

AC-coupled ESS Liquid Cooling Cabinet



ESS-TRENE (Liquid cooling)

125kW /261kWh

High Performance

- Premium LFP battery with guaranteed quality
- High power density, compact design
- Scalable up to MWh
- Cell-level balancing and smart temperature control

Assured Safety

- 4 levels fire safety design secures minimal risk and loss
- Aerosol fire suppression for precise protection
- IP67 for battery, IP66 for inverter, IP55 for cabinet
- Advanced fault detection and response

Intelligent Design

- Advanced energy management system
- VPP ready with SolaXCloud (IEEE 2030.5, OpenADR)
- Supporting micro-grids and diverse scenarios
- Supporting remote monitoring and maintenance

Flexible Adaptability

- Supporting grid-connected and off-grid (with SolaX switching cabinet)
- Full-stack self-developed BMS, EMS, PCS & SolaXCloud
- One year of local historical data storage
- Optimised space utilisation

TRENE-P124B261L-E

TRENE-P125B261L-E

AC SIDE (ON-GRID)		
Rated AC power	124.9 kW	125 kW
Max. output apparent power	124.9 kVA	125 kVA
Rated AC current	189.3 A @220 V 181.1 A @230 V	189.4 A @220 V 181.2 A @230 V
Max. output continuous current	208.2 A @220 V 199.2 A @230 V	208.4 A @220 V 199.3 A @230 V
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V	
AC voltage range	340 ~ 440 V	
Rated AC frequency	50 Hz / 60 Hz	
Adjustable power factor range	-1 ~ +1	
THDi (rated power)	< 3%	
DC component	< 0.5% (rated power)	
AC SIDE (OFF-GRID)		
Rated AC output voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V	
Rated AC frequency	50 Hz / 60 Hz	
THDv (linear load)	< 3% (linear load)	
Unbalance load capacity (off-grid)	100%	
Overloading capacity	110%, long term; 120%, 1min	
Max. AC output continuous current	208.2 A @220 V 199.2 A @230 V	208.4 A @220 V 199.3 A @230 V
DC SIDE		
Battery type	LFP / 314 Ah	
Battery capacity	261 kWh	
Rated battery voltage	832 V	
Battery voltage range	650 ~ 936 V	
SYSTEM PARAMETE		
Dimensions (WxHxD)	1350 × 2355 × 1350 mm	
Weight	2810 kg	
Operating temperature range	-30 ~ 55°C (>45°C derating)	
Relative humidity	0 ~ 100% RH	
Max. operation altitude	3000 m	
Cooling concept	Liquid cooling	
Ingress protection	IP55	
Topology	Non-isolated	
Standards	IEC 62619, IEC 63056, IEC 62040, IEC 62477, IEC 61000, IEC 62933, UN 38.3, UL9540A	
Communication interface	Ethernet	
Communication protocol	Modbus TCP	
Anti-corrosion degree	C4 (C5 optional)	
Configuration of safety	Gas fire suppression + Water-based fire suppression + Ventilation + Explosion-proof plates	
Max. parallel quantity (off-grid)	10	

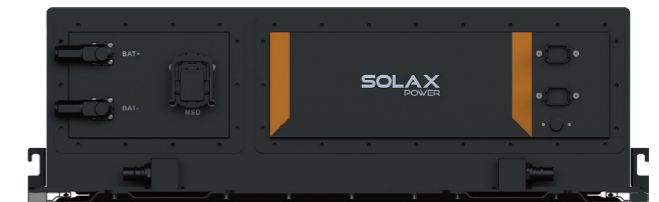
PCS

	X3-TRENE-124.9K	X3-TRENE-125K
AC SIDE (ON-GRID)		
Rated AC output power	124.9 kW	125 kW
Max. AC output apparent power	124.9 kVA	125 kVA
Rated AC output current	189.3 A @220 V 181.1 A @230 V	189.4 A @220 V 181.2 A @230 V
Max. AC output continuous current	208.2 A @220 V 199.2 A @230 V	208.4 A @220 V 199.3 A @230 V
Rated AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V	
AC voltage range	320 ~ 460 V	
Rated AC frequency	50 Hz / 60 Hz	
AC frequency range	50 ± 5 Hz / 60 ± 5 Hz	
Power factor range	-1~+1	
THDi (rated power)	< 3%	
DC component	< 0.5% (rated power)	
Unbalance load capacity (on-grid)	100%	
AC SIDE(OFF-GRID)		
Nominal AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V	
Rated AC frequency	50 Hz / 60 Hz	
THDv (linear load)	< 3% (linear load)	
Unbalance load capacity (off-grid)	100%	
Overloading capacity	110%, long term; 120%, 1min	
Max. AC output continuous current	208.2 A @220 V 199.2 A @230 V	208.4 A @220 V 199.3 A @230 V
DC SIDE		
Battery voltage range	650 ~ 936 V	
Max. charge / discharge current	202.1 A	202.3 A
GENERAL		
Max. efficiency	98.0%	
Ingress protection	IP66	
Operating temperature range	-35 ~ 60°C (>45°C derating)	
Max. operation altitude	3000 m	
Relative humidity	0 ~ 100% RH	
Typical noise emission	< 75 dB	
Dimensions (W × H × D)	310 × 665 × 880 mm	
Weight	95 kg	
Cooling concept	Smart air cooling	
Communication interface	RS485, CAN, Ethernet, DI	

PCS

	X3-TRENE-124.9K	X3-TRENE-125K
PROTECTION		
Protections	AC over / under voltage protection, DC component monitoring, AC input phase sequence error protection, Grid frequency high / low protection, Communication failure protection, Type II SPD on AC side, etc.	
STANDARD		
Certifications	CE, EN50549, VDE4105, G99, AS4777, CEI 0-21, IEC61727, PEA / MEA, NRS-097-2-1, RD1699, TOR	

PACK



	TB-HR522
Battery type	LFP 314 Ah
Battery capacity	52.2 kWh
Battery configuration	1P52S
Rated battery voltage	166.4 V
Battery voltage range	130 ~ 187.2 V
Weight	330 kg
Dimensions (W × H × D)	790 × 250 × 1140 mm
Charge / Discharge current	157 A
Relative humidity	0 ~ 95% RH (non-condensing)
Max. operation altitude	3000 m
Ingress protection	IP67
Communication	CAN

If there is any change in product size and parameters, please refer to the latest information without prior notice.