*12.8	3*16	3*19.2	3*21.8
THDI(Rated power)		<3%		
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)		
AC (Back Up)				
Rated Output Power (W)	8000	10000	12000	15000
Rated Output Apparent Power (VA)	8800	11000	13200	15000
Rated Output Current (A)	3*12.8	3*16	3*19.2	3*21.8
Rated Bypass Power (VA)		22500		
Rated Bypass Current (A)		3*32		
Rated Output Voltage (V)		220/380, 230/400, 3W+N+PE		
Rated Frequency (Hz)		50 / 60		
THDV (@linear load)		< 2%		
Overload Capacity		120% for 10 min, 200% for 10 S		
THDV		<2% (R load), <5% (RCD load)		
Scalability		Max. 6 in parallel		
Efficiency				
Max.Efficiency	98.0%	98.0%	98.3%	98.3%
Euro.Efficiency	97.3%	97.3%	97.6%	97.6%
Max. Charge Efficiency (PV to Bus)		99%		
Max. Charge / Discharge Efficiency (Grid to Bus)		98%		
Protection				
GFCI / Anti-islanding Protection / DC Reverse-polarity Protection / AC Over/Under Voltage Protection / AC Over Current Protection / AC Short Circuit Protection / Insulation Resistor Detection				
DC/AC Surge protection Device		Type Ⅱ / Type Ⅲ		
AFCI / RSD		Optional		

General Data			
Switch Time	< 10ms	Topology	Transformerless
Generator Interface	Optional	Noise（dB)	<29
PV Switch	Integated	Night Self Consumption (W)	<10
PV Connection	MC4/H4	Cooling	Natural Convection
AC Connection	Connector	Display	LED + APP (Bluetooth)
Operating Temperature Range	-25~60℃, >45℃ derating	Protection Degree	IP65
Relative Humidity	0~95%	Dimensions (WxDxH)	650 x 265 x 390mm
Altitude	4000 m	Net Weight	30 kg
Communication Interface	RS485 / CAN / USB / (Wi-Fi / GPRS / 4G / Ethernet optional)		

Standard Compliance			
Grid Connection standards	VDE-AR-N 4105, EN 50549, TOR & R 25	Safety/EMC/RED Standards	EN IEC62109-1/-2, EN 61000-6-1/-2/-3/-4, EN301489, EN300328, EN 62479, EN50663, EN62920

Hybrid Inverter Specification

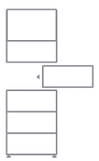
Model	SUN20000T-E/I	SUN25000T-E/I	SUN30000T-E/I
Input - DC (PV)			
Max. Power (Wp)	30000	45000	45000
Max. DC Voltage (V)		1000	
MPPT Voltage Range (V)		160~950	
MPPT Voltage Range (V, full load)	340~800	270~800	340~800
Start Voltage (V)		180	
Max. Input Current（A)	30-30	30-30-30	30-30-30
Max. Short Current（A)	40-40	40-40-40	40-40 / 40
Number of MPPT	2	3	3
Number of String per MPPT	2-2	2-2-2	2-2-2
Input - DC (Battery)			
Compatible Battery		(2~6)*RBmax5.5MH	
Number of Battery Input		2	
Voltage Range (V)		550-950	
Max. Charge / Discharge Power (W)	22000/22000	27500 / 27500	30000 / 30000
Max. Charge / Discharge Current (A)		50 / 50	
AC (On grid)			
Rated Output Power (W)	20000	25000	30000
Max. Output Apparent Power (VA)	22000	27500	30000
Max. Output Power (W)	22000	27500	30000
Rated Input Apparent Power (VA)		45000	
Max. Input Current (A)		3*65	
Rated Grid Voltage (V)		220/380, 230/400, 3W+N+PE	
Rated Grid Frequency (Hz)		50 / 60	
Max. Output Current (A)	3*28.9	3*36.3	3*43.5
THDI(Rated power)		<3%	
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)	
AC (Back Up)			
Rated Output Power (W)	20000	25000	30000
Rated Output Current (A)	3*28.9	3*36.3	3*43.5
Rated Bypass Power (VA)		37950	
Rated Bypass Current (A)		3*55	
Rated Output Voltage (V)		220/380, 230/400, 3W+N+PE	
Rated Frequency (Hz)		50 / 60	
THDV (@linear load)		< 2%	
Overload Capacity		120%@10min /150% @200ms	
THDV		<2% (R load), <5% (RCD load)	
Scalability		Max. 6 in parallel	
Efficiency			
Max.Efficiency (PV to Grid)		98.8%	
Euro.Efficiency (PV to Grid)	97.2%	97.9%	97.9%
Max. Charge Efficiency (PV to Bus)		98%	
Max. Charge / Discharge Efficiency (Grid to Bus)		98%	
Protection			
GFCI / Anti-islanding Protection / DC Reverse-polarity Protection / AC Over/Under Voltage Protection / AC Over Current Protection / AC Short Circuit Protection / Insulation Resistor Detection			
DC/AC Surge protection Device		Type Ⅱ / Type Ⅲ	
AFCI / RSD		Optional	

General Data			
Switch Time	< 10ms	Topology	Transformerless
Generator Interface	Optional	Noise（dB)	<60
PV Switch	Integated	Night Self Consumption (W)	<15
PV Connection	MC4/H4	Cooling	Smart Fan
AC Connection	Connector	Display	LED + APP (Bluetooth)
Operating Temperature Range	-25~60℃, >45℃ derating	Protection Degree	IP65
Relative Humidity	0~95%	Dimensions (WxDxH)	650 x 265 x 500mm
Altitude	4000 m	Net Weight	43 kg
Communication Interface	RS485 / CAN / USB / (Wi-Fi / GPRS / 4G / Ethernet optional)		

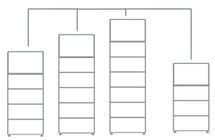
Standard Compliance	
Cerfications	EN 62109-1/-2, EN 61000-6-1/-2/-3/-4

Battery

No Additional Wiring Required



Modular & Stackable Design



7.6 ~ 132 kWh Flexible Capacity Expansion

LFP
Safe, Cobalt-Free Battery

IP65
Ingress Rating

Battery System Specification

Model	2*RBmax3.8MH	3*RBmax3.8MH	4*RBmax3.8MH	5*RBmax3.8MH	6*RBmax3.8MH
Battery Module	RBmax3.8H (3.84 kWh, 76.8 V, 40kg)				
Number of Battery Modules	2	3	4	5	6
Nominal Energy (kWh)	7.68	11.52	15.36	19.2	23.04
Usable Energy (kWh)[1]	7.06	10.6	14.13	17.66	21.2
Rated Current (A)	45	45	45	45	45
Nominal Power (kW)	6.9	10.3	13.8	15	15
Peak Output Power (kW)	8 for 10 sec.	12 for 10 sec.	16 for 10 sec.	17 for 10 sec.	17 for 10 sec.
Weight	100.4 kg	140.4 kg	180.4 kg	220.4 kg	260.4 kg

Model	2*RBmax5.5MH	3*RBmax5.5MH	4*RBmax5.5MH	5*RBmax5.5MH	6*RBmax5.5MH
Battery Module	RBmax5.5H (5.5 kWh, 76.8 V, 45 kg)				
Number of Battery Modules	2	3	4	5	6
Nominal Energy (kWh)	11.06	16.59	22.12	27.65	33.18
Usable Energy (kWh)[1]	10.18	15.26	20.35	25.44	30.53
Rated Current (A)	50	50	50	50	50
Nominal Power (kW)	7.6	11.5	15	15	15
Peak Output Power (kW)	8 for 10 sec.	12 for 10 sec.	16 for 10 sec.	17 for 10 sec.	17 for 10 sec.
Weight	110.4 kg	155.4 kg	200.4 kg	245.4 kg	290.4 kg

RBmax3.8MH & RBmax5.5MH Series					
Operating Voltage Range (V)	550-950				
Dimensions (W x D x H)	650 x 265 x 780 mm	650 x 265 x 980 mm	650 x 265 x 1180 mm	650 x 265 x 1380 mm	650 x 265 x 1580 mm
Battery Nominal Voltage (V)	153.6	230.4	307.2	384	460.8
Battery Operating Voltage Range (V)	124.8~172.8	187.2~259.2	249.6~345.6	312~432	374.4~518.4
Battery Chemistry	Lithium Iron Phosphate ($LiFePO_4$)				
Scalability	Max. 4 in parallel				
Operating Temperature	Charge: 0~ 50℃, Discharge: -18~50℃ (>45℃ derating)				
Storage Temperature	≤1 month: -20~45℃, >1 month: 0~35℃				
Relative Humidity	5~95%				
Max. Altitude (m)	4000 m (>2,000 m derating)				
Protection Degree	IP65				
Cooling Method	Natural Convection				
Mounting Options	Indoor / Outdoor, Floor standing				
DC Protection	Circuit Breaker, Fuse, DC-DC converter				
Protection Features	Over Voltage / Over Current / Short Circuit / Reverse Polarity				
Certifications	CE, IEC 62619, EN 62477, EN IEC62040, UN38.3				

Battery Optimizer	RMH95050
Voltage Range(V)	550-950
Max. Charge / Discharge Current(A)	27
Communication	CAN, RS485
Scalability	Max. 4 in parallel
Dimensions (W x D x H)	650 x 265 x 270mm
Weight	15 kg

2 C&I ESS 30kW / 60kWh

PowerStation Series

Air-Cooled Energy Storage System

- Up to 6 Unit in Parallel
- Comprehensive Safety Protections
- Compatible with Diesel Genertors for Fuel Saving
- Support Three-Phase 230V/400V Power Distribution
- IP54 Enclosure Rating
- Support Remote Upgrade
- Support P/Q and V/F Modes
- Support Mixed Operation of New & Used Batteries
- 10 Years of Warranty

Technical Specifications

Model	Power Station 2045	Power Station 2560	Power Station 3060
Battery Parameters			
Nominal Energy (kWh)	45.6	60.8	60.8
Nominal Voltage/Voltage Range (V)	316.8 / 277.2 - 361.35	422.4 / 369.6 - 481.8	422.4 / 369.6 - 481.8
Charge Discharge Rate (C)		0.5 / 0.5	
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 (V)		105.6 / 92.4 - 120.45	
Max. Continuous Working Current		50 A	
Cycle Life		6000 @ 25℃,90% DOD, 0.5C / 0.5C, 70% EOL	
Dimension (W×D×H) (mm / inch)		500 x 760 x 148 / 19.69 x 29.92 x 5.83	
Net Weight (kg / lbs)		67 / 147.7	
Battery Optimizer Model		**RMH95050**	
DC Working Voltage (V)		550 - 950	
Nominal Power (kW)		15	
Dimension (W×D×H) (mm / inch)		500 x 660 x 228 / 19.69 x 25.98 x 8.98	
Net Weight (kg / lbs)		51 / 112	
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 (Three Phase)	
Nominal AC Frequency (Hz)		50 / 60	
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 (Three phase)	
Nominal Back-up Frequency (Hz)		50 / 60	
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%
Inverter General			
Temp. Range	-25~60℃	Noise Emission	45 dB
Max. Operation Altitude	4000 m	Humidity	0-100%
Topology	Transformerless	Cooling	Smart Fan
Enclosure Rating	IP65	W x H x D (mm/inch)	650x500x265 / 25.59x19.69x10.43
Weight(kg / lbs)	45 / 99.2		
HMI & COM of Inverter			
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)		
Inverter 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	DC Switch	Internal
System Parameters			
Ambient Temperature (℃)	-20 - 55 (>45 derating)		
Parallel	6		
Storage Environment Temperature (℃)	0~40		
Relative Humidity of Working Environment	5~95%, Non-condensing		
Cooling Method	Intelligent Air-cooled		
Noise Level (dB)	60		
Firefighting Methods	Cell-level Monitoring + Pack level Protection + Cabinet-level Gas Fire Protection (Aerosol)		
Off-Grid Switching Time (ms)	20		
Working Altitude (m)	4000 / 13,123 (>2,000 / >6,561.68 derating)		
Installation Method	Floor-to-ceiling Installation		
Communication Model	CAN, RS485, Dry, 4G / WiFi		
Enclosure Rating	IP54@Battery Cabinet		
Weight (kg / lbs)	926 / 2041		
Size (L x W x H) (mm / inch)	1050 x 685 x 2000 / 41.34 x 26.97 x 78.74		

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

2 C&I ESS 100kW / 215kWh

PowerStation Series

Air-Cooled Energy Storage System

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.

IP55 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.

Technical Specifications

Model	Power Station 215
Battery System Specifications	
Battery Rated Energy Storage Capacity (kWh)	215
System Rated Voltage (V)	768
System Voltage Range (V)	672-876
Battery Type	Lithium iron phosphate battery (LFP-280Ah)
Battery Pack Series and Parallel Connection	1P20S/12S
Battery Pack Capacity (kWh)	17.92
Maximum Charge and Discharge Current (A)	140
PV Specifications	
Max. DC Voltage (V)	1000
Full Load Voltage Range (V)	315-550
Maximum DC Power (kW)	55 * 2
Maximum Current at Low Voltage Side (A)	80 * 2 / 2
Low Voltage Side Input Channels	2 (2 channels can be independent, can be paralleled as 1 channel)
AC Output	
Rated AC Power (kW)	100
Rated AC Current (A)	144
Rated AC Voltage (V)	400, 3W+N+PE
Rated AC Frequency (Hz)	50 / 60
Overload Capacity	110%, normal operation; 120%, 1 minute
Maximum Efficiency	98.80%
Current Total Harmonic Distortion Rate THDI	<3%(Rated Power)
Power Factor	-1 leading~+1 lagging
Voltage Total Harmonic Distortion THDU	<3% (Linear load)
Off-Grid Switching Time Of STS (ms)	20
General Specifications	
Enclosure Rating	IP55
Protection Class	Class 1
Isolation Method	Transformer isolation
Power Consumption during Shutdown (W)	＜350 (Without transformer)
HMI	Touch screen
Relative Humidity	0~95% (No condensation)
Noise (dB)	75
Operating Temperature (°C)	-20~55 (Derating above 50)
Cooling Method	Intelligent air cooling
Altitude (m / ft)	4000 / 13,123 (＞2,000 / ＞6,561.68 derating)
BMS Communication	CAN
EMS Communication	Ethernet / RS485
Cloud Platform	Optional
Dimensions (W x D x H) (mm / inch)	1800 x 1200 x 2300mm / 70.87 x 47.24 x 90.55
Weight (kg / lbs)	Approx. 3300 / 7275.25

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

2 C&I ESS 100kW / 232kWh 100kW / 261kWh

PowerStation Series

Liquid-Cooled Energy Storage System

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 5℃, 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.

IP55 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.

Technical Specifications

Model	Power Station 232	Power Station 261
Battery Parameters		
Battery Rated Energy Storage Capacity (kWh)	232	261
System Rated Voltage (V)	832	
System Voltage Range (V)	728 - 936	
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 (kWh)	46.592	52.249
Maximum Charge and Discharge Current (A)	140	157
PV Specifications		
Maximum DC Power (kW)	55 * 2	
Max. DC Voltage (V)	1000	
Full Load Voltage Range (V)	315 - 550	
Maximum Current at Low Voltage Side (A)	80 * 2 / 2	
Low Voltage Side Input Channels	2 (2 channels can be independent, can be paralleled as 1 channel)	
AC Output		
Rated AC Power (kW)	100, 50 per module	
Rated AC Current (A)	144	
Rated AC Voltage(V)	400, 3W+N+PE	
Rated AC Frequency (Hz)	50 / 60	
Overload Capacity	110%, normal operation; 120%, 1 minute	
Maximum Efficiency	98.80%	
Current Total Harmonic Distortion Rate THDI	<3% (Rated Power)	
Power Factor	-1 leading~+1 lagging	
Voltage Total Harmonic Distortion THDU	<3% (linear load)	
Off-Grid Switching Time Of STS (ms)	20	
General Specifications		
Enclosure Rating	IP55	
Protection Class	Class 1	
Isolation Method	Transformer isolation	
Power Consumption during Shutdown (W)	＜ 350 (without transformer)	
HMI	Touch screen	
Relative Humidity	0 ~ 95% (no condensation)	
Noise (dB)	75	
Operating Temperature (℃)	-20~55 (Derating above 50)	
Cooling Method	Liquid-Cooled	
Altitude (m / ft)	4000 / 13,123 (＞2,000 / ＞6,561.68 derating)	
BMS Communication	CAN	
EMS Communication	Ethernet / RS485	
Cloud Platform	Optional	
Dimensions (W x D x H) (mm / inch)	1612 x 1350 x 2300 / 63.46 x 53.15 x 90.55	1650 x 1350 x 2300 / 64.96 x 53.15 x 90.55
Weight (kg / lbs)	Approx. 3000 / 6613.87	Approx. 3300 / 7275.25

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

2 C&I ESS 1164-2580kWh

PowerStation Series

Container Energy Storage Solution

Safe & Reliable

- Smart liquid cooling system maintains ≤5°C temperature difference and extends cell life by up to 30%
- IP54 & C4 enclosure rating for reliable performance in tough outdoor & indoor environmental conditions
- Multi-level fire suppression mechanism ensures safety for both facility and personnel

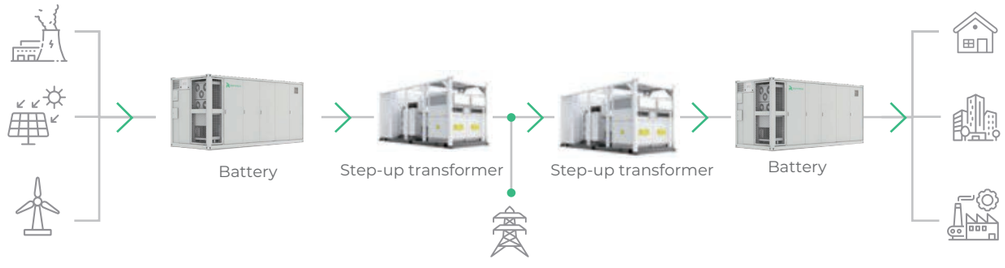
Intelligent & Easy to Use

- Support intelligent algorithm-based early warning for battery cells
- Support battery capacity and discharge time prediction
- Optional cloud platform for fast fault analysis and handling

Efficient & Flexible

- Support pre-commissioning to avoid excessive site work
- Integrated with the DC cabinet to reduce installation complexity
- Support millisecond dynamic response

Electrical Diagram



Technical specifications

Model	PowerStation 1160	PowerStation 1392	PowerStation 1720	PowerStation 2088
Battery Parameters				
Battery Rated Energy (kWh)	1160	1392	1720	2088
System Rated Voltage (V)	832		768	
System Voltage Range (V)	728 - 936		672 - 876	
Battery Type	$LiFePO_4$ (LFP)			
Cells/Pack	3.2V 280Ah / 166.4V 280Ah		3.2V 280Ah / 153.6V 280Ah	3.2V 314Ah / 166.4V 314Ah
Battery Cluster Energy (kWh)	232		215	261
No. of Battery Cluster	5	6	8	8
Max. Charge and Discharge Current (C-rating)	0.5 / 0.5		1 / 1	0.5 / 0.5
Solar Parameters (Optional)				
PV Input Power (kW)	250	500	1500	500
Max. DC Voltage (V)	1000			
Full Load Voltage Range (V)	315 - 550			
Max. Current at Low Voltage Side (A)	160*5	160*10	160*30	160*10
Low Voltage Side Input Channels	2 (2 channels can be independent, can be paralleled as 1 channel)			
AC Output Parameters				
AC Rated Power (kW)	250	500	1500	500
AC Rated Current (A)	361	722	722A*3	722
AC Rated Voltage (V)	400, 3W+N+PE			
AC Voltage Range	±10%			
AC Rated Frequency (Hz)	50 / 60 (±5)			
Overload Capacity	110%, normal operation; 120%, 1 minute			
Maximum Efficiency	98.8%			
THDi	<3% (linear load)			
Power Factor	-1 leading~+1 lagging			
Off-Grid Switching Time (ms)	20 - 200			
General Parameters				
Enclosure Rating	IP54/C4			
Isolation Method	Transformer isolation (Optional)			
HMI	Touch screen			
Relative Humidity	0 ~ 95% (No condensation)			
Noise (dB)	<70			
Operating Temperature (℃)	-20 ~ 55 (Derating above 45℃)			
Cooling Method	Liquid cooling			
Altitude (m)	4000 (over 2000 derating)			
BMS Communication	CAN			
EMS Communication	Ethernet / RS485			
Cloud Platform	Optional			
Dimensions (W x D x H)	20FT GP	20FT GP	40FT GP	40FT GP
Weight (ton)	22	25	33	35

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

2 C&I ESS 15 kW / 33 kWh

PowerGo Series

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.

High Safety Standard

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

3 Three-phase Power Output

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

Pre-heating Function

Ensure optimal battery performance and extend battery lifespan in low-temperature environments.

Intelligent Management

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

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.

Plug and Play

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

Enhanced Reliability

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

Generator Connection

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

Specifications

Model	PC15KT-E/A	PC15KT-LA
AC Output (Discharging)		
Rated Power (kW)	15 (90 / 6 in Parallel)	15 (90 / 6 in AC Parallel)
Rated Voltage / Frequency	380 V / 400 V 50 / 60 Hz	208 V 50 / 60 Hz
Rated Current (A)	21.8	41.6
Single-Phase	220V / 230V AC, Rate power 5KW; Max 7.5KW @ 1 hour	120V AC, Rate power 5 kW
Rated Bypass Power (kVA)	22.5	20
AC Connection	3W + N + PE	3W + N + PE
Overload Capacity	120% @10min / 200% @10S	120% @5min / 150% @10S
AC Input (Charging)		
Rated Power (kW)	15	15
Rated Voltage / Current	380 V / 400 V 22.5 A	208 V / 41.6 A
Rated Input Apparent Power (KVA)	22.5	20
Single Phase / Current	220 V / 230 V 22 A (Optional), Single phase to three phases converter (optional accessory)	1 X
THDI	≤3%	≤3%
AC Connection	3W + N + PE	3W+ N + PE
Battery		
Battery Chemistry	$LiFePO_4$	$LiFePO_4$
DoD	90%	90%
Rated Capacity (kWh)	33 (Max. 198 / 6 in Parallel)	33 (AC Coupling 6 Units 198)
Voltage (VDC)	550 ~ 950	550 ~ 950
DC Input (PV)		
Max. Power (kW)	30	30
Number of MPPT / Number of MPPT Input	2-2	3-2
Max. Input Current (A)	30 / 30	30 / 30 / 30
MPPT Voltage Range	160 ~ 950 V	160 ~ 950
Number of String per MPPT	2 / 2	3 / 2
Start-up Voltage (V)	180	180
Physical		
Ingress Rating	IP54	IP54
Scalability	Max. 6 in Parallel	Max. 6 in Parallel
Relative Humidity	0 ~ 100% Non-condensing	0 ~ 100% Non-condensing
Fire Suppression System	Hot Aerosol (Cell & Cabinet)	Hot Aerosol (Cell & Cabinet)
Max. Efficiency	98% (PV to AC); 94.5% (BAT to AC)	98% (PV to AC); 94.5% (BAT to AC)
Topology Operating Ambient	Transformerless	Transformerless
Temperature (℃/℉)	-20 ~ 50 (-4 ~ 122)	-20 ~ 60 (-4 ~ 140)
Noise Emission (dB)	≤ 45	50
Cooling	Natural Cooling	Fan Cooling
Altitude (m)	4000 (>2000 Derating)	4000 (>2000 Derating)
Weight (kg / lbs)	670 / 1477	700 / 1543.24
Dimensions (LxWxH) (mm / inch)	1040 x 1092 x 1157 / 40.94 x 42.99 x 45.55	1212 x 1200 x 1104 / 47.72 x 47.24 x 43.46
Standard Compliance	Inverter: CE	Inverter: CE

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 system.
3.We reserve the right to make revisions as well as product alterations and improvements at any time without prior notice.

2 C&I ESS 250kW / 153.6kWh

PowerFusion Series

X250KT DG + ESS Solution

Makes Diesel Generator Set Energy Saving and Efficient.

Your Energy Saving Expert

Saving Fuel Consumption up to 30%

Meet the needs of high-load or high-impact loads in industrial applications, such as construction, manufacturing, and mining. Widely used for temporary power consumption and emergency power supply.

All-In-One
Integrated Battery + SEMS + SPCS

8 Sets Parallel
Up to 2MWh / 1228.8kWh

250 kW
High Output

Rapid Deployment
Support lifting and forklift transportation

AC-Coupled Power System
Diesel GEN/PV System/Grid

Remote Monitoring & Management
via App and Web

Plug & Play
No installation required

Technical Specifications

Model	X250KT-E/A
AC Output Data (On-grid Mode)	
Rated Power (kW)	150
Overload Capacity (kW)	250@180s
Rated Voltage (V)	400 (±15%)
Rated Current (A)	220
Grid Frequency (Hz)	50
AC Connection	3 W + N
THDI	≤ 3%
Power Factor	-1 ~ +1
AC Output Data (Off-grid Mode)	
Rated Power (kW)	150
Overload Capacity (kW)	250@180s
Rated Voltage / Frequency (V / Hz)	400 / 50
THDV (Linear Load)	≤3%
Battery Data	
Battery Chemistry	$LiFePO_4$
Nominal Energy (kWh)	153.6
Working Voltage Range (V)	600 ~ 876
Nominal Charging Current (A)	100
Nominal Discharging Current (A)	200
Max. Discharging Current (A)	300
DOD	90%
Compatible Diesel Generator	
Rated Power (kVA)	≤400
Rated Voltage (V)	400
Rated Frequency (Hz)	50
General	
Parallel Capable	Yes (Up to 8)
EMS	SEMS3000 12 inch LCD Touch Panel
Ingress Rating	IP54
Topology	Transformer
Working Temperature (°F / °C)	-4 ~ 122 / -20 ~ 50
Storage Temperature (°F / °C)	-40 ~ 149 / -40 ~ 65
Relative Humidity	5 ~ 95% (No condensing)
System Noise (dB)	<65
Cooling	Air cooling (Inverter room)
Fire Suppression System	Included
Altitude (m)	5,000 (>3,000 derating)
Dimensions, LxWxH (mm / inch)	2,300 x 1,750 x 2,400 / 90.55 x 68.90 x 94.49
Weight (kg / lbs)	4,700 / 10,361.72

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