SigenStor Neo

Your SigenStor gets smarter every time you power it on



Website | LinkedIn | YouTube

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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ABOUT SIGENERGY

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VISION

Enjoy Green Energy

MISSION

Leading AI-powered PV and energy storage innovation.
Build intelligent energy solutions with superior safety, ultra simplicity, and outstanding performance.

SIGEN

Safe | Intelligent | Green | Efficient | New



Sigen Energy Controller

Single phase / kW
220/230/240 V
2.5 | 3.0 | 3.6 | 4.6 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0

Three phase / kW
380/400/415 V
3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | 15.0

Sigen Battery 6.0 | 8.0

Support 1 – 6 batteries combined for a single stack

Support 50 systems in parallel

Power your entire home through any outage.

All critical home loads can be directly powered by the SigenStor Neo for a simple and streamlined setup. It delivers true uninterruptible power with 0ms load-side disruption and 200% peakpower output capacity, ensuring worry-free operation even in off-grid mode.

0 ms
Load-side disruption

200%
Peak power outout

63A
Whole home backup



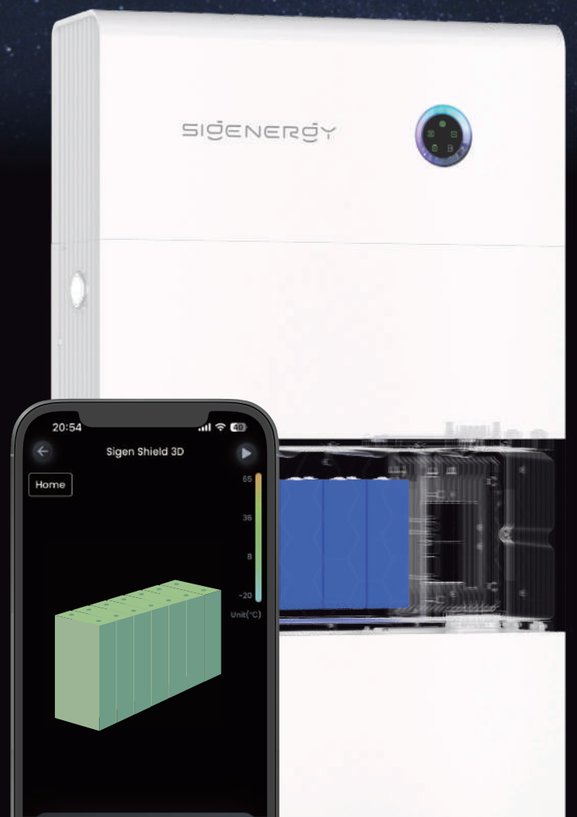
Engineered for ultimate safety and effortless use.

Featuring a built-in optimizer for each battery pack, it enables flexible mixing of new and old packs. Powered by 314Ah high-capacity cells, it delivers longer lifespan with all-round safety.

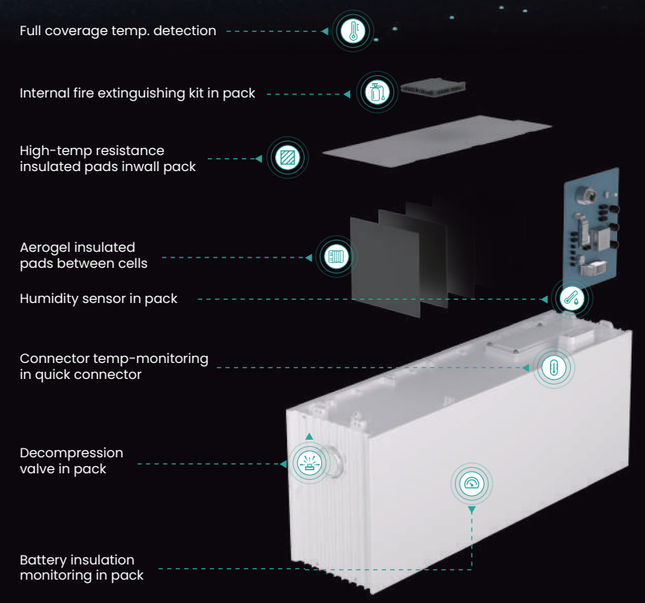
Optimizer
for each battery

Mixed use
of new / old battery

314Ah
Long life cell



All-round Battery Safety Protection



Knows your needs better every single day.

Sigen AI Mode
Smart scheduling that adapts to weather, tariffs, and your energy habits for maximum savings

Real-time Monitoring
Monitor real-time energy flow on home screen

Energy Sankey Diagram
Know where every watt comes from and where it goes

AI Strategy Planner
AI smartly adjust operation strategy by your word

Smart Load Management
Monitor each smart load usage

Smart Port, designed for connecting more possibilities.

Synchronize Your Generator

Diesel Generator

Add Storage to Your Existing System

Existing inverter

Optimize Your Smart Loads

Smart load
eg. Heat pump, EV AC charger

Sigen Energy Controller 2.5 - 12.0 kW Single Phase

Preliminary

SigenStor Neo EC	2.5 SP	3.0 SP	3.6 SP	4.6 SP	5.0 SP	6.0 SP	8.0 SP	10.0 SP	12.0 SP	Units
DC Input (from PV)										
Max. PV power	7500	9000	10800	13800	15000	18000	24000	24000	24000	W
Max. DC input voltage [1]	600									V
Nominal DC input voltage	350									V
Start-up voltage	40									V
MPPT voltage range	40 ~ 565									V
Number of MPP. trackers	4									
Number of PV strings per MPPT	1									
Max. input current per MPPT	22									A
Max. short-circuit current per MPPT	30									A
Battery Connection										
Battery module models	SigenStor Neo BAT series									
Number of modules per controller	1 ~ 6									pcs
Battery module voltage range	300 ~ 600									V
AC Output (on-grid)										
Nominal output power	2500	3000	3680	4600	5000	6000	8000	10000	12000	W
Max. output apparent power	2500	3300	3680	5000	5500	6600	8800	11000	12000	VA
Nominal output current	11.4	13.7	16.0	20.9	22.8	27.3	36.4	45.5	54.6	A
Max. output current	11.4	15.0	16.0	22.7	25.0	30.0	40.0	50.0	54.6	A
Nominal output voltage	220 / 230 / 240									V
Nominal grid frequency	50 / 60									Hz
Power factor	0.8 leading ~ 0.8 lagging									
Total current harmonic distortion	THDi < 2%									
AC Output (backup)										
Nominal output power	2500	3000	3680	4600	5000	6000	8000	10000	12000	W
Max. output apparent power	2750	3300	4048	5000	5500	6600	8800	11000	12000	VA
Peak output power (10 seconds)	5000	6000	7360	9200	10000	12000	16000	20000	20000	VA
Max. AC passthrough (grid to load)	63									A
Nominal output voltage	220 / 230 / 240									V
Nominal output frequency	50 / 60									Hz
Power factor	0.8 leading ~ 0.8 lagging									
Total voltage harmonic distortion	THDv < 2%									
Disruption time of backup switch [2]	0									ms
Smart Port Connection										
Generator output voltage	220 / 230 / 240									V
Max. input / output current	63									A
Nominal AC output power	12000									W
Max. input / output apparent power	15100									W
Generator 2-wire start	Supported									
Efficiency										
Max. efficiency	≤98.0%									
European efficiency	≤97.5%									
Protection										
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter, AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection, Potential induced degradation									
General Data										
Dimensions (W / H / D)	800 / 360 / 240									mm
Weight	< 27									kg
Storage temperature range	-40 ~ 70									°C
Operating temperature range	-40 ~ 65									°C
Relative humidity range	0% ~ 100%									
Max. operating altitude	4000									m
Cooling	Natural convection									
System ingress protection rating	IP66									
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G) / Sub-1G / Bluetooth									

1. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
2. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Energy Controller is higher than the total power of the home loads.
3. This document reflects current technology and is subject to change without notice. Refer to the Sigenergy website for the latest information

Sigen Energy Controller 3.0-15.0 kW Three Phase

Preliminary

SigenStor Neo EC	3.0 TP	4.0 TP	5.0 TP	6.0 TP	8.0 TP	10.0 TP	12.0 TP	15.0 TP	Units
DC Input (from PV)									
Max. PV power	9000	12000	15000	18000	24000	30000	30000	30000	W
Max. DC input voltage [1]	1100								V
Nominal DC input voltage	600								V
Start-up voltage	140								V
MPPT voltage range	120 ~ 1000								V
Number of MPP. trackers	3								
Number of PV strings per MPPT	1								
Max. input current per MPPT	22								A
Max. short-circuit current per MPPT	30								A
Battery Connection									
Battery module models	SigenStor Neo BAT series								
Number of modules per controller	1 ~ 6								pcs
Battery module voltage range	600 ~ 1000								V
AC Output (on-grid)									
Nominal output power	3000	4000	5000	6000	8000	10000	12000	15000	W
Max. output apparent power	3300	4400	5500	6600	8800	11000	13200	16500	VA
Nominal output current	4.6	6.1	7.6	9.1	12.2	15.2	18.2	22.8	A
Max. output current	5.0	6.7	8.4	10.0	13.4	16.7	20.0	25.0	A
Nominal output voltage	220/380, 230/400, 240/415, 3W+N+PE								V
Nominal grid frequency	50 / 60								Hz
Power factor	0.8 leading ~ 0.8 lagging								
Total current harmonic distortion	THDi < 2%								
AC Output (backup)									
Nominal output power	3000	4000	5000	6000	8000	10000	12000	15000	W
Max. output apparent power	3300	4400	5500	6600	8800	11000	13200	16500	VA
Peak output power (10 seconds)	6000	8000	10000	12000	16000	20000	24000	30000	VA
Max. AC passthrough (grid to load)	63								A
Nominal output voltage	220/380, 230/400, 240/415 , 3W+N+PE								V
Nominal output frequency	50 / 60								Hz
Power factor	0.8 leading ~ 0.8 lagging								
Total voltage harmonic distortion	THDv < 2%								
Disruption time of backup switch [2]	0								ms
Smart Port Connection									
Generator output voltage	220/380, 230/400, 240/415 , 3W+N+PE								V
Max. input / output current	63								A
Nominal AC output power	16500								W
Max. input / output apparent power	45300								W
Generator 2-wire start	Supported								
Efficiency									
Max. efficiency	≤98.9%								
European efficiency	≤98.0%								
Protection									
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter, AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection, Potential induced degradation								
General Data									
Dimensions (W / H / D)	800 / 360 / 240								mm
Weight	< 30								kg
Storage temperature range	-40 ~ 70								°C
Operating temperature range	-40 ~ 65								°C
Relative humidity range	0% ~ 100%								
Max. operating altitude	4000								m
Cooling	Natural convection								
System ingress protection rating	IP66								
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G) / Sub-1G / Bluetooth								

1. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
2. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Energy Controller is higher than the total power of the home loads.
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SigenStor Neo SE Version

Sigen Energy Controller 2.5 - 6.0 kW Single Phase

Preliminary

SigenStor Neo EC	2.5 SE SP	3.0 SE SP	3.6 SE SP	4.6 SE SP	5.0 SE SP	6.0 SE SP	Units
DC Input (from PV)							
Max. PV power	7500	9000	10800	12000	12000	12000	W
Max. DC input voltage [1]	600						V
Nominal DC input voltage	350						V
Start-up voltage	40						V
MPPT voltage range	40 ~ 565						V
Number of MPP. trackers	2						
Number of PV strings per MPPT	1						
Max. input current per MPPT	22						A
Max. short-circuit current per MPPT	30						A
Battery Connection							
Battery module models	SigenStor Neo BAT series						
Number of modules per controller	1 ~ 6						pcs
Battery module voltage range	300 ~ 600						V
AC Output (on-grid)							
Nominal output power	2500	3000	3680	4600	5000	6000	W
Max. output apparent power	2500	3300	3680	5000	5500	6600	VA
Nominal output current	11.4	13.7	16.0	20.9	22.8	27.3	A
Max. output current	11.4	15.0	16.0	22.7	25.0	30.0	A
Nominal output voltage	220 / 230 / 240						V
Nominal grid frequency	50 / 60						Hz
Power factor	0.8 leading ~ 0.8 lagging						
Total current harmonic distortion	THDi < 2%						
AC Output (backup)							
Nominal output power	2500	3000	3680	4600	5000	6000	W
Max. output apparent power	2750	3300	4048	5000	5500	6600	VA
Peak output power (10 seconds)	5000	6000	7360	9200	10000	12000	VA
Max. AC passthrough (grid to load)	45						A
Nominal output voltage	220 / 230 / 240						V
Nominal output frequency	50 / 60						Hz
Power factor	0.8 leading ~ 0.8 lagging						
Total voltage harmonic distortion	THDv < 2%						
Disruption time of backup switch [2]	0						ms
Efficiency							
Max. efficiency	≤98.5%						
European efficiency	≤98.0%						
Protection							
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter, AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection, Potential induced degradation						
General Data							
Dimensions (W / H / D)	800 / 280 / 240						mm
Weight	< 22						kg
Storage temperature range	-40 ~ 70						°C
Operating temperature range	-40 ~ 65						°C
Relative humidity range	0% ~ 100%						
Max. operating altitude	4000						m
Cooling	Natural convection						
System ingress protection rating	IP66						
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G) / Sub-1G / Bluetooth						

1. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
2. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Energy Controller is higher than the total power of the home loads.
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Sigen Battery

Preliminary

SigenStor Neo BAT	6.0	8.0	Units
Performance Specification			
Battery type	$LiFePO_4$		
Cycle life [1]	10000		
Total energy capacity	6.02	7.52	kWh
Depth of discharge [2]	100%		
Max. charge / discharge power	4800 / 4800		W
Peak charge / discharge power (10 seconds)	6000		W
General Data			
Weight	55	65	kg
Dimensions (W / H / D)	800 / 295 / 235		mm
Storage temperature range	-25 ~ 60		°C
Operating temperature range	-20 ~ 55		°C
Relative humidity range	5% ~ 95%		
Max. operating altitude	4000		m
Cooling	Natural convection		
System ingress protection rating	IP66		
Installation method	Floor standing / Wall-mounted		
Number of modules per controller	1 ~ 6		pcs
Compatible inverters	SigenStor Neo series		

1. This is provided by the battery cell manufacturer. Based on cell test condition of 25±2°C, 0.5C charge and discharge rate and SOH=60%.
2. Refers to the usable energy capacity. Battery must be recharged within 7 days after being fully discharged to keep battery healthy.