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Sigenergy focuses on developing cutting-edge home and business energy solutions, with products ranging from energy storage systems to solar inverters and EV chargers. Our world-class R&D team of hundreds of top industry experts shares the vision of making the world greener via continuous innovation. With global sales and services, we aim to become our customers' most trusted partner on their journey to a more sustainable future.

www.sigenergy.com

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Version:20260923

SIGENERGY

SigenCube

All-in-One C&I BESS

More Energy, Less Complexity

01 Simplified Deployment

Big Energy Doesn't Need Big Space

220.9kWh/m² Energy density, saving footprint over 30%.

Compacted Architecture

PCS, HV and distribution in one compact platform.

Built-in EMS, Built to Scale

Scale to 100 units without data logger, backed by automatic failover.

Max. 100
Units Parallel

0 Extra
Data Logger

Auto Failover
Any Cube Takes Over

Faster On-site Setup

From delivery to start-up, with fewer steps on site.

3~5 min
APP commissioning

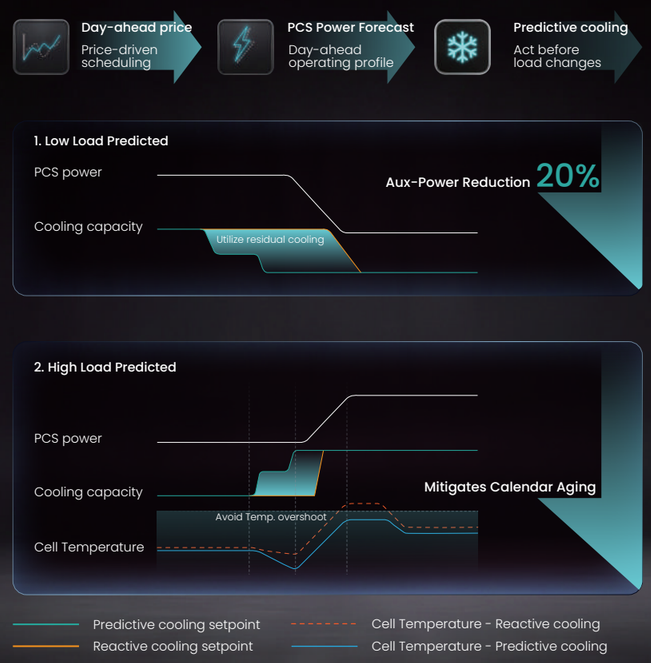
Fewer Steps
Basic setting | Synchronized upgrade | One-click diagnosis

Pre-commissioned
Ready to start

02 Peak Performance

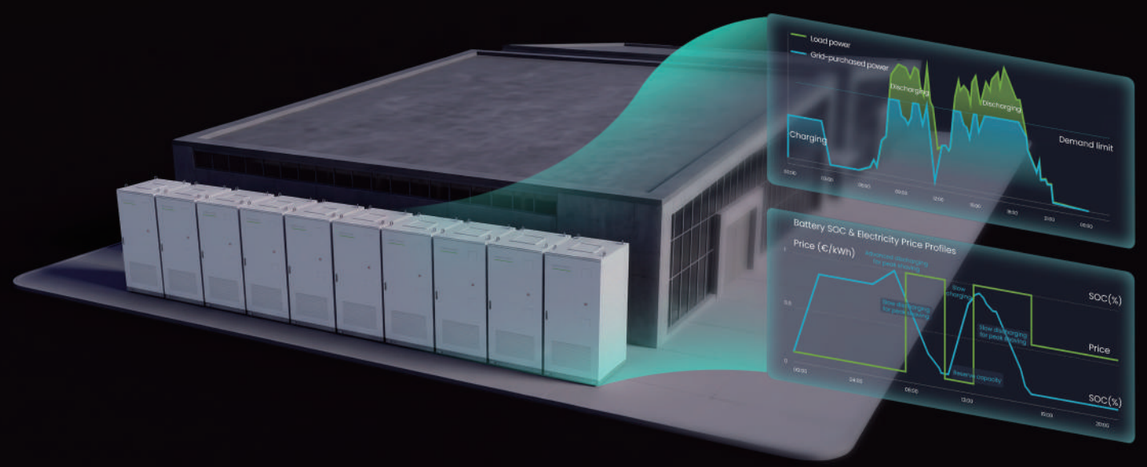
AI Thermal Management

Predictive cooling boosts efficiency and mitigates calendar aging.



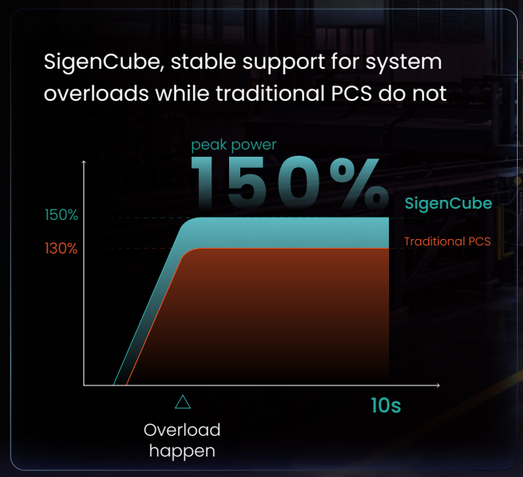
Sigen AI Mode + Peak Shaving

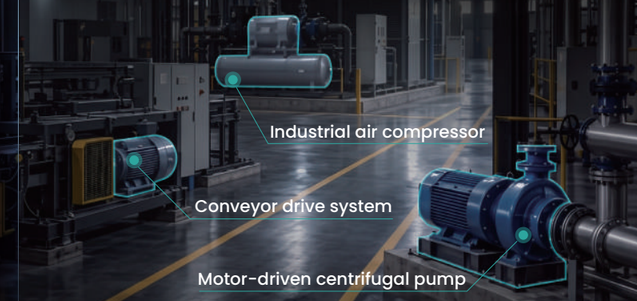
Maximizing arbitrage returns, lowering demand charges.



Superior Overload Capability

When loads surge, power holds strong





All-scenario Resilience & Grid Friendly

Built to stabilize power across every energy scenario.

MWh-level Black Start

Recovery without help

Seamless Backup

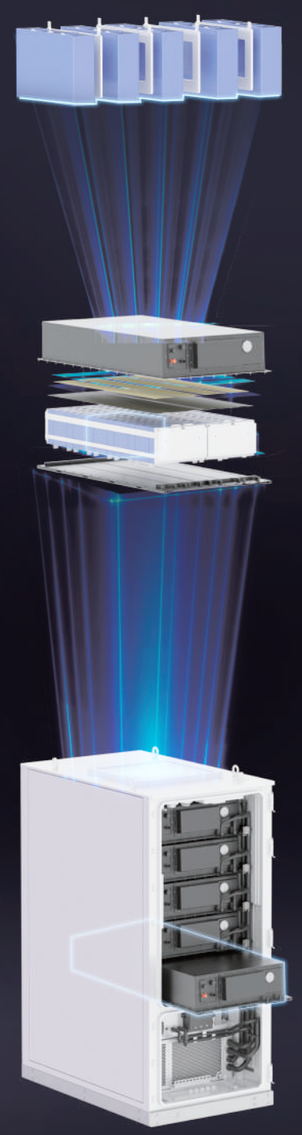
Power without interruption

Grid Ancillary Services

Rapid response, enhanced grid stability

03 All-round Safety

Safety Protection from Cell to System



CELL

	SigenCube	Industry leading	Industry average
Cell-to-cell isolation	✓	✓	✓
NTC temperature sensor	x40	x28	x12
NTC / Cell	0.625	<0.53	<0.23

PACK

	SigenCube	Industry leading	Industry average
Pressure relief valve	✓	✓	✓
Electrical insulation sheet	✓	✓	✓
Crash frame	✓	✓	✓
High-strength crossbeam	✓	✗	✗
Pack-level leakage detection	✓	✗	✗

SYSTEM

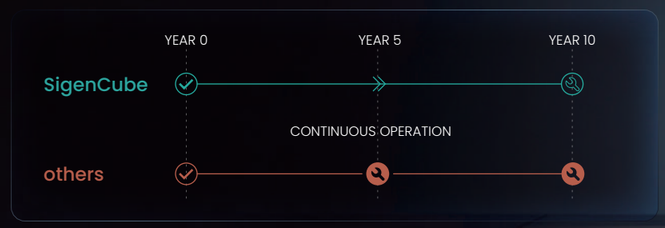
	SigenCube	Industry leading	Industry average
Top explosion vent*	✓	✓	✗
Flammable gas/Smoke/ Heat detector	✓	✓	✓
Emergency ventilation fan	✓	✓	✗
Aerosol	✓	✓	✓
Water firefighting interface*	✓	✗	✗
Overcurrent protection	6 layers	5 layers	5 layers

* These configurations are available only for selected regional variants. Please refer to the specifications page for details.

04 Optimized O&M

10-Year Coolant Life

Less scheduled replacement, less OPEX.



- Fewer Site Visits
- Lower Lifetime O&M Cost
- Less Planned Downtime

*Routine inspections remain required. Coolant service may be necessary in the event of leakage or component repair.

Battery Active Balancing

More usable energy, free from system SOC calibration.

SigenCube 7A

VS

Traditional Solution 1 2~3A weak balancing current

Traditional Solution 2 Not available

- No On-site SOC Calibration
- Lower Lifecycle OPEX

SigenCube

ES401-2H/ES401-4H
ES401-2H-GL/ES401-4H-GL

- Highly integrated layout cuts footprint and deployment costs
- Factory pre-commissioning & one-tap setup accelerate deployment
- Cell-to-system protection, precise thermal runaway control
- Pack-level active balancing, no need for on-site SOC calibration
- Low-noise operation below 60 dB expands site flexibility
- 150% overload for 10 seconds ensures reliable start-up

Sigen Energy Storage System

Preliminary

SigenCube	ES401-2H	ES401-4H	ES401-2H-GL	ES401-4H-GL	Units
DC Side					
Battery type	$LiFePO_4$				
Total energy capacity	401				kWh
Nominal voltage range	896 ~ 1,152				V
Nominal charge / discharge rate	0.5P	0.25P	0.5P	0.25P	
AC Side (On-grid)					
Nominal output power	200,000	99,990	200,000	99,990	W
Max. output apparent power	220,000	109,989	220,000	109,989	VA
Max. output active power (cosΦ=1)	220,000	109,989	220,000	109,989	W
Nominal voltage	380 / 400, 3P4W				Vac
Nominal grid frequency	50 / 60				Hz
Power factor	1 leading ~ 1 lagging				
Total current harmonic distortion	THDi ≤ 1.5%				
AC Side (Backup)[1]					
Nominal output power	200,000	99,990	200,000	99,990	W
Max. output apparent power	220,000	109,989	220,000	109,989	VA
Peak output power (10 seconds)	300,000	149,985	300,000	149,985	VA
Nominal voltage	380 / 400, 3P4W				Vac
Nominal grid frequency	50 / 60				Hz
Power factor	1 leading ~ 1 lagging				
Total voltage harmonic distortion	THDv ≤ 2%				
Disruption time of backup switch[2]	0				ms
Protection					
Safety protection feature	Insulation monitoring, Residual current monitoring, AC overcurrent/overvoltage/short-circuit protection, Type II AC surge protection, Anti-islanding protection				
System General Data					
Dimensions (W / H / D)	1,100 / 2,450 / 1,650				mm
Weight	4,000				kg
Storage temperature range	-35 ~ 60				°C
Operating temperature range	−30 ~ 55 (Derating at 45°C)				°C
Relative humidity range	0% ~ 100% (non-condensing)				
Max. operating altitude	4,000 (Derating at 3,000m)				m
Cooling	Smart Liquid cooling				
Balance mode	Active balance				
Fire suppression system	Combustible gas detector, Smoke detector, Heat detector, Explosion-proof fan, Alarm sounder, Cabinet-level Aerosol, Top explosion vent, Water-based fire suppression		Combustible gas detector, Smoke detector, Heat detector, Explosion-proof fan, Alarm sounder, Cabinet-level Aerosol,		
System ingress protection rating	IP55				
EMC protection rating	Class B				
Anti-corrosion protection	C4-M				
Noise	≤ 60				dB
Communication	WLAN, Fast Ethernet, RS485				
Communication protocol	Modbus-TCP, IEC61850				

1. SigenCube must be paired with Sigen Energy Gateway to enable backup operation.
2. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the total power of the SigenCube is higher than the total power of the loads.
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SigenCube

ES261-2H / ES261-2H-A1
ES261-2H-GL / ES261-2H-A1-GL

- Factory pre-commissioning & one-tap setup accelerate deployment
- Cell-to-system protection, precise thermal runaway control
- Pack-level active balancing, no need for on-site SOC calibration
- Low-noise operation below 60 dB expands site flexibility
- 150% overload for 10 seconds ensures reliable start-up

Sigen Energy Storage System

Preliminary

SigenCube	ES261-2H	ES261-2H-A1	ES261-2H-GL	ES261-2H-A1-GL	Units
DC Side					
Battery type	$LiFePO_4$				
Total energy capacity	261				kWh
Nominal voltage range	676 ~ 936				V
Nominal charge / discharge rate	0.5P	0.38P	0.5P	0.38P	
AC Side (On-grid)					
Nominal output power	125,000	99,990	125,000	99,990	W
Max. output apparent power	137,500	109,989	137,500	109,989	VA
Max. output active power (cosΦ=1)	137,500	109,989	137,500	109,989	W
Nominal voltage	380 / 400, 3P4W				Vac
Nominal grid frequency	50 / 60				Hz
Power factor	1 leading ~ 1 lagging				
Total current harmonic distortion	THDi ≤ 1.5%				
AC Side (Backup)[1]					
Nominal output power	125,000	99,990	125,000	99,990	W
Max. output apparent power	137,500	109,989	137,500	109,989	VA
Peak output power (10 seconds)	187,500	149,985	187,500	149,985	VA
Nominal voltage	380 / 400, 3P4W				Vac
Nominal grid frequency	50 / 60				Hz
Power factor	1 leading ~ 1 lagging				
Total voltage harmonic distortion	THDv ≤ 2%				
Disruption time of backup switch[2]	0				ms
Protection					
Safety protection feature	Insulation monitoring, Residual current monitoring, AC overcurrent/overvoltage/short-circuit protection, Type II AC surge protection, Anti-islanding protection				
System General Data					
Dimensions (W / H / D)	940 / 2,380 / 1,325				mm
Weight	2,500				kg
Storage temperature range	-35 ~ 60				°C
Operating temperature range	−30 ~ 55 (Derating at 45°C)				°C
Relative humidity range	0% ~ 100% (non-condensing)				
Max. operating altitude	4,000 (Derating at 3,000m)				m
Cooling	Smart Liquid cooling				
Balance mode	Active balance				
Fire suppression system	Combustible gas detector, Smoke detector, Heat detector, Explosion-proof fan, Alarm sounder, Cabinet-level Aerosol, Top explosion vent, Water-based fire suppression		Combustible gas detector, Smoke detector, Heat detector, Explosion-proof fan, Alarm sounder, Cabinet-level Aerosol,		
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