

# Commercial & Industrial

Energy Storage Solutions



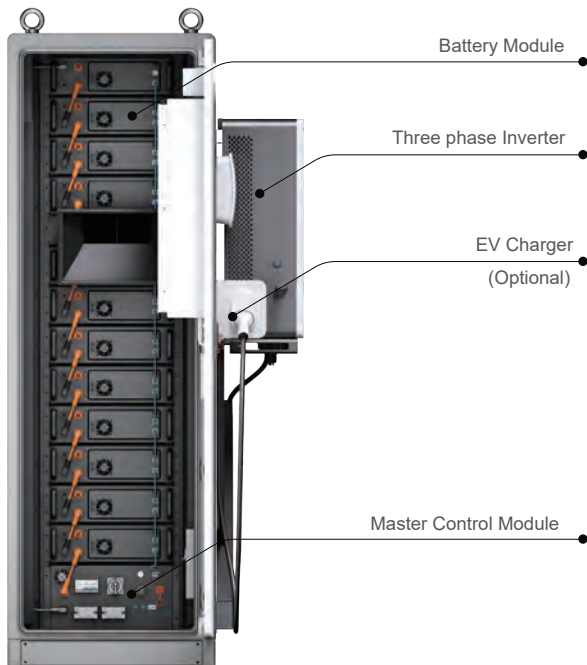
# eCube 60AP

## 30kW/60kW 60kWh Air-Cooled ESS

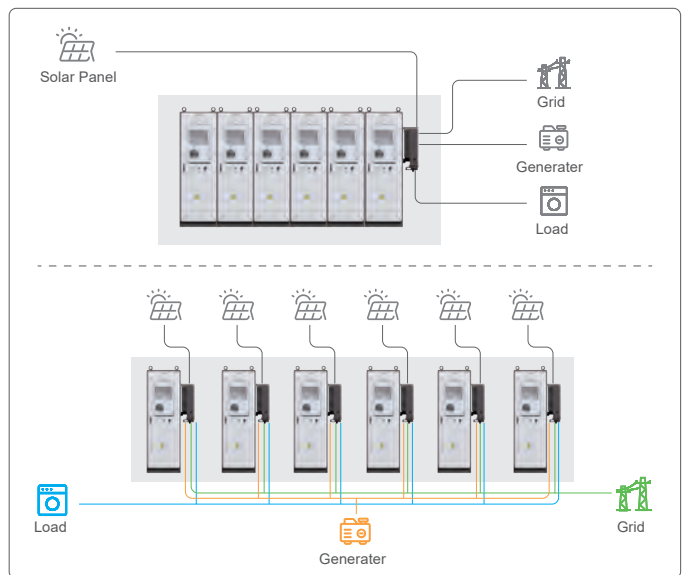
The ultimate commercial and industrial energy storage solution with optimized temperature control, high-rate energy cycling, comprehensive fire and gas safety detection, and advanced integrated power management technologies.



### System Demonstration



### Parallel/Series System Layout



### Application Scenarios



Battery Energy Storage	30/60AP	60/60AP
Cell Chemistry	LiFePO4	LiFePO4
Module Energy (kWh) Module	5.12	5.12
Nominal Voltage (V) Module	51.2	51.2
Capacity (Ah) Battery Module	100	100
Combination System Nominal	6S2P	12S1P
Voltage (V) System Operating	307.2	614.4
Voltage (V) System Energy	281.25~340.8	562.5~681.6
(kWh) Charge/Discharge	61.44	61.44
Current (A)	100	100

PV Input	30/60AP	60/60AP
Max. Power(kW)	45	90
Max. Voltage(V)	550	1100
Start-up Voltage(V) Rated	80	200
Voltage(V) MPPT Voltage	360	730
Range(V) Number of MPP	80-520	200-1000
Trackers Max. PV Input	4	4
Current(A)	40/40/40/40	40/40/40/40

#### Charging System(Optional)

Charging Type	Charging Mode 3 Case c, level 2
Outlet options	AC Type 1 (SAEJ1772)
Input/Output Current rating(A)	32 / 48 / 80
Input/Output Power rating(kW)	7.7 / 11.5 / 19.2@240VAC
Input/output voltage(VAC) Input	208~240
Frequency(Hz)	50/60
Cable Length	16 feet, Optional: 25 feet
Distribution Systems Connection	Single phase, split-phase
Certifications	L1 + L2 + PE

UL2594, UL2231-1, UL2231-2, UL1998  
UL991FCC Part 15 ClasS B, ENERGY STAR

AC Output (EPS)	30/60AP	60/60AP
Max. Output Power(kW)	33	66
Peak Output Power, Time(kVA,s)	45, 7s	120, 7s
Rated Voltage(V)	120/208	277/480
THDv(@Rated Power)	<3%	<3%
Switch Time(ms)	<10	<10

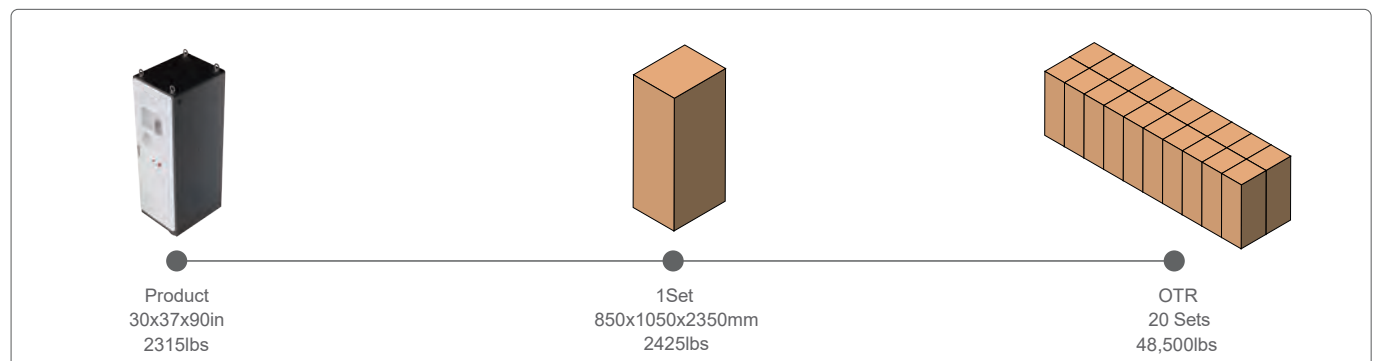
AC Output(On-Grid)	30/60AP	60/60AP
Rated Output Power(kW)	30	60
Max. Output Power(kVA)	33	66
Max. Output Current(A)	91.6	79.4
Rated Voltage(V)	120/208	277/480
Rated Frequency(Hz)	50/60	50/60
THDi(@Rated Power)	< 3%	< 3%
Power Factor	0.8 leading~0.8 lagging	

#### General Parameters

Dimension (W*D*H)	750*950*2280mm / 29x37x90in
Weight Approximate	1050kg / 2314.8lb
Working Temperature	-20~55°C
Communication Interface	CAN, RS485, Wi-Fi, LTE
Humidity	5%~85%RH
Altitude	≤2000m
IP Rating	IP55
Storage Temperature	-20~35°C
Recommend Depth of Discharge	90%
Cycle Life	>8000 cycles
Warranty	3 years free, paid from the 4th to the 15th year

Certification  
UL1973, UL9540A, UN38.3, IEC62619  
UL 1741-2021 (incl UL1741SB), CSA C22.2, No  
107.1-16 IEEE 1547-2018 & 1547a-2020 &  
1547.1-2020 (SRD V2.0), UL1699B

## ■ Packaging & Shipping Details



# eMPack 233AC

## 125kW/233kWh Liquid-Cooled BESS

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

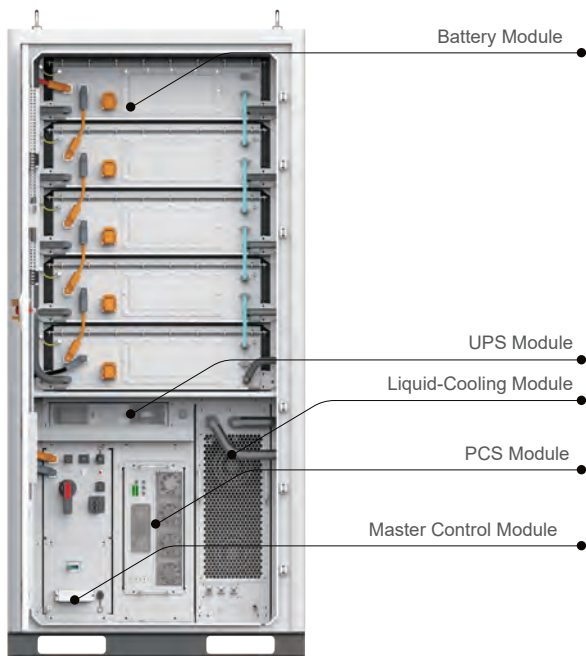
**Safety & Reliability:** Features comprehensive battery monitoring, multi-level fire prevention, top venting design, and proactive AI management to ensure maximum safety and reliability.

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

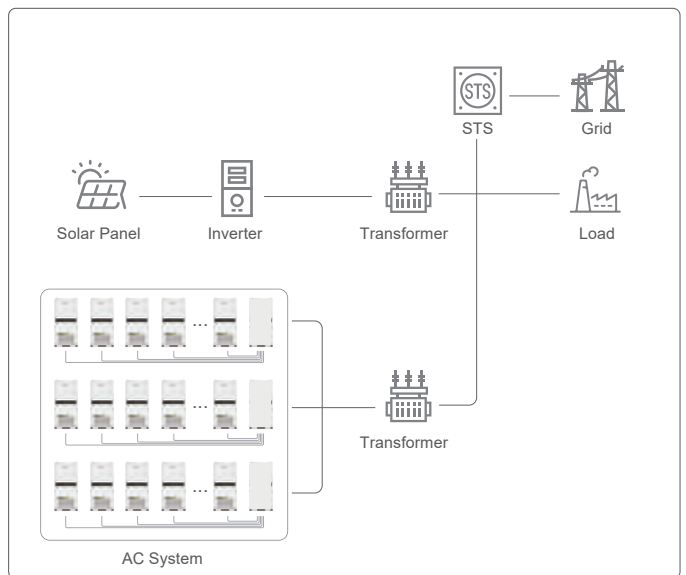
**Intelligent Operation & Maintenance:** Equipped with a full EMS for easy upgrades, big data-managed inspection, proactive handling, and intelligent SOC calibration for optimal performance without downtime.



### System Demonstration



### System Layout



### Application Scenarios



## Battery Energy Storage

Cell Type	LFP 3.2V / 280AH
Module Combination	1P52S
System Combination (Modules)	5 in series
Capacity (kWh)	233
Nominal Voltage (V)	832
Operation Voltage Range (Vdc)	761~923
Discharge Depth	90% DoD
Thermal Management Mode	Liquid Cooled
Thermal Control Management	Aerosol Extinguishing

## AC Output

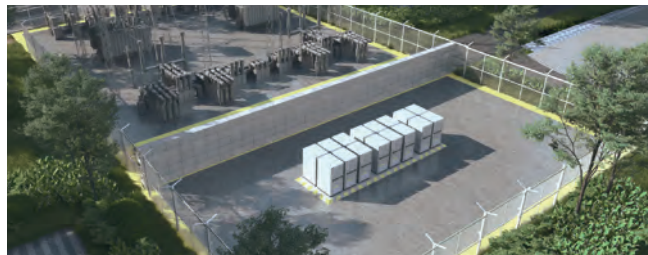
Rated AC Output Power(kW)	125
Max. AC Output Power(kVA)	137.5
Rated Output Voltage(Vac)	480
Output Voltage Range(Vac)	-15%~+10%(settable)
Rated Grid Frequency(Hz)	60(settable)
Max. Output Current(A)	165.4
Adjustable Power Factor	>0.99
THDi	<3%

## System Characteristics

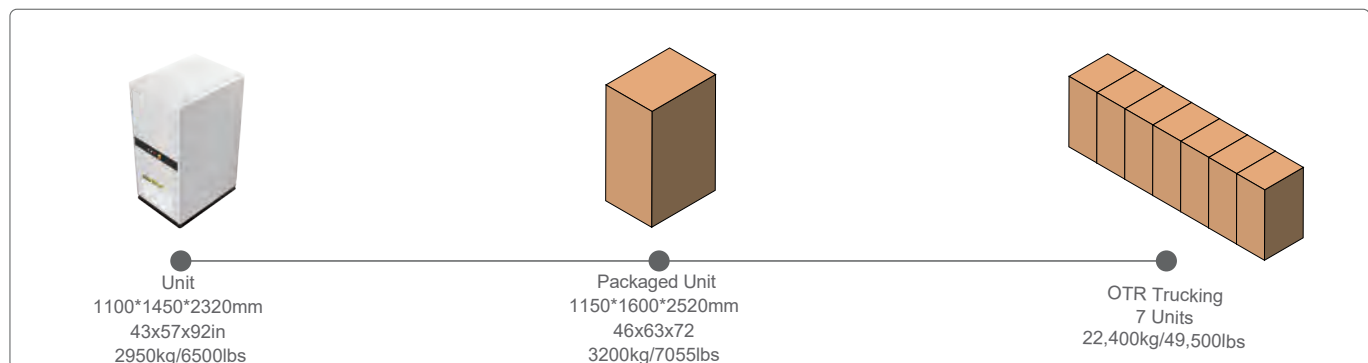
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	10 Year with optional 15 year*
Certifications	IEC 62619, EN 61000-6-1/2/3/4 EN 62019-1/2, UL1973, UL9540A UL9540, UN38.3

## System Characteristics

Dimensions (W*D*H)	1100*1450*2320mm / 43*57*91.3in
Total Weight	2950kg / 6503lb
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	-20°C to 55°C
Operating Humidity	0 to 95%
(RH) Storage Conditions	-20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial



## Packaging & Shipping Details





# eMPack 372B

## 186~372kWh Liquid-Cooled DC Block

**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 to ensure reliable operation.

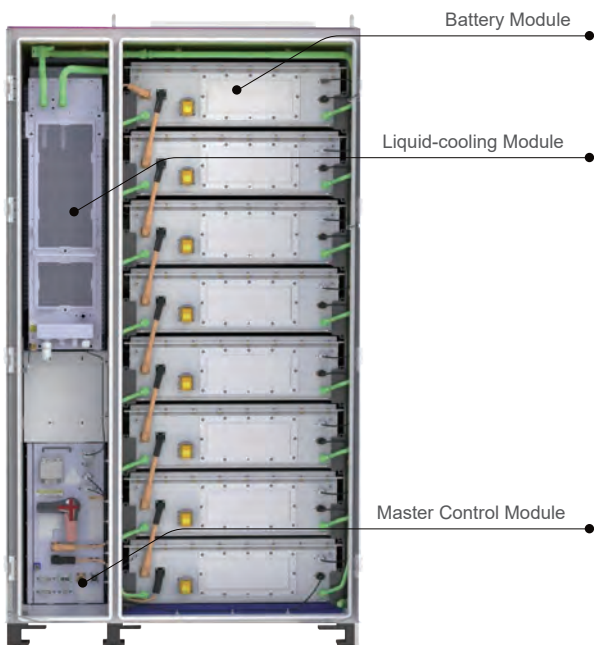
**Efficient BMS Technology:** Features high-efficiency equalization technology and low power consumption BMS sampling chips, reducing module inconsistencies and eliminating series loss for optimal performance.

**Long Life Cycle & Thermal Management:** Offers over 8000 cycle times with a lifespan exceeding 15 years, supported by laser welding and a high-efficiency liquid cooling and heating system maintaining cell temperature consistency.

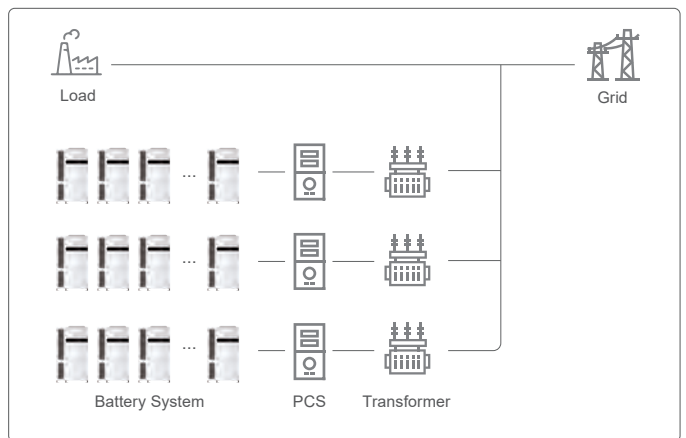
**Easy Installation & Maintenance:** Standardized design for simplified installation and user deployment, with a fully modular setup for convenient operation and maintenance, both locally and via cloud systems.



### System Demonstration



### System Layout



### Application Scenarios



Battery Energy Storage	186kWh	233kWh	280kWh	326kWh	372kWh
Single Cell Type	LFP 3.2V/280AH				
Module Combination System	1P52S				
Combination Capacity (kWh)	4 modules	5 modules	6 modules	7 modules	8 modules
Nominal Voltage (Vdc) Voltage	186.39	232.96	279.55	326.14	372.7
Range (Vdc)* Charge/Discharge	665.6	832	998.4	1164.8	1331.2
Current Discharge Depth	582.4~748.8	728~936	873.6~1123.2	1019.2~1310.4	1164.8~1497.6
Service Life	0.5C				
Thermal Management Mode	100% DoD				
Thermal runaway management	>8000 cycles@80%DoD				
	Liquid cooling technology				
	Aerosol Extinguishing or PFH				
	*For Cell 2.8~3.6V				


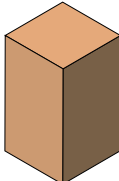
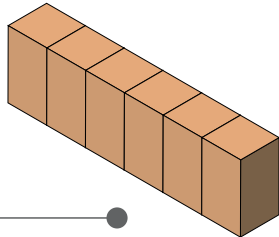
### System Characteristic

Communication Interface	CAN				
Warranty	10 year with optional 15 year				
Certifications(Cell)	UN38.3, IEC62619				
Certifications(System)	IEC62477-1, IEC 62619, UL1973, UL9540A, IEC61000-6-4				

### General Parameters

Dimensions (W*D*H) Total	1300*1300*2316mm / 51x51x91in				
Weight Operation Altitude	2000kg/4409lb	2330kg/5137lb	2660kg/5864lb	2990kg/6592lb	3500kg/7716lb
Noise Level @1m	2000m / 6561ft				
IP Rating	<75 dB(A)				
Operating Temperature	IP54				
Operating Humidity (RH)	-30°C ~ 55°C				
Storage Conditions	0 ~ 95%				
	-20°C ~ 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial				

### ■ Packaging & Shipping Details

		
Unit 1300*1300*2316mm 52x52x90in 3500kg/7720lbs	Packaged Unit 1450*1450*2750mm 57x 57x108in 3700kg/8150lbs	OTR Trucking 6 Systems 22,000kg/48,500lbs

# e-Pump M260

# e-Pump M520

Mobile Battery-Buffered  
EV Charging System



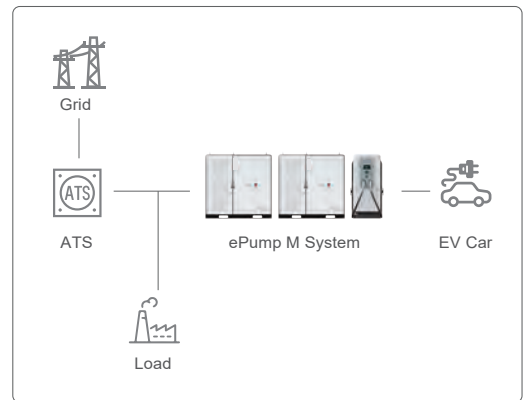
\*Vehicle Not Included



## System Demonstration



## System Layout



## Application Scenario





### Energy Storage System

Battery Capacity(kWh)	261
Battery Charging Rate	≤0.5C
Battery Discharge Rate	≤0.8C
Battery Efficiency	≥97%
Battery Module IP Rating	IP65
Battery Cooling System	Liquid-cooling
Thermal Control Management	Aerosol Extinguishing
Dimensions (W*D*H)	1800*1500*1750mm / 70.8*59*68.9in
Weight	2850kg / 6283lb

### AC Input

Rated AC Output Power(kW)	250
Max. AC Output Power(kVA)	266
Rated Output Voltage(Vac)	480
Output Voltage Range	-15%~+10%(settable)
Grid Frequency Range(Hz)	60Hz(settable)
Max. Output Current(A)	330.8
Power Factor	1 (leading)~1(lagging)
Adjustable Power Factor	> 0.99
THDi	< 3%
Overloading Capability	110%

### Standard

Battery	UL9540A
EV Charger	UL2202, FCC, EN 61851-1, EN 61851-23, EN 61000-2/-4
System Level	UL 1973, UL9540A, UL9540 FCC, IEC 62619, EN62109-1/2 EN61000-6-2/4, UN38.3

### Charging System

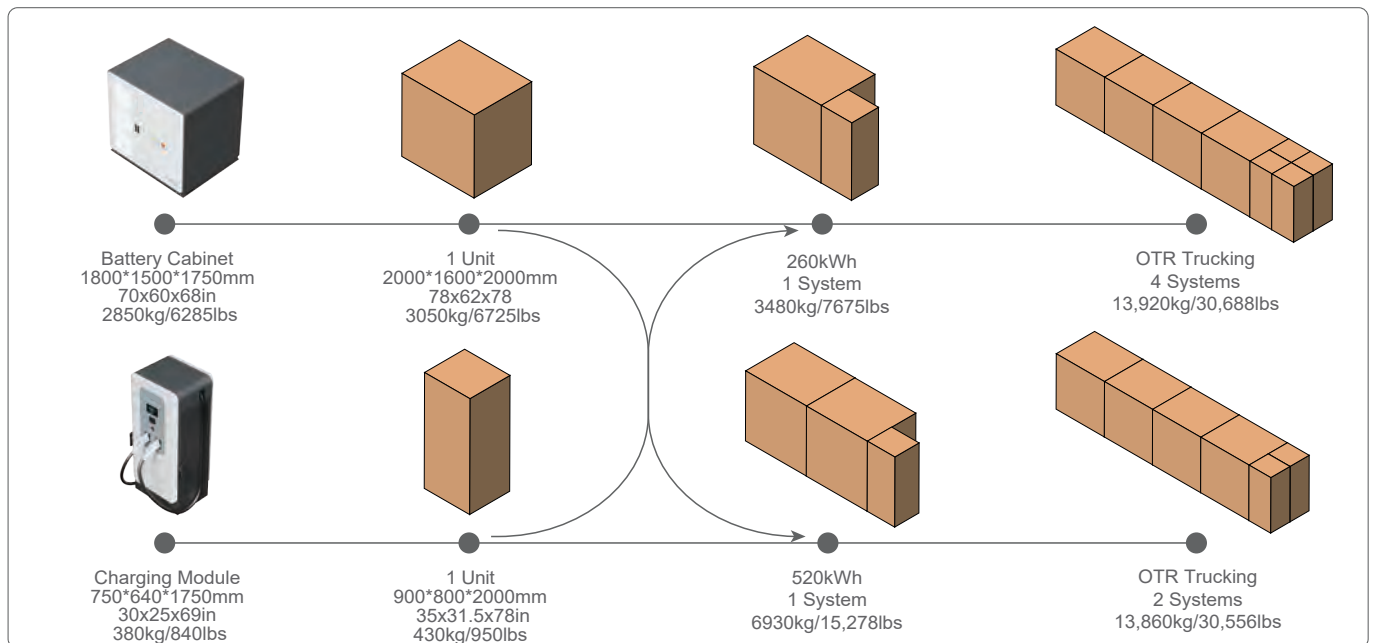
Charging Type	DC fast charging
DC Output Power(kW)	240
DC Output Voltage(Vdc)	200~1000*
Maximum Current(A)	250
Distribution Systems	TN-S.TN-C, TN-C-S, TT (required external RCD)
Connector Type	3P +N + PE
Protection	Overcurrent, overvoltage, undervoltage, integrated surge protection, ground fault including DC leakage protection, door opening protection
Power Factor (Full Load)	≥0.99
THDi	<5%
Efficiency	≥ 94% (peak)
Dimensions (W*D*H)	750*640*1750mm / 29.5*25*68.9in
Weight	380kg / 837.7lb

\*Constant power from 300~1000

### General Parameters

Ambient Temperature	-25°C-50°C(over 45°C derating)
Humidity	≤95%, No condensation
Storage Conditions	-20°C to 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial
Altitude	2000m / 6561ft
Noise Level @1m	<80 dB(A)
EMC Emission	Type A
Medium	Non explosive hazardous, No toxic & harmful gases Without strong vibration and shock, no strong electromagnetic interference
Interference	
System IP Rating	IP54

### Packaging & Shipping Details



# ePump S240

# ePump S480

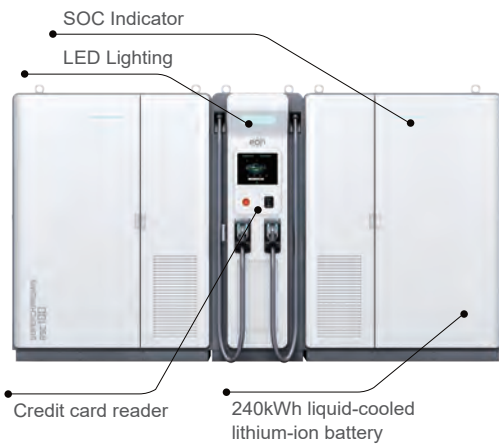
## Stationary Battery-Buffered Ev Charging Systems

Scalable to 480kWh

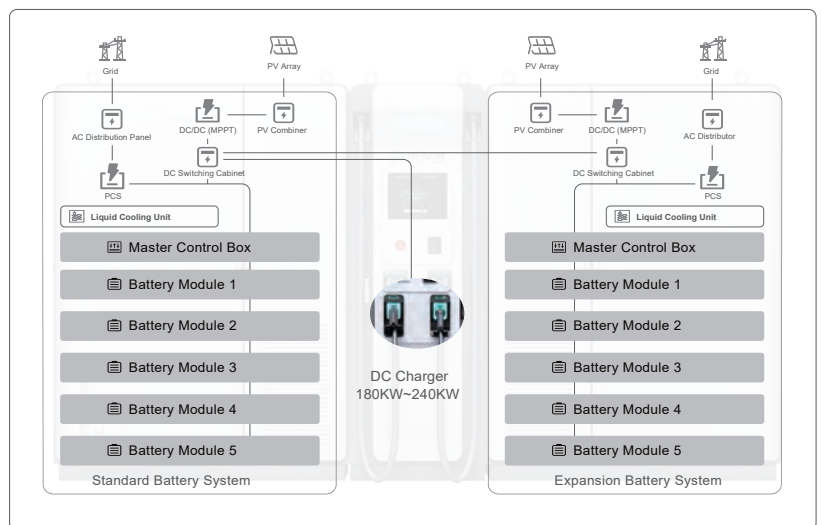
2\*240kWh liquid-cooled lithium-ion batteries



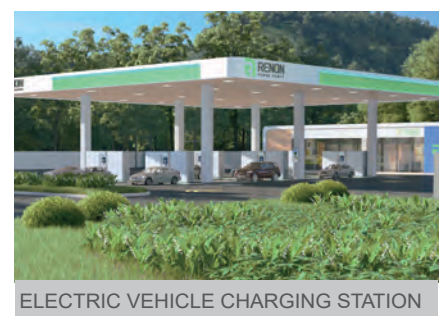
### System Overview



### System Layout



### Application Scenario



Product Specification	S240	S480
Type	DC Charging Station With ESS	
Installation	Ground Mount	
Applicable Site	Outdoors or Underground Parking	
Material	Industrial Grade Alloy	
Color	White Weather-Resistant Coating	
Dimensions (W*D*H)	2557*700*2350mm / 100x27.5x92.5in	4314*700*2350mm / 201.4x27.5x92.5in
Weight	3850kg / 8487.8lb	7350kg / 16,204lb
<b>Energy Storage System</b>		
Battery Capacity(kWh)	240	480
Battery Charging Rate	≤0.5C	
Battery Discharge Rate	≤0.8C	
Battery Efficiency	≥97%	
Battery Module IP Rating	IP65	
Battery Cooling System	Liquid-Cooling	
Thermal Control Management	Aerosol Extinguishing	
<b>AC Output</b>		
Rated AC Output Power(kW)	125	250
Max. AC Output Power(kVA)	137.5	275
Rated Output Voltage(Vac)	480	480
Output Voltage Range(Vac)	-15%~+10%(settable)	
Rated Grid Frequency(Hz)	60Hz(settable)	
Max. Output Current(A)	165.4	330.8
Adjustable Power Factor	>0.99	
THDi	<3%	
<b>PV Input</b>		
DC Input Voltage(Vdc)	300~825(Start up Voltage:375)	
Max Input current(Adc)	100	200
Rated Power(kW)	60	120
Number of MPPT	2	4
Cooling System	Air-cooled	
<b>Standard</b>		
Battery	UL9540A	
EV Charger	UL2202, FCC, EN 61851-1, EN 61851-23, EN 61000-2/-4	
System Level	UL 1973, UL9540A, UL9540, FCC, IEC 62619, EN62109-1/2, EN61000-6-2/4, UN38.3	
<b>Safety</b>		
Input Protection	Under voltage protection,over voltage protection,over current protection, over temperature protection,leakage protection, lightning protection, short circuit protection	
Output Protection	Short circuit protection,over-temperature protection,communication fault protection,leakage protection,over-current protection	
Emergency Protection	Set emergency stop button,leakage protection function,high-precision output insulation monitoring function	
Environmental Protection	IP54 protection level, anti-salt damage	

## Charging System

Charging Voltage(Vdc)	150~1000(Constant power from 300-1000)
Charging Efficiency	95% (peak)
Connctors	2
Power Distribution	2 connectors intelligent distribution
Charging Power	180kW/240kW
Cable	400A, 5m, CCS
Cooling System	Air-cooling
User Interface	7" LCD high-contrast touchscreen, optional 15.6" or 32" LCD display
User Authentication	RFID, QR code
RFID Reader	ISO/IEC 14443 A Mifare RFID reader
Connectivity	4G/3G/Ethernet (RJ45)
Communication	Proprietary and OCPP 1.6J
Emergency Button	Yes

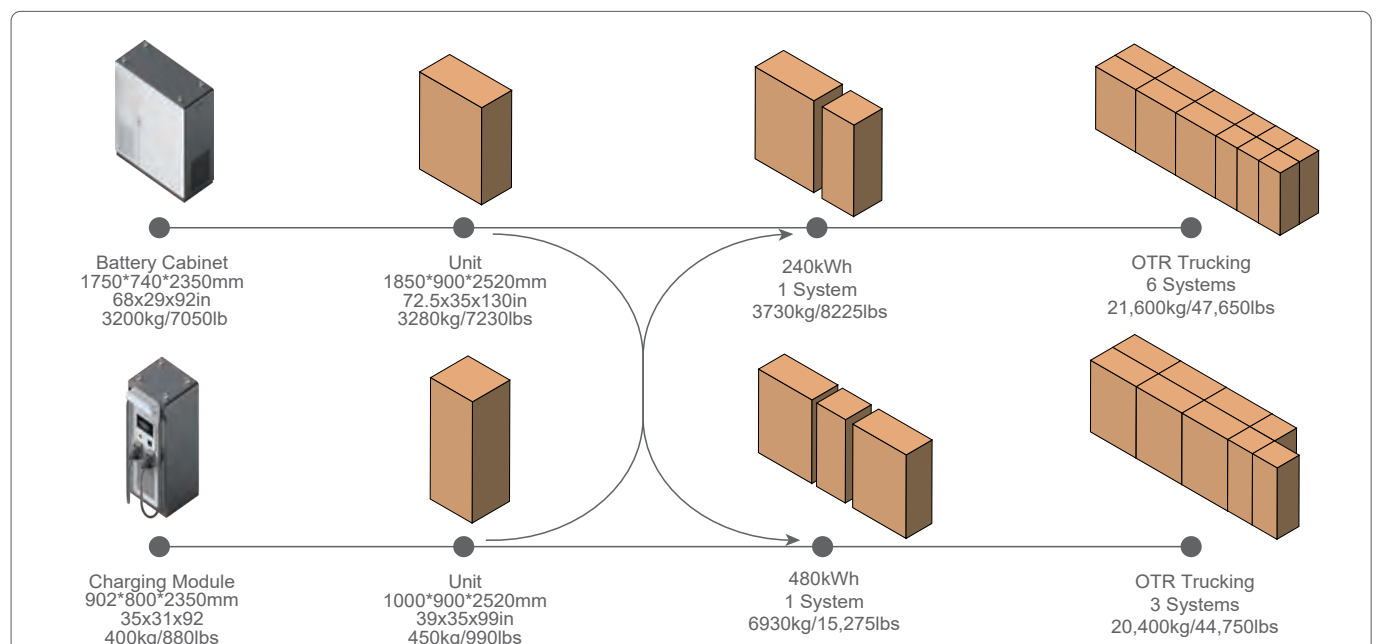
## Meter

AC Side	AC meter
DC Side	Dual access DC meter

## General Parameters

Ambient Temperature	-25°C ~ 50°C(over 45°C derating)
Humidity	≤95%, No condensation
Storage Conditions	-20°C ~ 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial
Altitude	2000m / 6561ft
Noise Level @1m	<80 dB(A)
EMC Emission	Type A
Medium	Non-explosive non-hazardous, non-toxic gases
Interference	Without strong vibration and shock,no strong electromagnetic interference
System IP Rating	IP54

## ■ Packaging & Shipping Details





# POWERBLOCK<sup>®</sup>

## Features and Benefits

- 15,000 Cycle Rated Advanced LFP Cell
- Densest Footprint in the Industry (532kWh/ 35 Sq,FT)
- Units Delivered with All Modules Preloaded, Fully Racked and Connected, Minimizing On-Site Labor Cost
- 15,000 Pound Forklift Drop (Crane not required)
- Dual Redundancy HVAC and Heating
- Off-Gas Detection with Dual Off-Gas Exhaust System
- Temperature Activated Internal Fire Suppression
- External Warning Indicator Light and E-Stop
- 1331VDC Nominal for Maximum Efficiency to PCS
- Connect Up to Four Units in Parallel Directly to 1500VDC PCS (125kVa to 1500kVa Inverter)
- Connect Up to 16 Units (8.5MWh) in Parallel With Combiner Box to Multiple 1500VDC/1500kVa PCS Units
- Meets All Certification Requirements for Permitting.



## ■ Technical Specifications

<b>Battery Model Number</b>	C-R1500400ESA3
<b>Operating Voltage Range</b>	1164 to 1496 VDC
<b>Nominal Voltage</b>	1331 VDC
<b>Total Capacity / Energy</b>	400AH / 532.4 kWh
<b>Rated Usable Capacity / Energy</b>	380Ah / 505Ah (@95% DOD)
<b>Peak Input / Output Power</b>	265.2 kW (.5C)
<b>Optimal Operating Temperature Total</b>	60°F to 85°F (16°C to 30°C)
<b>Operational Temperature Range</b>	-22°F to 130°F (-30°C to 54°C)
<b>Warranty Period</b>	Standard 10 Year / 20 Year Optional
<b>Communication - HV Box to Module</b>	CANBUS
<b>Communication - HV Box to PCS</b>	MODBUS / RS485
<b>Dimensions (in)</b>	W86" x D56" H96"
<b>Dimensions (cm)</b>	218cm x D142cm x H244cm
<b>Weight</b>	13,320 Lbs / 6041 kg
<b>Ingress Protection</b>	IP20 Module / IP54 Cabinet
<b>Parallel Scalability</b>	16 Units (8.5MWh) With Combiner Box
<b>Certifications</b>	IEC62619 / CE / EMC / FCC / UL1973 UL9540A: Cell, Module and System