

ESA 125kW/261kWh – Liquid Cooled ESS



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GOODWE



125kW/261kWh

- Power: 125kW | Capacity: 261kWh
- Grid Connection: 400V AC output
- **Peak System Efficiency: 92%**
- **Overload Capability: 1.1 × continuous; 1.2 × @1min**
- **100% unbalance between phases**
- **Derating: >45°C**
- Multi-communication interfaces supporting remote firmware upgrades
- PCS: Air-cooled
- Pack: Liquid-cooled
- **Packs & Rack: Standard aerosol fire suppression**
- Pre-installed water-based firefighting interfaces
- Modular architecture for flexible capacity expansion and Simplified maintenance operations
- Wide Operating temperature range: -25~+55
- **High Energy Density: 177.6 kWh/m²**
- **EMC Class B**
- **UL9540A Certified**

Features - ESA 125kW/261kWh

GOODWE

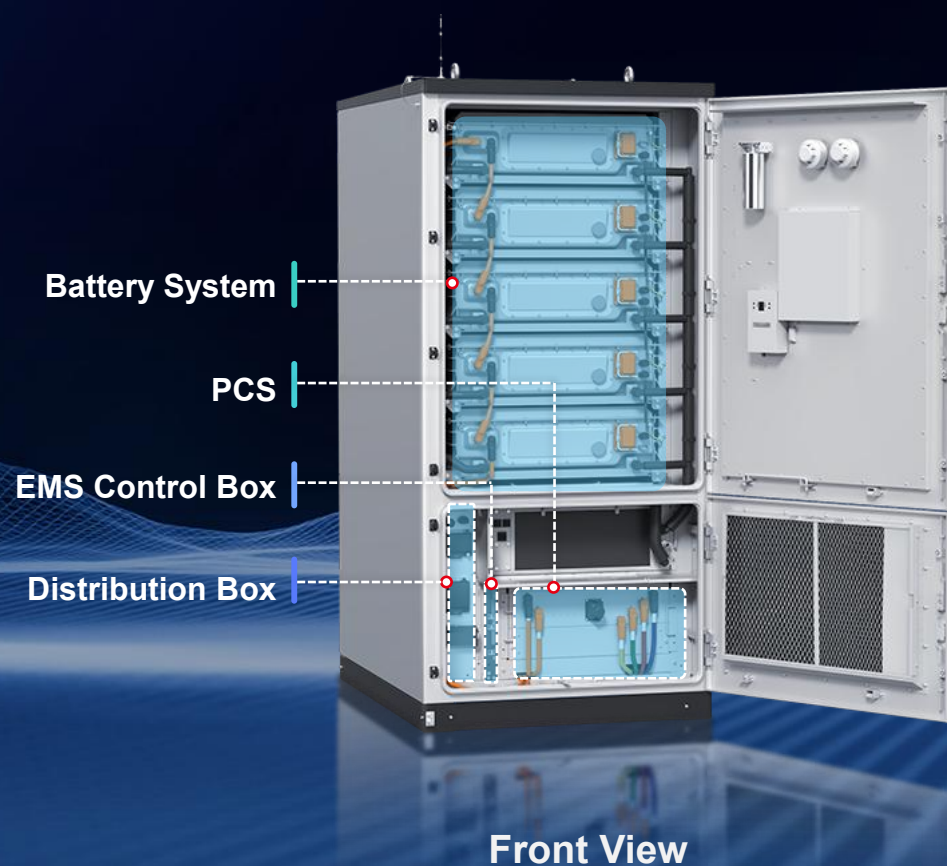


ESA 125KW / 261KWh

Cell technology	LiFePO4 3.2V/314Ah
Usable energy capacity	261.25 kWh
System battery voltage range	676V~936V
Battery cooling type	Liquid cooling
Rated AC power	125kW
Rated AC voltage	400Vac
PCS cooling type	Intelligent force air cooling
Charge/Discharge Time	60ms + Power Control Accuracy 0.2%
Derating	>45°C
System dimension	1050(W)*2250(H)*1400(D)
Energy Density	177.6 kWh/m³
Communication interface	Ethernet, Bluetooth, WIFI
Life Cycle	6000 (90%DOD; 70%EOL)
Weight (Kg)	2580
IP Rating	IP54

Complete Energy Storage System in a Single Enclosure

Comprehensive design — integrating high performance with multi-level safety protection.



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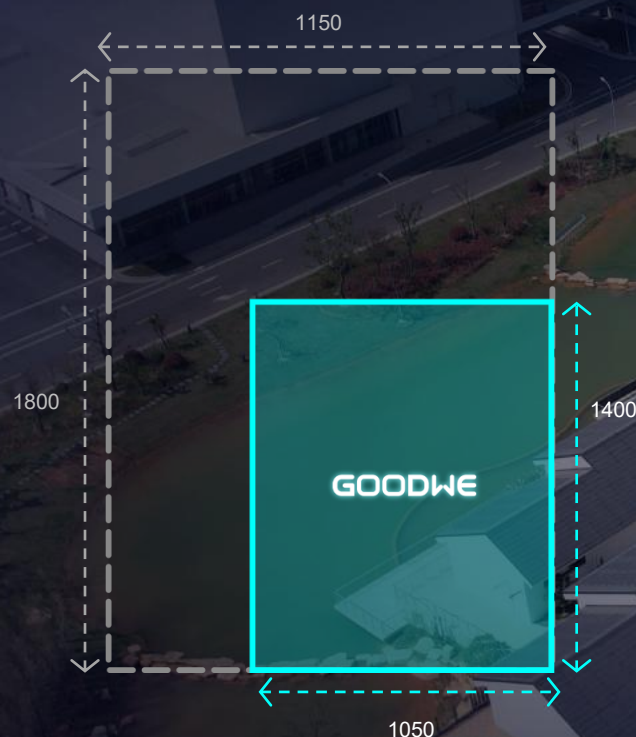
Front View



Back View

Compact Design for Lower Land Costs

Smaller footprint means reduced land investment, easier deployment, and more flexibility for project planning.



28.9%
Space
saving



Lower land
/installation costs

Easier logistic
& site planning

More units per site
→ higher project yield

Better fit for constrained
C&I environments

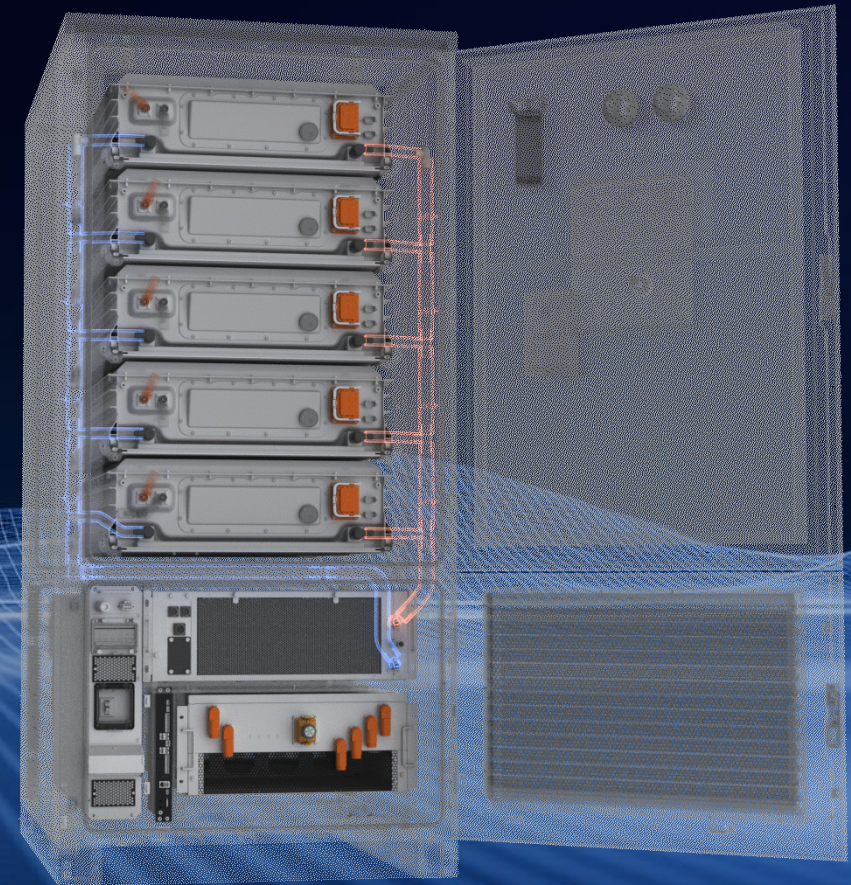
Dual Cooling Approach for Lower LCOE

Smart thermal management reduces energy loss, enhances safety, and minimizes O&M costs.

Liquid Cooling – Battery Pack

Stable temp & extended life

- **Temperature range** : Keeps battery cells operating between 25°C–35°C
- **Operating environment** : -30°C to +55°C
- **Control Logic** :
 - Cooling starts when outlet temperature $\geq 18.4^{\circ}\text{C}$, stops at $\leq 16.4^{\circ}\text{C}$
 - Heating starts when outlet temperature $\leq 12^{\circ}\text{C}$, stops at $\geq 15^{\circ}$



Dual Cooling Approach for Lower LCOE

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Air Cooling – PCS

Efficient & reliable operation

- No derating at 45°C
- 110% continuous overload at 40°C



Built from the Inside Out: Layered for Reliability

Built-in Safety

Cell-level Protection



Top-brand LiFePO4 cell

Electrical Protection

- Short-circuit protection
- Over-current protection
- Insulation monitoring
- Lightning protection

Structural Protection

- C5 corrosion protection
- IP55 ingress protection
- Dehumidification

System-level Protection

- Real-time interaction
- Charge & discharge protection
- Achieved UL9540A certification



Active Safety

Monitoring-level Protection

- BMS compliant with ISO 13849
- Real-time battery health tracking
- AI-driven health diagnosis

Passive Safety

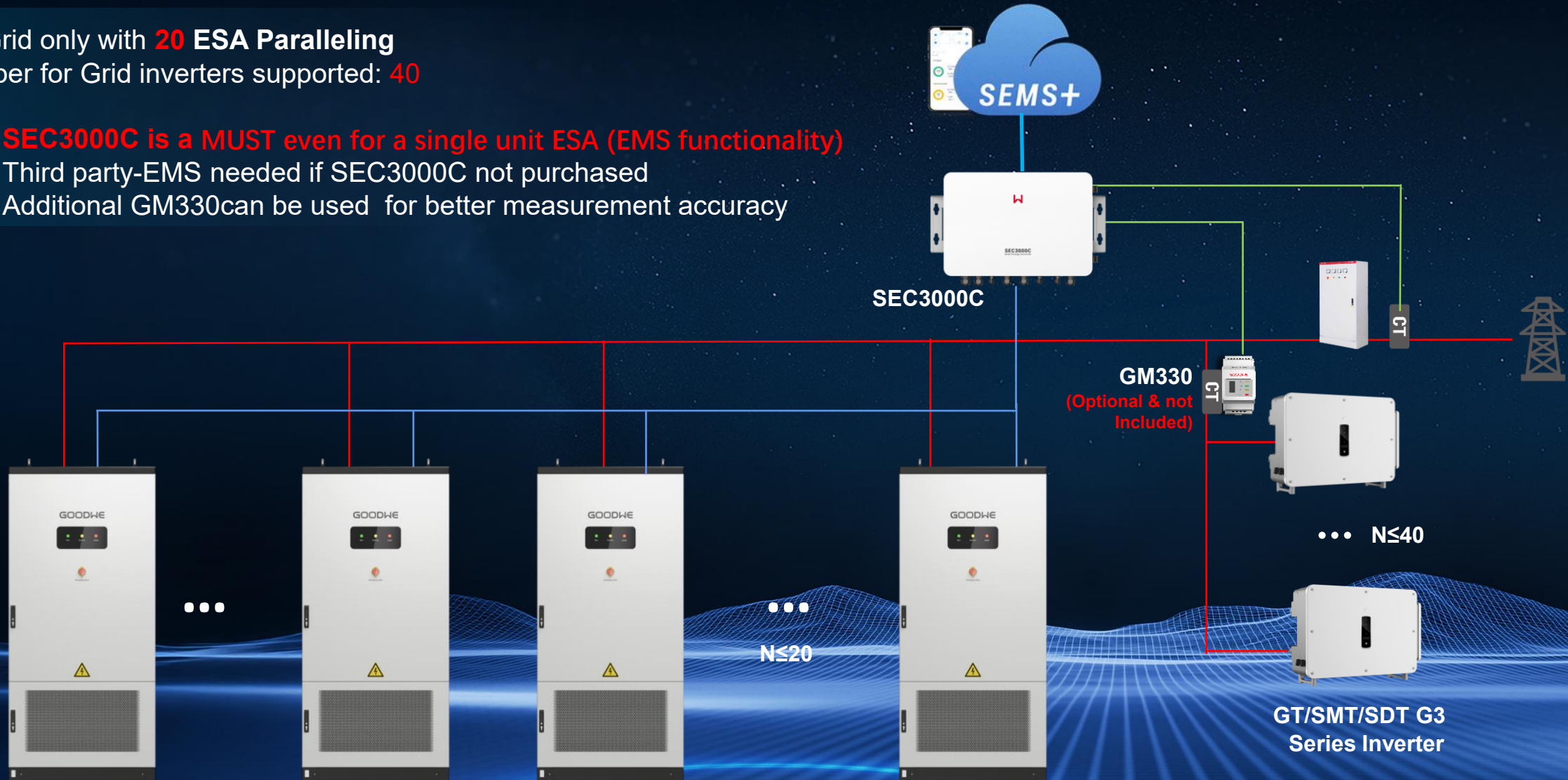
Emergency Protection

- Aerosol-based fire extinguishing
- Cabinet-level fire extinguishing
- Pressure relieve valve

ONGRID – ESS Solution ESA + Grid Tied Inverters

GOODWE

- On-Grid only with **20 ESA Paralleling**
- Number for Grid inverters supported: **40**
- **SEC3000C is a MUST** even for a single unit ESA (EMS functionality)
- Third party-EMS needed if SEC3000C not purchased
- Additional GM330 can be used for better measurement accuracy



Solution up to 1.87MW/3.9MWh + 5MW PV Generation

— AC Cable
— RS485
— LAN Cable