SigenStor Neo

- All-in-one integrated design, stackable easy installation
- 2.0x DC/AC ratio, higher power generation yields
- Up to 4 MPP trackers for maximum solar energy extraction
- 0ms load-side disruption, never feel power outage
- Up to 98% high efficiency, no power derating at 45°C
- Supports diesel generator / third-party inverter/ smart load connection
- IP66 protection rating, long-term worry-free use
- 300m long range AFCI protection, safeguarding your family
- 200% peak output power while off-grid, power without worries*
- Get reliable connectivity via Wi-Fi 6 Dual-Band (2.4/5GHz) connection



Sigen Energy Controller 2.5 - 12.0 kW Single Phase

Preliminary

SigenStor Neo EC	2.5 SP	3.0 SP	3.6 SP	5.0 SP	6.0 SP	8.0 SP	10.0 SP	12.0 SP	Units
DC Input (from PV)									
Max. PV power	5000	6000	7360	10000	12000	16000	20000	24000	W
Max. DC input voltage	600								V
Nominal DC input voltage	350								V
Start-up voltage	100								V
MPPT voltage range	50 ~ 550								V
Number of MPP. trackers	2	2	2	2	2	3	4	4	
Number of PV strings per MPPT	1								
Max. input current per MPPT	20								A
Max. short-circuit current per MPPT	25								A
Battery Connection									
Battery module models	SigenStor Neo BAT 6.0								
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	5000	6000	8000	10000	12000	W
Max. output apparent power	2500	3300	4048	5500	6600	8800	11000	12000	VA
Nominal output current	11.3	13.6	15.6	22.7	27.3	36.4	45.5	54.5	A
Max. output current	12.5	15.0	18.0	25.0	30.0	40.0	50.0	54.5	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	5000	6000	8000	10000	12000	W
Max. output apparent power	2500	3300	4048	5500	6600	8800	11000	12000	VA
Peak output power (10 seconds)	5000	6000	7360	10000	12000	16000	20000	24000	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 [1]	0								ms
Smart Port Connection									
Generator output voltage	220 / 230 / 240								V
Nominal current	54.5								A
Nominal AC power	12000								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[2], AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection, Potential induced degradation								
General Data									
Dimensions (W / H / D)	780 / 360 / 240								mm
Weight	< 30								kg
Storage temperature range	-40 ~ 70								°C
Operating temperature range	-30 ~ 60								°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)								
Installation method	Wall-mounted / Ground-mounted								

1. This refers to the load-side disruption time.
2. This is an optional feature only supported in certain models, please contact Sigenergy for more information.
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	6000	8000	10000	12000	16000	20000	24000	30000	W
Max. DC input voltage	1100								V
Nominal DC input voltage	600								V
Start-up voltage	180								V
MPPT voltage range	160 ~ 1000								V
Number of MPP. trackers	2	2	2	2	2	3	3	3	
Number of PV strings per MPPT	1								
Max. input current per MPPT	20								A
Max. short-circuit current per MPPT	25								A
Battery Connection									
Battery module models	SigenStor Neo BAT 6.0								
Number of modules per controller	1 ~ 6								pcs
Battery module voltage range	600 ~ 900								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	4.5	6.1	7.6	9.1	12.1	15.2	18.2	22.7	A
Max. output current	5.0	6.7	8.3	10.0	13.3	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 [1]	0	ms
Smart Port Connection		
Generator output voltage	380 / 400 / 415	V
Nominal current	25	A
Nominal AC power	16500	W
Generator 2-wire start	Supported	
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[2], AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection, Potential induced degradation	
General Data		
Dimensions (W / H / D)	780 / 360 / 240	mm
Weight	< 32	kg
Storage temperature range	-40 ~ 70	°C
Operating temperature range	-30 ~ 60	°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)	
Installation method	Wall-mounted / Ground-mounted	

1. This refers to the load-side disruption time.
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Sigen Battery

Preliminary

SigenStor Neo BAT	6.0	Units
Performance Specification		
Battery type	$LiFePO_4$	
Cell capacity	314	Ah
Cycle life [1]	10000	
Total energy capacity	6.02	kWh
Usable energy capacity [2]	5.84	kWh
Depth of discharge [3]	100%	
Max. charge / discharge power	4200 / 4200	W
Peak charge / discharge power (10 seconds)	6000	W
General Data		
Weight	55	kg
Dimensions (W / H / D)	780 / 290 / 230	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. Test conditions: 100% depth of discharge, 0.2C rate charge & discharge averagely at 25°C, at the beginning of life.
3. Refers to the usable energy capacity. Battery must be recharged within 7 days after being fully discharged to keep battery healthy.