

Sigen PV Inverter

50.0 / 99.9 / 110.0 / 125.0 kW



- Fully networked communication, enabling rapid commissioning
- Built-in EMS, supports 100 units in parallel without data logger
- Industry-leading 500m AFCI, top-tier safety across applications
- IP66 protection rating, ensuring worry-free outdoor deployment



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

Sigen PV	50M1-AU	99.9M1-AU	110M1-AU	125M1-AU	Units
DC Input					
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			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
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	72.5	144.8	159.4	181.2	A
Max. output current	72.5	144.8	159.4	181.2	A
Nominal output voltage		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%	THDi < 2%	THDi < 2%	THDi < 2%	
Efficiency					
Max. efficiency		98.6%			
European efficiency	98.3%	98.4%	98.4%	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 surge protection (Type I + II optional), Type II AC surge protection, Anti-islanding protection				
General Data					
Dimensions (W / H / D)		918 / 640 / 340			mm
Weight	69	72	72	83	kg
Nighttime power consumption		< 3.5			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 ²	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				

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