

Liquid Cooling Energy Storage System



TRENE-P500B1044L-2H TRENE-P499B1044L-2H



High Performance

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



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

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AC SIDE (ON-GRID)		
Rated AC power	500 kW	499.6 kW
Max. output apparent power	500 kVA	499.6 kVA
Rated AC current	181.2A*4@230 V 189.4A*4@220 V	181.1A*4@230 V 189.3A*4@220 V
Max. output continuous current	199.3A*4@230 V 208.4A*4@220 V	199.2A*4@230 V 208.2A*4@220 V
Rated AC voltage	3 / N / PE, 230 / 400 V 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 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	199.3A*4@230V 208.4A*4@220V	199.2A*4@230V 208.2A*4@220V
DC SIDE		
Battery type	LFP / 314 Ah	
Battery capacity	1044 kWh	
Rated battery voltage	832 V	
Battery voltage range	650 V ~ 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	