ECube 60AP

60kWh Air-Cooling Battery

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.

Battery-only
(Optional)

Product Function

Efficient Energy Storage

Stores 60kWh of electricity for future use, ensuring a stable energy reserve. It supports multiple energy inputs, including solar power, diesel generators, and the grid, providing flexible power integration.

Reliable Backup Power

Acts as an emergency power source during grid failures, ensuring critical equipment remains operational. With uninterrupted power supply capabilities, it is ideal for data centers, hospitals, and other essential facilities.

Smart Load Balancing

Optimizes energy usage by charging during off-peak hours and discharging during peak demand, helping balance the grid load. By leveraging time-of-use pricing, it effectively reduces electricity costs.

Independent Off-Grid Power

Provides a reliable power supply in areas without grid access, making it suitable for homes, businesses, and communities. As a core component of microgrids, it ensures stable and efficient energy distribution.

Intelligent Energy Management

Utilizes an advanced Energy Management System (EMS) to optimize charging and discharging strategies. Remote monitoring and management capabilities enhance operational efficiency and system performance.

Scalable & Flexible Design

Features a modular design that supports parallel system integration for expanded capacity. Its flexible configuration allows adjustments in power output and storage capacity to meet diverse energy needs.

Product Features

High Energy Density

Built with high-energy-density batteries, this system features a compact design, making it ideal for space-constrained environments. Its lightweight structure enhances ease of installation and transportation.

High-Efficiency Power Conversion

With superior charge and discharge efficiency, it minimizes energy loss while delivering millisecond-level response times to meet urgent power demands.

Extended Lifespan

Designed for longevity, it supports thousands of charge-discharge cycles with minimal degradation, ensuring stable long-term performance.

Enhanced Safety & Reliability

Equipped with multiple protection mechanisms, including safeguards against overcharging, over-discharging, overheating, and short circuits. Fire-resistant materials and flame-retardant design further enhance operational safety.

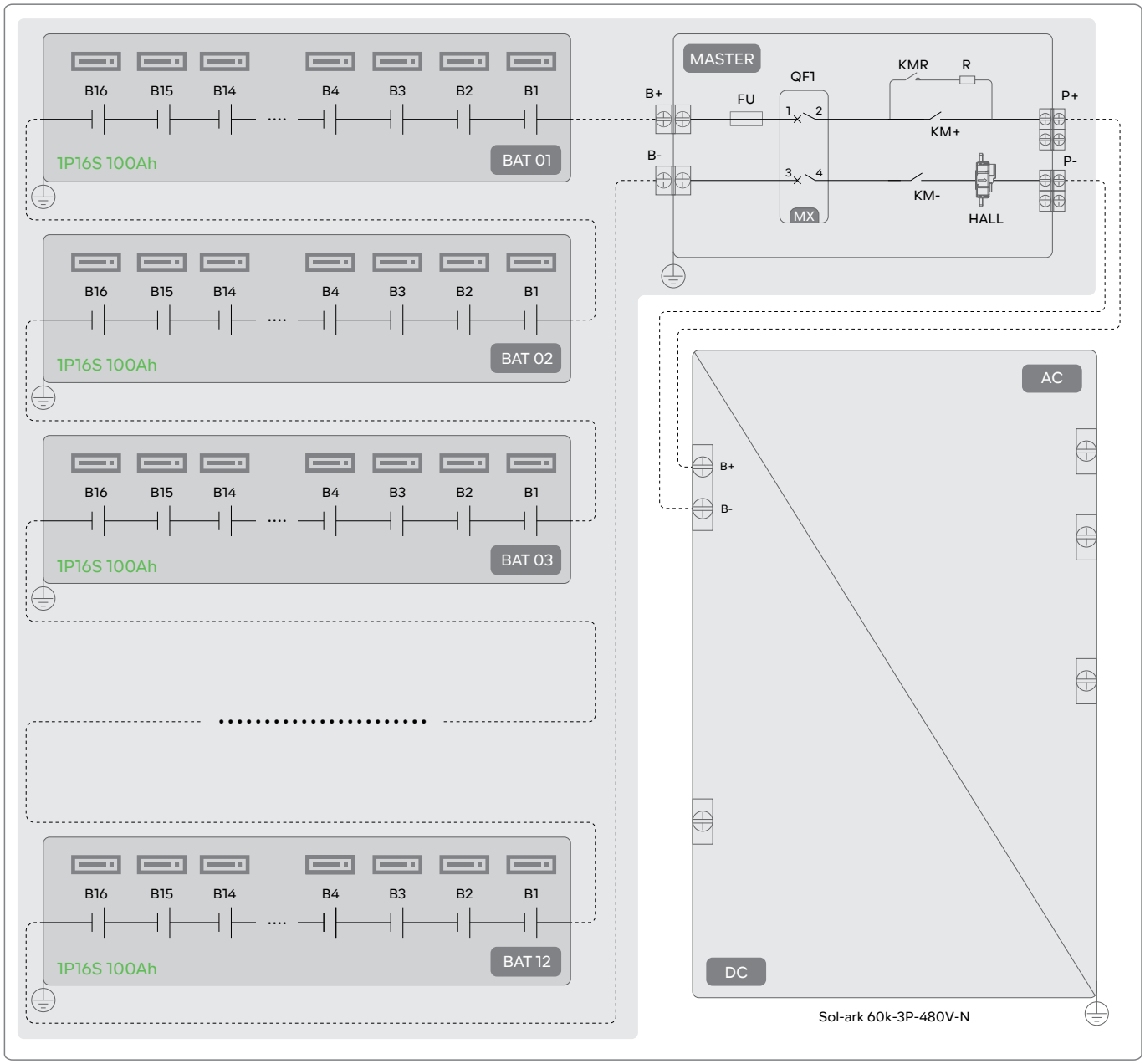
Application Scenario

MANUFACTORY

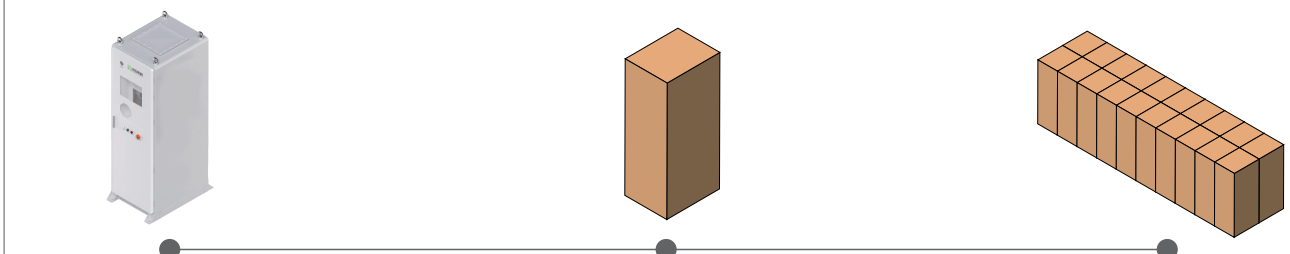
OFFICE SPACE

SUPERMARKET & KIOSK

Product Topology(For 480V System)



Packaging & Shipping Details

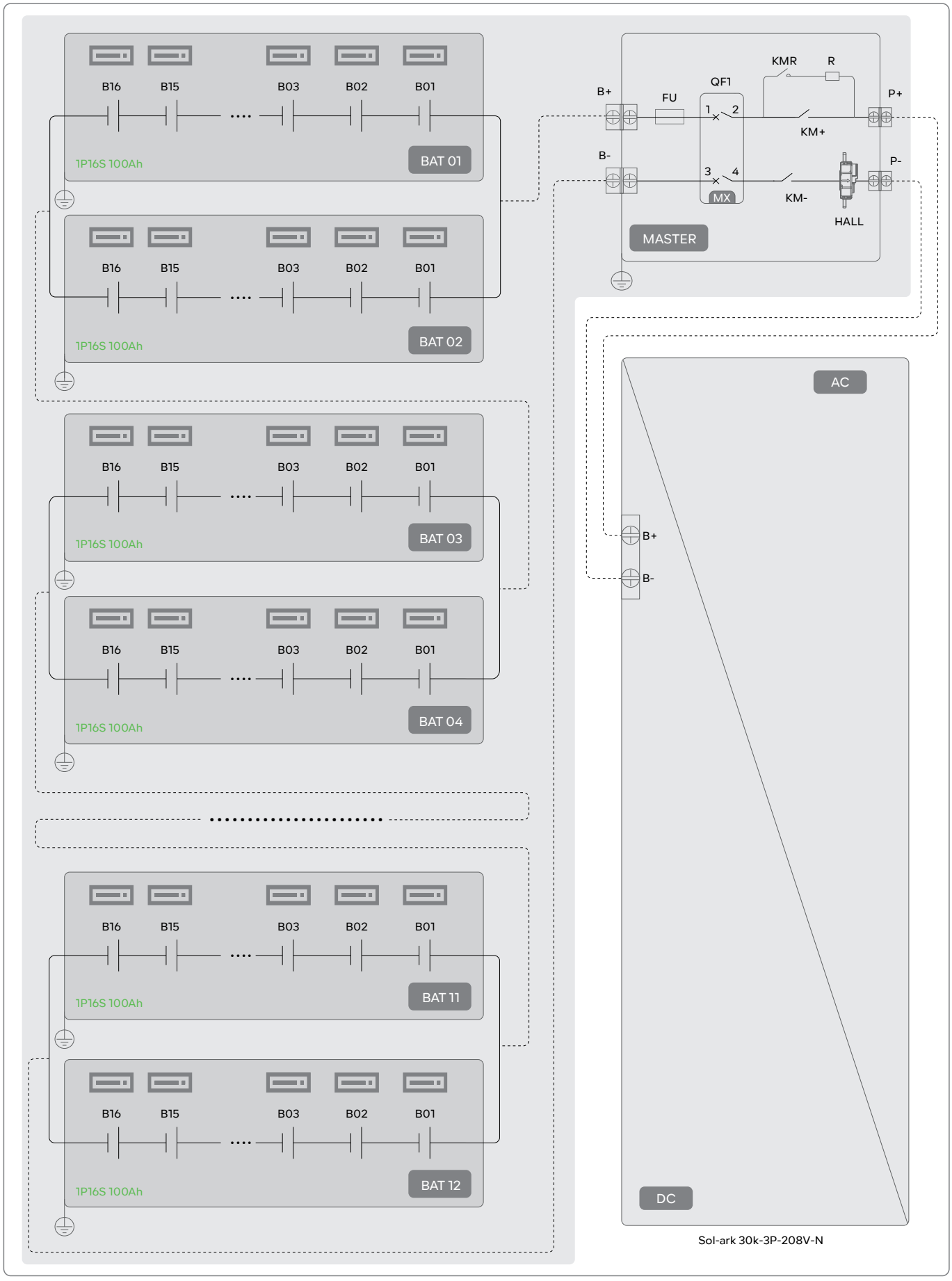


Product
29.5*37.4*89.7 in
~2314.8 lb

1 Set
33.46*41.34*92.52 in
~2425 lb

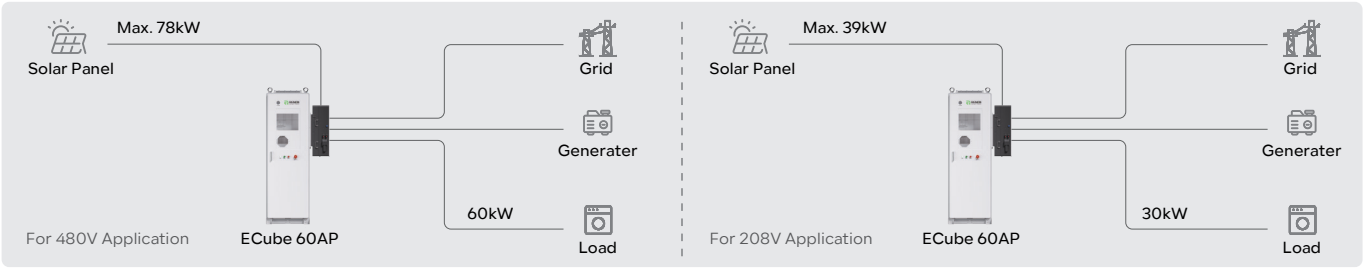
40C
20 Set
~48501 lb

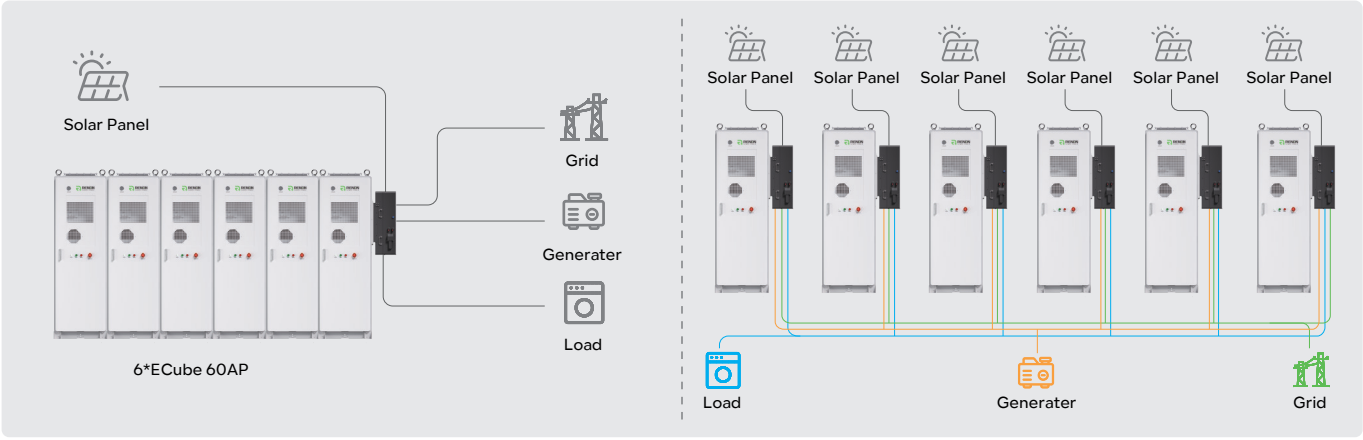
Product Topology(For 208V Application)



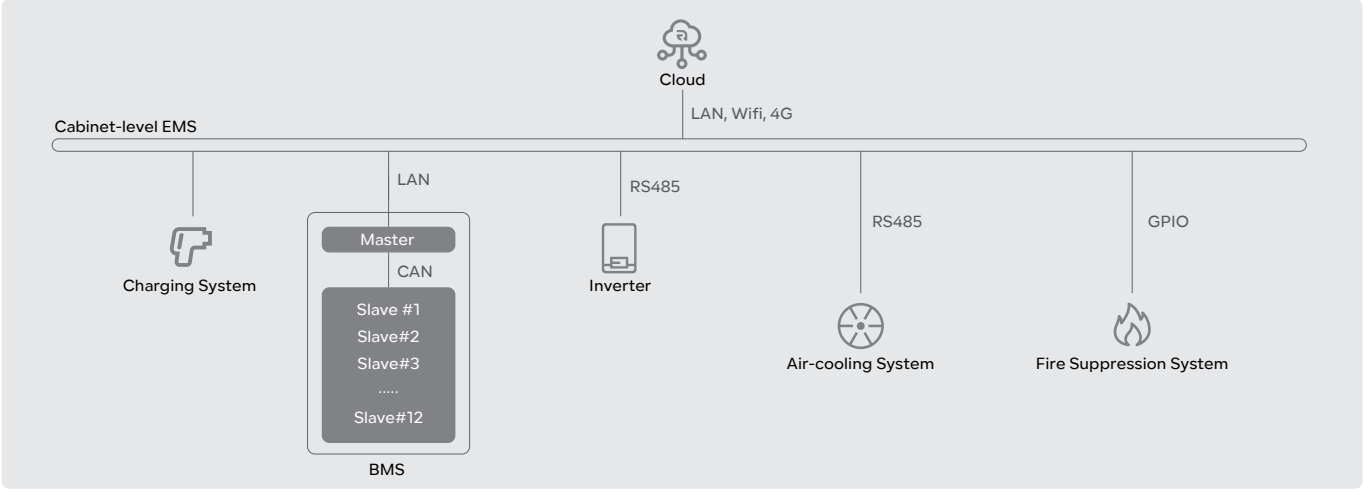
Sol-ark 30k-3P-208V-N

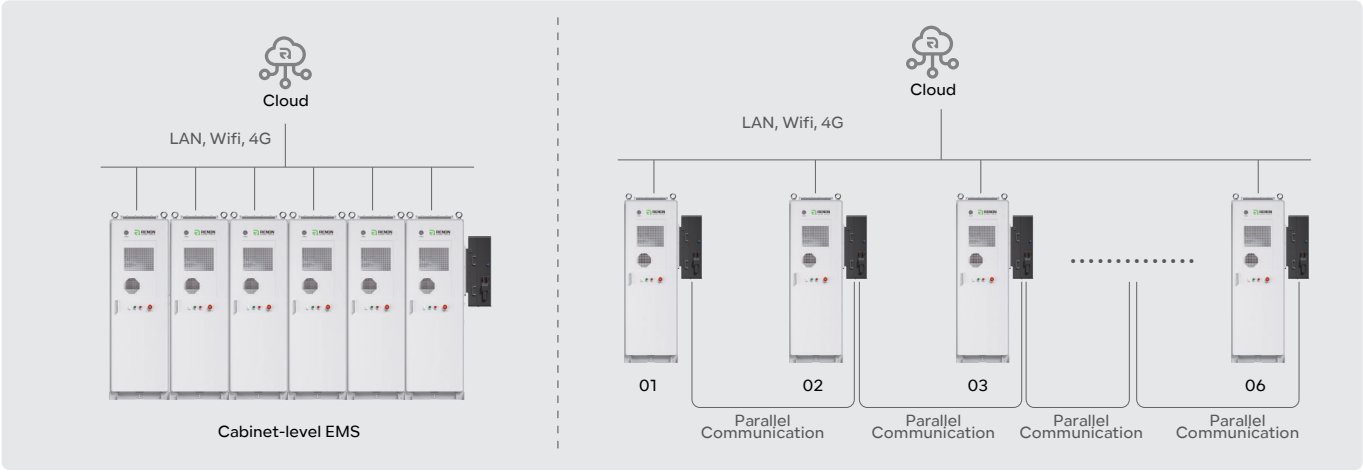
Single / Max. Parallel System Layout





Energy Management System(EMS) Structure





Product Parameter(For 480V Application)

Battery Energy Storage	
Cell Chemistry	$LiFePO_4$
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

PV Input	
Max. Allowed PV Power (STC)(kW)	78
MPPT Voltage Range (V)	150~850
Start up Voltage (V)	180
Max. Input Voltage (V)	1000
Max. Operating Input Current per MPPT (A)	36
Max. Short Circuit Current per MPPT (A)	55
No. of MPP Trackers	4
No. of PV Strings per MPPT	2
Max. AC Coupled Input (kW)	60

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/Ouput Voltage (Vac)	208~240
Input Frequency (Hz)	50/60
Cable Length	16 feet, Optional: 25 feet
Distribution Systems	Single phase, split-phase
Connector Type	L1 + L2 + PE
Certifications	UL2594, UL2231-1, UL2231-2, UL1998 UL991FCC Part 15 ClasS B, ENERGY STAR

AC Output (EPS)	
Nominal AC Voltage (3Φ)(V)	277/480
Grid Frequency (Hz)	50/60
Real Power, Max continuous (3Φ)(kW)	60
Max. Output Current (A)	72.3
Peak Apparent Power (10s, off-grid, 3Φ)(kVA)	90
Max. Grid Passthrough Current (10min)(A)	200
Continuous Grid Passthrough Current (A)	180
Power Factor Output Range	±0.8 adjustable
Backup Transfer Time	5ms (adjustable)
CEC Efficiency	96.5%
Design (DC to AC)	Transformerless DC

General Parameters	
Product Model	R-EC060060A1-US
System Scalability	Max. 6 System in Parallel
Dimension - W*D*H (in)	~29.5*37.4*91.3
Weight Approximate (lb)	~2314
Operation Temperature (°C/°F)	-30~55/-22~131
Communication Interface	CAN, RS485, WiFi, LTE
Humidity(RH)	5%~85%, non-condensation
Altitude	≤4000m/13122ft(2000m/6561ft derating)
IP Rating	IP55
Storage Temperature (°C/°F)	-20~35/-4~95
Recommend Depth of Discharge	90%
Cycle Life	>8000 cycles
Warranty	10 years
Certification (Battery)	ANSI/CAN/UL 1973:2022 ANSI/CAN/UL 9540:2020 UL 9540A, FCC Part 15 Subpart B:2023
Certification (Inverter)	UL 1741-2021 (UL1741SB) CSA C22.2 No 107.1-16, IEEE 1547-2018 & 1547a-2020 & 1547.1-2020 (SRD V2.0) UL 1741 CRD-PCS, UL1699B, CEC, SGIP 4

Product Parameter(For 208V Application)

Battery Energy Storage	
Cell Chemistry	$LiFePO_4$
Module Energy (kWh)	5.12
Module Nominal Voltage (V)	51.2
Module Capacity (Ah)	100
Battery Module Combination	6S2P
System Nominal Voltage (V)	307.2
System Operating Voltage (V)	281.3~340.8
System Energy (kWh)	61.44
Charge/Discharge Current (A)	95

PV Input	
Max. Allowed PV Power (STC)(kW)	39
MPPT Voltage Range (V)	150~500
Startup Voltage (V)	180
Max. Input Voltage (V)	550
Max. Operating Input Current per MPPT (A)	36
Max. Short Circuit Current per MPPT (A)	55
No. of MPP Trackers	4
No. of PV Strings per MPPT	2
Max. AC Coupled Input (kW)	30

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/ouput voltage (VAC)	208~240
Input Frequency (Hz)	50/60
Cable Length	16 feet, Optional: 25 feet
Distribution Systems	Single phase, split-phase
Connector Type	L1 + L2 + PE
Certifications	UL2594, UL2231-1, UL2231-2, UL1998 UL991FCC Part 15 ClasS B, ENERGY STAR

AC Output (EPS)	
Nominal AC Voltage (3Φ)(V)	120/208
Grid Frequency (Hz)	50 / 60
Real Power, Max continuous (3Φ)(kW)	30
Max. Output Current (A)	83.4
Peak Apparent Power (10s, off-grid, 3Φ)(kVA)	45
Max. Grid Passthrough Current (10min)(A)	200
Continuous Grid Passthrough Current (A)	180
Power Factor Output Range	±0.8 adjustable
Backup Transfer Time	5ms (adjustable)
CEC Efficiency	96.5%
Design (DC to AC)	Transformerless DC

General Parameters	
Product Model	R-EC060030A1-US
System Scalability	Up to 6 in parallel
Dimension - W*D*H (in)	~29.5*37.4*91.3
Weight Approximate (lb)	~2314
Operation Temperature (°C/°F)	-30~55/-22~131
Communication Interface	CAN, RS485, WiFi, LTE
Humidity	5%~85%, non-condensation
Altitude	≤4000m/13122ft(2000m/6561ft derating)
IP Rating	IP55
Storage Temperature	-20~35/-4~95
Recommend Depth of Discharge	90%
Cycle Life	>8000 cycles
Warranty	10 years
Certification(Battery)	ANSI/CAN/UL 1973:2022 ANSI/CAN/UL 9540:2020 UL 9540A, FCC Part 15 Subpart B:2023
Certification(Inverter)	UL 1741-2021 (UL1741SB) CSA C22.2 No 107.1-16, IEEE 1547-2018 & 1547a-2020 & 1547.1-2020 (SRD V2.0) UL 1741 CRD-PCS, UL1699B, CEC, SGIP 4