

# Liquid Cooling Energy Storage System



## TRENE-P500B1044L-2H

260kW / 319kW / 399kW / 499kW / 500kW



\*Configurable backup duration: 2-4 hours



### High Performance

- Premium LFP battery with guaranteed quality
- High power density, all-in-one design
- Optimised space utilisation, Reduce the time for on-site commission



### Assured Safety

- Multi-level monitoring ensures system reliability
- Fire-resistant compartments for thermal runaway prevention
- Integrated detection and suppression system for immediate risk mitigation



### Intelligent Design

- Advanced energy management system
- Supports micro-grids and diverse scenarios
- 7x24h remote monitoring and maintenance



### Flexible Adaptability

- Modular design for enhanced uptime and scalability
- IP55 outdoor cabinet and IP66 components for reliable performance in demanding environments
- Rapid maintenance with part replacement within 1 hour

TRENE-P500B1044L-2H    TRENE-P499B1044L-2H    TRENE-P399B1044L-2.5H    TRENE-P319B1044L-3H    TRENE-P260B1044L-4H

| AC SIDE ( ON-GRID )                |                                                                                            |                              |                            |                            |                            |
|------------------------------------|--------------------------------------------------------------------------------------------|------------------------------|----------------------------|----------------------------|----------------------------|
| Rated AC power                     | 500 kW                                                                                     | 499.6 kW                     | 399.6 kW                   | 319.6 kW                   | 260 kW                     |
| Max. output apparent power         | 500 kVA                                                                                    | 499.6 kVA                    | 399.6 kVA                  | 319.6 kVA                  | 260 kVA                    |
| Rated AC current                   | 724.8A@230V<br>757.6A@220V                                                                 | 724.4A@230 V<br>757.2A@220 V | 579.2A@230V<br>605.6A@220V | 463.2A@230V<br>484.4A@220V | 377.2A@230V<br>394A@220V   |
| Max. output continuous current     | 724.8A@230V<br>757.6A@220V                                                                 | 724.4A@230 V<br>757.2A@220 V | 579.2A@230V<br>605.6A@220V | 463.2A@230V<br>484.4A@220V | 377.2A@230V<br>394A@220V   |
| Rated AC voltage                   | 3 / N / PE, 230 / 400 V<br>3 / N / PE, 220 / 380 V                                         |                              |                            |                            |                            |
| AC voltage range                   | 340 ~ 440 V                                                                                |                              |                            |                            |                            |
| Rated AC frequency                 | 50 Hz / 60 Hz                                                                              |                              |                            |                            |                            |
| Adjustable power factor range      | -1 ~ +1                                                                                    |                              |                            |                            |                            |
| THDi (rated power)                 | < 3% (Rated power)                                                                         |                              |                            |                            |                            |
| DC Component                       | < 0.5% (Rated power)                                                                       |                              |                            |                            |                            |
| AC SIDE ( OFF-GRID )               |                                                                                            |                              |                            |                            |                            |
| Rated AC output voltage            | 3 / N / PE, 230 / 400 V<br>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  | 797.2A@230V<br>833.6A@220V                                                                 | 796.8A@230 V<br>832.8A@220 V | 637.2A@230V<br>666A@220V   | 509.6A@230V<br>532.8A@220V | 414.8A@230V<br>433.6A@220V |
| DC SIDE                            |                                                                                            |                              |                            |                            |                            |
| Battery type                       | LFP / 314 Ah                                                                               |                              |                            |                            |                            |
| Battery capacity                   | 1044 kWh                                                                                   |                              |                            |                            |                            |
| Rated battery voltage              | 832 V                                                                                      |                              |                            |                            |                            |
| Battery voltage range              | 689 - 936 V                                                                                |                              |                            |                            |                            |
| SYSTEM PARAMETE                    |                                                                                            |                              |                            |                            |                            |
| Dimensions (WxHxD)                 | 2991 x 2896 x 2438 mm                                                                      |                              |                            |                            |                            |
| Weight                             | 13 t                                                                                       |                              |                            |                            |                            |
| Operating temperature range        | -30 ~ 55°C (> 45°C derating)                                                               |                              |                            |                            |                            |
| Relative humidity                  | 0 ~ 100% RH                                                                                |                              |                            |                            |                            |
| Max. operating 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 interfaces           | 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 |                              |                            |                            |                            |