BEMAC Corporation Leads Innovation in Marine and EV Sectors

BEMAC Corporation advances marine and EV technology through global talent, sustainability and cutting-edge battery innovations, positioning itself as a leader in these industries.

By Sean McBride

> "We aim for the ship that never stops, using the power of electricity, DX and AI to achieve high efficiency and safety."
>
> **Masato Oda**,
> President & Group CEO,
> BEMAC Corporation

BEMAC Corporation, formerly Uzushio Electric, founded in 1946, stands at the forefront of innovation in the shipbuilding and electric vehicle (EV) sectors.

Permanent magnet generator

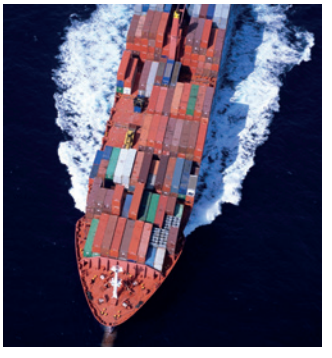
With over 2,000 employees, including 34 percent international staff, the company exemplifies a blend of tradition and forward-thinking strategies that are shaping the future of marine and mobility industries.

Pioneering Battery Technology

The transition from Uzushio Electric to BEMAC in 2019 marked the company's venture into the EV market. This move aligns with the company's goal of integrating digital and IT solutions into marine and mobility sectors. Masato Oda, president and group CEO of BEMAC, explains: "We have entered the EV field with the aim of strengthening the ship business by improving the operation of lithium-ion batteries and technological advances in battery management."

BEMAC is today heavily invested in the development of power control units (PCUs) for EVs. Mr. Oda foresees lithium-ion batteries continuing to dominate for the next five years but stresses the importance of envisioning future advancements. "Finding a new formula that would result in high performance and less risk while also not being dependent on rare-earth metals is important," Mr. Oda states. The company is exploring alternatives like manganese and zinc to enhance safety and recyclability.

Principal office and factory in Imabari City, Ehime Prefecture



BEMAC will use electricity, DX and AI to solve vessel issues

Sustainability and Innovation

Sustainability is a core focus for BEMAC, especially with the shipping industry's goal of carbon neutrality by 2050. The company is developing technology to handle the substantial power demands of battery charging and discharging for electric ships. "We are focusing on miniaturizing and enhancing the efficiency of high-power converters by utilizing silicon carbide power semiconductors for their superior performance," says Mr. Oda.

BEMAC's strategic location in Imabari City, a hub for the marine industry, provides a robust ecosystem for innovation and rapid growth. The company offers comprehensive power generation and operational systems for various plants, integrating artificial intelligence (AI) and digital transformation (DX) to enhance efficiency and safety. Mr. Oda highlights: "We aim for the ship that never stops with the power of electricity and DX and AI, and we have over 1,000 specialists in those areas."

Future Vision

BEMAC's long-term vision includes becoming the world's largest marine IT company by minimizing greenhouse gas emissions and creating safe, efficient and continuously operating ships. Their MaSSA (Maintenance System for Soundness Sailing Ability) initiative aims to leverage data for optimal ship operations, reducing accidents and enhancing efficiency.

Power electronics research laboratory

In conclusion, BEMAC Corporation is poised to lead the marine and EV sectors through strategic innovation, global talent acquisition and a strong commitment to sustainability. Under Mr. Oda's leadership, the company is navigating economic challenges and technological advancements to secure a prominent position in the global market.

BEMAC

www.bemac-jp.com/en