

E90 Series

Commercial Behind-the-Meter ESS



The EPC Energy line of C&I storage and microgrid products offers commercial and industrial scale markets a fully integrated, turnkey battery energy storage solution. Leveraging lithium iron phosphate (LFP) battery technology utilized in hundreds of thousands of electric vehicles, EPC Energy's solution offers an unparalleled degree of performance, safety and reliability. An integrated inverter and Energy Management System (EMS) provide for plug-and-play functionality by removing the implementation burden and reducing installation costs. Our systems are actively cooled and can operate in a wide range of outdoor temperature conditions. All EPC Energy systems come equipped with web-based remote monitoring for enhanced accessibility and versatile management. At EPC Energy, our vision is to reshape the energy industry and empower customers to reach their energy aspirations efficiently and sustainably.

Product Features



Flexible

- All-in-one design and highly integrated
- Modular design with different optional parts
- Standardized AC, DC modules with various combination for optimized ROI

Easy Install

- NEMA 3R / IP54 rated cabinets
- Parallel installation side-by-side or back-to-back
- Forklift or hoisting

Compatible

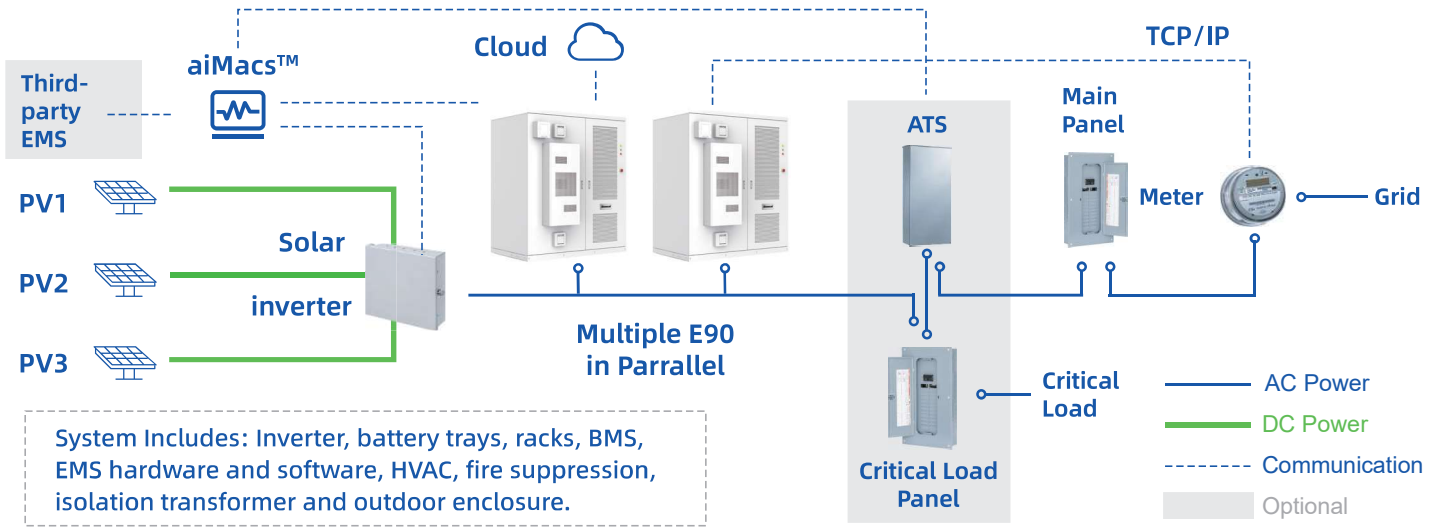
- Compatible with different battery brands.
- Broad battery voltage range: 350~750 Vdc
- Operational in Grid-tied and Off-grid modes
- Standard 480Vac Output for industrial

Compliance

- UL Certified system
- Global grid certified & listed PCS
- Compliance with global safety standards

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Product Specifications

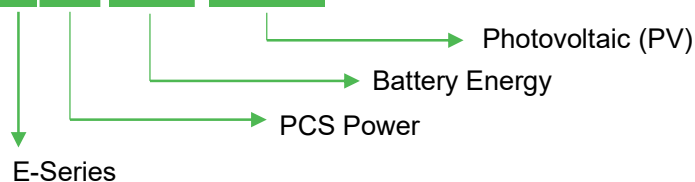
The BESS specifications are shown as below.

No.	Item	E90260		
1	Total energy	266kWh	**10.24kWh battery modules * 26	
2	Rated Voltage/Capacity	665.6VDC	Battery	
3	Operating Voltage	603.2VDC -738.4VDC	Battery	
4	Stated Energy	260kWh		
5	SOC Operating Range	5%-100%	Recommended	
6	PCS AC Module	AC Power	30kW * n @350V~750Vdc (full load)	n=1,2,3
		AC Voltage	480V 3-phase	Optional: 208V 3-phase
		AC Current	43.5A * n	n=1,2,3
		AC frequency	60Hz(59.5Hz~60.5Hz)	
7	PV DC Module	PV Input power	45kW * n	430-750Vdc @ full power, n=1,2,3
		PV Input Voltage Range	200V-750Vdc	
		PV max input current	105A * n	n=1,2,3
8	Config. of battery	Cell	3.2VDC/100Ah	
		Module	51.2VDC/200Ah	Battery tray
		String	665.6VDC/200Ah	13 battery trays+ 1 main control tray
9	Ambient Temperature	25 °C ±5 °C		
10	Operating Temperature	Charging:0-55 °C Discharging: -10 °C -55 °C	High temperature (>45 °C) operation would reduce BESS and cell life.	
11	Storage Temperature Range	-20 °C -45 °C	Recommended 25 °C	
12	Thermal Management	Automatic air cooling		
13	SOC Accuracy	<8%		
14	Altitude	≤3000m	>3000m, need to reduce power use	
15	Service Life	≥8000 Cycles	@25 °C, 0.5C/0.5C, 100%DOD, 70%EOL	
16	Communication	Sunspec Modbus TCP/IP, CAN		
17	System Round Trip	90%		
18	Certification	UL1973, UL9540, UL9540A, NFPA855, NFPA68, UL1741SA, Rule21. CEC2022 Sec. 1207		

**Battery modules can be customized. Contact sales representative for more information.

Models

E XX XXX-DXXX



PCS

Item	PCS AC Module				
	AC Power		AC Voltage	AC Current	AC frequency
E30XXX	30 kW	@350V~750Vdc (full load)	480V 3phase	36.1 A	60Hz (59.5Hz~60.5Hz)
E60XXX	60 kW			72.2 A	
E90XXX	90 kW			108.3 A	

Photovoltaic (PV)

Item	PV DC Module		
	PV Input power	PV Input Voltage Range	PV max input current
EXXXXX-D45	45 kW	200V-750Vdc 430-750Vdc @ full power, n=1,2,3	105 A
EXXXXX-D90	90 kW		210 A
EXXXXX-D135	135 kW		315 A

Battery

Item	Total energy	Rated Voltage/Capacity	Operating Voltage	Stated Energy	Config. of battery		
					Cell	Module	String
EXX80	81.92kWh	409.6VDC	371.2~454.4VDC	81.92kWh	3.2VDC /100Ah	51.2VDC /200Ah	1 * 81.92kWh
EXX130	133.12kWh	665.6VDC	603.2~738.4VDC	133.12kWh			1 * 133.12kWh
EXX160	163.84kWh	409.6VDC	371.2~454.4VDC	163.84kWh			2 * 81.92kWh
EXX180	184.32kWh	460.8VDC	417.6~511.2VDC	184.32kWh			2 * 92.16kWh
EXX220	225.28kWh	563.2VDC	510.4~624.8VDC	225.28kWh			2 * 112.64kWh
EXX260	266.24kWh	665.6VDC	603.2~738.4VDC	266.24kWh			2 * 133.12kWh

Note: Other non-standard models might be available. Please contact EPC Energy Sales for more information.

General

Item	Parameters	Note
SOC Operating Range	5% ~ 100%	Recommended
Cell Ambient Temperature	25°C ± 5°C	
Operating Temperature	Charging: 0 ~ 55°C Discharging: -10 ~ 55°C	
Storage Temperature Range	-20°C ~ 45°C	Recommended 25°C
Thermal Management	Automatic air Cooling	
SOC Accuracy	<8%	
Altitude	≤3000m	>3000m, need to reduce power use
Service Life	≥8000 Cycles	@25°C, 0.5C/0.5C, 100%DOD, 70%EOL
Communication	Sunspec Modbus TCP/IP, CAN	
System Round Trip Efficiency	90%	
Certifications	UL1973, UL9540, UL9540A, UL1741SB. Rule21, NFPA855, NFPA68, CEC2022 Sec.1207	

Standard Models

	E3080	E30130	E30260	E60130	E60160
Ampace Model	SES-031A-000D-091B (-L)	SES-031A-000D-141B (-L)	SES-031A-000D-271B (-L)	SES-061A-000D-141B	SES-061A-000D-171B
Total Energy (kWh)	81	133	266	133	163
Battery Voltage (V)	409.6	665.6	665.6	665.6	409.6
AC Voltage (Vac)	208 or 480	208 or 480	208 or 480	480	480
AC Power Rating (kVa)	30	30	30	60	60
Battery Modules per String	8	13	13	13	8
Number of Strings	1	1	2	1	2
PV Power Rating (kW)	45*0				
Weight (kg)	2760	3160	4200	3160	3400

	E60180	E60220	E60260	E90180	E90220	E90260
Ampace Model	SES-061A-000D-191B	SES-061A-000D-231B	SES-061A-000D-271B	SES-091A-000D-191B	SES-091A-000D-231B	SES-091A-000D-271B
Total Energy (kWh)	184	225	266	184	225	266
Battery Voltage (V)	460.8	563.2	665.6	460.8	563.2	665.6
AC Voltage (Vac)	480					
AC Power Rating (kVa)	60	60	60	90	90	90
Battery Modules per String	9	11	13	9	11	13
Number of Strings	2	2	2	2	2	2
PV Power Rating (kW)	45*0					
Weight (kg)	3560	3880	4200	3560	3880	4200