HYBRID C&I ESS CABINET
Inverter

Safe

- IP66 protection level
- AC&DC SPD type II, always guarding the inverter
- AFCI optional
- Smart IV Curve scan for early panel diagnosis



Intelligent

- AI ready, forecasting solar generation and load consumption, smart energy management strategy*
- VPP ready, SolaX cloud supports resource aggregator (2030.5, OpenADR)
- Support smart scene function, intelligent loads management(e.g., Heat pump， EV charger)*
- Micro-grid ready, supporting a variety of scenarios, both on-grid and off-grid, balancing power between PCS and Hybrid in real time
- Support 7×24h scheduling mode
- Support Wireless meter solution
- Dual independent battery ports are ready to expand more capacity

Robust

- Robust back-up ability, switch over time ＜10ms, up to 150% EPS output for 10s
- Support off-grid operation

Economic

- Maximum 200% PV input
- Maximum 40A input current per MPPT, support high power solar panel

	X3-AELIO-49.9K	X3-AELIO-50K	X3-AELIO-60K	X3-AELIO-61K
DC Side				
Max. PV input power [kW]	100	100	120	121
Max. PV input voltage [V]	1000			
Start-up voltage [V]	200			
Nominal input voltage [V]	650			
MPPT voltage range [V]	160 - 950			
No. of MPP trackers / Strings per MPP tracker	5 (2 per MPPT)	5 (2 per MPPT)	6 (2 per MPPT)	6 (2 per MPPT)
Max. input current per MPPT [A]	40			
Max. input short circuit current per MPPT [A]	50			
AC Side				
Rated AC output power [kW]	49.9	50	60	61
Rated AC output current [A]	72.3	72.5	87.0	88.4
Max. AC output apparent power [kVA]	49.9	55	66	66
Max. AC output current [A]	83.2	83.3	100.0	101.7
Nominal AC voltage [V]	3P4W, 400/230, 380/220			
Rated AC grid frequency [Hz]	50 / 60			
Adjustable Power Factor range	1 (0.8 Leading ~ 0.8 Lagging)			
THDi (Rated power) [%]	< 3			

	X3-AELIO-49.9K	X3-AELIO-50K	X3-AELIO-60K	X3-AELIO-61K
Battery Side				
Battery type	Lithium - ion			
Battery voltage range [V]	180 - 820			
Max. charge / discharge current [A]	160 (80x2)			
EPS Output(with battery)				
Peak apparent AC power [kVA]	49.9	55	66	66
Nominal voltage [V]; Frequency [Hz]	3P4W, 400/230V, 380/220V; 50/60Hz			
Max. output continous current [A]	72.0	83.6	100.3	100.3
Switch time [ms]	< 10			
General				
Max. efficiency [%]	98			
European weighted efficiency [%]	97.2			
Ingress protection	IP66			
Operating ambient temperature range [°C]	- 35 ~ 60			
Max. operating altitude [m]	< 3000			
Relative humidity [%]	0 ~ 100			
Typical noise emission [dB]	< 70			
Dimensions (W×H×D) [mm]	820 × 670 × 257			
Net weight [kg]	< 100		< 105	
Cooling concept	Smart air cooling			
Communication interfaces	RS485, CAN(BMS), CAN, USB, DI, DO, DRM			
Display	LCD (optional)			
Power Consumption				
Standby consumption (night) [W]	< 10			
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			
Anti-islanding protection	Yes			
Over temperature protection	Yes			
SPD (DC/AC)	Type II/Type II			
Arc-fault circuit interrupter (AFCI)	OPT			
Standard				
Safety	EN/IEC 62109-1/-2			
EMC	EN 61000-6-1/2/3/ 4, EN 61000-3-11/12, EN 55011, IEC 62920			
Cetification	VDE4105, G99, AS4777, EN50549, CEI 0-21, IEC61727, PEA/MEA, NRS-097-2-1, RD1699, TOR			