

AC-coupled ESS Cabinet



ESS-TRENE (Air cooling)

100kW / 215kWh



High Performance

- High power density, compact design
- Scalable up to megawatt-hours
- Optimised space utilisation



Assured Reliability

- Four-level fire safety protection
- IP66 for inverter, IP55 for cabinet
- LFP battery cell & high-performance processors
- Type II SPD on AC side
- Advanced fault detection and response
- Supporting three-phase unbalance output



Smart Management

- Advanced energy management system
- VPP ready with SolaXCloud (IEEE 2030.5, OpenADR)
- Supporting micro-grids and diverse scenarios
- Smart schedule, smart scene and 7x24h TOU
- Wireless meter compatibility



Flexible Adaptability

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

TRENE-P100B215

AC SIDE (ON-GRID)	
Rated output power	100 kW
Max. output apparent power	110 kVA
Rated output current	144.4A@230V
Max. output continuous current	159.4A@230V
Rated AC voltage	3W / N / PE, 230 / 400 V
AC voltage range	340 ~ 460 V
Rated AC frequency	50 Hz / 60 Hz
Adjustable power factor range	-1 ~ +1
Total harmonic distortion (THDi)	< 3% (rated power)
DC component	< 0.5% (rated power)
AC SIDE (OFF-GRID)	
Rated AC output voltage	3W / 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 capability	110%, long term; 120%, 1min
Max. AC output continuous current	159.4A@230V
DC SIDE	
Battery type	LFP / 280 Ah
Battery capacity	215 kWh
Rated battery voltage	768 V
Battery voltage range	650 ~ 876 V
SYSTEM PARAMETER	
Dimensions (W x H x D)	1680 x 2420 x 1200 mm
Net weight	2800 kg
Operating temperature range	-30 ~ 50°C (>45°C derating)
Relative humidity	0~95% RH (non-condensing)
Max. operating altitude	3000 m
Cooling concept	Smart air cooling
Ingress protection	IP55
Topology	Non-isolated
Certifications	IEC62619, IEC63056, IEC61000, IEC62477-1, IEC62040,UN38.3
Communication interfaces	Ethernet
Communication protocol	Modbus TCP
Anti-corrosion degree	C4 (C5 optional)
Configuration of safety	Gas fire suppression + Water-based fire suppression + Ventilation
Max.Parallel quantity (off-grid)	10

C&I ESS CABINET PCS

X3-TRENE-100K	
AC SIDE (ON-GRID)	
Rated AC output apparent power	100 kW
Max. AC output apparent power	110 kVA
Rated AC output current	144.4A@230V
Max. AC output continuous current	159.4A@230V
Rated AC voltage	3W / N / PE, 230 / 400 V
AC voltage range	320 ~ 460V
Rated AC frequency	50 Hz / 60 Hz
AC frequency Range	50 ± 5 Hz / 60 ± 5 Hz
Adjustable power factor range	-1 ~ +1
Total harmonic distortion (THDi)	< 3% (rated power)
DC component	< 0.5% (rated power)
Unbalance load capacity (on-grid)	100%
AC SIDE(OFF-GRID)	
Rated AC output voltage	3W / 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 capability	110%, long term; 120%, 1min
Max. AC output continuous current	159.4A@230V
DC SIDE	
Battery voltage range	650 ~ 936 V
Max. continuous charge / discharge current	160 A
GENERAL	
Max. Efficiency	98.0%
Ingress protection	IP66
Operating temperature range	-30 ~ 55°C (>45°C derating)
Max. operating altitude	3000 m
Relative humidity	0~95% RH (non-condensing)
Typical noise emission	< 75 dB (A)
Dimensions (W×H×D)	310 × 665 × 880 mm
Net weight	85 kg
Cooling concept	Smart air cooling
Communication interfaces	RS485 / CAN / Ethernet / DI

C&I ESS CABINET PCS

X3-TRENE-100K	
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

C&I ESS CABINET PACK

TB-HR140	
Battery type	LFP 280 Ah
Battery capacity	14.3 kWh
Battery configuration	1P16S
Rated battery voltage	51.2 V
Battery voltage range	40 ~ 58.4 V
Weight	115 kg
Dimensions (W × H × D)	461 × 228 × 778 mm
Charge / discharge current	140 A
Max. operating altitude	3000 m
Ingress protection	IP20
Communication	CAN

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