



The ThunderCell BESS-235kWh



2025
qiontech.com

V.25.2

POLAR-TO-DESERT

The ThunderCell 235kWh is a high-density, fully-integrated, internally liquid-cooled Battery Energy Storage Solution with a **235kWh** capacity.

The internal environment is maintained by a **multi-function thermal regulation system**, supported by the **QTMS® - QiOn Thermal Management System**, that dynamically adjusts the temperature (cooling/heating/stabilizing) of the battery packs in response to the surrounding environment, allowing **Polar-to-Desert** safety applications.

THE BESS...AT ITS BEST.



FULLY INTEGRATED

- INTEGRATED UPS, PCS, TMS, EMS, BMS, FAULT/SMOKE/GAS DETECTION AND FIRE EXTINGUISHING SYSTEMS AND LIQUID COOLING SYSTEM. ALL-IN-ONE, AS IT IS.
- Less than 2.5t. It's shipped fully assembled, for quick and easy on-site installation.
- Certified for any indoor/outdoor applications, working smoothly in extreme environments (-30/+60°C). Available also with stainless-steel enclosure.



Polar



Nautic



Desert

PROOF GRADE

- **24/7 remote monitoring.**
- **The ThunderCell 235kWh allows you to expand your company's power capacity without adding additional transformers*, saving most of the costs that are usually required to upgrade a warehouse's power grid.**
(*this requirement may vary based on each site of the final installation)
- **The output can be in AC in order to power industrial facilities and its machinery, or it can be in DC to power your charging station, working as an input source for DC chargers.**



ALL-IN-ONE



NO NEED FOR ANY EXTRA-CONDITIONING ROOM. NO NEED FOR AIR CONDITIONING MAINTENANCE.

The grid on your side.

- ***It can be connected directly to your solar panel rooftop inverters or directly to the grid.***
- ***It can store energy from your rooftop integrated solar PV.***
- ***It allows for peak shaving. Charging sessions from the grid can be managed for off-peak times when it is overloaded and then discharge to your industry/building at nighttime when solar panels are not actively producing energy.***
- ***The ThunderStorage 235kWh allows you to drastically cut your energy costs and helps provide grid stability.***
- ***It helps lower the company's carbon footprint by helping reduce the load on the grid.***

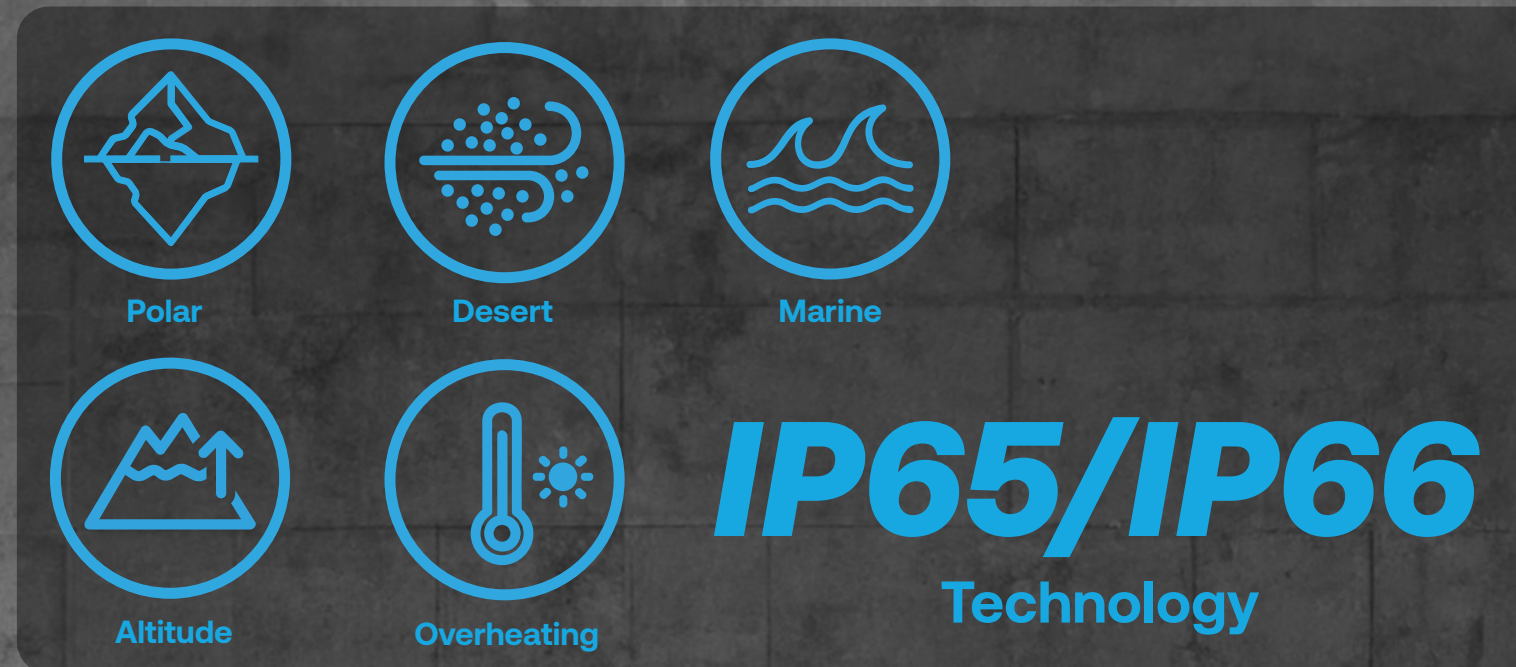
Empower your business.

Prevent blackouts, serving as an emergency power supply system and reducing the need for gas plants for peak times.



Safeguard your assets.

- Quick on-site installations. No Package. Shipped fully assembled, all-in-one, ready to install.
- QION OFFERS A LIFETIME WARRANTY UP TO 6000 CYCLES WITH POSSIBILITY FOR EXTENSION. IN ADDITION, QION OFFERS INSTALLATION, MONITORING AND MAINTANENCE SERVICES ON REQUEST.
- The ThunderStorage 235kWh allows you to drastically cut your energy costs and helps provide grid stability.
- Modular design, both internally and externally. As your demands for power grows you can link multiple units together.
- Compact battery modules can be replaced independently of one another.



Qion

The ThunderCell 235kWh is compact and durable, with a fully-integrated design, allowing great versatility, and giving you the freedom to adopt and adapt it to your business needs. It can be equipped with a forklift pocket base, making it suitable for events and temporary structures.



The Storage

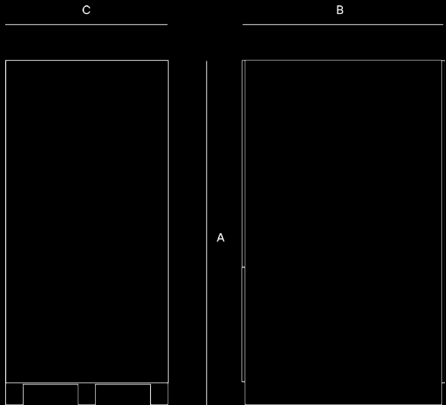


● Available with rounded-shell kit to increase the enclosure protection.



The images shown are for illustration purposes only and may not be an exact representation of the product

/ Technical Informations



A: Height 2350 mm (92.52in)
B: Depth 1400 mm (55.12in)
C: Width 1120 mm (44.09in)
Net Weight: 2250kg
Extra: Available with extra-room rounded shell kit to increase the enclosure protection

- Capacity:** Up to 235kWh
- Charging Power:** 120kW
Custom configuration available depending on site and distribution market
- Discharging Power:** 120kW
Custom configuration available depending on site and distribution market
- Output Voltage:** 380/400V AC Available with DC output configurations
- Output Voltage Range:** Rated Voltage -15% / +10%
- Frequency Range:** 49.5Hz ~ 50.5Hz
- Rated Output Frequency:** 50Hz
- Power Factor:** -1~1
- Communication System Response Time:** <2s
- Cycle Life:** 6.000 / 8.000 Times >80% Residual life guaranteed
- Environment Temperature:** -30°C~60°C
- Working Humidity Value:** 0~95%
No condensation
- Maximum Altitude:** 4000m Derating value to be calculated for installations above 2000m
- Protection Level:** IP55 / Available IP65/IP66
Polar/Desert/Marine grade

The Rack

Battery Rack kW: 232kWh

Rated Voltage: 832V

Rated Energy: 232.96kWh

Current: 280Ah

Fire Extinguishing System: Fire detector, perfluorohexanone firefighting unit (including a controller)

BMS System: Three-Tier Architecture

Monitoring UPS: Monitoring and backup system is fully integrated with detection features and **UPS**

Communication System Response Time: <2s

Battery Rack Size: **H** 2420 mm **W** 1014 mm **D** 1090 mm
(95,28") (39,93") (42,92")



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The Pack

Nominal Energy Capacity: 46.5kWh

Voltage Range: 145.6~187.2VDC

Rated Charging Ratio: 0.5 / 1.0P

Rated Discharging Ratio: 0.5 / 1.0P

Maximum Continuous Current: 140A

Operating Temperature Range: -20~60°C

Storage Temperature: -30~60°C

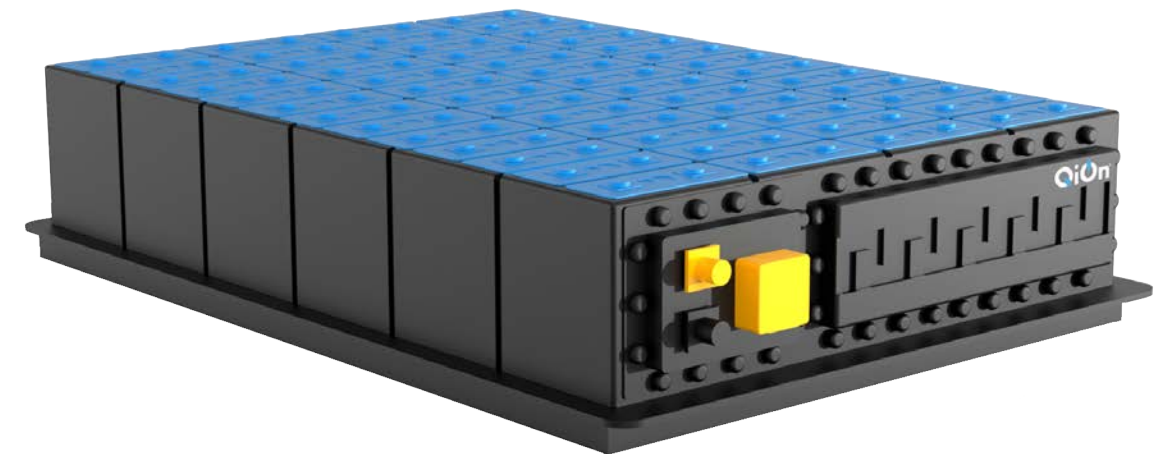
Temperature Uniformity: <3°C

Protection Level: IP66

Weight: 320± kg Weight varies based on cooling system adopted for configuration

Cooling Mode: Liquid cooling

Battery Pack Size: **H** 243,4 mm **W** 810mm **D** 1152 mm
(9,59") (31,89") (45,36")



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The Battery Cell

Battery Cell Type: High Stability LFP

Nominal Voltage: 3.2V

Nominal Capacity: 280Ah

Charging Power: 0.5 / 1.0P

Discharging Power: 0.5 / 1.0P

Continuous Discharging Power: 0.5 / 1.0P

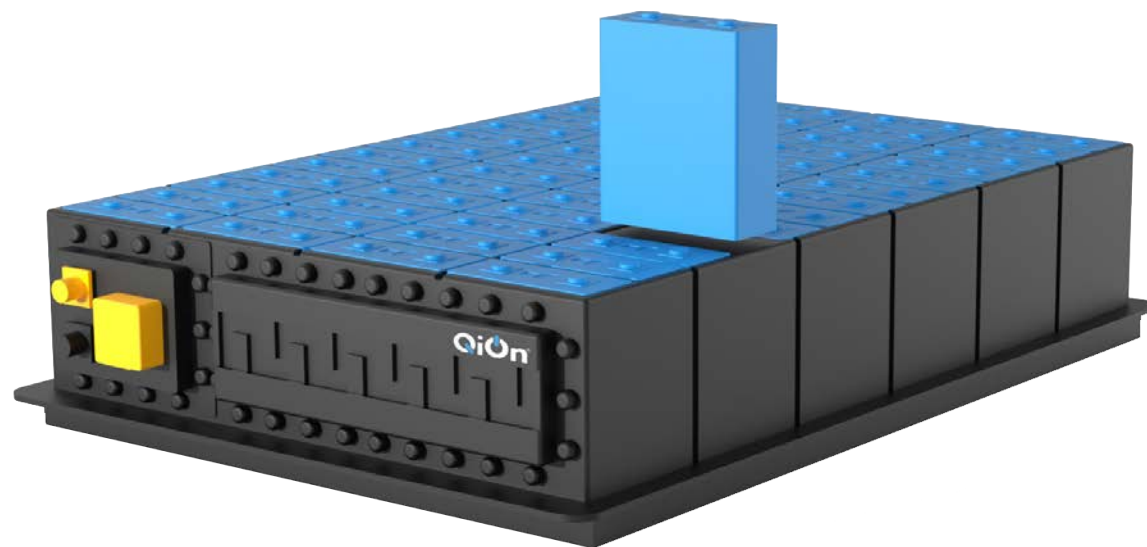
Working Voltage Range: 2.5-3.65V

Charging range varies from discharging range according to site of installation and cooling system adopted

Weight: 5.4±0.3kg

Storage Humidity: ≤85%ROH No condensation

Size: **H** 71,65 mm **W** 173,93mm **D** 207,2 mm
(2,83") (6,85") (8,16")



***All-in-one, solid,
sturdy, neat.***



***Designed and built
by QiOn.***

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QiOn certifies its products with:

**ISO
9001**

**ISO
14001**

**ISO
45001**

