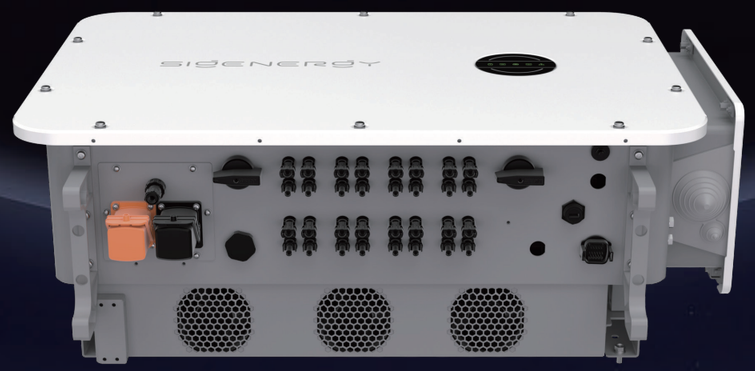
SIGENERGY

# 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

Enjoy Green Energy

## 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 | | | | |

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



Version: 20260203