



Commercial & Industrial

Energy Storage Solution

OUR ENERGY WORKS FOR YOU



Zhongrui Green Energy Technology (Shenzhen) Co., Ltd.

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Zhongrui Green Energy Technology (Shenzhen) Co., Ltd.

ZRGP is a national high-tech enterprise with a global vision. With independent research and development capabilities and focus on ESS solutions, ZRGP is becoming a world leading supplier of BMS, ESS, modules and monitoring systems. Our business scope integrates R&D, design, production and sales.

Headquartered in China, with multiple sales offices, product centers, factories, and wholly-owned subsidiaries around the world, ZRGP is committed to providing you with safe, lightweight and long-life green energy products.



ZRGP's industrial park boasts comprehensive facilities, including automated intelligent production lines, testing and aging sections, warehouse areas, office spaces, employee dormitories, cafeteria etc. A majority of the production and testing equipment possessed by the company is imported from Germany, whose advanced level and automation level are on the cutting edge of the industry.

21000m²

Factory Area

3GWh

Per Year

90+

Countries We Export To

Company Advantages

- Years of research and development experience
- Sales and after-sales outlets all over the world
- Highly information-based automated factory
- Scientific production process control ability



To produce world-class energy storage products
To serve the consumers in the global market

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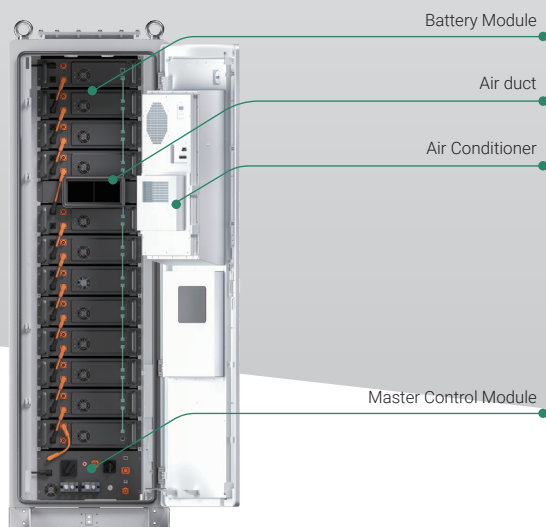
Selection

Selection	15
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PowerBase MAX-60A

60kWh Air-Cooling Battery



Key Features



Convenient Operation

Integrated and modular design for simplified BESS wiring and maintenance



Extreme Compatibility

Combined with Three phase hybrid inverter, to achieve both On-Grid and Off-Grid Connections



Easy Expansion

Supported unlimited parallel to suit for C&I and large Residential power backup



60kw High Power

Support 1C rate AC output, Suitable for high rate cyclic charging and discharging scenarios



Safety

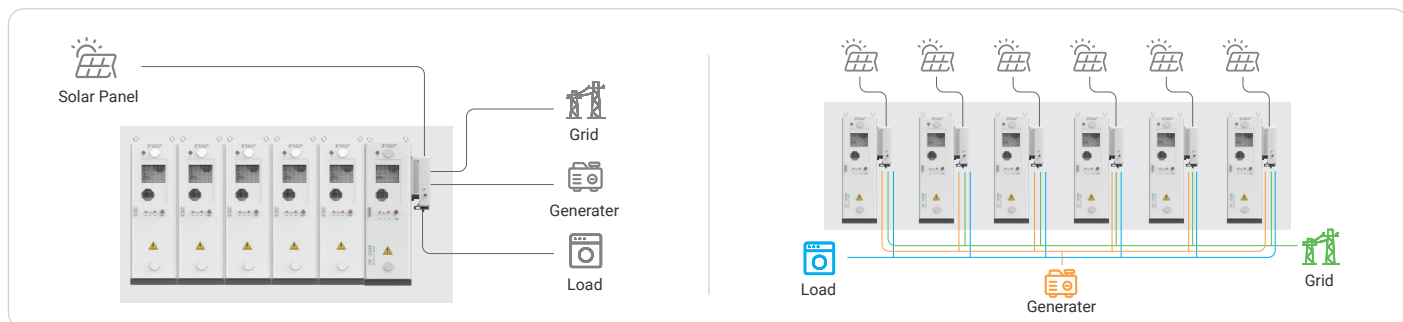
With detection systems for combustible gases, smoke, and temperature variations, along with active exhaust and fire alarm systems for enhanced safety

IP 55

Waterproof

IP55, suitable for both indoor and outdoor environments. Meets various installation scenarios

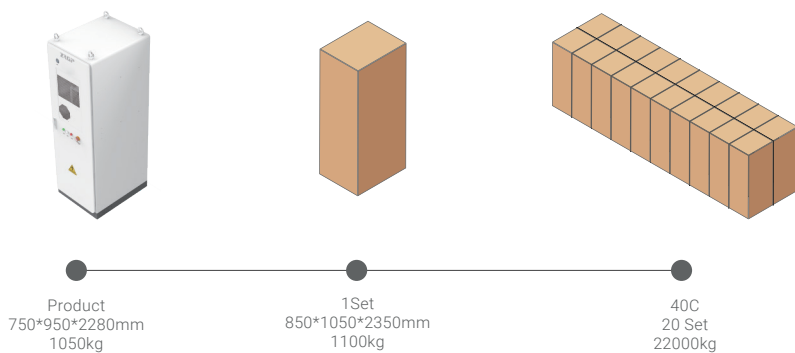
System Layout



■ Main Parameters

Battery Energy Storage		PBM061LCBA0-US	PBM061LCBA0-EU
Cell Chemistry		LiFePO4	
Module Energy (kWh)		5.12	
Module Nominal Voltage (V)		51.2	
Module Capacity (Ah)		100	
Battery Module Combination		12S1P	
System Nominal Voltage (V)		614.4	
System Operating Voltage (V)		562.5~681.6	
System Energy (kWh)		61.44	
Charge /Discharge Current (A)		95	
General Parameters			
System Stackable		Up to 6 in parallel	
Dimension (W*D*H)		750*950*2280mm / 29.5*37.4*89.7in	
Weight Approximate		1050kg / 2314.8lb	
Working Temperature		-20~55℃	
Communication Interface		CAN, RS485, Wi-Fi, LTE	
Humidity		5%~85%RH	
Altitude		≤4000m(2000m derating)	
IP Rating		IP55	
Storage Temperature		-20~35℃	
Recommend Depth of Discharge		90%	
Cycle Life		>8000 cycles	
Warranty		3 years free, paid from the 4th to the 15th year	
Certification		ANSI/CAN/UL 1973:2022 ANSI/CAN/UL 9540:2020 UL 9540A, FCC Part 15 Subpart B:2023	IEC/EN62619:2022, IEC/EN62477-1:2012+A11+A1+A12 IEC/EN61000-4-2:2019, IEC/EN61000-4-2:2019 EN301908-1 V15.2.1:2013, EN301908-13 V13.2.1:2022 EN301489-1:2019 V2.2.3:2019, EN301489-52 V1.2.1:2021

■ Packaging And Shipping Details

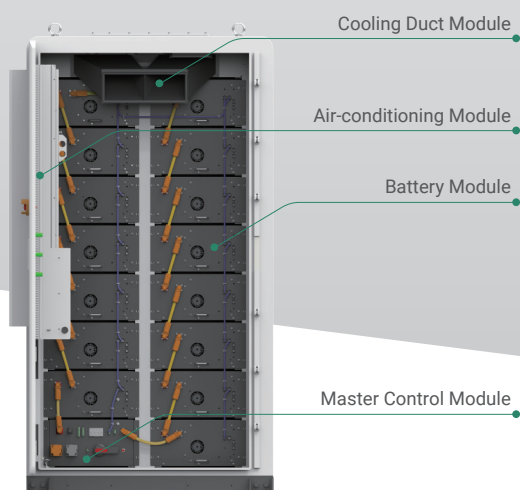


■ Size



PowerBase MAX-215B

114~215kWh Air-Cooling Battery



Key Features



High Security

Utilizes high-safety lithium iron phosphate batteries with partition safety isolation, built-in module-level and system-level fire protection, and an active safety early warning system for reliable operation.



Efficient BMS Technology

Incorporates high-efficiency equalization technology and low power consumption BMS sampling chips to reduce module inconsistencies and eliminate series loss for optimal performance.



Long Life Cycle

Offers over 8000 cycle times with a lifespan exceeding 15 years, supported by laser welding for enhanced durability.



Thermal Management

Features a high-efficiency air-cooling and heating system that maintains consistent cell temperatures, ensuring optimal performance.



Easy Installation and Maintenance

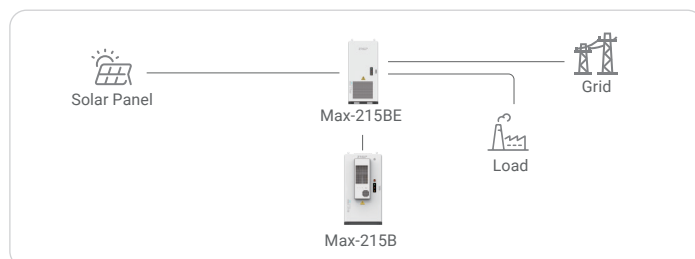
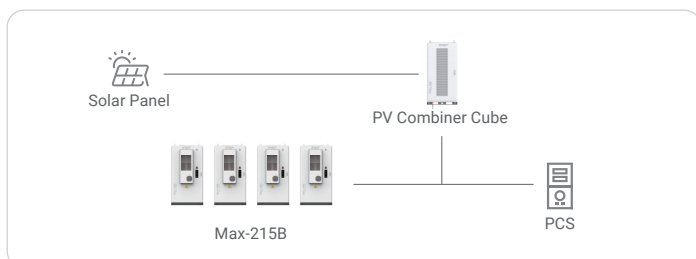
Standardized design simplifies installation and user deployment, with a fully modular setup for convenient operation and maintenance, both locally and via cloud systems.

IP 55

Waterproof

Designed with an IP55 waterproof rating to protect against dust and water ingress, ensuring reliable operation in various environmental conditions.

System Layout



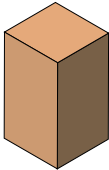
■ Main Parameters

Battery Energy Storage	114kWh	129kWh	143kWh	157kWh	172kWh	186kWh	200kWh	215kWh
Single Cell Type	LFP 3.2V / 280AH							
Module Combination	1P16S							
System Combination (Modules)	8	9	10	11	12	13	14	15
Capacity (kWh)	114.69	129.02	143.36	157.70	172.03	186.37	200.70	215.04
Nominal Voltage (Vdc)	409.6	460.8	512	563.2	614.4	665.6	716.8	768
Voltage Range (Vdc)	345.6~460.8	388.8~518.4	432~576	475.2~633.6	518.4~691.2	561.6~748.8	604.8~806.4	648~864
Charge/Discharge Current	0.5C							
Discharge Depth	100% DoD							
Service Life	>8000 cycles@80% DoD							
Thermal Management Mode	Air-cooling Technology							
Thermal Runaway Management	Aerosol Extinguishing or PFH							
System Characteristic								
Communication Interface	CAN							
Warranty	3 years free, paid from the 4th to the 15th year							
Certifications(Cell)	UN38.3, UL1973, IEC62619, UL9540A, GB/T 36276							
Certifications(System)	IEC62477, IEC62619, IEC61000-6-2/4, UN3480							
General Parameters								
Dimensions (W*D*H)	1250*1200*2350mm / 49.2*47.2*92.5in							
Total Weight	1394kg 3073lb	1502kg 3311lb	1610kg 3549lb	1718kg 3787lb	1826kg 4025lb	1934kg 4263lb	2042kg 4462lb	2150kg 4740lb
Operation Altitude	2000m / 6561ft							
Noise Level @1m	<75 dB(A)							
IP Rating	IP55							
Operating Temperature	-30°C ~ 55°C							
Operating Humidity (RH)	0 ~ 95%							
Storage Conditions	-20°C ~ 30°C, Up to 95% RH,non-condensing, State of Energy (SoE): 50% initial							

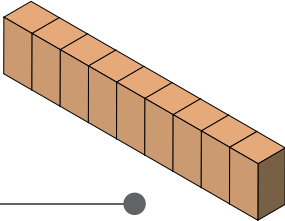
■ Packaging & Shipping Details



Battery System
1250*1200*2350mm
2150kg



1Set
1450*1400*2520mm
2700kg

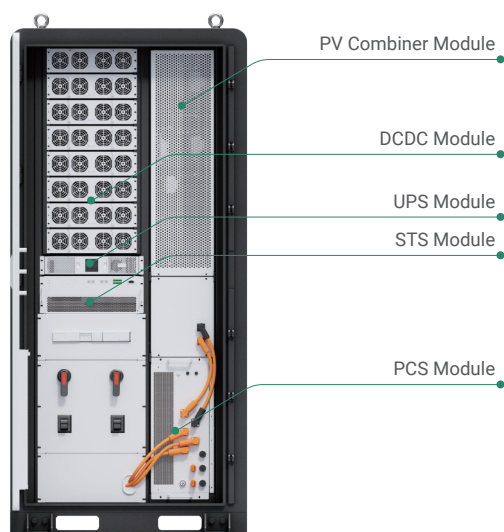
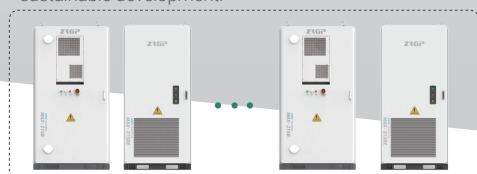


40C
8 Set
21600kg

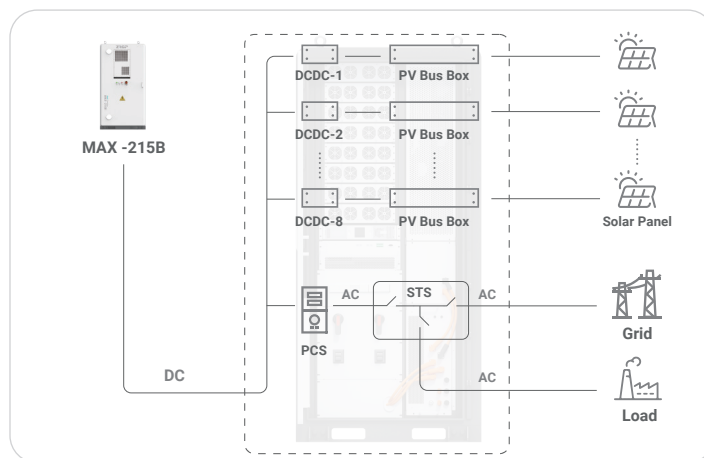
PowerTrans MAX-215BE

Intelligent EMS Cabinet (for MAX-215B)

The MAX-215BE intelligent EMS cabinet is specifically designed for the MAX-215B, seamlessly integrating PCS, DCDC, and STS modules into a cohesive energy management system. With cutting-edge EMS technology, it enables real-time monitoring and optimization of energy flow, significantly enhancing system stability and efficiency. The MAX-215BE ensures reliable energy storage, conversion, and intelligent scheduling, making it suitable for a wide range of applications. This solution is perfect for boosting energy efficiency and promoting sustainable development.



System Layout



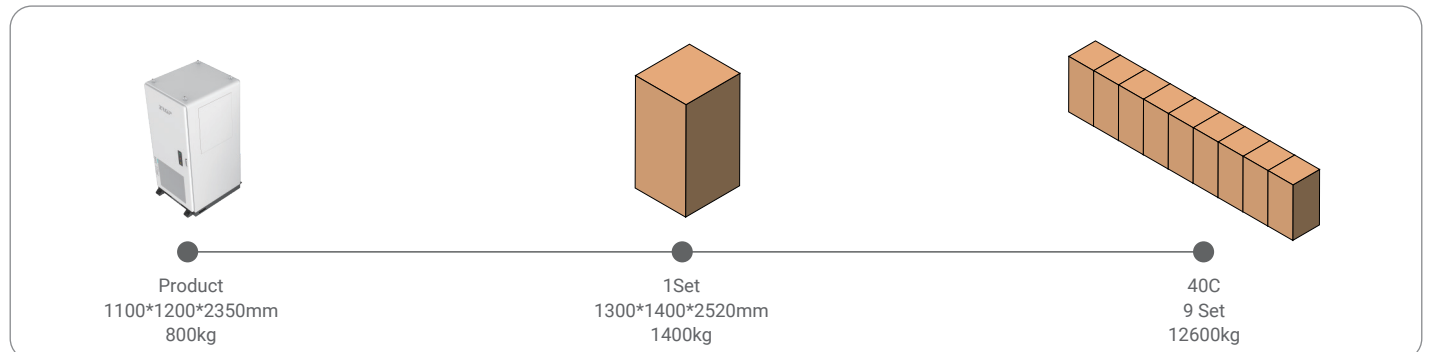
Application Scenario



■ Main Parameters

PV Input	FOR US PTM107EMCA0-US	FOR EU PTM107EMCA0-EU
Rated Power (kW)	240	
Input Voltage(Vdc)	300~825	
The Max. Static Voltage Borneunder No Operation(Vdc)	900	
Rated Voltage(Vdc)	700	
Standby Power Consumption	<14W*8 @700Vdc with normal sandby mode / <4W*8 @700Vdc with super sandby mode	
Max. Input Current(Adc)	50*8	
Number of MPPT	8	
No. of PV Strings per MPP Trackers	4	
Battery Input		
DC Input (Vdc)	1500	/
DC Voltage Range (Vdc)	720~1300	/
Max. DC Current (A)	195	/
Auto Buffering Function	Yes	/
DC Breaker	No	/
AC Output		
Rated Grid Voltage (Vac)	480 / 3P3W	480 / 3P3W
Max. Continuous Input Current (Aac)	165.4	165.4
Rated Frequence (Hz)	60	50/60
Rated Power (kW)	107	107
Power Factor	>0.99(at rated power)	>0.99(at rated power)
Adjustable Power Factor	-1~1	-1~1
THDi	<3%(at rated power)	<3%(at rated power)
Overload Capacity	110%	120%
Integrated STS	NO	Yes(≤10mS)
System Characteristic		
Warranty	3 years free, paid from the 4th to the 15th year	3 years free, paid from the 4th to the 15th year
Certification(PCS)	UL1741, CSA C22.2 No 107.1, IEEE1547	EN50549
Certification(MPPT)	UL2202	EN61851
General Parameters		
Dimensions (W*D*H)	1100*1200*2350mm / 43.3*47.2*92.5in	
Total Weight	800kg / 1763.7lb	
Cooling	Intelligent Air-cooling	
Operation Altitude	2000m / 6561ft	
Noise Level @1m	<75 dB(A)	
IP Rating	IP54	
Operating Temperature	-35°C ~ 60°C	
Operating Humidity (RH)	0 ~ 95%	

■ Packaging & Shipping Details

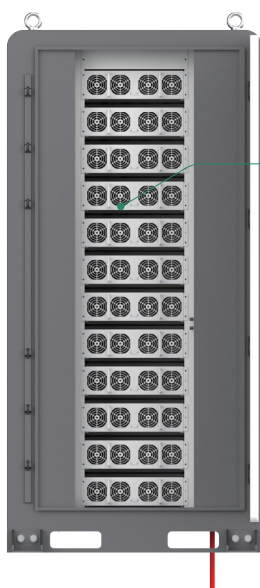
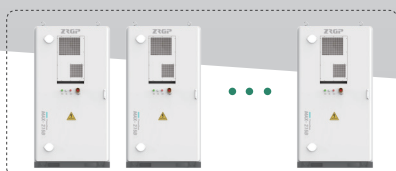


PowerTrans MAX-215BC

PV Combiner Cabinet (for MAX-215B)

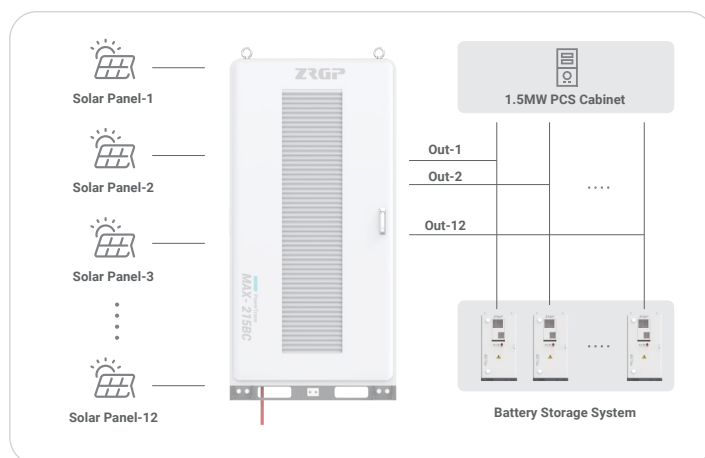
The "MAX-215BC" is tailored for the ZRGP "MAX-215B" pure battery cabinet, functioning as a crucial photovoltaic combiner box. This innovative system improves energy collection efficiency by seamlessly integrating multiple photovoltaic arrays.

One PV Combiner Cabinet can support up to 12 MAX-215B.



MPPT Module

System Layout



POWER STATION



PHOTOVOLTAIC POWER STATION

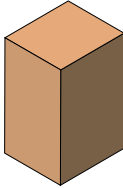
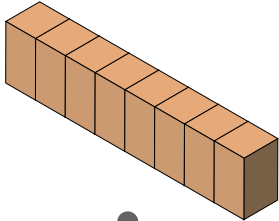


INDUSTRIAL PARK

■ Main Parameters

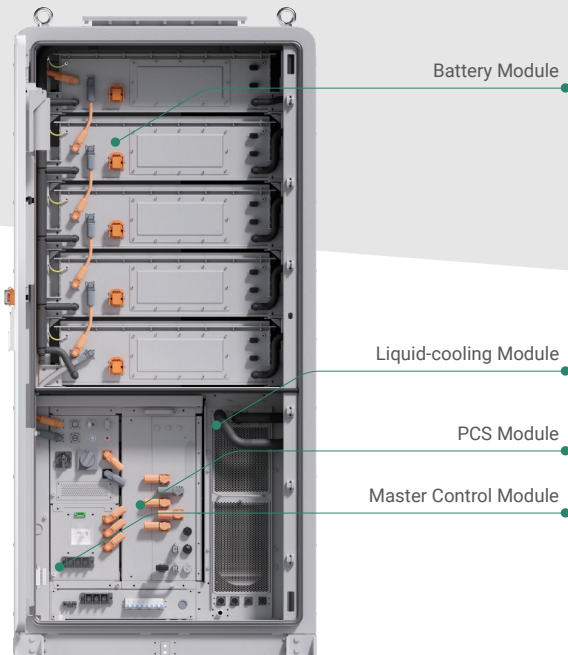
PV Input		PTM360PDCD0
Input Voltage(Vdc)		300~825
The Max. Static Voltage Borneunder No Operation(Vdc)		900
Rated Voltage(Vdc)		700
MPPT Operating Voltage Range(Vdc)		300~740
MPPT Full Load Voltage Range(Vdc)		650~740
MPPT Starting Voltage(V)		375
MPPT Efficiency		>99.5%(MPP≥5000W)
Max. Input Current(Adc)		50*12
Number of MPPT		12
No. of PV Strings per MPP Trackers		4
DC Output		
Individual Module Output Power(kW)		30
Max. Number of Modules		12
Total Output Power(kW)		360
Output Voltage Range(Vdc)		150 ~ 1000
Output Current Range(Adc)		0~100@Per MPPT
Voltage Regulation Accuracy		<±0.5%(150~1000V, 0~20MHz)
Precision of Steady Current		≤±1%(Output load 20% ~ 100%)
Load Regulation		≤±0.5%
Source Adjustment Rate		≤±0.1%(The test range is 650V~825V)
Start the Overshoot		≤±3%
Voltage Ripple Factor		≤1%(150~1000V, 0~20MHz)
System Characteristic		
Communication Interface		CAN bus, LAN
Warranty		3 years free, paid from the 4th to the 15th year
EMC/EMI		EN61851-21-2, class B
Safety		UL2202, EN61851-1, EN61851-23
General Parameters		
Type of Cooling		Forced Air-cooling
Dimensions (W*D*H)		1120*1220*2170mm / 44*48*85.4in
Total Weight		1100kg / 2425lb
Altitude		<2000m
Noise Level @1m		<75 dB(A)
IP Rating		IP54
Operating Temperature		-40°C~75°C(above 55°C needs to be reduced)
Storage Temperature		-40°C~70°C
Relative Humidity		≤95%RH, non-condensing

■ Packaging & Shipping Details

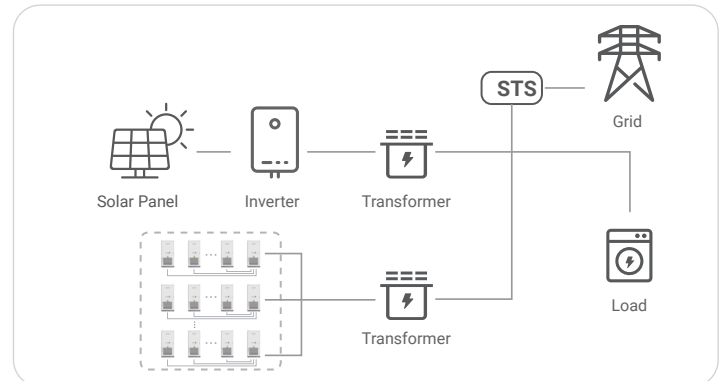
		
Product 1120*1220*2170mm 1100kg	1Set 1320*1420*2340mm 1300kg	40C 8 Set 10400kg

PowerBase MEGA-233A

233kWh liquid cooling Battery



System Layout



Key Features



Highly Integrated

Combines an all-in-one design with high power density, requiring minimal space and offering flexible transportation and installation.



Safety & Reliability

Features comprehensive battery monitoring, multi-level fire prevention, top venting design, and proactive AI management to ensure maximum safety and reliability.



Long Life Cycle

Offers over 8000 cycle times with a lifespan exceeding 15 years, supported by laser welding for enhanced durability.



Efficient & Flexible

Boasts a modular structure with high-efficiency liquid cooling, adaptable to extreme environments, maximizing battery life and performance.



Intelligent Operation

Equipped with a full EMS for easy upgrades and big data-managed inspection, ensuring proactive handling and optimal performance.

SOC

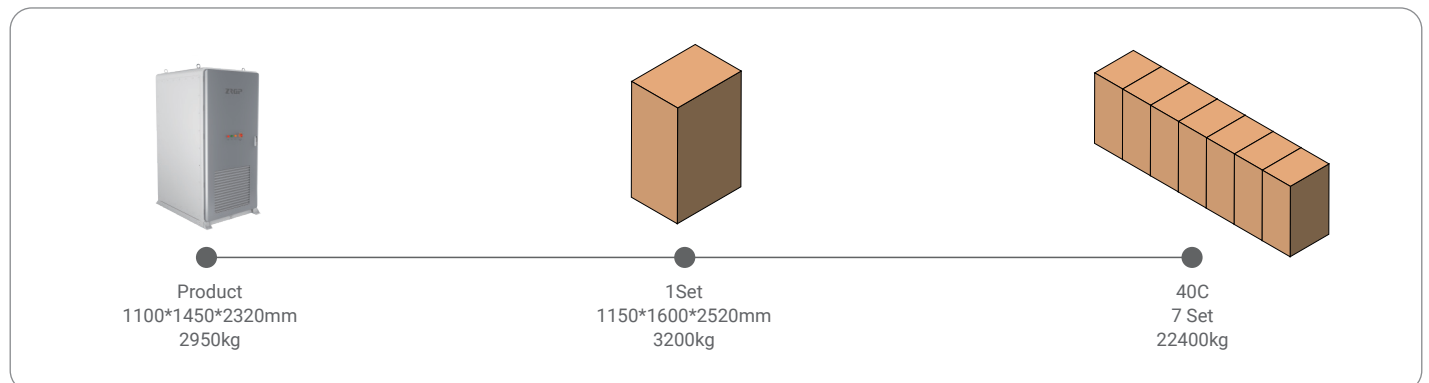
Maintenance Optimization

Incorporates intelligent SOC calibration to minimize downtime and enhance overall operational efficiency.

■ Main Parameters

Battery Energy Storage		PBM233125A1-EU	PBM233125A1-US
Single Cell Type		LFP 3.2V/280AH	
Module Combination		1P52S	
System Combination		5 modules in series	
Capacity (kWh)		233	
Nominal Voltage (V)		832	
Operation Voltage Range (Vdc)		702~949	
Discharge Depth		90% DoD	
Thermal Management Mode		liquid cooling	
Thermal runaway management		Aerosol Extinguishing	
AC Output			
Rated AC output power(kW)		125	125
Max. AC output power(kVA)		150	137.5
Rated output voltage(Vac)		400	480
Output voltage(Vac) range		-15%~10%(settable)	-15%~10%(settable)
Rated grid frequency(Hz)		50/60Hz(settable)	60Hz(settable)
Max. output current(A)		182	165.4
Adjustable power factor		>0.99	>0.99
THDi		<3%	<3%
DC Input/Output			
Max. Power (kW)		250	
Voltage Range (V)		761~923	
Max. Current (A)		320	
System Characteristic			
Communication Interface		CAN, RS485, Wi-Fi, LTE	
Warranty		3 years free, paid from the 4th to the 15th year	
Certifications		IEC62619/UN38.3/IEC/EN 62477-1, IEC EN/61000-6-2, IEC/EN 61000-6-4	UL1741, CSA C22.2 No 107.1, IEEE1547/UL1973/UL9540/UL9540A
General Parameters			
Dimensions (W*D*H)		1100*1450*2350mm / 43*57*92.5in	
Total Weight		2630(±10%)/5798(±10%)	
Operation Altitude		≤4000m(2000m derating)	
Noise Level @1m		<75 dB(A)	
IP Rating		IP54	
Operating Temperature		-20°C to 55°C	
Operating Humidity (RH)		0 to 95%	
Storage Conditions		-20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial	

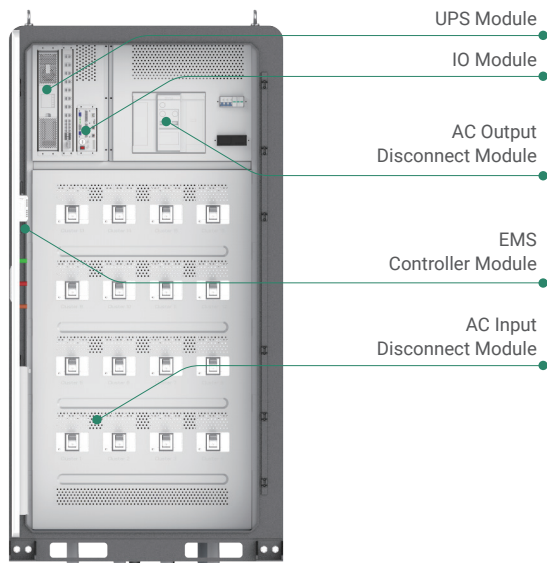
■ Packaging & Shipping Details



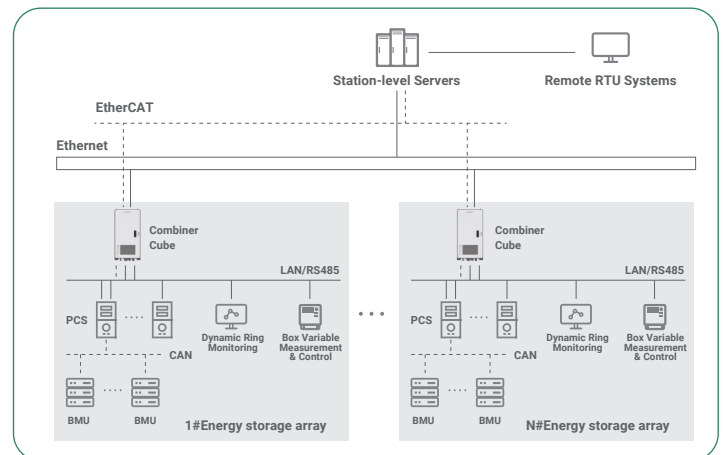
PowerTrans MEGA-233BC

AC Combiner Cabinet (for MAX-233A)

The Combiner MEGA-233BC is the perfect solution for improving the functionality and reliability of the MEGA 233A configuration, providing a smooth and efficient energy management experience.



System Layout



FACTORY



SUPERCOMPUTING

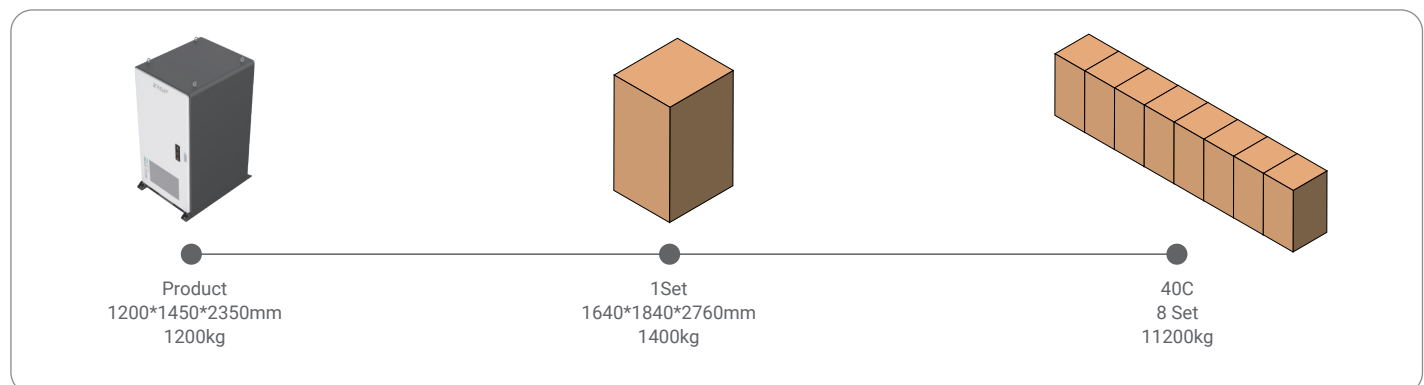


FARM & RANCH

■ Main Parameters

Model	EU PTM2000PDCD1-EU	Common (use) PTM3200PDCD1	US PTM2000PDCD1-US
Input Voltage(Vac)	400	690	480
Access Channel	16	16	16
Output Channel	1	1	1
Max. Rated Power(kW)	2000	3200	2000
Rated Current(A)	2887	2678	2406
Measuring Accuracy	Class 0.5 (bidirectional meter)		
Overload Protection	Yes		
UPS	Optional		
System Characteristic			
Communication Interface	CAN, LAN, RS485		
Warranty	3 years free, paid from the 4th to the 15th year		
General Parameters			
Dimensions (W*D*H)	1200*1450*2350mm / 47.2*57*92.5in		
Total Weight	1200kg / 2645.5lb		
Altitude	<2000m		
Noise Level @1m	<65 dB(A)		
IP Rating	IP54		
Operating Temperature	-35℃ ~ 55℃		
Storage Temperature	-40℃ ~ 70℃		
Relative Humidity(Rh)	≤95%, non-condensing		

■ Packaging & Shipping Details



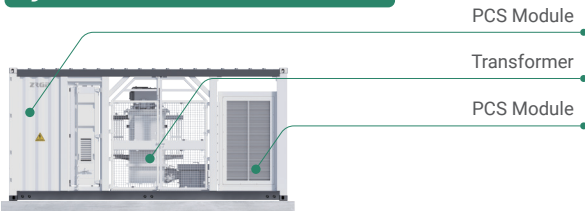
PowerBase STATION

Liquid-cooling Distributed
Container System

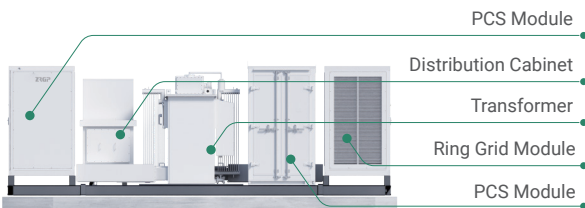
1.67/ 3.34/ 5.01 MWh



System Demonstration For EU

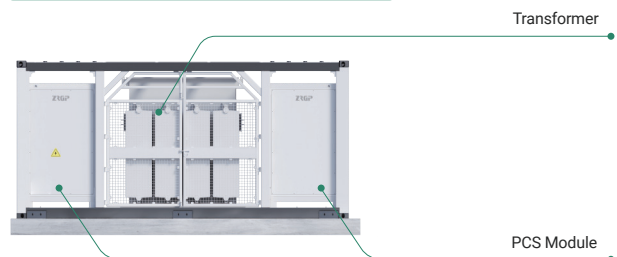


For 10ft/20ft

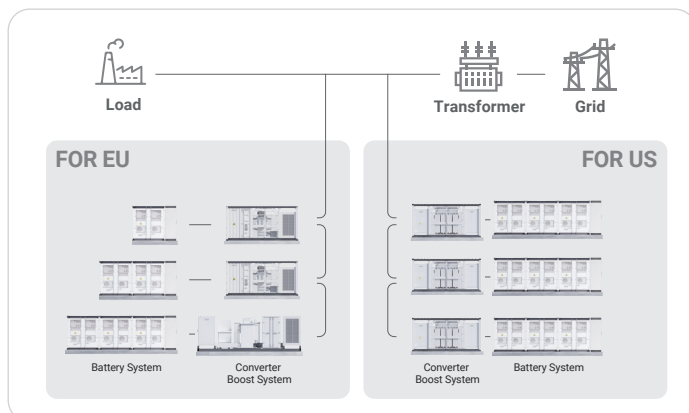


For 30ft

System Demonstration For US



System Layout



Application Scenario



■ Main Parameters

■ Main Parameters	PBS1672LCBA0	PBS3344LCBA0	PBS5016LCBA0
Battery Energy Storage	1672kWh	3344kWh	5016kWh
Cell Type	LFP 3.2V/314AH		
Module Configuration	1P104S		
String Configuration	1P416S		
Number of Battery System	1	2	3
Number of Strings	4	8	12
Capacity (kWh)	1672	3344	5016
Nominal Voltage(V)	1331.2		
Operation Voltage Range(Vdc)	1218.88~1476.8		
Discharge Depth	90% DoD		
Thermal Management Mode	Liquid-cooling		
Thermal Control Management	Aerosol Extinguishing or PFH		
AC Output			
Rated AC Output Power(kVA)	840	1670	2500
Max. AC Output Power(kVA)	860	1725	2580
Output Voltage Range(Vac)	11kV~33kV		
Rated Grid Frequency(Hz)	50 / 60		
AC PF	0.99 / -1~1		
THDi	≤3%		

System Characteristic

Communication Interface	CAN, RS485, Ethernet		
Warranty	3 years free, paid from the 4th to the 15th year		
Certifications	IEC62619, IEC62477, EN61000-6-2/4, UL9540A, UL9540, UN3536		

General Parameters

Battery System Dimensions(W*D*H)	2991*2438*2591mm 117.8*96*102in	2991*4952*2591mm 117.8*195*114in	2991*7466*2591mm 117.8*294*102in
Battery System Total Weight	~15000kg / 33069lb	~30000kg / 66139lb	~45000kg / 99208lb
EU:Converter Boost System Dimensions (W*D*H)	6058*2438*2896mm 238.5*96*114in	6058*2438*2896mm 238.5*96*114in	7600*2200*2553mm 229*86.6*100.5in
US:Converter Boost System Dimensions (W*D*H)		6058*2438*2896mm 238.5*96*114in	
EU:Converter Boost System Total Weight	15000kg / 33069lb	15000kg / 33069lb	20000kg / 44092lb
US:Converter Boost System Total Weight		<25000kg / 55116lb	
Operation Altitude	3000m / 10000feet(>3000m/10000feet derating)		
Nosie Level@1m	<75dB		
IP Rating	IP54		
Operation Temperature	-30°C to 55°C (De-rating over 45°C)		
Operation Humidity(Rh)	≤95%, No condensation		
Storage Conditons	-20°C to 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial		

■ Packaging & Shipping Details

BATTERY



1*Battery System
2991*2438*2591mm
~15000kg

2*Battery System
6058*2438*2591mm
~30000kg

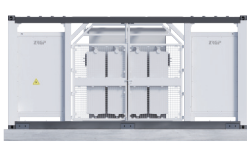
EU Converter Boost System



Converter Boost System(20ft)
6058*2438*2896mm
~15000kg

Converter Boost System(30ft)
6058*2438*2896mm
~15000kg

US Converter Boost System



Converter Boost System
6058*2438*2896mm
~25000kg

Selection

Intelligent PCS (For EU)



30kW



60kW



125kW

Voltage Range(Vdc)	150~750	400~800	580~1000
AC Output(Vac)	3W3P+PE, 480 (±15%)	3 / N / PE, 230 V / 400	400
AC frequency(Hz)	60 (±2.5)	50/60	50/60

Intelligent PCS (For US)



30kW



30kW



60kW



125kW

Voltage Range(Vdc)	150~750	150~500	400~800	720~1300
AC Output(Vac)	3W3P+PE, 480 (±15%)	120/208	277/480	480, 3P+PE
AC frequency(Hz)	60 (±2.5)	50/60	50/60	60

Master Control



R-MC150-EC04



R-MC150-EC01



R-MC250-EU01

Rated Voltage(Vdc)	750	750	1000
Voltage Range(Vdc)	200~750	200~750	400~1500
Rated Current(A)	100	150	200
Weight	28kg / 61.7 lb	32kg / 70.5lb	38kg / 83.7lb
W*D*H(prediction)	494*510*132mm / 19.4*20*5.2in	440*620*230mm / 17.3*24.4*9in	251*900*325mm / 9.8*35.4*12.8in

Flexible Battery Module



R-EM051100-ECH01



R-EM096100-ECH03



R-EM25280-ECH01



R-EM166280-ECH01-RP



R-EM166314-ECH01-RP

Rated Energy(kWh)	5.12	9.6	7.17	46.59	52.25
Rated Voltage(V)	51.2	96	25.6	166.4	166.4
Rated Capacity(Ah)	100	100	280	280	314
Max. Charging Current(A)	100	100	140	140	157
Peak Charging Current(A)	200(30S)	200(30S)	280(30S)	280(60S)	314(60S)
Max. Discharge Current(A)	100	100	140	140	157
Peak Discharge Current(A)	200(30S)	200(30S)	280(30S)	280(60S)	314(60S)
W*D*H	482.6*627.5*132mm 19*24.7*5.2in	494*680*132mm 19.4*26.7*5.2in	250.5*763.5*228mm 9.8*30*8.9in	812*1133*238.5mm 32*44.6*9.4in	779*1135*250mm 30.6*44.7*9.8in
Weight	43kg / 94.7lb	73kg / 161lb	60kg / 132lb	330kg / 727.5lb	348kg / 767lb

Battery Cell



RF100



RF205



RF280



RF314

Rated Capacity(Ah)	100	205	280	314
Rated Voltage(V)	3.2	3.2	3.2	3.2
Max. Charge Rate	1C	1C	1C	1C
Internal Resistance	≤ 0.8mΩ	≤ 0.5mΩ	< 0.3mΩ	< 0.3mΩ
W*D*H(prediction)	174*27.2*207mm / 6.8*1*8.1in	174*53.7*207mm / 6.8*1.5*8.1in	174*71*207mm / 6.8*2.8*8.1in	174*71*174mm / 6.8*2.8*8.1in



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