# 500KW/1MWH ESS CABINET

## YJC-EES-H-A-500kW/1.04MkWh

**STRONG OUTPUT FOR LARGE-SCALE APPLICATIONS**
Delivers consistent, high-capacity power for a wide range of industrial, commercial, and renewable energy applications, ensuring optimal system performance and efficiency.

**MODULAR AND FLEXIBLE DESIGN**
With a modular structure, the system can be configured to meet specific energy needs. This allows for easy scalability and system expansion as demand increases.

**PRECISION LIQUID-COOLING FOR LONG-TERM STABILITY**
The advanced liquid-cooling technology ensures thermal management and stability across the entire system, keeping battery temperatures within optimal ranges to prolong system life.

**MULTI-LEVEL SAFETY PROTECTION**
Equipped with comprehensive safety mechanisms, including a three-level fire protection system, automatic overcharge and overcurrent protection, ensuring safe and reliable operation under all conditions.

**HIGH EFFICIENCY AND REDUCED ENERGY LOSS**
The system's efficient design minimizes energy loss, maximizing power conversion and storage capabilities. It supports both AC and DC independent configurations, optimizing overall system performance.

**INTELLIGENT ENERGY MANAGEMENT**
Smart algorithms dynamically adjust charging and discharging processes for peak shaving, valley filling, and efficient energy usage, while continuous monitoring ensures safety and performance.

**RELIABLE BACKUP POWER**
The system includes integrated pass-through capabilities, ensuring critical systems remain powered during unexpected outages, providing seamless backup energy when needed most.


YJC POWER

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| **Product Model** | YJC-ESS-H-A-500kW/1.04MWh |
| **Grid-Connected AC Parameters** | |
| Rated Power | 500 kW |
| Maximum Output Power | 550 kW |
| Rated Grid Voltage | 400 Vac |
| Allowable Grid Voltage | 340–460 Vac |
| Rated Grid Frequency | 50 Hz / 60 Hz |
| Power Factor | -1 (leading) ~ +1 (lagging) |
| THDI | 3% (at rated output power) |
| Grid Connection Method | Three-phase four-wire |
| **Off-Grid AC Parameters** | |
| Rated Output Voltage | 400 Vac |
| Rated Output Power | 500 kW |
| Rated Output Frequency | 50 Hz / 60 Hz |
| THDU | <3% (linear load) |
| Overload Capacity | 1.1 × long-term (≤45℃), 1.2 × for 1 min |
| **Battery Parameters** | |
| Battery System Capacity | 1044.99 kWh |
| Battery Cell Type | LFP, 3.2 V / 314 Ah |
| Battery System Configuration | 1P260S |
| Rated Voltage | 832 Vdc |
| Battery Voltage Range | 650–949 Vdc |
| **System Efficiency** | |
| Max. Converter Efficiency | ≥98.5% |
| Max. System Efficiency | ≥88% |
| Charge/Discharge Rate | ≤0.5C |
| **Protection** | |
| DC Input Protection | Yes |
| AC Output Protection | Yes |
| Communication Output Protection | Yes |
| Overvoltage Protection | DC Type II / AC Type II |
| Fire Protection System | Perfluorohexane + water interface |
| **Conventional Parameters** | |
| Dimensions (W×D×H) | 2991 × 2438 × 2591 mm (10' GP) |
| Weight | 9300 kg |
| Cable Entry | Inlet & outlet |
| Operating Temperature | -20℃ ~ +60℃ |
| Relative Humidity | ≤95% |
| Altitude | ≤3000 m (derating above 3000 m) |
| Ingress Protection Level | IP55 |
| Anti-Corrosion Level | C3 & C5 |
| Cooling Method | Liquid cooling |
| Communication Interfaces | RS485 / CAN / Ethernet |
| Certification & Safety Standards | UL1973 / CE / IEC62619 / UN38.3 |