

X3-AELIO

36 kW / 37.5 kW / 60kW

Flexible Configuration

- Parallel operation: supports up to 10 parallel systems, meeting power requirements from 49.9 kW to 600 kW.
- Battery options: three battery choices available.
- PV oversizing: supports up to 200% PV oversizing.
- Integrated hardware design, compatible with multiple voltages

Safe and Reliable

- Three-Phase unbalance: Inverter supports 100% three-phase unbalance.
- Long-Term overload: inverter supports 110% long-term overload.
- Seamless switching: inverter supports 10ms on-grid/off-grid switching.
- Off-Grid overload: inverter supports 150% off-grid overload.

Intelligent and Convenient

- Remote monitoring: supports web/app remote data viewing and remote OTA updates.
- Versatile operating modes: supports various operating modes to meet different application scenarios such as self-consumption, peak shaving, and demand management.
- Generator control: work seamlessly with generator to save fuel and back up

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V1.0 Information may be subject to modify without notice.

	XX3-AELIO-36K	X3-AELIO-37.5K	X3-AELIO-60K
PV INPUT			
Max. recommended PV array power	72kWp	75kWp	120kWp
Max. PV input voltage①	700V	700V	1000V
Rated PV input voltage	400V	400V	650V
MPPT voltage range②	160-650V	160-650V	160-950V
Start-up voltage	180 V		
No. of MPP trackers / Strings per MPP tracker	6/2		
Max. input current per MPPT	40 A		
Max. input short circuit current per MPPT	50 A		
AC INPUT & OUTPUT (ON-GRID)			
Rated output power	36kW	37.5kW	60 kW
Rated output current	100A@120/208	98.5A@127/220 94.7A@132/230	91.0A@220/380 87.0A@230/400
Max. output apparent power	36kVA	37.5kVA	60kVA
Max. output continuous current	100A@120/208	98.5A@127/220 94.7A@132/230	100.0A@220/380 95.7A@230/400
Rated AC voltage	3/N/PE,120V/208V	3/N/PE,127V/220V,132V/230V	3/N/PE,220V/380V,230V/400V
Rated AC frequency	50 Hz / 60 Hz		
AC frequency range③	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		
Battery voltage range	160-460V	160-460V	180-820V
Max. charge / discharge current	160 A (80 A × 2)		
EPS (OFF-GRID) OUTPUT			
Rated EPS output voltage, frequency	3/N/PE,120V/208V,50 Hz/60 Hz	3/N/PE,127V/220V,132V/230V,50 Hz/60 Hz	3/N/PE,220V/380V,230V/400V,50 Hz/60 Hz
Rated EPS output power	36kW	37.5kW	60kW
Max EPS output power	36kVA,long term	37.5kVA,long term	90kVA,10s
Switchover time	< 10 ms		
EFFICIENCY			
Max. efficiency	98.0%		
European efficiency	97.2%		
ENVIRONMENT LIMIT			
Ingress protection	IP66		
Operating temperature range	-35 ~ 60°C (derating +45℃)		
Max. operating altitude	3000 m		
Relative humidity	0 ~ 100% RH (condensing)		
Overvoltage category	Mains: Ⅲ, Battery: Ⅱ, PV: Ⅱ		
GENERAL			
Dimensions (W × H × D)	670 × 820× 257 mm		
Net weight	< 105 kg		
Cooling concept	Smart air cooling		
Communication interfaces	RS485-Meter, RS485-Monitor, RS485-Parallel(daisy-chain), CAN-BMS, CAN-Parallel(daisy-chain), USB, DI×2, DO×1, RCR(DI×4), DRM		
Topology	Non-isolated		
Certificates and approvals	CE,VDE4105, G99, AS4777, EN50549, CEI 0-21, IEC 61727, PEA/MEA, NRS-097-2-1, RD1699, TOR,Inmetro		
PROTECTION			
Over / under voltage protection	Yes		
DC isolation protection	Yes		
DC reverse-polarity protection	Yes		
Grid monitoring	Yes		
DC injection monitoring	Yes		
Back feed current monitoring	Yes		
Residual current detection	Yes		
Over temperature protection	Yes		
Active anti-islanding method	Frequency shift		
Surge protection (DC / AC)	DDC: Type Ⅱ, AC: Type Ⅱ		
Arc-fault circuit interrupter (AFCI)	Optional		
AC auxiliary power supply (APS)	Built-in		

① The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter
②Input voltage exceeding the MPPT voltage range may triggers inverter protection
③The AC frequency range may vary from different country codes

**Manufactured in China*

Preliminary