

Sigen PV Inverter

50.0 / 60.0 / 80.0 / 100.0 / 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 / 60.0 / 80.0 / 100.0 / 110.0 / 125.0 kW

Sigen PV	50M1	60M1	80M1	100M1	110M1	125M1	Units
DC Input							
Max. PV input power	100,000	120,000	160,000	200,000	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	5	6	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	60,000	80,000	100,000	110,000	125,000	W
Max. output apparent power	55,000	66,000	88,000	110,000	121,000	137,500	VA
Max. output active power (cosΦ=1)	55,000	66,000	88,000	110,000	121,000	137,500	W
Nominal output current @380 Vac	76.0	91.2	121.5	151.9	167.1	189.9	A
Nominal output current @400 Vac	72.5	87.0	115.9	144.9	159.4	181.2	A
Max. output current @380/400 Vac	83.6	100.3	133.7	167.1	183.8	208.9	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%	THDi < 3%	THDi < 2%	THDi < 2%	THDi < 2%	THDi < 2%	
Efficiency							
Max. efficiency			98.6%				
European efficiency	98.3%	98.3%	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	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 4,000 m)				m
PV connection type			MC4 (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 / EN 62109-1, IEC / EN 62109-2, IEC / EN 61000-6-1, IEC / EN 61000-6-2						

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.
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 Sigenenergy website.

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