



Single-phase Low-voltage Residential Hybrid Inverter



X1-RENO-LV

8kW



Smart Management

- Smart loads management
- Cloud monitoring and operations & maintenance
- Global MPP scan for optimal energy harvest*



Assured Reliability

- Battery terminal temperature detection
- IP66 ingress protection
- Type II SPD on AC&DC side
- AFCI protection (optional)*



High Performance

- 200% oversizing and 200% PV input power
- Max. 36A PV input per MPPT
- Low start-up voltage for higher energy harvest
- Up to 200% EPS output for 10s
- Single unit UPS-level switchover time < 4 ms



Flexible Adaptability

- Max. 5 pcs parallel for on-grid and off-grid
- Compatible with multiple third-party batteries
- Micro-grid and generator function for versatile operations*

*Feature to be upgraded in the future

X1-RENO-8.0-LV

PV INPUT	
Max. recommended PV array power	16 kWp
Max. PV input voltage ^①	500 V
Rated PV input voltage	360 V
Operating voltage range	60 ~ 480 V
Start-up voltage	80 V
No. of MPP trackers / strings per MPP tracker	2 (2/2)
Max. input current per MPPT	36 A / 36 A
Max. input short circuit current per MPPT	45 A / 45 A
AC INPUT & OUTPUT (ON-GRID)	
Rated output power	8 kW
Rated output current	34.8 A@230 V
Max. output apparent power	8.8 kVA
Max. output continuous current	38.3 A@230 V
Rated AC voltage	220 / 230 / 240 V
Max. AC input apparent power	11 kVA
Max. AC input current	47.9 A@230 V
Max. continuous AC passthrough (grid to load)	50 A
Rated AC frequency	50 Hz / 60 Hz
AC frequency range ^②	50±5 Hz / 60±5 Hz
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)
THDi (rated power)	< 3%
BATTERY	
Battery type	LFP / Lead-acid
Battery voltage range	40 ~ 60 V
Max. charge / discharge current	190 A / 190 A
EPS (OFF-GRID) OUTPUT (WITH BATTERY)	
Rated EPS output voltage, frequency	230 V, 50 Hz / 60 Hz
Rated EPS output power	8 kVA
Peak EPS output power	16 kVA 2 times of rated power, 10s
Switchover time	< 4 ms
EFFICIENCY	
Max. efficiency	97.6%
European efficiency	97.0%
ENVIRONMENT LIMIT	
Ingress protection	IP66
Operating temperature range	-40°C ~ 60°C (> 45°C derating)
Max. operating altitude	3000 m
Relative humidity	4 ~ 100%RH (condensing)
Overvoltage category	Mains: III, Battery: II, PV: II
GENERAL	
Dimensions (W × H × D)	420 × 528.4 × 209mm
Net weight	26.3kg
Cooling concept	Smart air cooling
Communication interfaces	CAN, RS485, USB, DI/DO
Display	LCD
Topology	Non-isolated for PV side / HF for battery side
Certifications	NRS 097-2-1, IEC61727, IEC62116, INMETRO, IEC/EN 62109-1/-2
PROTECTION	
Protections	Over / under voltage protection, DC isolation protection, DC reverse-polarity protection, Grid monitoring, DC injection monitoring, Back feed current monitoring, Over temperature 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 The AC frequency range may vary from different country codes