

SES-90K-NA/EX Outdoor Cabinet BESS



Features



Flexible

- All-in-one design and highly integrated
- Modular design with different optional parts.



Easy-to-Install

- NEMA 3R / IP54 rated
- Parallel installation back-to-back.



Compatible

- Compatible with different battery brands and types—LFP/Sodium-ion
- Grid-tied and Off-grid
- 208/400/480Vac 3P4W
- Optional PV input
- Optional backup module



Compliance

- Global grid certified & listed
Compliance with global safety standards.

Specification

SES-90K-NA/EX

DC Side

Rated DC Power	30kW*3
Maximum DC Power	33kW*3
Charging and Discharging Voltage Range	200V-750V(350V-750V @full load)
Maximum Charging and Discharging Current	90A*3
Maximum Copper Busbar Ampacity (Battery Side)	180A@50°C

PV Side

Maximum Input Voltage	830V
Start-up Voltage	250V
MPPT Voltage Range	200~750V (430~750V @full load)
PV Input Power	45kW *3 units 3 branches *15kW (per 45kW)

AC Side

Rated Output Power	30kVA*3
Maximum Apparent Power	33kVA*3
Grid-tied AC Voltage	400V(-15%~15%) 3P4W+PE /480V(-15%~15%)3P4W+PE
Off-grid AC Voltage	400V(-20%~20%) 3P4W+PE /480V(-5%~5%) 3P4W+PE
AC Frequency	50Hz/60Hz(-2.5Hz~2.5Hz)
THDi	<3%

General Specification

Dimension(W*D*H)	2100*1300*2450mm 2100*1540*2465mm(including Air-conditioner depth)
Cooling	Forced air cooling for power electronics 5kW Air-conditioner for battery system (pre-installed)
Enclosure	NEMA 3R/IP54
Weight	1800kg(without battery)
Operation Altitude	3000m(>2000m derating)
Operation Temperature	-20°C~55°C(De-rating over 45°C)
Operation Humidity	0-95%(No condensing)
Noise	75 dB

Specification

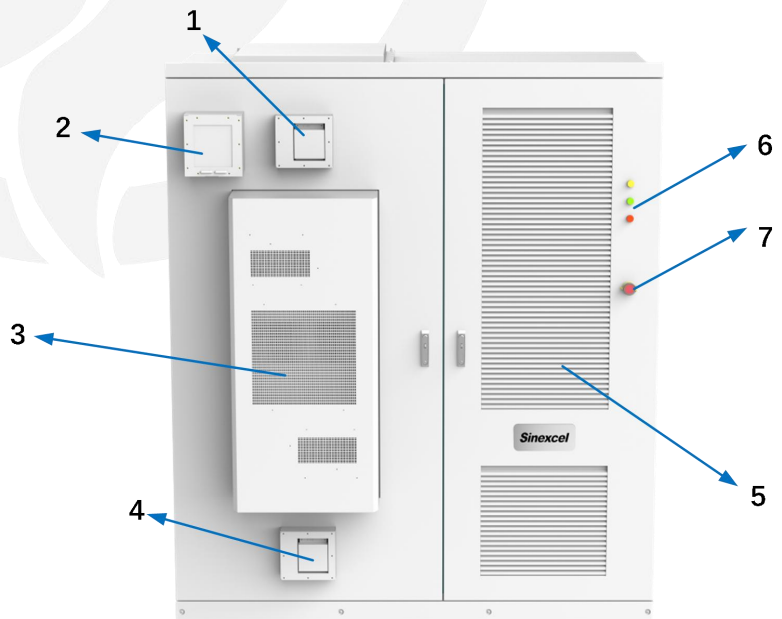
Power Converter Scalability		
Model	PWS2-30P-EX/NA	
Max PCS Units	3	
AC Power Range	30kW (400 or 480Vac & 350-750Vdc)*3units 15~30kW (400 or 480Vac & 150-350Vdc)*3 units	
PV Optimizer Scalability		
Model	PDS1-45M	
Max DCDC Units	3	
PV Input Power Range	45kW*3	
Battery Scalability		
Battery String Voltage Range	200-750Vdc(Full Power 350V-750V)	
Max. Battery Rack Width	<520mm /20.5 in	<1080mm /42.5 in
	One column	Two columns
Max. Battery Rack Depth	915mm / 36 in	
Max. Battery Rack Height	1980mm / 74 in	
Battery Capacity	266kWh	
Auto-switching Scalability		
Model	PWD-100M	
Power	100kW	
Switching Time	Active Switching: Seamless Passive Switching: 30ms	
Communication		
Communication Port	BMS: CAN/RS485	
	EMS: RS485/Ethernet	
Communication Protocol	Modbus TCP/RTU	

Specification

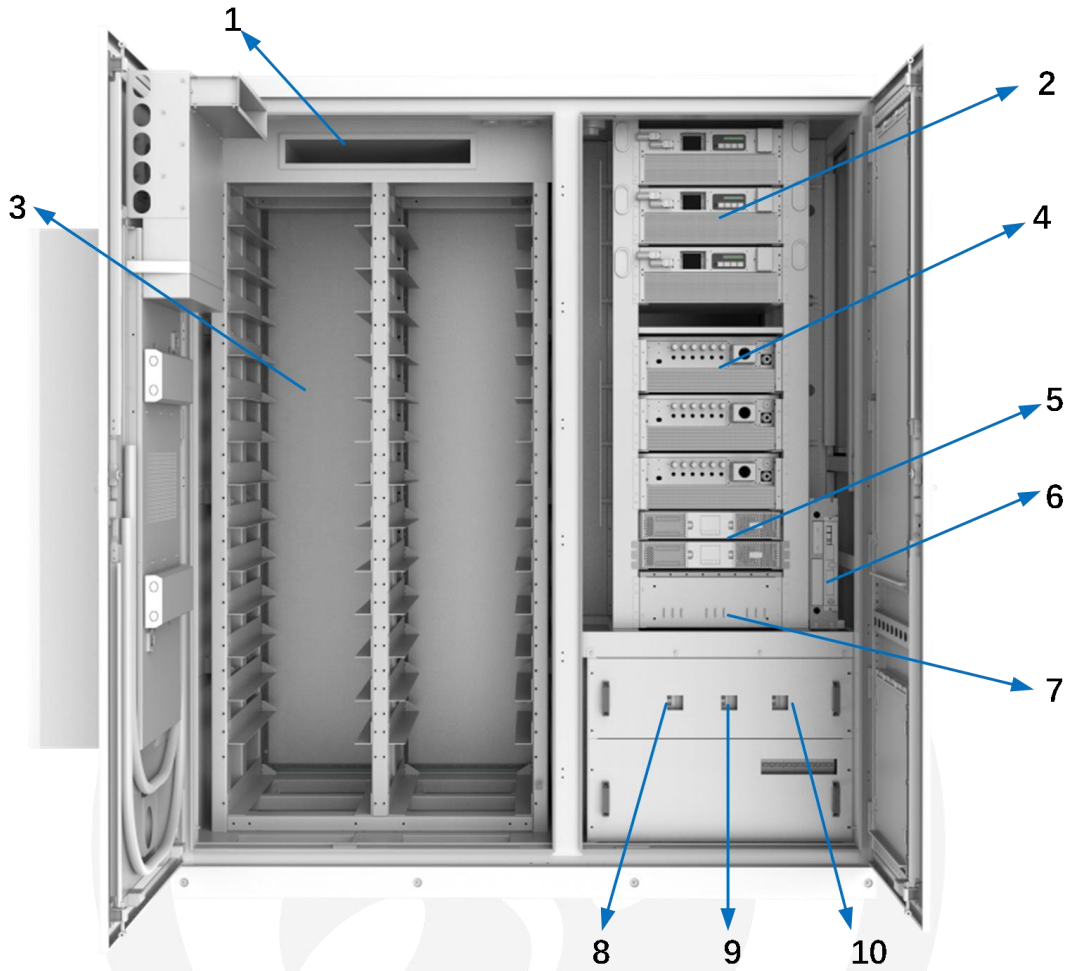
Optional Components	
Fire Fighting System	Standard: 1. Sensor tube (NOVEC 1230 or FM200) 2. Water Fire Fighting System 3. Heat/Smoke/Gas sensor Optional: 1. Active deflagration vent 2. Anti-blast plate
Built-in Transformer	480V/480Vac, 100kVA 3P4W, Delta to Wye Dyn 11
Built-in Gateway	For Peak-shaving, demand charge management or back-up power supply
Aux Power	220V single phase built-in, up to 5kW transformer 120V single phase built-in, up to 1.9kW transformer
Anti-corrosion Level	1.C3(Standard); 2. C4(with special coating and filter)
Compliance	UL9540, IEC62933(on-going)

Appearance

- 1 Active Deflagration Venting Air Outlet(with fan)
- 2 Horn and Strobes
- 3 HVAC
- 4 Active Deflagration Venting Air Inlet(without fan)
- 5 Air Inlet Louvers
- 6 Emergency Power Off
- 7 Indicator Lights



Appearance



- | | |
|--------------------------------------|------------------------------------|
| 1 Air Conditioning Air Inlet | 6 EMS with Switches |
| 2 PCS Module (PWS2-30P-EX/NA) | 7 ATS Module(PWD-100M) |
| 3 Battery Room | 8 Grid Side Circuit Breaker |
| 4 DCDC Module (PDS1-45M) | 9 Load Side Circuit Breaker |
| 5 UPS and Battery Backup | 10 PCS Side Circuit Breaker |