

Liquid Cooling Energy Storage System



TRENE-P500B1044L-2H

249kW / 250kW / 260kW / 319kW / 399kW /
499kW / 500kW



*Configurable backup duration: 2-4 hours



High Performance

- All-in-one design, maximum 5 units in parallel
- High density design reduce 20%+ space and construction demands
- Pre-assembled products for rapid installation
- Factory pre-commissioning saving 50%+ time



Ultimate Safety

- 4-layer real-time monitoring for full-link risk control
- Cell-to-system level safety protection with aerosol firefighting
- Cabinet-level flame retardant design



Robust Reliability

- Full-stack self-developed 3S (PCS, EMS, BMS) enables stable operation
- IP66 (IP55 for cabinet) and C4/C5 anti-corrosion protection handle harsh conditions
- Smart Liquid cooling control ensures $\leq 3^{\circ}\text{C}$ uniformity, battery lifecycle +10%



Worry-free O&M

- Remote OTA for one-click updates on SolaXCloud
- Intelligent BMS management with 10ms-level data monitoring
- Rapid maintenance with 1-hour part replacement

AC SIDE (ON-GRID)

Rated AC power	500 kW	499.6 kW	399.6 kW	319.6 kW	260 kW	250 kW	249 kW
Max. output apparent power	500 kVA	499.6 kVA	399.6 kVA	319.6 kVA	260 kVA	250 kVA	249 kVA
Rated AC current	724.8 A@230 V 757.6 A@220 V	724.4 A@230 V 757.2 A@220 V	579.2 A@230 V 605.6 A@220 V	463.2 A@230 V 484.4 A@220 V	377.2 A@230 V 394 A@220 V	362.4 A@230 V 378.8 A@220 V	361.2 A@230 V 377.6 A@220 V
Max. output continuous current	724.8 A@230 V 757.6 A@220 V	724.4 A@230 V 757.2 A@220 V	579.2 A@230 V 605.6 A@220 V	463.2 A@230 V 484.4 A@220 V	377.2 A@230 V 394 A@220 V	362.4 A@230 V 378.8 A@220 V	361.2 A@230 V 377.6 A@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	797.2 A@230 V 833.6 A@220 V	796.8 A@230 V 832.8 A@220 V	637.2 A@230 V 666 A@220 V	509.6 A@230 V 532.8 A@220 V	414.8 A@230 V 433.6 A@220 V	398.8 A@230 V 416.8 A@220 V	397.2 A@230 V 415.2 A@220 V

DC SIDE

Battery type	LFP / 314 Ah
Battery capacity	1044 kWh
Rated battery voltage	832 V
Battery voltage range	689 - 936 V

SYSTEM PARAMETER

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 + (Optional Explosion-proof plates)