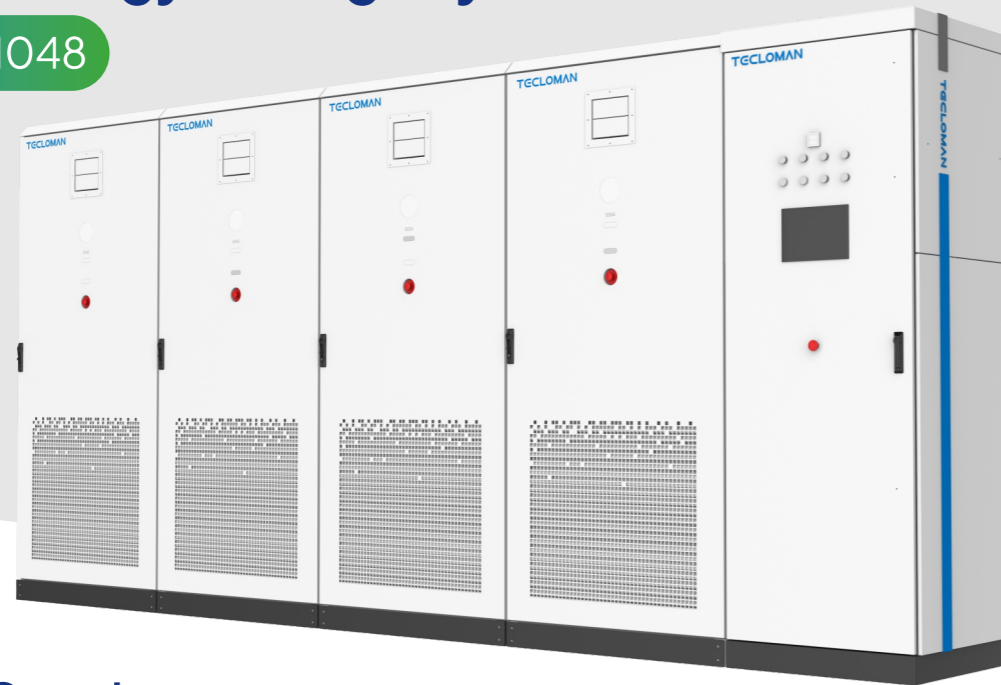


Vega

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

TESS-500-1048



Product Overview

The MW-level liquid-cooled industrial and commercial energy storage system (315Ah) is mainly targeted at industrial and commercial energy storage application scenarios both at home and abroad. Supports AC400V grid connection, reserves charging pile interfaces, and can be assembled in modular cabinets. The power and battery capacity can be adjusted at any time according to customer needs. It is equipped with a high safety protection level fire protection and intelligent temperature control system. It is applicable to various application scenarios such as photovoltaic storage and charging, expansion on the transformer area side, and local microgrids.

Integrated design, high protection rating, and convenient installation and transportation

The reliable integration of intelligent temperature control and fire management enhances the fire safety protection of the system

Supports expansion by connecting multiple units in parallel

Supports AC 400V grid connection

The independent battery and electrical compartment design enhances safety protection levels

Suitable for multiple application scenarios, including renewable energy integration, microgrids, and peak load management

All components within the system are CE certified, ensuring the system is suitable for transportation as a whole

The design includes provisions for electric vehicle charging station interfaces.



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% (Rated power)
Power factor	>0.99
AC System Wiring Type	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	110% overload (10 min), 120% overload (1 min)
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
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

Model	TESS-500-1048
Cooling Method	Liquid-cooled air conditioning + forced air cooling
Relative Humidity	0 ~ 95%, without condensation
Altitude	≤4000m (Derated above 2000m)
Dimensions (WxDxH)	4750x1300x2350mm
Weight	≈10.5T
Communication	
Display	Touchscreen
Communication Interface	RS485/CAN/LAN

 **Product Certification**

PCS Certification:

CE EN 61000-6-4:2019 EN 61000-6-2:2019 EN 62477-1:2012+A1:2017 EN62109-1:2010 EN 50549-1: 2019 C10/11.

Module Certification:

GB/T36276-2018 IEC61629 UN38.3 EMC.

Battery Certification:

UI1973 UL9540A IEC61629 UN38.3 GB/T36276-2018 ROHS MSDS.

 **Product Principle**

