

# Sigen Hybrid Inverter

50.0 / 60.0 / 80.0 / 100.0 / 110.0 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

# Signen Hybrid Inverter 50.0 / 60.0 / 80.0 / 100.0 / 110.0 kW

Preliminary

Signen PV	50M1-HYB	60M1-HYB	80M1-HYB	100M1-HYB	110M1-HYB	Units
<b>DC Input (PV)</b>						
Max. PV input power	100,000	120,000	160,000	200,000	220,000	Wp
Max. DC input voltage				1,100		
Nominal DC input voltage	600 @380/400 Vac, 720 @480 Vac					V
Start-up voltage				180		
MPPT voltage range				160 ~ 1,000		
Number of MPP trackers	4	5	6	8	8	
Number of PV strings per MPPT				2		
Max. input current per MPPT				40		
Max. short-circuit current per MPPT				60		
<b>DC Input (Battery)</b>						
Battery module models	SignenStack BAT 12.0					
Battery controller models	SignenStack BC M2-0.5C-BST / SignenStack BC M2-1C-BST					
System configuration quantity range				4 ~ 21		
Max. charge power	55,000	66,000	88,000	110,000	121,000	W
Max. discharge power	55,000	66,000	88,000	110,000	121,000	W
Max. operating current				180		
<b>AC Output (On-grid)</b>						
Nominal output active power	50,000	60,000	80,000	100,000	110,000	W
Max. output apparent power	55,000	66,000	88,000	110,000	121,000	VA
Max. output active power (cosΦ=1)	55,000	66,000	88,000	110,000	121,000	W
Nominal output current @380Vac	76.0	91.2	121.5	151.9	167.1	A
Nominal output current @400Vac	72.5	87.0	115.9	144.9	159.4	A
Nominal output current @480Vac	60.2	72.2	96.3	120.3	132.4	A
Max. output current @380 / 400Vac	83.6	100.3	133.7	167.1	183.8	A
Max. output current @480Vac	66.2	79.4	105.9	132.4	145.6	A
Nominal output voltage				380 / 400 / 480, 3W+N+PE		
Nominal grid frequency				50 / 60		
Power factor				0.8 leading ~ 0.8 lagging		
Total current harmonic distortion				THDi < 3%		
<b>AC Output (Backup)</b>						
Nominal output active power	50,000	60,000	80,000	100,000	110,000	W
Max. output apparent power	55,000	66,000	88,000	110,000	121,000	VA
Peak output power (10 seconds)	75,000	90,000	120,000	150,000	150,000	W
Nominal output voltage				380 / 400 / 480, 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 <sup>2</sup>				0	ms	
<b>Efficiency</b>						
Max. efficiency				98.3%		
European efficiency	97.9%	97.9%	98.0%	98.0%	98.0%	
<b>Protection</b>						
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					
<b>General Data</b>						
Dimensions (W / H / D)				1110 / 668 / 348	mm	
Weight				105	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 4,000m)	m	
Cooling	Smart air cooling					
Ingress protection rating	IP66					
Communication	WLAN / Fast Ethernet / RS485 / Signen CommMod (4G/3G/2G)					

1. This refers to the load-side disruption time. Test conditions: In the open-circuit state of the power grid, the nominal power of the Signen Hybrid Inverter is higher than the total power of the loads.
2. For Signen energy gateway connections, the inverter should be connected to the gateway via its AC output port (Grid).
3. 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 Signenergy website.

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