

Vega

MW-level liquid-cooled commercial and industrial energy storage systemm

TESS-500-1048

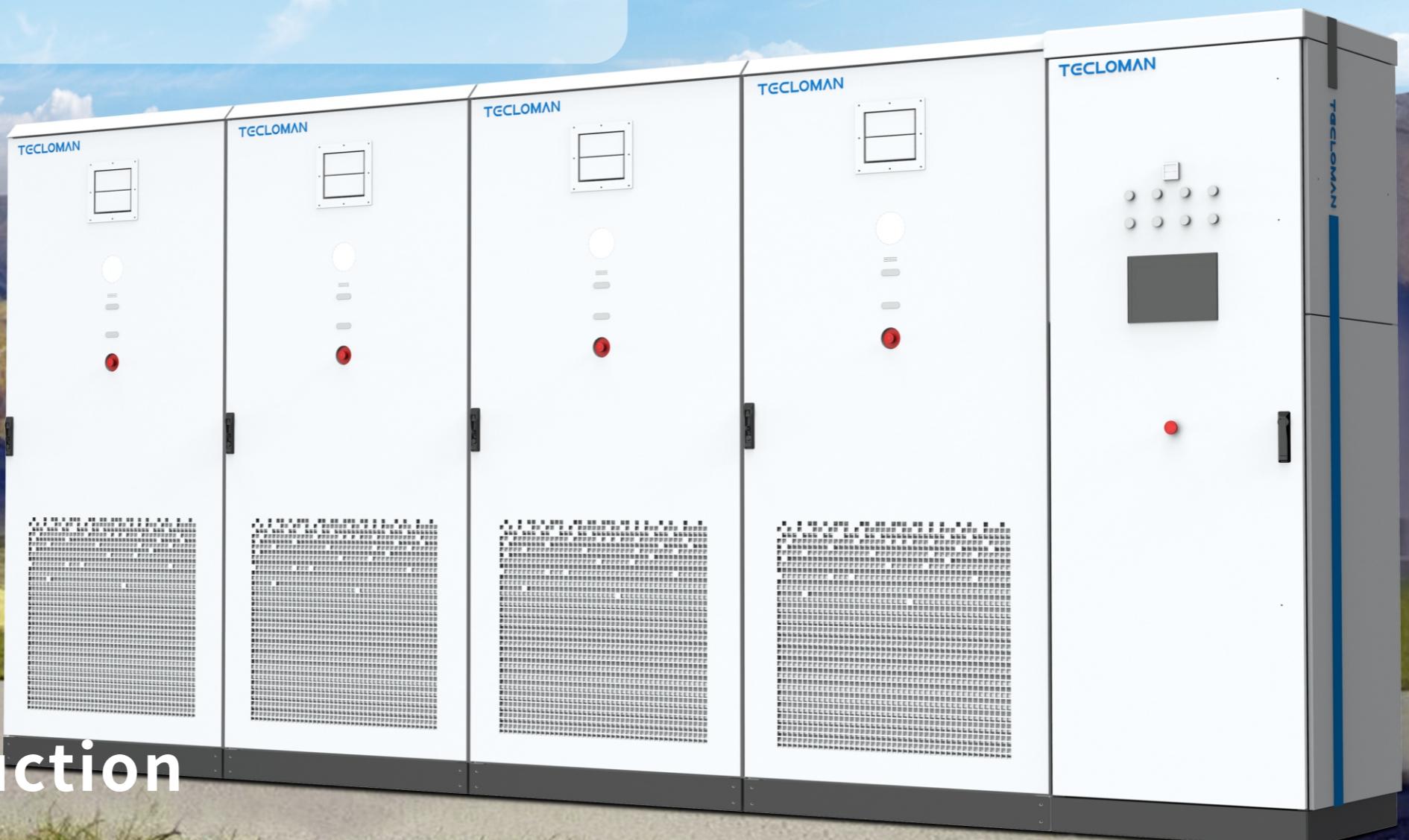

www.tecloman.com
Tal 31, 80331 Munich, Germany

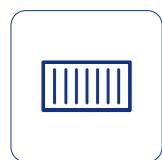


Tecloman's MW-level liquid-cooled commercial and industrial energy storage system utilizes 315Ah LFP battery cells and a modular cabinet design. The power and battery capacity can be adjusted at any time according to customer needs, allowing for flexible configurations to meet diverse customer requirements.

The MW-level liquid-cooled commercial and industrial energy storage system is primarily designed for commercial and industrial energy storage applications. It supports AC 400V grid connection, photovoltaic integration, and includes reserved interfaces for charging stations. With high safety protection levels, fire protection, and intelligent temperature control systems, it is suitable for a variety of commercial and industrial energy storage applications.

Product Introduction





Modular assembly

High protection level, easy to install and transport.



IP54 protection rating

Independent battery and electrical compartment design.



Fire Safety Protection

Reliable integration of intelligent temperature control and fire management enhances system fire safety.



Multi-Scenario Applications

Suitable for renewable energy integration, microgrids, peak regulation, and more.



Supports multi-source access

Supports 400V grid connection, Supports charging station connection.



Fully certified

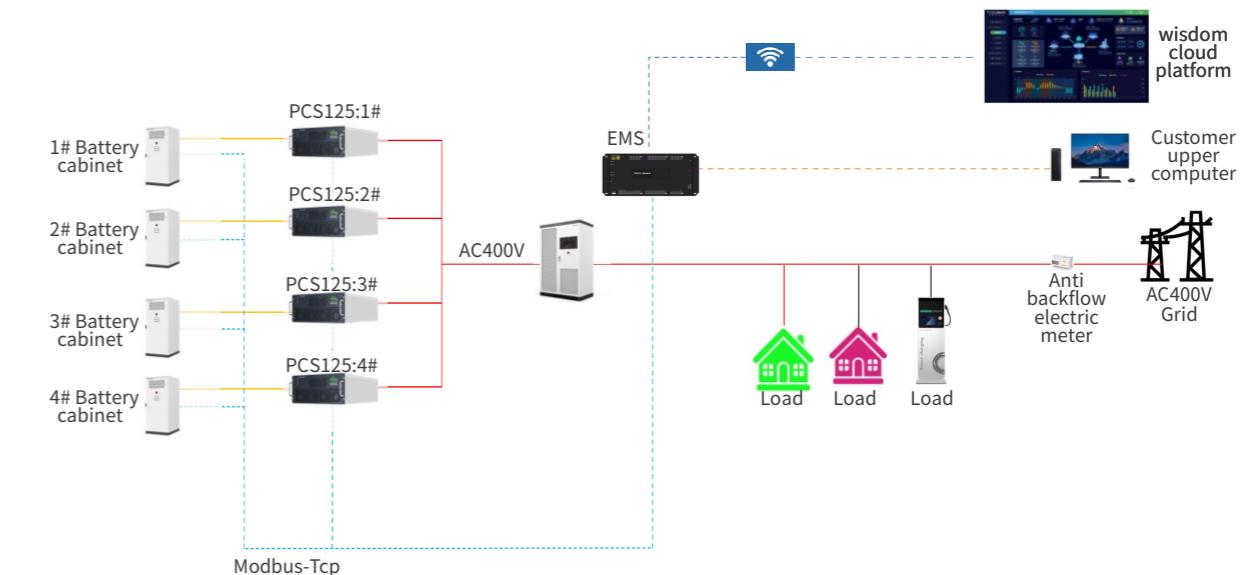
All components are CE certified, Meet overall transportation requirements.



Product Features



Typical Configuration Scheme:



Typical System Topology

Typical Application Scenarios:

Peak shaving and valley filling

Charge during off-peak hours when electricity prices are low, and discharge during peak hours to profit from the price difference.

Dynamic scaling

When the power load exceeds the transformer capacity, the energy storage system automatically discharges to meet the power demand, effectively acting as a capacity expansion solution.

Emergency backup

When the power grid fails, the off-grid system can supply power to the load, ensuring uninterrupted operation of critical loads.

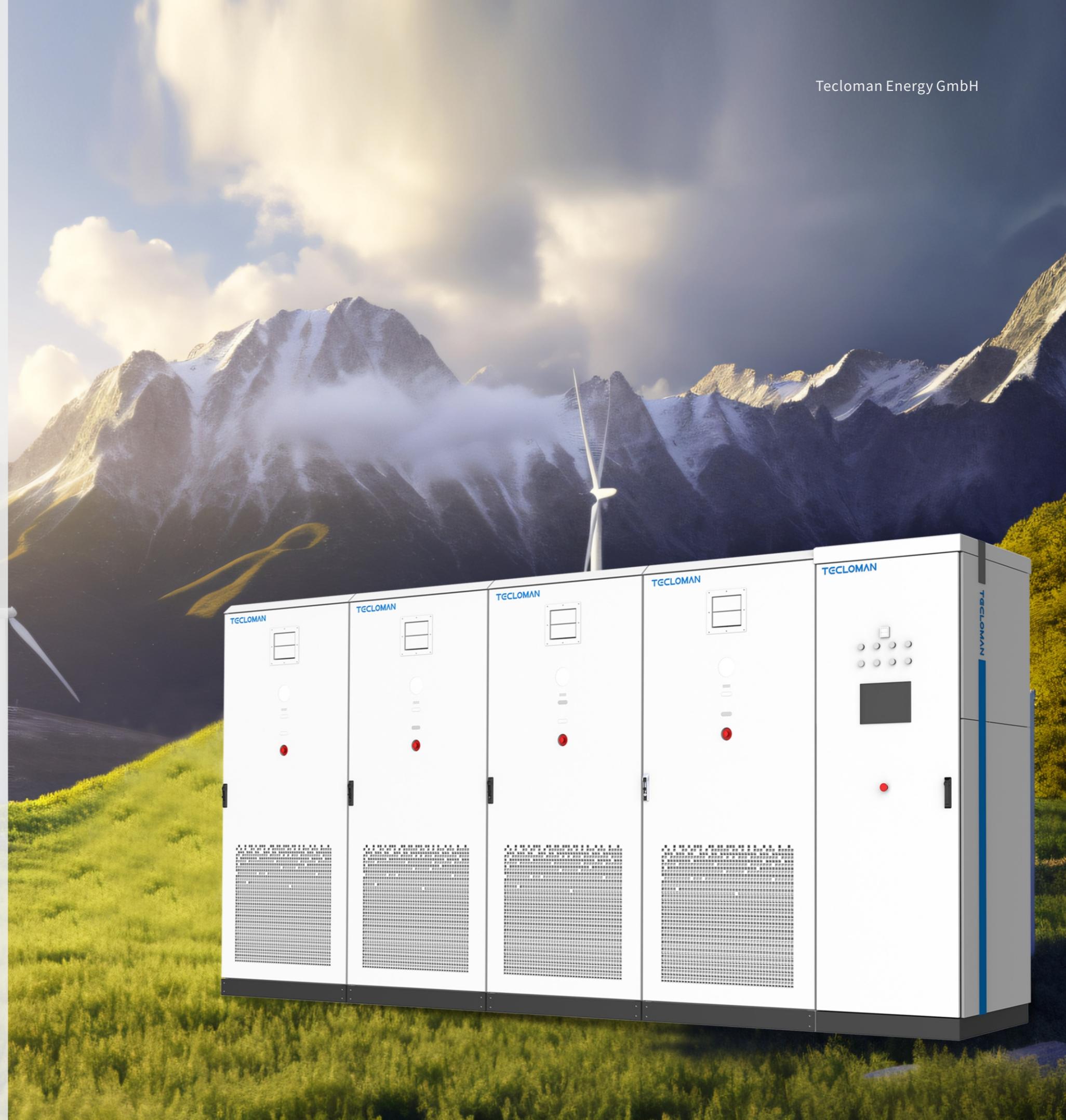
Multi-energy complementary microgrid

Multiple energy sources provide a balanced power supply.

Integrated energy storage and charging system

Complementary use in conjunction with new energy vehicle charging stations.

Application Scenarios



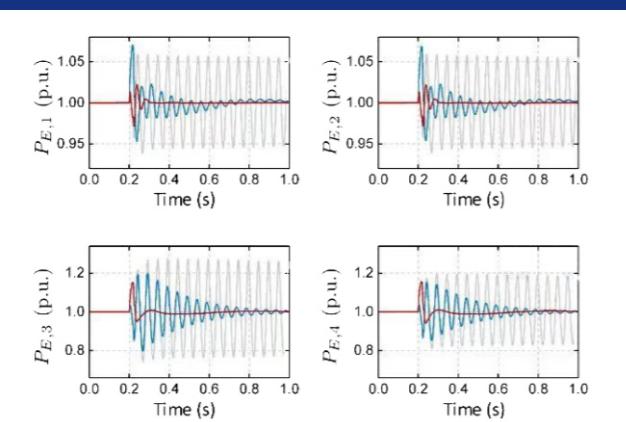
▼ Advantage One

The highly integrated, modular cabinet design allows for quick on-site assembly and requires a smaller land area.



► Advantage Two

Rapid demand-side response, bidirectional interaction, and enhanced grid stability.



Product Advantages

▼ Advantage Three

High flexibility. The capacity can be adjusted by adding or removing battery cabinets, and it can be easily scaled up to MW or even tens of MW levels by connecting multiple modular products in parallel, just like building with LEGO blocks.



▼ Advantage Four

Safe operation and maintenance

Multi-dimensional fire protection, remote real-time monitoring.



version



APP/Mini Program

MW-level liquid-cooled commercial and industrial energy storage system

Model	TESS-500-1048
AC (On-grid)	
Maximum power	550kW
Rated power	500kW
Rated voltage	400V
Rated current	721A
Voltage range	400VAC (-15%~+10%)
Rated frequency	50Hz/60Hz
THDI	<3%
Power factor	-0.9~0.9
Wiring	3/N/PE
AC (Off-grid)	
Maximum power	550kW
Rated power	500kW
Rated voltage	400V
Rated current	721A
THDU	<3% (Resistive load)
Rated frequency	50Hz/60Hz
Overload capacity	120% Overload (1min)
Direct current	
Rated battery voltage	832V
Battery voltage range	728~949VDC
Battery capacity	1048kWh
Maximum charging power	550kW
Maximum discharging power	550kW
Maximum charging current	793A
Maximum discharging current	793A
Basic parameters	
Noise	<75dB (A)@1m

Model	TESS-500-1048
Protection level	IP54
Corrosion protection rating	C3
Operating temperature	-25°C~+55°C
Protection function	Over/undervoltage, overcurrent, over/under temperature, excessively high/low SOC (State of Charge), low insulation resistance, short-circuit protection, etc.
Fire protection	aerosol
Cooling Method	Liquid-cooled air conditioning + forced air cooling
Relative Humidity	0-95% (non-condensing)
Altitude	4000m (derated above 2000m)
Dimensions (WxDxH)	4750×1300×2350mm
Weight	≈10.5T
Communication	
Display	Touchscreen
Communication Interface	RS485, CAN, LAN

Product Parameters