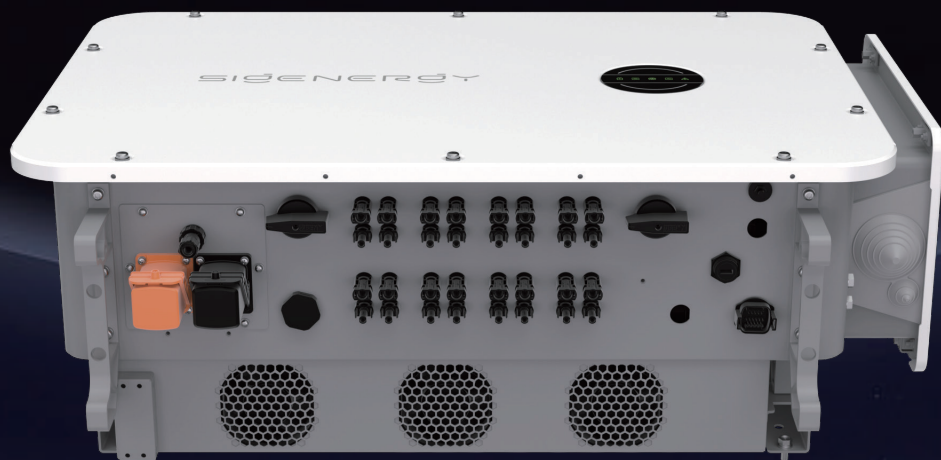


Sigen Hybrid Inverter

50.0 / 99.9 / 110.0 / 125.0 kW



- Battery ready, easy upgrades to a PV + BESS at any time
- Smaller and lighter, easier installation and transportation
- Built-in EMS, supports 100 units in parallel without data logger
- Industry-leading 500m AFCI, top-tier safety across applications
- On-site self-power supply, removes the need for temporary power
- IP66 protection rating, ensuring worry-free outdoor deployment

Sigen Hybrid Inverter 50.0 / 99.9 / 110.0 / 125.0 kW Australia

Sigen PV	50M1-HYA-AU	99.9M1-HYA-AU	110M1-HYA-AU	125M1-HYA-AU	Units
DC Input (PV)					
Max. PV input power	100,000	199,800	220,000	220,000	Wp
Max. DC input voltage ¹	1,100				V
Nominal DC input voltage	600 @380/400 Vac, 720 @480 Vac				V
Start-up voltage	180				V
MPPT voltage range	160 ~ 1,000				V
Number of MPP. trackers	4	8	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 ²	4 ~ 21				pcs
Max. charge power	50,000	99,900	110,000	125,000	W
Max. discharge power	50,000	99,900	110,000	125,000	W
Max. operating current	180				A
AC Output					
Nominal output active power	50,000	99,900	110,000	125,000	W
Max. output apparent power	50,000	99,900	110,000	125,000	VA
Max. output active power (cosΦ=1)	50,000	99,900	110,000	125,000	W
Nominal output current @400Vac	72.5	144.8	159.4	181.2	A
Nominal output current @480Vac	60.2	120.2	132.4	150.4	A
Max. output current @400Vac	72.5	144.8	159.4	181.2	A
Max. output current @480Vac	60.2	120.2	132.4	150.4	A
Nominal output voltage	400/480, 3W+(N)+PE				Vac
Nominal grid frequency	50 / 60				Hz
Power factor	0.8 leading ~ 0.8 lagging				
Total current harmonic distortion	THDi < 3%	THDi < 2%	THDi < 2%	THDi < 2%	
Efficiency					
Max. efficiency @400 Vac	98.6%				
European efficiency @400 Vac	98.3%	98.4%	98.4%	98.3%	
Max. efficiency @480 Vac	98.8%				
European efficiency @480 Vac	98.4%	98.6%	98.6%	98.4%	
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 surge protection (Type I + II optional), Type II AC surge protection, Anti-islanding protection				
General Data					
Dimensions (W / H / D)	918 / 640 / 340			999 / 668 / 340	mm
Weight	72	78	78	95	kg
Nighttime power consumption	<3.5			<4	W
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
PV connection type	H4 Pro (Max. 6 mm²)				
AC connection type	OT / DT terminal (Max. 240 mm²)				
Cooling	Smart air cooling				
Ingress protection rating	IP66				
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)				
Standard Compliance					
Standard ³	IEC 62109-1:2010, IEC 62109-2:2011, IEC / EN 61000-6-1, IEC / EN 61000-6-2, AS/NZS 4777.2:2020+A1:2024				

- The inverter will initiate protection if the input voltage exceeds the MPPT operating voltage range.
- 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.
- For all standards refer to the certificates category on the Sigenenergy website.

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