

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
- Optimised space utilisation



Assured Safety

- 4+1 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 SolaX Cloud (IEEE 2030.5, OpenADR)
- Supporting remote monitoring and maintenance
- Supporting a variety of C&I energy storage scenarios



Flexible Adaptability

- Grid-connected and off-grid support (with SolaX switching cabinet)
- Full-stack self-developed BMS, EMS, PCS & SolaXCloud
- One year of local historical data storage
- Cell-level balancing and smart temperature control

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<br>181.1 A @230 V                                                           | 189.4 A @220 V<br>181.2 A @230 V |
| Max. output continuous current     | 189.3 A@220 V<br>181.1 A@230 V                                                             | 189.4 A@220 V<br>181.2 A@230 V   |
| Rated AC voltage                   | 3 / N / PE, 220 / 380 V<br>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<br>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<br>199.2 A @230 V                                                           | 208.4 A @220 V<br>199.3 A @230 V |
| DC SIDE                            |                                                                                            |                                  |
| Battery type                       | LFP / 314 Ah                                                                               |                                  |
| Nominal energy                     | 261 kWh                                                                                    |                                  |
| Rated battery voltage              | 832 V                                                                                      |                                  |
| Battery voltage range              | 650 ~ 936 V                                                                                |                                  |
| Depth of discharge (DOD)           | 95%                                                                                        |                                  |
| SYSTEM PARAMETE                    |                                                                                            |                                  |
| Dimensions (W×H×D)                 | 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                                                                                         |                                  |

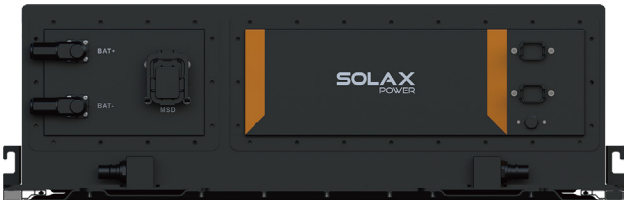
PCS

| 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<br>181.1 A @230 V                   |               | 189.4 A @220 V<br>181.2 A @230 V |
| Max. AC output continuous current  | 189.3 A@220 V<br>181.1 A@230 V                     |               | 189.4 A@220 V<br>181.2 A@230 V   |
| Rated AC voltage                   | 3 / N / PE, 220 / 380 V<br>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<br>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<br>199.2 A @230 V                   |               | 208.4 A @220 V<br>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                                        |               |                                  |
| 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.