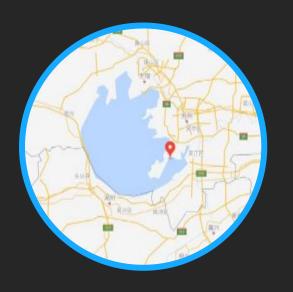




智慧新能源解决方案领跑者





DSBJ(002384) Investment,5A scenic area Suzhou Taihu Lake headquarters base.

Toprun established in June 2010, adhering to the business philosophy of "All for customers, all from quality". Main smart energy storage system and magnetic components, committed to achieve efficient, clean and reliable smart applications of electric energy. Toprun always provides first-class service to local and global customers.

62 items

**R&d technology patent** 

2 items

Participate in the development of national standards

10%

Annual investment in research and development



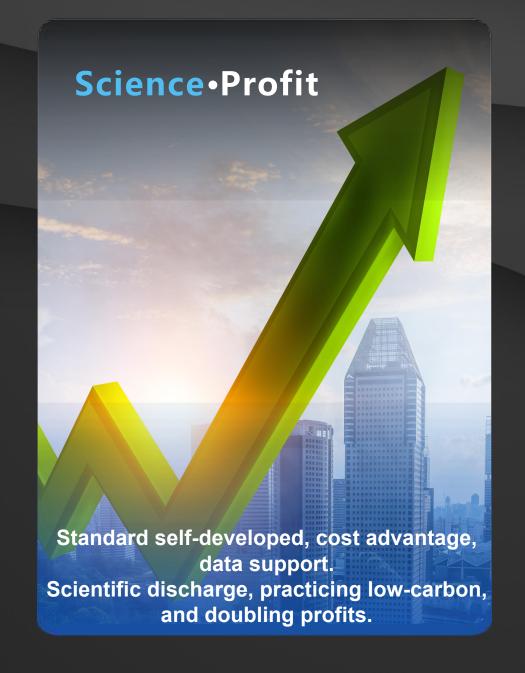




# Core technology enables industry ecology









# **Business Partners**

照光 B S U N G R G M



GROWATT





































# One-degree outdoor energy storage

- ✓ **Small size:**Easy to carry, suitable for camping, picnic, RV and other outdoor activities
- ✓ **Safe and portable:**Small size, light weight, easy to carry and use, improve the convenience of outdoor operations.
- ✓ **Rich interfaces:**Rich interface, electricity freedom. 3 types of input modes, 6 types of output ports.
- ✓ Charging fast:New double fast charge, 1 hour full power, with solar panels, refuse power anxiety.





### **System Parameter**

Battery Capacity: 1080Wh

Ac Continuous Output: 1200W

Ac Peak Power: 2400W

Working Environment Temperature: -10 ~ 45°C

Battery Type: ternary lithium battery

Charging Time: 1.0-1.5 h (AC only)

Weight: 9.5±0.2kg

Size (W\*D\*H): 300mm\*215mm\*195mm





## Single-phase System Parameter

Module type: 5KW

Rated voltage: 220V

Output current: 21.7A

Protection level: IP54

Power: 5.12kWh~20.48kWh

#### **Three-phase System Parameter**

Module type: 10KW

Rated voltage: 380V

Output current: 15.9A

Protection level: IP54

Power: 15.6kWh~20.48kWh









### 200kWh System Parameter

Rated Capacity: 200kWh

Rated Output Power: 100kW

Dimensions(W\*D\*H): 1800mm\*1200mm\*2570mm

Net Weight per Module: 2.6T

Cooling Mode: Air cooling (Industrial air conditioning)

Ingress Protection: IP54

OperationTemperature: - 20°C ~ + 55°C

#### 215kWh System Parameter

Rated Capacity: 215kWh

Rated Output Power: 100kW

Dimensions(W\*D\*H): 1900mm\*1511mm\*2366mm

Net Weight per Module: 2.8T

Cooling Mode: Air cooling (Industrial air conditioning)

Ingress Protection: IP54

OperationTemperature : - 20°C ~ + 55°C

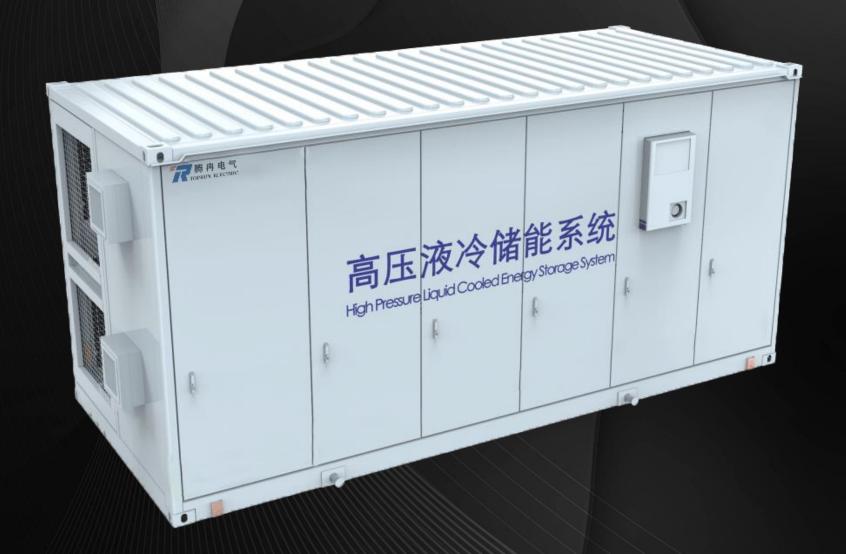




## 20-feet Liquid-cooling Standard Storage Tank

- ✓ High Security: Select lithium iron phosphate cell with high thermal stability. P54 protection grade for outdoor applications.
- High Integration: Standardized interface, flexible access, plug and apply. Modular design, multi-machine parallel, easy to expand.
- High Intelligence:Intelligent EMS system with various functions.Digital system, rapid diagnosis, support for remote monitoring.





#### **System Parameter**

Rated Capacity: 3.44MWh

Rated Output Power: 1.72MW

Dimensions(W\*D\*H): 6058mm\*2438mm\*2896mm

Net Weight per Module:<34t

Cooling Method: liquid-cooling

Protection Class: IP54

Energy Cycle Efficiency: ≥94%



# 40-feet Storage Standard Container

- ✓ High Security:Lithium iron phosphate cell with high thermal stability is selected.IP54 protection grade for outdoor applications.
- ✓ High Integration:Standardized interface, flexible access, plug and play.Modular design, multi-machine parallel, easy to expand.
- ✓ High Intelligence:Intelligent EMS system with various functions.Digital system, rapid diagnosis, support for remote monitoring.







## **System Parameter**

Rated Capacity: 6.88MWh

Rated Output Power: 3.44MW

Dimensions(W\*D\*H): 12116mm\*4876mm\*2896mm

Net Weight per Module:<68t

Cooling Method: liquid-cooling

Protection Class: IP54

Energy Cycle Efficiency: ≥94%



# Smart Energy Cloud Platform

- Equipped with comprehensive data collection and monitoring system functions
- Seamlessly access the dispatch center system and receive charge and discharge control commands from the dispatch center.
- Proactively upload BMS and inverter device information to the dispatch center.
- Advanced control strategy is adopted to achieve a variety of application scenarios such as peak and frequency regulation, peak and valley arbitrage, and maximum demand reduction.
- Support local monitoring and cloud monitoring linkage.



## **Project Case**



Location: South Africa

**Configuration:** Energy Storage Powe Station

Scale: 300kW/645kWh

Result: Successful acceptance



Location: Kunshan, China

Configuration: Photovoltaic + Energy storage

Project Scale: 400kWp+300kW/600kWh

Project Progress: Successful acceptance



Project Location: Suzhou, China

**Project Configuration:** Energy storage

Project Scale: 1MW/2MWh

Project Progress: Successful acceptance



Location: Suzhou, China

Configuration: Energy storage

Scale: 0.72MW/1.6MWh

Result: Successful acceptance



Location: Burma

**Configuration:** Energy Storage Power Station

**Scale:** 3.44W/6.88MWh

**Result:** Successful acceptance



Location: Vietnam

**Configuration:** Energy Storage Power Station

Scale: 400kW/1.6MWh

Result: Successful acceptance

## **Project Case**





Location: Shanghai, China

**Configuration:** Distributed PV project

Scale: 2.3MW

Result: Successful acceptance



Location: Chuzhou, China

**Configuration:** Distributed PV project

Scale: 2MW

Result: Successful acceptance



Location: Suzhou, China

**Configuration:** Energy Storage Power Station

Scale: 600kW/1.2MWh

Result: Successful acceptance



Location: Shanghai, China

**Configuration:** Distributed PV project

Scale: 1.86MW

Result: Successful acceptance



Location: Shanghai, China

Configuration: ESS cabinet+Distributed PV project

Scale: 1MW/2MWh+1.2MW

Result: Successful acceptance



Location: Ningbo, China

**Configuration:** Energy Storage Power Station

Scale: 100kW/215kWh

Result: Successful acceptance

# 苏州腾冉电气设备股份有限公司

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