ProLogium × KYUSHU ELECTRIC POWER CO.,INC.

Superfluidized All-Inorganic Solid-State Electrolyte 24V Battery Module

Next-Generation Energy Solutions

Superior Safety with Advanced Performance

Kyushu Electric Power Co., Inc.(Kyuden) developed a DC24V battery module utilizing Superfluidized All-Inorganic Solid-State Electrolyte lithium-ceramic battery through a strengthened strategic partnership with ProLogium Technology in Taiwan. Kyuden, with industry-recognized expertise in battery monitoring and pack assembly, designed the DC24V battery module and aimed for its mass production in 2027. Sample supply is scheduled to begin in the second half of 2026.

■ Features of the Superfluidized All-Inorganic Solid-State Lithium-Ceramic Battery Module

1. Top Performance

- High Energy Density
  ➔ Compact Size in Equipment
- -20 ℃ Low-Temperature Performance
  ➔ Suitable for Extreme Environment.
- High Vibration Resistance: 10G in X and Y Directions

2. Top Safety

- Ceramic Separator Reinforces Thermal Stability
- All-Inorganic Electrolyte Ensures NO Flammable Gas Generated Inside the Battery
- ASM Safety Mechanism Actively Disables the Battery in High Temperature and Overcharged State.

3. Rapid Charge + Long Life

- Ultra-Rapid Charging Efficient for All Industrial Equipment
- Better Cycle Life, Compared To Other High Energy Lithium-ion Batteries.
- Wide Range Applications, Adopted by Construction Machinery and MORE.

■ DC24V Module Specifications*1

Module Size	L600㎜×W80㎜×H90㎜
Module Weight	Approximately 9 kg or less
Module Capacity	2.7kWh (1cell: 335Wh/kg、760Wh/L)

※2 2027 Sales Launch

＊1 Final specifications are subject to the actual product upon release.
＊2 The schedule is subject to change without prior notice.

CES 2026 Booth No.5467

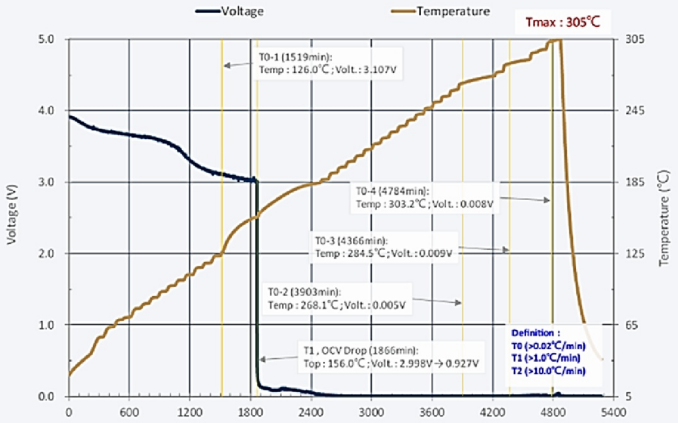
Feature Details of the Superfluidized All-Inorganic Solid-State Lithium-Ceramic Battery Cell

ADVANCED TECHNOLOGY

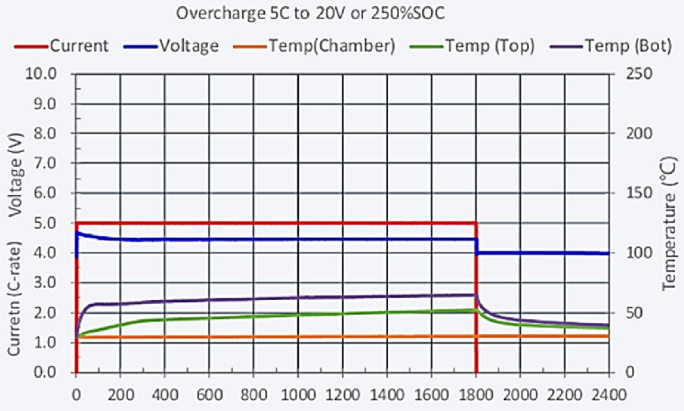
- **100% Ceramic Separator | Solid & Resistant**
  Remains undamaged in 300℃ high-temperature environments
- **100% All-Inorganic Electrolyte | Efficient & Safe**
  6x ionic conductivity in room temperature
  NO flammable gas generated
- **The ASM Innovation | 2021 Edison Awarded Safety**
  Active Safety Mechanism (ASM) Terminates Thermal Runaway, by blocking ion movement when batteries exposed to high temperatures or overcharging.

CELL PERFORMANCE

- **-20℃ Low Temperature, Capacity >95%**
  Operates reliably at -20℃ , delivering better ionic conductivity than conventional liquid systems
- **High Energy Density**
  335Wh/kg and 760Wh/L per cell
  100% Silicon Anode fully increased the energy density
- **Ultra-Rapid Charging**
  Charge/Discharge 5→80% SOC in 6.4min
  Supports 5C high charging rate of cell



Temperature Rise Test (Example)



Overcharge Test (Example)

Past Achievements & Future Initiatives*

＊The schedule is subject to change without prior notice.

2025 Press Release Announcement

Development of 24V Modules for Superfluidized All-Inorganic Solid-State Lithium-Ceramic Batteries

- MoU signed (Mar 31, 2025), Kyuden & ProLogium
- Press Release Issued (July 30, 2025), addition of Seiko Electric & Sojitz Kyushu Corp.

2026 Plant Construction

- CES 2026 Joint Exhibition with ProLogium – Largest Consumer Electronics Show (Las Vegas, USA)
- Construction of a pilot production line at Seiko Electric's "Hibikino R&D Center"
- Pre-production in pilot production line
- Initiation of application testing for industrial equipment and construction machinery currently in production

2027 Sales Start

—Aiming for mass production and sales by 2027. —

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