

X3-AELIO

49.9kW / 50kW / 60kW / 61kW

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.

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.
- VPP Integration: supports VPP applications through IEEE2030.5, OpenADR.※
- Generator control: work seamlessly with generator to save fuel and back up

** Feature to be upgraded in the future*

solaxpower www.solaxpower.com.au service@solaxpower.com.au +61 1300 476 529

V1.1 Information may be subject to modify without notice. 650.00132.00

	X3-AELIO-49.9K	X3-AELIO-49.9K-P	X3-AELIO-50K	X3-AELIO-60K	X3-AELIO-61K
PV INPUT					
Max. recommended PV array power	100 kWp	120 kWp	100 kWp	120 kWp	120 kWp
Max. PV input voltage①	1000 V				
Rated PV input voltage	650 V				
MPPT voltage range②	160 ~ 950 V				
Start-up voltage	180 V				
No. of MPP trackers / Strings per MPP tracker	5 / 2	6 / 2	5 / 2	6 / 2	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	49.9 kW	49.9 kW	50.0 kW	60.0 kW	61.0 kW
Rated output current	75.7 A @ 220 V 72.4 A @ 230V	75.7 A @ 220 V 72.4 A @ 230V	75.8 A @ 220 V 72.5 A @ 230V	91.0 A @ 220 V 87.0 A @ 230V	92.5 A @ 220 V 88.5 A @ 230V
Max. output apparent power	49.9 kVA	49.9 kVA	55.0 kVA	66.0 kVA	66.0 kVA
Max. output continuous current	75.7 A @ 220 V 72.4 A @ 230V	75.7 A @ 220 V 72.4 A @ 230V	83.4 A @ 220 V 79.8 A @ 230V	100.0 A @ 220 V 95.7 A @ 230V	100.0 A @ 220 V 95.7 A @ 230V
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V				
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	180~ 820 V				
Max. charge / discharge current	160 A (80 A × 2)				
EPS (OFF-GRID) OUTPUT					
Rated EPS output voltage, frequency	3 / N / PE, 220 / 380 V, 50 Hz / 60 Hz 3 / N / PE, 230 / 400 V, 50 Hz / 60 Hz				
Rated EPS output power	49.9 kVA	49.9 kVA	50.0 kVA	60.0 kVA	61.0 kVA
Max EPS output power	75 kVA, 10s	75 kVA, 10s	75 kVA, 10s	90 kVA, 10s	90 kVA, 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	< 100 kg	< 105 kg	< 100 kg	< 105 kg	< 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, IEC61727, PEA/MEA, NRS-097-2-1, RD1699, TOR				
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)	DC: 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
② Input voltage exceeding the MPPT voltage range may triggers inverter protection
③ The AC frequency range may vary from different country codes

**Manufactured in China*