



Sigen Hybrid Inverter

Harmoniously Complementing Your Home



99mm
ultra slim design



25 dB
Super silent



IP66



Wide operating temperature
From -30 °C to 60 °C



99.0%
Industry-leading max. efficiency

200%
Peak output power while off-grid
(Three phase, 10 seconds)

200%
DC/AC ratio for higher yield

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
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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
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- The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
- 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.
- For all standards refer to the certificates category on the Sigenenergy 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			1/2		
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)							
Nominal grid frequency	50 / 60							
Power factor	0.8 leading ~ 0.8 lagging							
Total current harmonic distortion	THDi < 3%							

AC Output (backup)

Peak output power (10 seconds)	6000	8000	10000	12000	16000	20000	24000	W
Nominal output voltage	220/380, 230/400, 240/415 (3W/N+PE)							
Nominal output frequency	50 / 60							
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	98.8%	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
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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 ³	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2
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- The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
- 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.
- For all standards refer to the certificates category on the Sigenenergy website.

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Version:20251118



Factory Limited Warranty for Inverter System (For Europe)

Limited Product Warranty

Sigenergy Technology Co., Ltd. and its affiliates (“SIGENERGY”) warrants that the hardware of electronics and enclosure will be free of defects caused by improper workmanship or defective materials. This Limited Product Warranty is valid only for the duration of the applicable “Warranty Period” defined in the table below and is subject to the following terms and conditions:

Covered Product*	Warranty Period (years)
Sigen Hybrid 3.0/3.6/4.0/4.6/5.0/6.0/8.0/12.0 SP	10
Sigen Hybrid 2.0/3.0/3.6/4.0/4.6/5.0/6.0 SP2	10
Sigen Hybrid 5.0/6.0/8.0/10.0/12.0/15.0/17.0/20.0/25.0/30.0 TP	10
Sigen Hybrid 3.0/4.0/5.0/6.0/8.0/10.0/12.0 TP2	10
Sigen PV Max 3.0/3.6/4.0/4.6/5.0/6.0 SP	10
Sigen PV Max 5.0/6.0/8.0/10.0/12.0/15.0/17.0/20.0/25.0 TP	10
SigenMicro 400/500/800/1000	15
Sigen Gateway Home SP 12K Sigen Gateway Home TP 30K Sigen Gateway HomePro SP Sigen Gateway HomePro TP Sigen Gateway HomeMax SP 12K Sigen Gateway HomeMax TP	5
Sigen CommMod Sigen CommMod GL/NS Sigen CommBridge	2
Sigen Sensor SP-DH Sigen Sensor SP-CT100 Sigen Sensor SP-CT120-DH Sigen Sensor SP-CT100-WI Sigen Sensor TP-CT100/300/600 Sigen Sensor TP-CT100-WI Sigen Sensor TP-CT120/300/600-DH Sigen Sensor TPX-CH Sigen Sensor TP-DH Sigen Sensor TP-CT5	2



Sigen Sensor SubIG Kit	
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*Installed on or after November 1st, 2023

The warranty period shall commence on the earlier of the following dates (the **“Start Date”**):

- (i) The date when the product is activated on site.
- (ii) If the product has not been installed, activated, and registered on site within 180 calendar days after the date of shipment from Sigenergy’s designated factory (as evidenced by the Bill of Lading or factory dispatch records), then the Start Date shall be the 180th calendar day after the date of shipment.
- (iii) The Sigen Gateway is warranted for proper functionality under normal operating conditions. However, the following wear-prone components are covered for only two (2) years from the start date: circuit breakers, contactors ,auxiliary contacts,Indicator lights,changeover switch contacts, lock components,and similar consumable components (not exhaustive).

Precondition For Warranty

This Warranty is subject to the following conditions:

- (i) If the equipment is not to be installed or used immediately, the storage environment needs to meet the following conditions:
 - a. Storage temperature: -40°C~70°C.
 - b. Storage humidity: 0%RH~95%RH (no condensation).
 - c. Place the equipment in a cool place where away from direct sunlight and rain.
 - d. Keep the equipment away from inflammable, explosive, and corrosive matters.
- (ii) The ambient temperature during the operation of the products shall not fall below -30°C or exceed 60°C.
- (iii) The inverter system shall be installed by a skilled and trained installer.
- (iv) The inverter system installation location should be ventilated in accordance with the requirements of User Manual and Installation Guide.
- (v) To activate and maintain SIGENERGY’s 10-year limited warranty, your device must remain connected to the Internet for essential firmware updates. The device is equipped with a safeguard mechanism that will automatically enter Safe Operation Mode when disconnected Internet for more than 90 days. If disconnected Internet for over one year cumulatively, the warranty coverage will adjust to 5 years from the original activation date. SIGENERGY reserves the right to modify technical specifications and operating parameters in Safe Operation Mode without prior notice.

Claim Process

The claimant can make service request by creating and submitting service ticket to SIGENERGY via APP. Please follow the instructions and steps in “support” menu of mySigen



APP. Generally, the mySigen APP will automatically collect the following information before claimant submit service ticket:

- (i) Contact information of claimant, including name of the person, phone number, email and address.
- (ii) Information regarding all defective system, including model No., serial number, installation date and failure date.
- (iii) Error message on APP screen and additional information regarding the fault/error.
- (iv) Description of trouble shooting actions before the failure and detailed information of previous problems.

Please make the claim within 30 days from the failure date, otherwise SIGENERGY will treat it as you have abandoned the right to make a warranty claim.

If this way is not available, please have above information to hand as it may be required when contacting the local installer or SIGENERGY's national office.

In order to deliver a friendly and timely service, SIGENERGY is cooperating with many of distributors, installers and third-party service company all over the world. As such, please treat them as the default service channel of SIGENERGY; SIGENERGY will support and audit them to ensure they deliver a good service to customers.

SIGENERGY shall at its own discretion, remote diagnosis, modify and update software by Internet. Each time a warranty claim is made against the Products that have no internet connection, claimant is obliged to conduct an on-site inspection and data collection under the instruction of SIGENERGY. When there is hardware need to repair, SIGENERGY shall arrange an on-site replacement / exchange of hardware. The claimant is responsible for granting access, making time, and ensuring the safety of technician from SIGENERGY's service partner.

Warranty Obligations

Upon validation of a covered defect during the warranty period, SIGENERGY shall determine and implement one of the following remedies at its sole discretion:

- (i) Fix the issue through configuration changes, software updates, and part replacements when required.
- (ii) The inverter system shall be replaced with a new unit. Alternatively, a factory-refurbished unit matching the original functional specifications may be supplied. Where applicable, an upgraded model demonstrating equivalent performance is also permissible.

If SIGENERGY repairs or replaces a product part, its warranty continues for the remaining portion of the Warranty Period or 6 Months from the date of the repair or replacement, whichever is greater. In case of replacement, the product removed shall become the property of SIGENERGY. If the system is found not to be covered by this Limited Warranty, SIGENERGY reserves the right to charge a handling fee. The warranty can only be transferred from the original owner to next owner in case the equipment is still installed in the initial location.

Warranty Cover Range



Unless a special/unique agreement exists between SIGENERGY and customer, the limited warranty covers:

(i) Hardware materials costs for necessary to reestablish trouble-free operation of the covered product.

(ii) Shipment cost which is normal ground transportation and customs duties for spare parts replaced as well as the cost of sending allegedly defective unit back.

Travel and accommodation fee of service on site as well as costs related to claimant's employees, unless otherwise agreed in writing in advance by SIGENERGY, are NOT covered by the limited warranty.

All other costs including but not limited to compensation from direct or indirect damages arising from the defective product, or loss of electrical power generated during the product downtime are NOT covered by the limited warranty.

General Exclusions

This Limited Warranty does not apply to circumstances from the following:

(i) Damage caused by improper installment by the installer not following the installation instructions.

(ii) Damage caused by improper use by the end user not following the user manual.

(iii) Damage caused by willful conduct of users, authorized installers and certified third parties.

(iv) Disassembly, repairs and replacement of parts by third -party/personnel not authorized by SIGENERGY.

(v) Force majeure (storm damage, lightning strike, fire, thunderstorm, flooding, pests, etc.)

(vi) Cosmetic issues, wear and tear, which will not adversely affect the proper functioning of the product.

(vii) Damaged by software, interfacing, parts, supplies or other products not supplied by SIGENERGY.

(viii) Damage caused during transport, exceeding of temperature and humidity range during use, improper environment such as load bearing, heat dissipation, and air tightness.

(ix) Any rust that appears on the equipment's enclosure caused by harsh environmental conditions, accidents and external influences.

(x) Vandalism, engraving, labels, irreversible marking or contamination or theft.

(xi) Damage caused by external power parameters that cannot meet the standard requirements of equipment operation, such as voltage imbalance, over-voltage, voltage drop or surge, etc.

Limitation of Liability

It is the end user's sole and exclusive remedy against SIGENERGY and SIGENERGY's sole and exclusive liability in respect of defects in inverter system. This limited warranty** replaces all other SIGENERGY warranties and liabilities, whether oral, written, (non-mandatory) statutory, contractual, in tort or otherwise, including, without limitation, and where permitted by



applicable law, any implied conditions, warranties or other terms as regards satisfactory quality or fitness for purpose. However, this limited warranty shall neither exclude nor limit any of your legal (statutory) rights under the applicable national laws. To the extent permitted by applicable law(s), SIGENERGY does not assume any liability for any loss of, damage to or corruption of data, for any loss of profit, loss of use of inverter systems or functionality, loss of business, loss of contracts, loss of revenue or loss of anticipated savings, increased costs or expenses or for any indirect loss or damage, consequential loss or damage or special loss or damage, or punitive loss or damage. To the extent permitted by applicable law, SIGENERGY's liability shall be limited to the purchase value of the inverter system. The above limitations shall not apply in case of gross negligence or intentional misconduct of SIGENERGY or in case of death or personal injury resulting from SIGENERGY's proven negligence.

** In some countries/districts, end users may receive an additional warranty promise (should be at least equivalent to the manufacturer's warranty) which is provided by SIGENERGY's local distributor; should any claims arise in this respect, please direct them to the local distributor. Please note this SIGENERGY limited warranty statement may NOT be the latest version, please refer to the latest version of the SIGENERGY limited warranty by visiting global website.