

Sigen Hybrid Inverter



- Seamless backup for worry-free energy usage in your business.
- Lightweight and compact on/off-grid hybrid inverter, easy to install and transport.
- Supports multiple units in parallel for flexible expansion of MW-level microgrid projects.
- 150% peak power for 10 seconds, ensuring stable and reliable daily electricity use.
- Integrates with SigenStack for a DC-coupled, efficient microgrid solution.

Sigen PV	50M1-HYB	60M1-HYB	80M1-HYB	100M1-HYB	110M1-HYB	Units	
DC Input (PV)							
Max. PV input power	100,000	120,000	160,000	200,000	220,000	Wp	
Max. DC input voltage						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	5	6	8	8		
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	
System configuration quantity range ¹						4 ~ 21	pcs
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	A
AC Output (On-grid)							
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	V
Nominal grid frequency						50 / 60	Hz
Power factor						0.8 leading ~ 0.8 lagging	
Total current harmonic distortion						THDi < 3%	
AC Output (Backup)							
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	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						98.3%	
European efficiency	97.9%	97.9%	98.0%	98.0%	98.0%		
Protection							
Safety protection feature	Arc fault circuit interrupter, DC reverse polarity protection, Residual current monitoring, Type II DC/AC surge protection, Anti-islanding protection, Insulation monitoring, AC overcurrent/overvoltage/short-circuit protection.						
General Data							
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% ~ 95% (non-condensing)	
Max. operating altitude						5,000 (Derating at 4,000m)	m
Cooling						Smart air cooling	
Ingress protection rating						IP66	
Communication						WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)	

- In the case of PV + ESS (DC coupling) projects, the maximum quantity of system configuration is 20.
- This refers to the load-side disruption time. 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 loads.
- For Sigen energy gateway connections, the inverter should be connected to the gateway via its AC output port (Grid).