

AC-coupled ESS Liquid Cooling Cabinet



ESS-TRENE (Liquid cooling)

125kW / 261kWh



TRENE-P125B261L-E

AC INPUT & OUTPUT (ON-GRID)	
Rated AC power	125 kW
Rated AC current	181.2 A @230V 189.4 A @220V
Max. output apparent power	125 kVA
Max. output continuous current	199.3 A @230V 208.4A @220V
Nominal AC voltage	3 / N / PE, 230 / 400 V 3 / N / PE, 220 / 380 V
AC voltage range	340 ~ 440 V
Nominal AC frequency	50 Hz / 60 Hz
Adjustable Power Factor range	~ 1 (0.8 lagging to 0.8 leading)
THDi (Rated power)	< 3%
DC component	< 0.5% (Rated power)
AC INPUT & OUTPUT (OFF-GRID)	
Rated AC output voltage	3 / N / PE, 230 / 400 V 3 / N / PE, 220 / 380 V
Rated AC frequency	50 Hz / 60 Hz
THDv (Linear load)	< 3% (Linear load)
Unbalance load capacity (off-grid)	100%
Overloading capability	110%, long term; 120%, 1min
Max. AC output continuous current	199.3 A @230V 208.4A @220V
BATTERY	
Battery type	LFP / 314Ah
Battery capacity	261 kWh
Rated battery voltage	832 V
Battery voltage range	650 ~ 936 V
Cycle life	≥8000 (@70% EOL)
GENERAL	
Dimension (WxDxH)	1350 × 1350 × 2355 mm
Weight	2810 kg
Operating ambient temperature range	-30 ~ 55°C
Relative humidity	0 ~ 100% RH
Max. operating altitude	3000 m
Cooling concept	Liquid cooling
Ingress protection	IP55
Communication interfaces	Ethernet
Communication protocol	Modbus TCP
Anti-corrosion degree	C4H
Fire suppression system	Flammable gas detector, Smoke detector, Heat detector, Alarm sounder, Aersol, Sprinkler
Max. Parallel quantity (off-grid)	10
Topology	Non-isolated
Certificates and approvals	IEC 62619, IEC 63056, IEC 62040, IEC 62477, IEC 61000, IEC 62933, UN 38.3, UL9540A

High Performance

- Premium LFP battery with guaranteed quality
- High power density, compact design
- Scalable up to megawatt-hours
- Optimised space utilisation

Assured Safety

- 4+1 Fire safety design secures minimal risk and loss
- Aerosol Fire Suppression for Precise Protection
- IP65 rating for inverter, IP55 for cabinet
- Advanced fault detection and response

Intelligent Design

- Advanced energy management system
- VPP ready with SolaX Cloud (2030.5, OpenADR)
- Supports micro-grids and diverse scenarios
- 7x24h remote monitoring and maintenance

Flexible Adaptability

- Grid-connected and off-grid support
- Self-developed BMS & EMS via SolaX Cloud
- One year of local historical data storage
- Cell-level balancing and smart temperature control

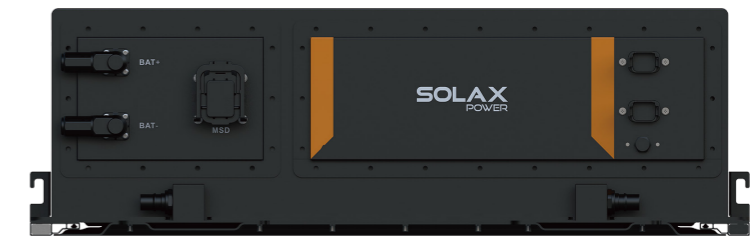
X3-TRENE-125K

AC INPUT & OUTPUT (ON-GRID)	
Rated AC output power	125 kW
Rated AC output current	181.2 A @230V 189.4 A @220V
Max. AC output apparent power	125 kVA
Max. AC output continuous current	199.3 A @230V 208.4 A @220V
Nominal AC voltage	3 / N / PE, 230 / 400 V 3 / N / PE, 220 / 380 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 (0.8 lagging to 0.8 leading)
THDi (Rated power)	< 3%
DC component	< 0.5% (Rated power)
Unbalance load capacity (On-grid)	100%
AC INPUT & OUTPUT (OFF-GRID)	
Rated AC output voltage	3 / N / PE, 230 / 400 V 3 / N / PE, 220 / 380 V
Rated AC frequency	50 Hz / 60 Hz
THDv (Linear load)	< 3% (Linear load)
Unbalance load capacity (off-grid)	100%
Overloading capability	110%, long term; 120%, 1min
Max. AC output continuous current	199.3 A @230V 208.4A @220V
BATTERY	
Battery type	Lithium - ion
Battery voltage range	650 ~ 936 V
Max. charge / discharge current	202.3 A
GENERAL	
Max. efficiency	98.0%
Ingress protection	IP65
Operating ambient temperature range	-35~60 C (>45 C Derating)
Max. operating altitude	3000 m
Relative humidity	0 ~ 100% RH
Typical noise emission	< 75 dB
Dimensions (W × H × D)	880 × 665 × 310 mm
Net weight	95 kg
Cooling concept	Smart air cooling
Communication interfaces	RS485, CAN, Ethernet, DI
PROTECTION	
Protections	Residual current detection, AC over / under voltage protection, DC component monitoring, AC overcurrent protection, AC short circuit protection, Anti-islanding protection, AC input phase sequence error protection, Grid frequency high / low protection, Phase loss protection DC reverse-polarity protection, DC overcurrent protection, DC short circuit protection, DC over / under voltage protection, Over-temperature protection, Communication failure protection, Type II SPD on AC side

X3-TRENE-125K

STANDARD	
Safety	IEC 62477
EMC	IEC 61000-6, IEC 62920
Cetification	EN50549, VDE4105, G99, AS4777, CEI 0-21, IEC61727, PEA / MEA, NRS-097-2-1, RD1699, TOR

C&I ESS CABINET PACK



TB-HR522

Battery type	LFP 314Ah
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 × 1140mm
Charge / Discharge current	157A
Relative humidity	0 ~ 95% RH (non-condensing)
Max. operating altitude	3000 m
Ingress protection	IP67
Communication	CAN