



PARTNER

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AELIO+HR76

49.9kW/50kW/60kW/61kW
38.4kWh-215kWh

SolaX Split C&I Energy Storage Solution

X3-AELIO



Flexible Configuration

- Customizable battery setup: batteries can be flexibly configured according to customer site requirements, supporting indoor and rack-mounted installations.
- Parallel operation: supports up to 10 parallel systems, meeting power requirements from 49.9 kW to 600 kW on grid.
- Battery ports: two 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, ensuring uninterrupted power supply for onsite loads.



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 through IEEE 2030.5, OpenADR.*
- Generator control: work seamlessly with generator to save fuel and back up

* Feature to be upgraded in the future

	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	
Max. PV input voltage ^①	1000 V				
Rated PV input voltage	650 V				
MPPT voltage range ^②	160 ~ 950 V				
Start-up voltage	180 V				
No. of MPP trackers / strings per MPP tracker	5 / 2	6 / 2	5 / 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 kW	60 kW	61 kW
Rated output current	75.7 A @ 220 V 72.4 A @ 230 V 69.4 A @ 240 V	75.7 A @ 220 V 72.4 A @ 230 V 69.4 A @ 240 V	75.8 A @ 220 V 72.5 A @ 230 V 69.5 A @ 240 V	91.0 A @ 220 V 87.0 A @ 230 V 83.4 A @ 240 V	92.5 A @ 220 V 88.5 A @ 230 V 84.8 A @ 240 V
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 @ 230 V 69.4 A @ 240 V	75.7 A @ 220 V 72.4 A @ 230 V 69.4 A @ 240 V	83.4 A @ 220 V 79.8 A @ 230 V 76.4 A @ 240 V	100.0 A @ 220 V 95.7 A @ 230 V 91.7 A @ 240 V	100.0 A @ 220 V 95.7 A @ 230 V 91.7 A @ 240 V
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V				
Rated 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%				

	X3-AELIO-49.9K	X3-AELIO-49.9K-P	X3-AELIO-50K	X3-AELIO-60K	X3-AELIO-61K
BATTERY					
Battery type	LFP				
Battery voltage range	160 ~ 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 3 / N / PE, 240 / 415 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%				
	GENERAL				
Ingress protection	IP66				
Operation temperature range	-35 ~ 60°C (>45°C derating)				
Max. operation altitude	3000 m				
Relative humidity	0 ~ 100% RH (condensing)				
Overvoltage category	Mains: III, Battery: II, PV: II				
Dimensions (W × H × D)	670 × 820 × 257 mm				
Net weight	< 100 kg	< 105 kg	< 100 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				
Certifications	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

TSYS-HR76

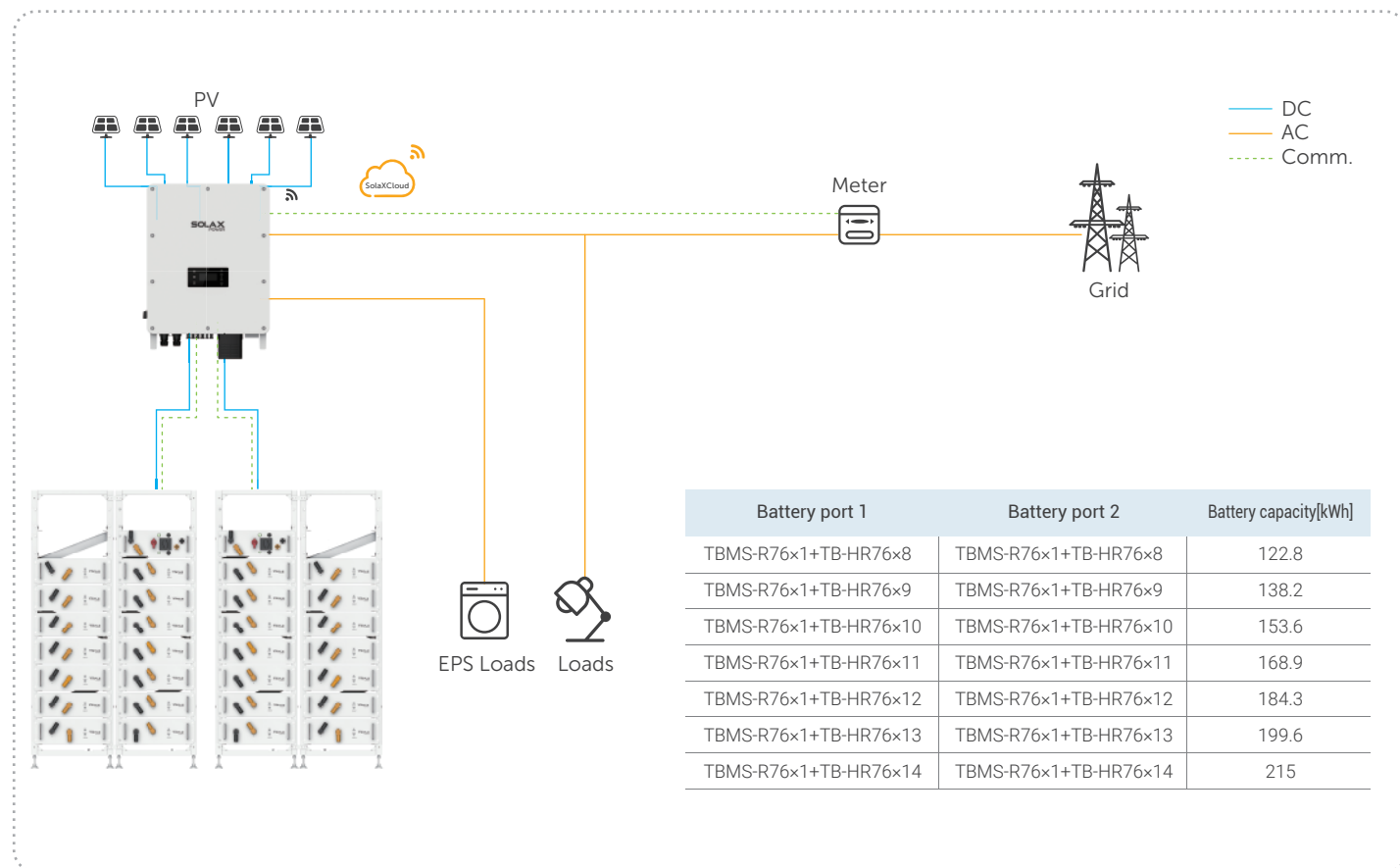
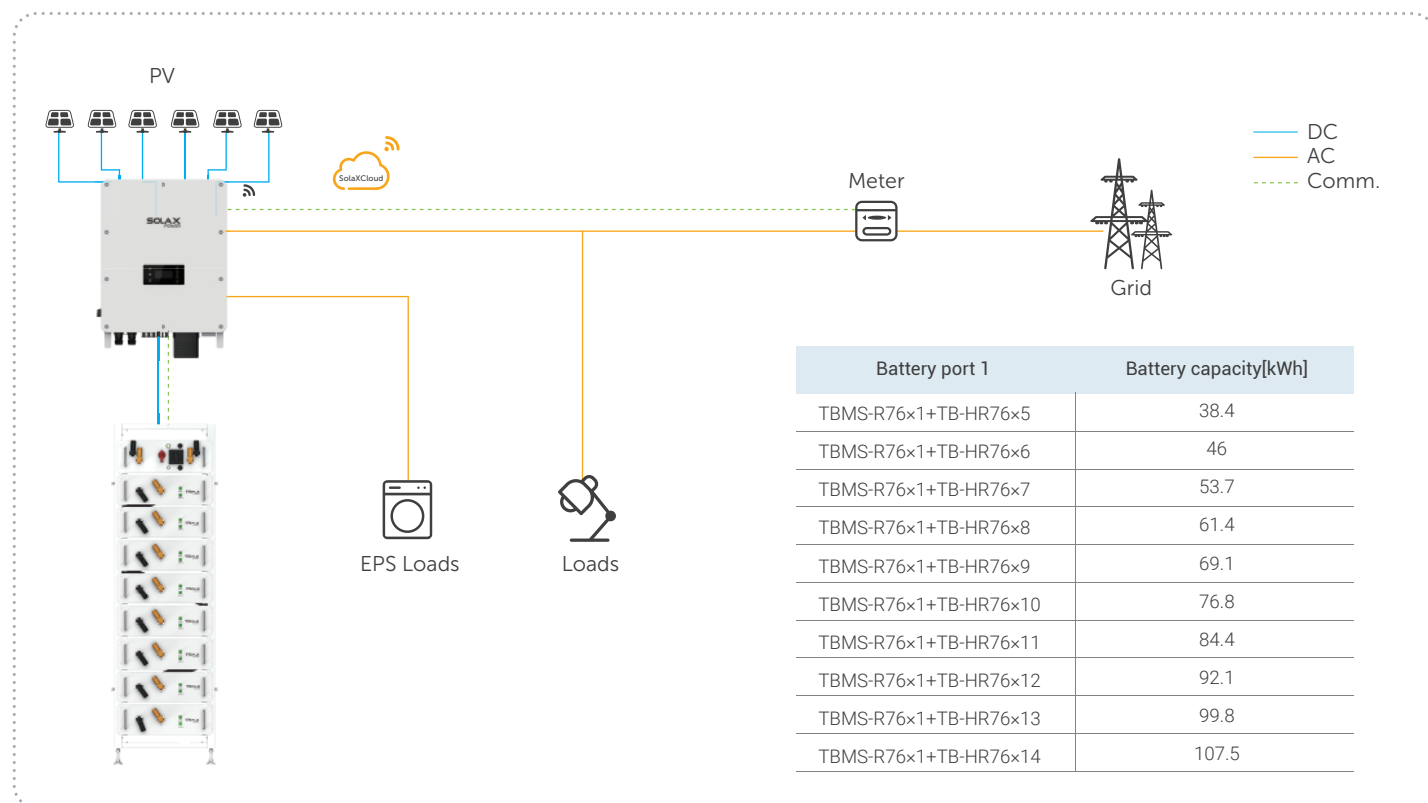


T-HR38.4 T-HR46.0 T-HR53.7 T-HR61.4 T-HR69.2 T-HR76.8 T-HR84.4 T-HR92.1 T-HR99.8 T-HR107.5

SYSTEM SPECIFICATION										
Module quantity	5	6	7	8	9	10	11	12	13	14
Rated capacity	38.4 kWh	46.0 kWh	53.7 kWh	61.4 kWh	69.1 kWh	76.8 kWh	84.4 kWh	92.1 kWh	99.8 kWh	107.5 kWh
Usable energy (90%DOD)	34.5 kWh	41.4 kWh	48.3 kWh	55.2 kWh	62.2 kWh	69.1 kWh	76.0 kWh	82.9 kWh	89.8 kWh	96.7 kWh
Rated voltage	256.0 V	307.2 V	358.4 V	409.6 V	460.8 V	512.0 V	563.2 V	614.4 V	665.6 V	716.8 V
Operation voltage range	200 ~ 292 V	240 ~ 350.4 V	280 ~ 408.8 V	320 ~ 467.2 V	360 ~ 525.6 V	400 ~ 584 V	440 ~ 642.4 V	480 ~ 700.8 V	520 ~ 759.2 V	560 ~ 817.6 V
Rated operation current (recommended) ^①	90 A									
Maximum operation current ^①	150 A									
Rated power (recommended) ^①	23.0 kW	27.6 kW	32.2 kW	36.8 kW	41.4 kW	46.0 kW	50.6 kW	55.2 kW	59.8 kW	64.5 kW
BATTERY MODULE										
Model	TB-HR76									
Module energy	7.6 kWh									
Rated module voltage	51.2 V									
Module capacity	150 Ah									
Cycl life (90% DOD)	≥ 6000 (@25°C ± 2°C , 0.5C / 0.5C, 70%EOL)									
Battery Type	LFP									
Dimensions (W x H x D)	450 × 170 × 580 mm									
Weight	60 kg									
BMS										
Model	TBMS-R76									
Dimensions (W x H x D)	450 × 180 × 580 mm									
Net weight	20 kg									
RACK										
Dimensions (W x H x D)	550 x 1800 x 600 mm				1120 x 1800 x 600 mm					
Net weight	55 kg				110 kg					
GENERAL										
Battery roundtrip efficiency (0.5C / 0.5C, 25°C)	95%									
Charge / discharge temperature range (without heating) ^①	0 ~ 55°C (charge) -20 ~ 55°C (discharge)									
Communication interface	CAN									
Installation type	Rack mounting									
Relative humidity	5 ~ 85% (non-condensing)									
Max. operation altitude	3000 m									
Environment	Indoor									
Ingress protection	IP20									
Safety	IEC 62619									
Transport testing requirement	UN38.3									

① The current is affected by temperature and SOC.

BATTERY MODULE COMBINATION TABLE



Rated / Maximum operation current and Rated / maximum power derating will occur related to temperature or SOC



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