

**EIKTO**<sup>®</sup>

# Multi-Scenario Battery Solutions:

Powering the Future of  
New Energy Vessels



**EIKTO**<sup>®</sup>

EIKTO New Energy Co., Ltd.

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**Innovation**  
**Responsibility**  
**Gratitude**  
**Happiness**

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# Company Profile

Eikto New Energy Co., Ltd., established in 2006, is a world-leading provider of integrated lithium-ion battery solutions. We are committed to delivering cutting-edge energy applications globally, with a strategic focus on new energy vessels, industrial vehicles, and construction machinery.

In the maritime sector, we have successfully delivered over 800 large and medium-sized pure-electric ship projects worldwide. In the Chinese market, we have pioneered diverse energy integration models, including "Diesel-to-Electric Conversion," "Hydrogen + Electric," and "Methanol + PV + Lithium Battery." As a driving force behind zero-carbon shipping, Eikto provides comprehensive, multi-scenario battery power solutions for all types of new energy vessels.

Let's join hands to embrace a zero-carbon future.

## 5 Major Production Bases in China

Xuancheng, Anhui Province | Wuhu, Anhui Province | Jingxian, Anhui Province | Xiangyang, Hubei Province | Yancheng, Jiangsu Province

**18GWh** Overall Production Capacity

**1600+** Total Employees

## R&D & Intellectual Property



### Battery Solutions for Diverse Vessels:

- Luxury Yachts
- Sightseeing & Cruise Ships
- Passenger Ferries
- Workboats
- Government & Patrol Vessels
- Cargo Ships

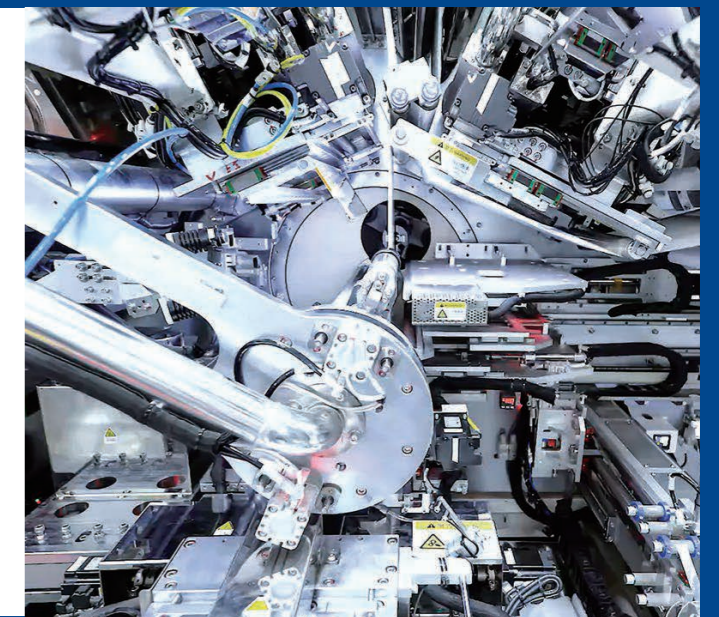
### Authoritative Certification, Global Reach



### 5G Smart Factory

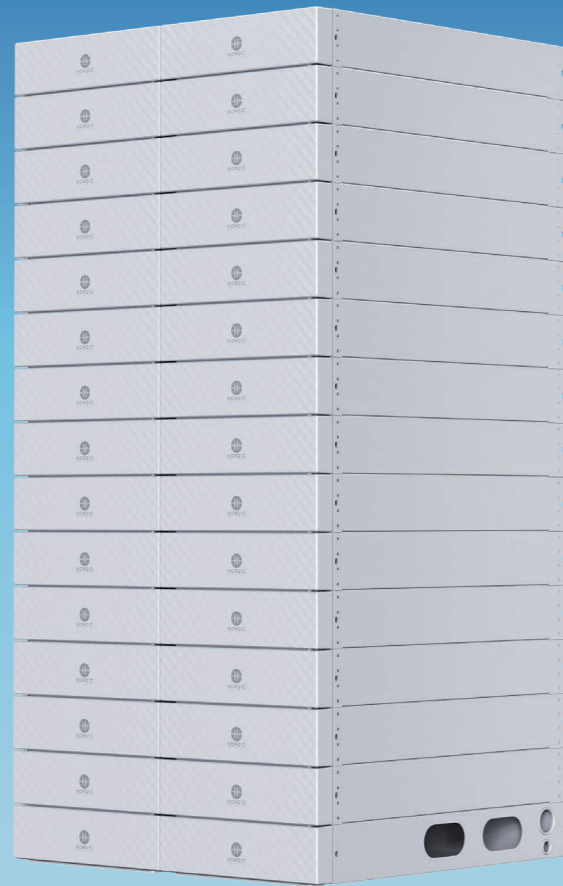
Eikto's 5G Smart Factory leverages state-of-the-art intelligent production equipment integrated with an advanced MES (Manufacturing Execution System). This ensures end-to-end quality control across the entire lifecycle—from raw material sourcing and precision manufacturing to end-user applications.

Through our "Big Data Cloud Management Platform" powered by 5G + IoT (Internet of Things) connectivity, we have established a highly consistent and secure production ecosystem. This synergy allows us to deliver ultra-reliable, zero-carbon power batteries to our global customers.



# S175

S175 is a high-strength, high-voltage, high-safety battery system specially built for harsh marine scenarios. Certified by DNV, it adopts a modular design to support flexible high-voltage expansion, featuring quick installation and easy maintenance. It effectively reduces the full-life-cycle operating costs, bringing you safe and hassle-free voyages.



## Features and Benefits



- Near field wireless cell data acquisition
- Cell to cell thermal runaway protection
- Robust casing
- Flexible and modular design
- Easy to service and maintain
- Low installation and commissioning time

- Chip-on-cell monitoring
- Cobalt and nickel free
- Remote monitoring capabilities
- DNV GL, EN 62619/62620 and UN 38.3 tests
- Enhanced EMI/EMC immunity design for maritime

## Battery System Characteristics

|                               |  |
|-------------------------------|--|
| Cell Chemistry:               | Lithium Iron Phosphate                       |
| Cooling of battery strings:   | Forced Air                                   |
| Temp. range for battery room: | 15°C to 25°C                                 |
| Vibration:                    | IEC 60068-2-6                                |
| EMC:                          | IEC 60945, IEC 61000-4, CISPR 16-2-1, 16-2-3 |

## Battery module

|                                   |               |
|-----------------------------------|---------------|
| Battery capacity per module:      | 8.9kWh        |
| Short circuit capacity (min/max): | 3946 A/5333 A |
| Voltage range of battery module:  |               |
| Minimum (0% SOC):                 | 46.4 VDC      |
| Nominal:                          | 51.2 VDC      |
| Maximum (100% SOC):               | 55.4 VDC      |
| Maximum charging voltage:         | 57.6 VDC      |
| Height:                           | 136 mm        |
| Width:                            | 500 mm        |
| Depth:                            | 950 mm        |
| Weight:                           | 87 kg         |
| Enclosure protection class:       | IP65          |

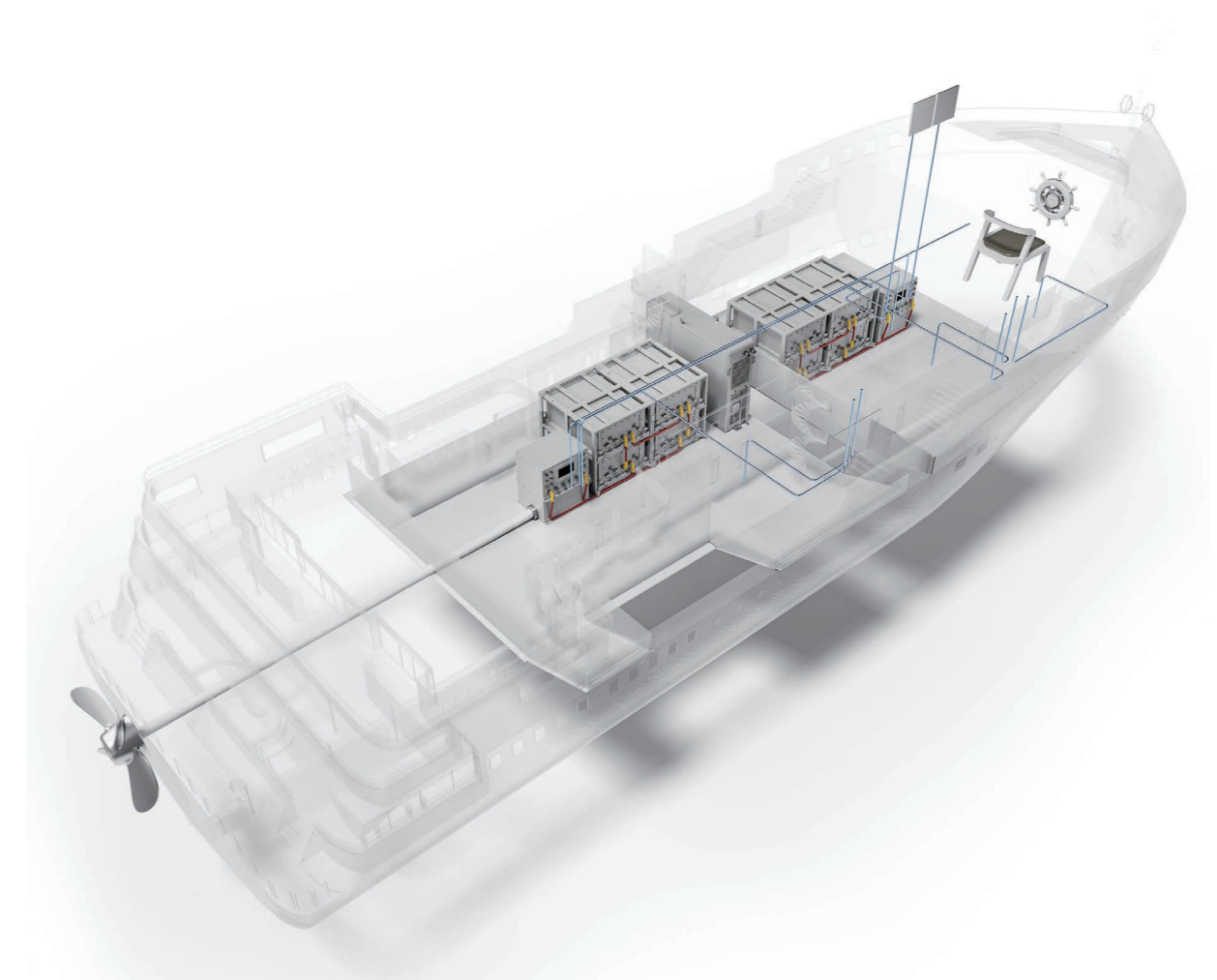
## Battery String Characteristics (for 20 modules)

|                                  |                               |
|----------------------------------|-------------------------------|
| Battery modules in series:       | Max 20                        |
| Battery capacity per string:     | 179 kWh                       |
| Voltage range of battery string: |                               |
| Minimum (0% SOC):                | 928 VDC                       |
| Nominal:                         | 1024 VDC                      |
| Maximum (100% SOC):              | 1108 VDC                      |
| Maximum charging voltage:        | 1152 VDC                      |
| C-rate:                          | 1C = 175 A                    |
| Standard disch./charge           | 1 C                           |
| Maximum cont. disch./charge      | 1.4 C (temperature dependent) |
| Emergency peak disch./charge     | 2 C (15 min, 10 times/year)   |

## Applications and Markets

Grid storage | Port infrastructure | Fish farms | Hybrid and electric ships

# EIKTO S-power



## Features and Benefits



### Thermal Precision: Extended Lifespan

Temp Delta < 3°C: Precision liquid cooling/heating across -30°C to 55°C.

### +30% Cycle Life

Optimized for a 20-year maritime operational lifecycle.

### Modular Design: Space Optimization

Custom Layouts: Tailored for irregular hull spaces, moving beyond standard containers.

### +15% Utility

Maximized space to increase cargo and passenger capacity.

### Triple Safety: Zero Thermal Spread

Physical Barrier: Flame-retardant isolation between cells.

### Active Defense

Real-time detection to ensure "No Fire, No Propagation."

### Marine-Grade Protection IP67 & C5 Rating:

Extreme resistance to high salt spray, humidity, and corrosion.

### Global Certification Full CCS Approval

Certified across cells, modules, and BMS. UN38.3 certification for worldwide delivery.

## Parameters

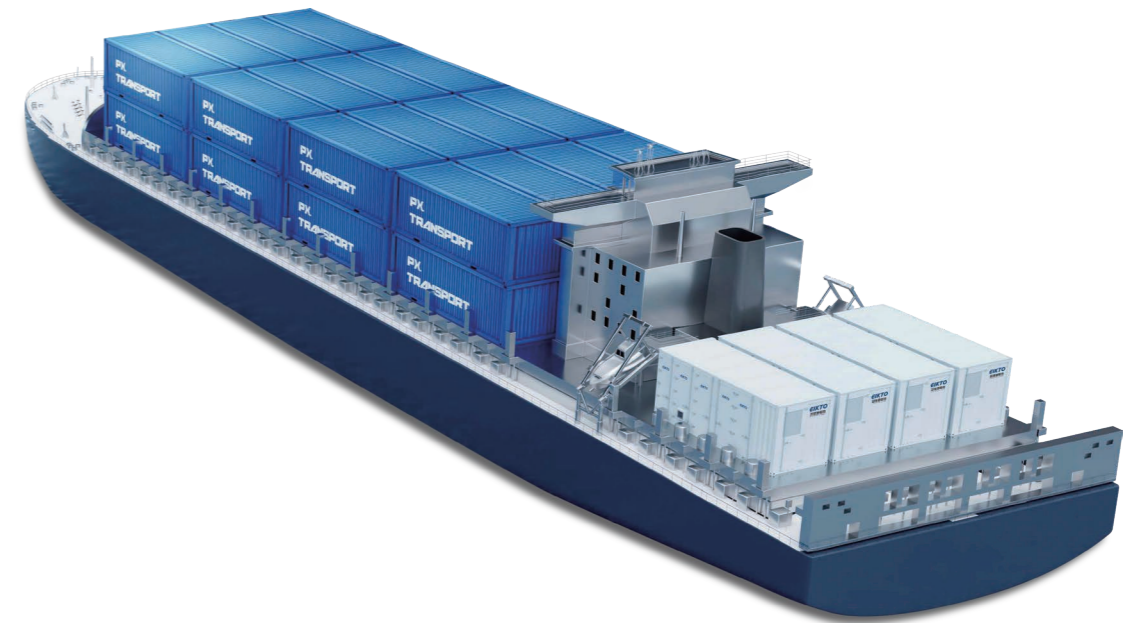
| Model Type | Configuration | Rated Voltage (V) | Workable Voltage Range(V) | Module Energy (kWh) | Max. Constant Discharge (A) | Dimension(mm) |
|------------|---------------|-------------------|---------------------------|---------------------|-----------------------------|---------------|
| 76.8V175Ah | 1P24S         | 76.8              | 62.4~86.4                 | 13.44               | 175                         | 710*494*260   |
| 38.4V350Ah | 2P12S         | 38.4              | 31.2~43.2                 |                     | 250                         |               |
| 25.6V525Ah | 3P8S          | 25.6              | 20.8~28.8                 |                     | 300                         |               |
| 51.2V175Ah | 1P16S         | 51.2              | 41.6~57.6                 | 8.96                | 175                         | 556*494*260   |
| 25.6V350Ah | 2P8S          | 25.6              | 20.8~28.8                 |                     | 250                         |               |
| 22.4V600Ah | 2P7S          | 22.4              | 18.2~25.2                 | 13.44               | 350                         | 880*495*167   |
| 44.8V300Ah | 1P14S         | 44.8              | 36.4~50.4                 |                     | 350                         |               |

## Applications and Markets

Cargo ships | cruise ships | public transportation law enforcement boats | cleaning boats, etc

# Containerized Ship ESS

Say goodbye to range anxiety and thermal issues. Our high-energy, high-safety mobile power solution is purpose-built for inland vessels, ensuring longer voyages and worry-free operations.



## Core Advantages

### Core Advantages

**Intelligent Thermal Management**  
Advanced liquid cooling / heating ensures optimal performance in all climates, maximizing battery efficiency and lifespan.

### 1000V High-Voltage Platform

Delivers more efficient power transmission and stronger output for high-power onboard equipment.

### Robust Maritime Structure

Rugged, vibration-resistant design optimized for stable, long-term operation in demanding marine environments.

### Massive 1989kWh Capacity

Ultra-large energy storage for long-distance inland shipping and extended operations.

## Parameters

|                           | Highest Working Voltage(V) | Container Level  |
|---------------------------|----------------------------|------------------|
| Rated Capacity /Ah        | 1200                       | 1200*2           |
| Rated Voltage /V          | 828.8                      | 828.8            |
| Configuration             | 4P259S                     | 4P259S * 2       |
| Number of systems         | 2                          |                  |
| Lowest Working Voltage/V  | 751.1                      | 751.1            |
| Highest Working Voltage/V | 932.4                      | 932.4            |
| Total weigh/Kg            | About 9200                 | About 18400      |
| Total Energy /kWh         | 994.56                     | 1989.12          |
| Structure                 | 2 independent systems      |                  |
| Usable SOC                | Max. 98%                   | Max. 98%         |
| Working Temperature       | -10 C~55 C                 | -10 C~55 C       |
| Storage temperature       | -20 C~55 C                 | -20 C~55 C       |
| Insulation Resistance     | ≥50MΩ(Vdc1000 (V))         | ≥50MΩ(Vdc1000 V) |
| Thermal Management        | Liquid cooling / heating   |                  |

## Applications and Markets

Cargo Vessels | Tugboats | Offshore Vessels

# ES1 Series Outboat Battery

The ES1 Series is Eikto's signature solution for small electric outboards and leisure boats. Compact, lightweight, and rugged, it is more than just a marine battery—it's a portable power station that transitions seamlessly from water to land, empowering your exploration with green energy and total freedom.



## Features and Benefits

CE UN38.3

### Plug & Play: Simplicity Defined

Tool-Free Design: Forget complex wiring and tedious installation. Our integrated, one-step setup gets you from dock to deep water instantly. Start every journey with ease.

### All-Terrain Protection: Rugged & Reliable

Cast Aluminum Enclosure: Built with high-strength housing and IP67-rated waterproofing.

### Marine-Ready

Effortlessly resists shocks, splashes, and salt mist while providing superior heat dissipation for stable power delivery.

### Multi-Way Carry

Ergonomically designed to be carried, pulled, or lifted.

### Beyond the Boat

Whether powering your vessel or supporting camping, fishing, and emergency needs, it's a true multi-purpose power hub.

### Flexible Scaling: Modular Adaptability

Smart Stacking: Securely stack multiple units to extend your range.

### Universal Compatibility

Available in various Voltages and capacity options to perfectly match leading electric outboard brands.

## Parameters

| Specification      | 51.2V90Ah   | 76.8V60Ah   | 25.6V120Ah  | 51.2V60Ah   | 102.4V30Ah  |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Weight (Kg)        | 60.3        | 60.3        | 46.3        | 46.3        | 46.3        |
| Dimension (mm)     | 610*500*245 | 610*500*245 | 530*500*245 | 530*500*245 | 530*500*245 |
| Total Energy (kWh) | 4.608       | 4.608       | 3.072       | 3.072       | 3.072       |

## Applications and Markets

Tailored for < 6kW Electric Outboards & Leisure Crafts

# EIKTO Standard cell blocks

EIKTO Standard cell blocks is a flexible lithium-ion battery unit for free deployment. You can flexibly combine them to meet diverse power or energy storage demands of ships, industrial vehicles, and other equipment, with plug-and-play usability.



## Product Advantages

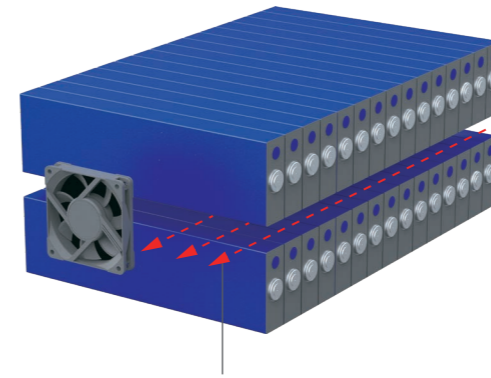
**UN38.3**

Thermal runaway prevention safety design with aerogel separators to slow down thermal diffusion.

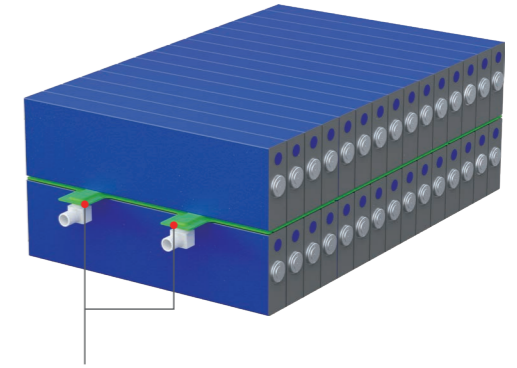
Automotive-grade high-strength sheet metal stamping structure fixed with structural adhesive, enabling the cells to cope with severe vibration scenarios with ease.

Ultra-simplified integration for flexible compatibility with mainstream electrical architectures of industrial vehicle OEMs.

High-efficiency capacity expansion via modular stacking design, increasing the space utilization rate by 20%.



**EIKTO's battery heat release path**  
Cold air straight through pass.



**EIKTO designs**  
The liquid cool plate between two layer cells.

## Cell Blocks

| Specification | Cells                                      | Configuration         | Total Energy         | Weight | Dimension(L*W*h)     |
|---------------|--|-----------------------|----------------------|--------|----------------------|
| 12.8V 300Ah   | 8 cells:3.2V 150Ah<br>8 cells:3.2V 175Ah   | 1P8S<br>2P4S          | 3.84 kWh<br>4.48 kWh | 35±2Kg | 366*419*114mm (±2mm) |
| 12.8V 350Ah   |  |                       |                      |        |                      |
| 25.6V 150Ah   |  |                       |                      |        |                      |
| 25.6V 175Ah   |  |                       |                      |        |                      |
| 12.8V 450Ah   | 12 cells:3.2V 150Ah<br>12 cells:3.2V 175Ah | 1P12S<br>2P6S<br>3P4S | 5.76 kWh<br>6.75 kWh | 48±2Kg | 530*419*114mm (±2mm) |
| 12.8V 525Ah   |  |                       |                      |        |                      |
| 19.2V 300Ah   |  |                       |                      |        |                      |
| 19.2V 350Ah   |  |                       |                      |        |                      |
| 38.4V 150Ah   | 8 Cells:3.2V 300Ah                         | 1P8S<br>2P4S          | 7.68 kWh             | 53±2Kg | 465*419*150mm (±2mm) |
| 38.4V 175Ah   |  |                       |                      |        |                      |
| 12.8V 600Ah   |  |                       |                      |        |                      |
| 25.6V 300Ah   |  |                       |                      |        |                      |

# High-safety Lithium Iron Phosphate Battery Cells

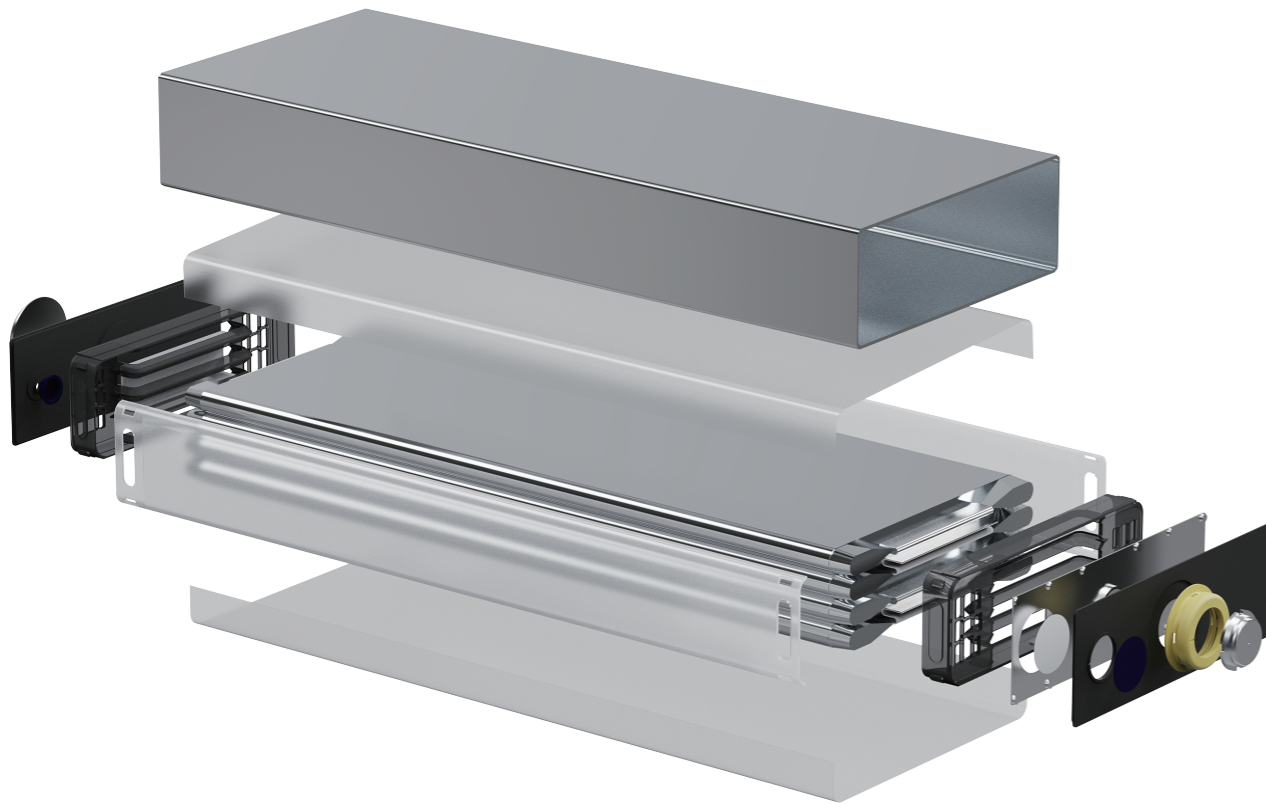


EIKTO Independently Developed Cells are available in short-blade, prismatic, cylindrical, and other forms, featuring long cycle life, fast charging, low-temperature adaptability, and high energy density. Specially designed to meet the stringent requirements of power and energy storage applications, our diverse cell matrix achieves more precise scenario matching.

## Cell Specification Parameters

| Product Model    | Capacity (Ah) | Rated Voltage (V) | Dimensions (mm)  | Weight (g) | Cell Type       |
|------------------|---------------|-------------------|------------------|------------|-----------------|
| 32700 - 6Ah      | 6             | 3.2               | φ32.4*70.5       | 140±5      | Cylindrical     |
| 19124100 - 20Ah  | 20            | 3.2               | 19.5*124*103.8   | 445±20     | Co-polar Tabs   |
| 19124100 - 20SAh | 20            | 3.2               | 19.5*124*103.8   | 460±20     | Co-polar Tabs   |
| 19124121 - 25Ah  | 25            | 3.2               | 19.5*124*124.6   | 560±20     | Co-polar Tabs   |
| 19124121 - 25SAh | 25            | 3.2               | 19.5*124*124.6   | 600±20     | Co-polar Tabs   |
| 19124121 - 30Ah  | 30            | 3.2               | 19.5*124*124.6   | 606±20     | Co-polar Tabs   |
| 40110413 - 150Ah | 150           | 3.2               | 39.5*109.5*401   | 3177±100   | Full Tab        |
| 40110413 - 175Ah | 175           | 3.2               | 39.5*109.5*401   | 3487±100   | Full Tab        |
| 40110413 - 200Ah | 200           | 3.2               | 39.5*109.5*401   | 3666±100   | Full Tab        |
| 45125405 - 230Ah | 230           | 3.2               | 45.5*125*405.2   | 4526±100   | Full Tab        |
| 45125405 - 260Ah | 260           | 3.2               | 45.5*125*405.2   | 4845±100   | Full Tab        |
| 52145405 - 280Ah | 280           | 3.2               | 52.5*145.5*405.2 | 5715±100   | Full Tab        |
| 52145405 - 300Ah | 300           | 3.2               | 52.5*145.5*405.2 | 5990±100   | Full Tab        |
| 20210590 - 324Ah | 324           | 3.22              | 20.5*210.8*590.4 | 5724±100   | Dual-ended Tabs |
| 20210590 - 350Ah | 350           | 3.22              | 20.5*210.8*590.4 | 5889±100   | Dual-ended Tabs |

## Cell Structural Advantages



### Superior Heat Dissipation

Four-Layer Jelly Roll: Tabless architecture ensures optimal temperature uniformity and extended cycle life.

### Structural Integrity

Vibration-Resistant: Engineered for long-term stability under harsh maritime and industrial vibrations.

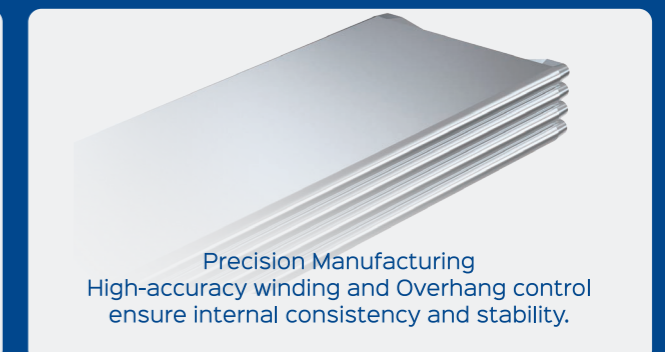
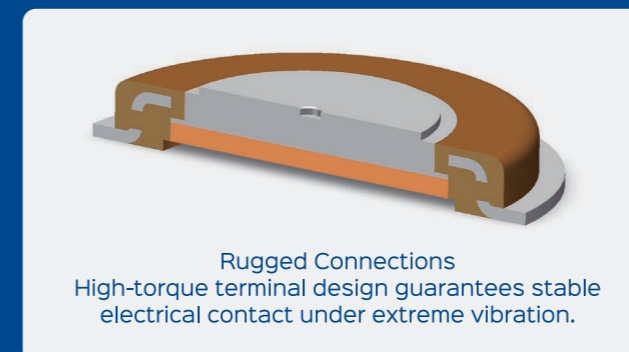
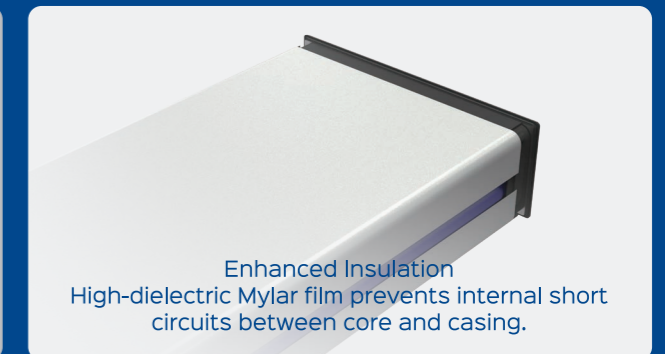
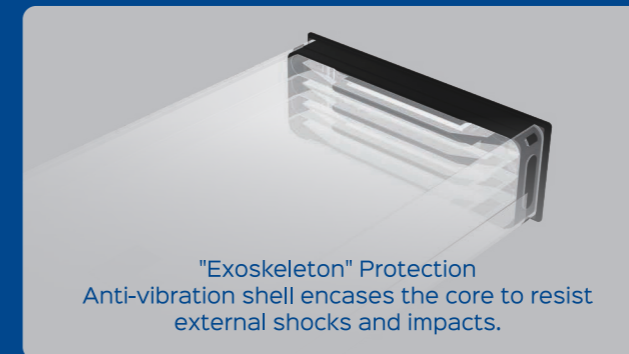
### Safety & Thermal Stability

Wide Temperature Range: Reliable operation from -20°C to 60°C. Passed extreme nail penetration and crushing tests.

### High Power & Fast Charging

Tabless Design + Low Impedance: Supports continuous 2C rates, meeting high-power and rapid charging demands.

## Safety Structural Design



## EIKTO's New Energy Vessel Cases - Full Electric Solutions

Over **800** full-electric vessels with a capacity exceeding 100kwh have obtained China Classification Society (CCS) approval.



Client : Chuanjiang Roll-on/Roll-off Ship Company  
 Project: Chuanjiang 130m Type II New Energy RoRo Ship  
 Length: 130 m  
 Propulsion Power: 550 kW\*6 + 500 kW side thruster  
 Battery Capacity: 1989.12 kWh \* 2  
 Delivery Time: 2025-2027



Client : Zhejiang Zheneng Mailin Environmental Technology Co., Ltd.  
 Project: Zhejiang's First "Oil-to-Electric" Inland Freight Vessel  
 Length: 44.8 m  
 Propulsion Power: 200 kW \* 2  
 Battery Capacity: 1048 kWh  
 Delivery Time: 2024



Client : Lushan West Lake Scenic Area, Jiangxi Province  
 Project: Jiangxi's First Hydrogen-Electric Hybrid High-End Official Vessel  
 Length: 23.65 m  
 Propulsion Power: 160 kW \* 2  
 Battery Capacity: 552 kWh Delivery Time: 2024



Client : Hunan Sunbird Holding Co., Ltd.  
 Project: 630 kWh Tourist Boat  
 Length: 28 m  
 Propulsion Power: 55 kW \* 2  
 Location: Jinhai, Beijing  
 Delivery Time: 2021



Client : Hunan Haiquan Yacht Co., Ltd.  
 Project: 1400 kWh Tourist Boat  
 Length: 50.8 m  
 Propulsion Power: 225 kW \* 2  
 Location: Guangyuan City, Sichuan Province  
 Delivery Time: 2023



Client : Jiaying Weijia Shipbuilding Co., Ltd.  
 Project: 860 kWh Tourist Boat  
 Length: 33 m  
 Propulsion Power: 90 kW \* 2  
 Location: Quzhou City, Zhejiang Province  
 Delivery Time: 2022



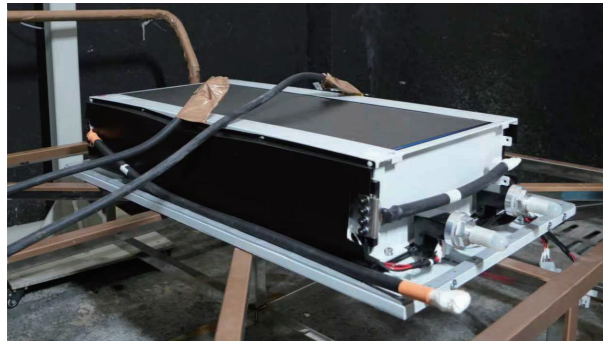
Client : Changzhou Donghai Yacht Co., Ltd.  
 Project: 560 kWh Tourist Boat  
 Length: 20.8 m  
 Propulsion Power: 45 kW \* 2  
 Location: Kanas Lake, Xinjiang  
 Delivery Time: 2021



Client : Chizhou Zhongyuan Ship Repair & Construction Co., Ltd.  
 Project: 790 kWh Tourist Boat  
 Length: 17 m  
 Propulsion Power: 75 kW \* 2  
 Location: Wuwei County, Anhui Province  
 Delivery Time: 2019

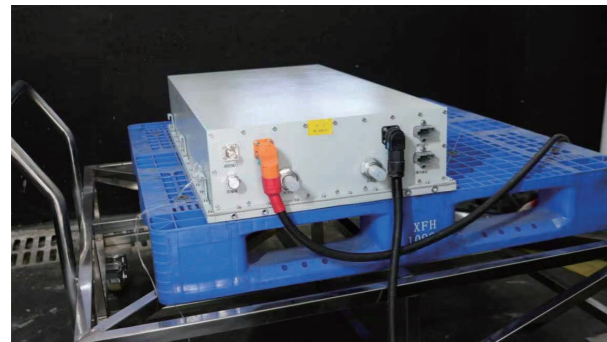
# Testing & Certification

## Module-Level Extreme Safety Testing



### Propagation Test

Certified by DNV. When a single cell enters thermal runaway, neighboring cells remain unaffected, preventing fire from spreading across the entire pack.



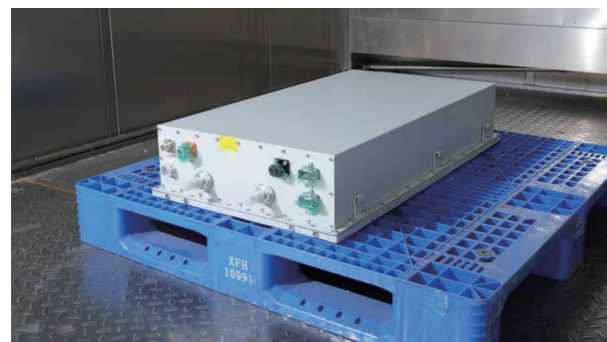
### High & Low Temperature Performance Test

Reliable performance from -25°C to 50°C. Tested for thermal shock with zero leakage, cracking, fire, or explosion.



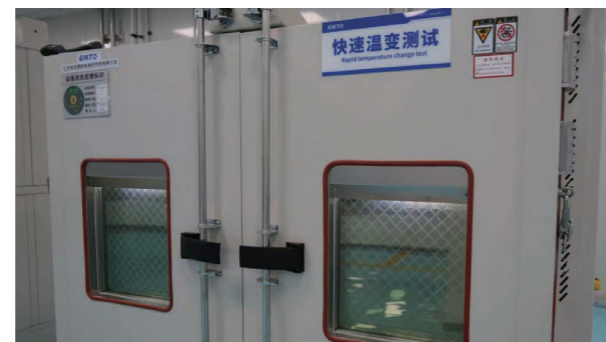
### Salt Mist Test

672-hour environmental test at 40°C and 95% humidity. Proven resistance to severe salt mist and corrosive maritime conditions



### External Short Circuit Test

Simulates cable wear or maintenance errors. System triggers instant automatic cutoff with zero safety risk to the vessel.



### Damp Heat Test

Stable operation at 55°C ±2°C and 95% humidity. No leaking, no enclosure damage, no fire, no explosion under the prolonged high-moisture stress.

## Global Standards & Authoritative Certification

Eikto LFP cells, ship battery modules, and ship battery systems comply with rigorous national and international standards. Our globally recognized quality ensures the safety of every vessel we power.

