ENJOY GREEN ENERGY

Sigen Hybrid Inverter

Harmoniously Complementing Your Home

Sigen Hybrid Inverter

Sigen Battery Controller
(SigenStor BC)

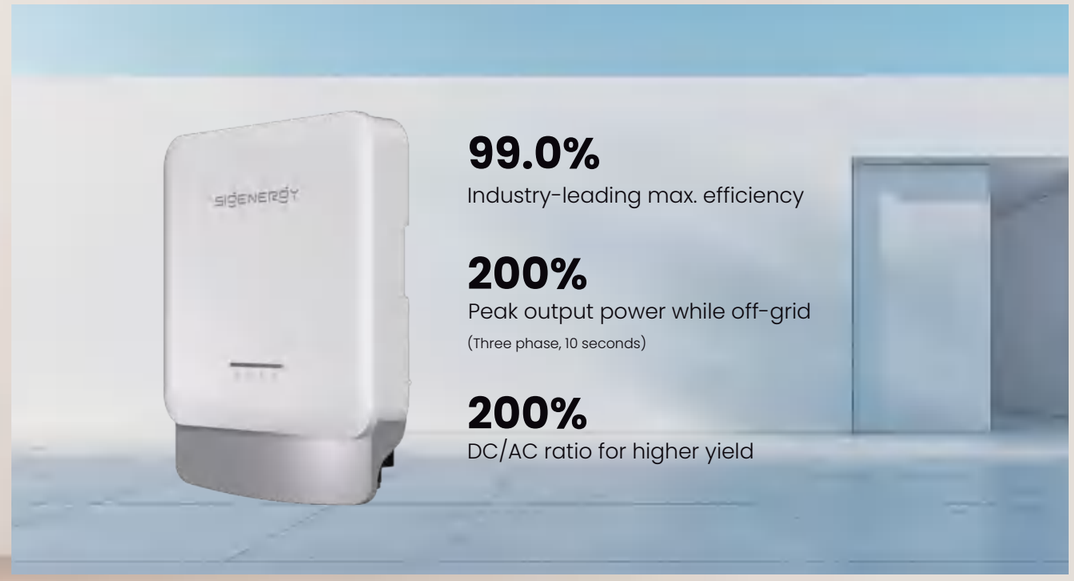
Sigen Battery
(SigenStor BAT)











Sigen Hybrid Inverter 2.0-6.0 kW Single Phase

Sigen Hybrid	2.0 SP2	3.0 SP2	3.6 SP2	4.0 SP2	4.6 SP2	5.0 SP2	6.0 SP2	Units
DC Input (from PV)								
Max. PV power	4000	6000	7360	8000	9200	10000	12000	W
Max. DC input voltage [1]				600				V
Nominal DC input voltage				350				V
Start-up voltage				100				V
MPPT voltage range				50 ~ 550				V
Number of MPP. trackers				2				
Number of PV strings per MPPT				1				
Max. input current per MPPT				16				A
Max. short-circuit current per MPPT				22				A
Battery Connection								
Battery controller models				SigenStor BC				
Battery module models				SigenStor BAT series				
Number of modules per controller				1 ~ 6				pcs
Battery module voltage range				300 ~ 600				V
AC Output (on-grid)								
Nominal output power	2000	3000	3680	4000	4600	5000	6000	W
Max. output apparent power	2200	3300	3680	4400	5000	5500	6600	VA
Nominal output current	9.1	13.6	16.0	18.2	20.9	22.7	27.3	A
Max. output current	10.0	15.0	16.0	20.0	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 < 3%				
AC Output (backup)								
Peak output power (10 seconds)	3000	4500	5520	6000	6900	7500	9000	W
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 < 3%				
Disruption time of backup switch [2]				0				ms
Efficiency								
Max. efficiency				98.6%				
European efficiency	97.5%	98.0%	98.1%	98.2%	98.3%	98.3%	98.3%	
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							
General Data								
Dimensions (W / H / D)				373 / 473 / 99				mm
Weight				11.5				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				
Night consumption				2.5				W
Noise				25				dB
Standard Compliance								
Standard [3]	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2							

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, to achieve this functionality Sigen Hybrid Inverter needs to be used together with Sigen Energy Gateway and Sigen Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Hybrid Inverter is higher than the total power of the home loads.
3. For all standards refer to the certificates category on the Sigenergy website.

Sigen Hybrid Inverter 3.0-12.0 kW Three Phase

Sigen Hybrid	3.0 TP2	4.0 TP2	5.0 TP2	6.0 TP2	8.0 TP2	10.0 TP2	12.0 TP2	Units
DC Input (from PV)								
Max. PV power	6000	8000	10000	12000	16000	20000	24000	W
Max. DC input voltage [1]				1100				V
Nominal DC input voltage				600				V
Start-up voltage				180				V
MPPT voltage range				160 ~ 1000				V
Number of MPP. trackers				2				
Number of PV strings per MPPT			1			1 (MPPT1) / 2(MPPT2) [2]		
Max. input current per MPPT			16			16/32	16/32	A
Max. short-circuit current per MPPT			22			22/44	22/44	A
Battery Connection								
Battery controller models				SigenStor BC				
Battery module models				SigenStor BAT series				
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	W
Max. output apparent power	3300	4400	5500	6600	8800	11000	13200	VA
Nominal output current	4.6	6.1	7.6	9.1	12.2	15.2	18.2	A
Max. output current	5.1	6.7	8.4	10.0	13.4	16.7	20.1	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 < 3%				
AC Output (backup)								
Peak output power (10 seconds) [3]				2 times of nominal output power				W
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 < 3%				
Disruption time of backup switch [4]				0				ms
Efficiency								
Max. efficiency	98.8%	98.9%	98.9%	99.0%	99.0%	99.0%	99.0%	
European efficiency	97.2%	97.8%	98.1%	98.5%	98.5%	98.5%	98.6%	
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							
General Data								
Dimensions (W / H / D)				477 / 568 / 99				mm
Weight				19.5				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				
Night consumption				3				W
Noise				28				dB
Standard Compliance								
Standard [5]	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2							

1. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
2. PV1 independently connects to MPPT1, while PV2 and PV3 share MPPT2. Each MPPT input has a maximum power rating of 6.66 kW (for 10.0 TP2) and 8 kW (for 12.0 TP2). Any string power exceeding these limits will be clipped.
3. Actual load starting performance depends on the load type and its characteristics; practical results may vary.
4. This refers to the load-side disruption time, to achieve this functionality Sigen Hybrid Inverter needs to be used together with Sigen Energy Gateway and Sigen Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Sigen Hybrid Inverter is higher than the total power of the home loads.
5. For all standards refer to the certificates category on the Sigenergy website.

Disclaimer: The information in this file is provided on an "as is" basis. To the fullest extent permitted by law, Sigenergy Technology Co., Ltd. excludes all representations and warranties relating to this file and its contents or which is or may be provided by any affiliates or any other third party, including in relation to any inaccuracies or omissions in this file.