

Single-phase Residential On-grid Inverter



X1-SMART-G2

5kW / 6kW / 7kW / 8kW
9kW / 10kW



High Efficiency

- 3 MPP trackers for multi-orientation
- Max. 20A PV input current
- 200% PV oversizing & 110% AC overloading
- Built-in global MPP scan



Assured Safety

- Type II SPD on AC&DC side
- Ready for Rapid Shutdown function
- AFCI support (optional)



Intelligent Design

- Plug-and-Play communication terminal
- 10s data refresh interval & 24h consumption monitoring
- I-V Curve diagnosis



Flexible Adaptability

- Supports parallel operation for up to 5 inverters, no external EMS required
- Smart loads management (e.g., heat pump, smart EV charger)

PV INPUT						
Max. recommended PV array power	10 kWp	12 kWp	14 kWp	16 kWp	18 kWp	20 kWp
Max. PV input voltage ^①	600 V					
Nominal PV input voltage	360 V					
Operating voltage range	35 ~ 600 V					
MPPT voltage range ^②	40 ~ 560 V					
Start-up voltage	50 V					
No. of MPP trackers / Strings per MPP tracker	3 / (1 / 1 / 1)					
Max. input current per MPPT	20 A / 20 A / 20 A					
Max. input short circuit current per MPPT	25 A / 25 A / 25 A					
AC OUTPUT						
Rated output power	4999 W	6000 W	7000 W	8000 W	9000 W	9999 W
Rated output current	21.8 A	26.1 A	30.5 A	34.8 A	39.2 A	43.5 A
Max. output apparent power	4999 VA	6600 VA	7700 VA	8800 VA	9900 VA	9999 VA
Max. output continuous current	22.8 A	30.0 A	35.0 A	40.0 A	45.0 A	45.5 A
Nominal AC voltage	1 / N / PE, 220 / 230 / 240 V					
Nominal AC frequency	50 Hz / 60 Hz					
AC frequency range ^③	50 ± 5 Hz / 60 ± 5 Hz					
Adjustable Power Factor range	~ 1 (0.8 lagging to 0.8 leading)					
THDi (Rated power)	< 3%					
EFFICIENCY						
Max. efficiency	98.2%					
European efficiency	97.5%					
ENVIRONMENT LIMIT						
Ingress protection	IP66					
Operating ambient temperature range	-25 ~ 60°C					
Max. operating altitude	4000 m					
Relative humidity	0 ~ 100%RH (condensing)					
Overvoltage Category	Mains: III, PV: II					
GENERAL						
Dimensions (W × H × D)	515 × 370 × 170 mm					
Net weight	19.5 kg					
Cooling concept	Nature cooling					
Communication interfaces	RS485, DRM, CT, Meter, WiFi, LAN, 4G, WiFi+LAN, WiFi+4G					
Power consumption (night)	< 3 W					
Topology	Non-isolated					
Certificates and approvals	IEC/EN 62109-1/-2, AS 4777.2:2020, G99, INMETRO, IEC61727					
PROTECTION						
Protection	Over / under voltage protection, DC isolation protection, DC reverse-polarity protection, Grid monitoring, DC injection monitoring, Back feed current monitoring, Residual current detection, Anti-islanding protection, Over temperature protection, DC reverse-polarity protection					
Active anti-islanding method	Frequency Shift					
Surge protection (DC / AC)	DC: Type II, AC: Type II					
Arc-fault circuit interrupter (AFCI)	Optional					

① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter

② Input voltage exceeding the MPPT voltage range may trigger inverter protection

③ The AC frequency range may vary from different country codes