SIGENERGY

Sigen Hybrid Inverter

36.0 / 45.0 kW



- Seamless switchover, ensuring 0ms load-side disruption operation
- 150% overload for 10s, handling impact loads for smooth device startup
- Minimal size & weight in the same power range, ensures simple installation
- Multi-unit connection via Energy Gateway, flexible expansion from kW to MW
- DC coupling micro-grid solution, simplifies configuration & boosts efficiency

Enjoy Green Energy

Sigen Hybrid Inverter 36.0 / 45.0 kW [1]

Preliminary

Sigen PV	36M1-HYB	45M1-HYB	Units
DC Input (PV)			
Max. PV input power	72,000	90,000	Wp
Max. DC input voltage [2]	1,100		V
Nominal DC input voltage	600		V
Start-up voltage	180		V
MPPT voltage range	160 ~ 1,000		V
Number of MPP. trackers	4	4	
Number of PV strings per MPPT	2		
Max. input current per MPPT	40		A
Max. short-circuit current per MPPT	60		A
DC Input (Battery)			
Battery module models	SigenStack BAT 12.0		
Battery controller models	SigenStack BC M2-0.5C-BST / SigenStack BC M2-1C-BST		
System configuration quantity range [3]	4 ~ 21		pcs
Max. charge power [4]	39,600	49,500	W
Max. discharge power	39,600	49,500	W
Max. operating current	180		A
AC Output (On-grid)			
Nominal output active power	36,000	45,000	W
Max. output apparent power	39,600	49,500	VA
Max. output active power (cosΦ=1)	39,600	49,500	W
Nominal output current @380 Vac	54.7	68.4	A
Nominal output current @400 Vac	52.2	65.2	A
Max. output current @380/400 Vac	60.2	75.2	A
Nominal output voltage	380 / 400, 3W+(N)+PE		Vac
Nominal grid frequency	50 / 60		Hz
Power factor	0.8 leading ~ 0.8 lagging		
Total current harmonic distortion	THDi < 3%		
AC Input (On-grid)			
Max. input apparent power	72,000	90,000	VA
Max. input current	109.4	136.7	A
Max. continuous AC passthrough (grid to load)	60.2	75.2	A
AC Output (Backup)			
Nominal output active power	36,000	45,000	W
Max. output apparent power	39,600	49,500	VA
Peak output power (10 seconds)	54,000	67,500	W
Nominal output voltage	380 / 400, 3W+N+PE		V
Nominal grid frequency	50 / 60		Hz
Power factor	0.8 leading ~ 0.8 lagging		
Total voltage harmonic distortion	THDv < 3%		
Disruption time of backup switch [5]	0		ms
Efficiency			
Max. efficiency	98.5%		
European efficiency	98.2%	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)	1097 / 668 / 340		mm
Weight	102	102	kg
Storage temperature range	-40 ~ 70		°C
Operating temperature range	-30 ~ 60		°C
Relative humidity range	0% ~ 100%		
Max. operating altitude	5,000 (Derating at 4,000 m)		m
Cooling	Smart air cooling		
Ingress protection rating	IP66		
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)		
Standard Compliance			
Standard [6]	IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 61000-6-1, IEC / EN 61000-6-2		

1. This is only available in specific regions. Please contact Sigenergy or local distributors for details.
2. The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
3. The requirements for the PV string open-circuit voltage in a PV+ESS DC coupling system are as follows: 1) When the system is configured with ≥19 battery modules, the string open-circuit voltage should meet the following minimum requirements: 1.1) If configured with 21 battery modules, the string open-circuit voltage should be > 935 V; 1.2) If configured with 20 battery modules, the string open-circuit voltage should be > 870 V; 1.3) If configured with 19 battery modules, the string open-circuit voltage should be > 805 V. 2) When the system is configured with 4 to 18 battery modules, the string open-circuit voltage has no special requirements.
4. This represents the combined input from PV DC and rectified AC sources, while actual power depends on site configuration and operating condition.
5. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the total power of the Sigen Hybrid Inverter is higher than the total power of the loads.
6. For all standards refer to the certificates category on the Sigenergy website.
7. For Sigen energy gateway connections, the inverter should be connected to the gateway via its AC output port (Grid).
8. The information in this document reflects the current state of technology and is subject to change without notice. For the latest updates, please refer to the Sigenergy website.

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