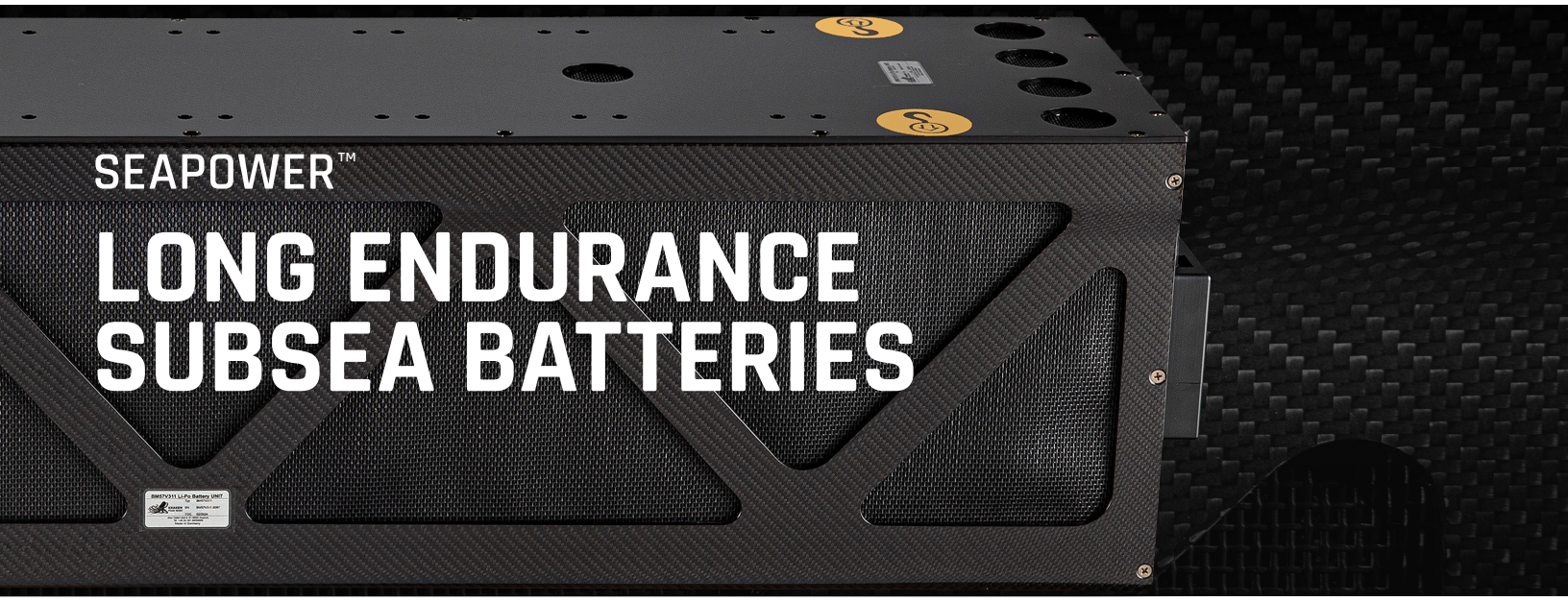
KRAKEN

Data Sheet



SEAPOWER™

LONG ENDURANCE SUBSEA BATTERIES

ENERGY AND RELIABILITY THAT INCREASES MISSION EFFICIENCY

Kraken's SeaPower innovative pressure-neutral battery design delivers 2x the energy density at 46% less weight in water per kWh when compared to traditional oil compensated, pressure-housed batteries. Such an outstanding energy-to-volume and weight ratio offers significant value, facilitating longer, deeper, and more complex underwater missions with reduced need for recharging.

SeaPower lithium-ion batteries are engineered to operate at depths of up to 6,000 meters and feature a pressure-neutral battery management system (BMS). The battery modules are available in various sizes, with capacities of up to 23 kWh and voltage options ranging from 45V to 400V. To meet specific energy needs, operators can configure these batteries in banks, either in series or parallel.

Kraken's dedication to operational efficiency is also evident in recharge times. With a 15kW charger, a 23kWh battery can be fully recharged in approximately four hours, with the capability to charge up to nine batteries concurrently. Integrated cell heaters are included to expedite charging, especially beneficial under difficult conditions. The charging process is entirely customizable through the user interface.

+2x
ENDURANCE

-46%
WEIGHT

Zero
OIL

Breakthrough
PRESSURE NEUTRAL

6000 M
BATTERIES

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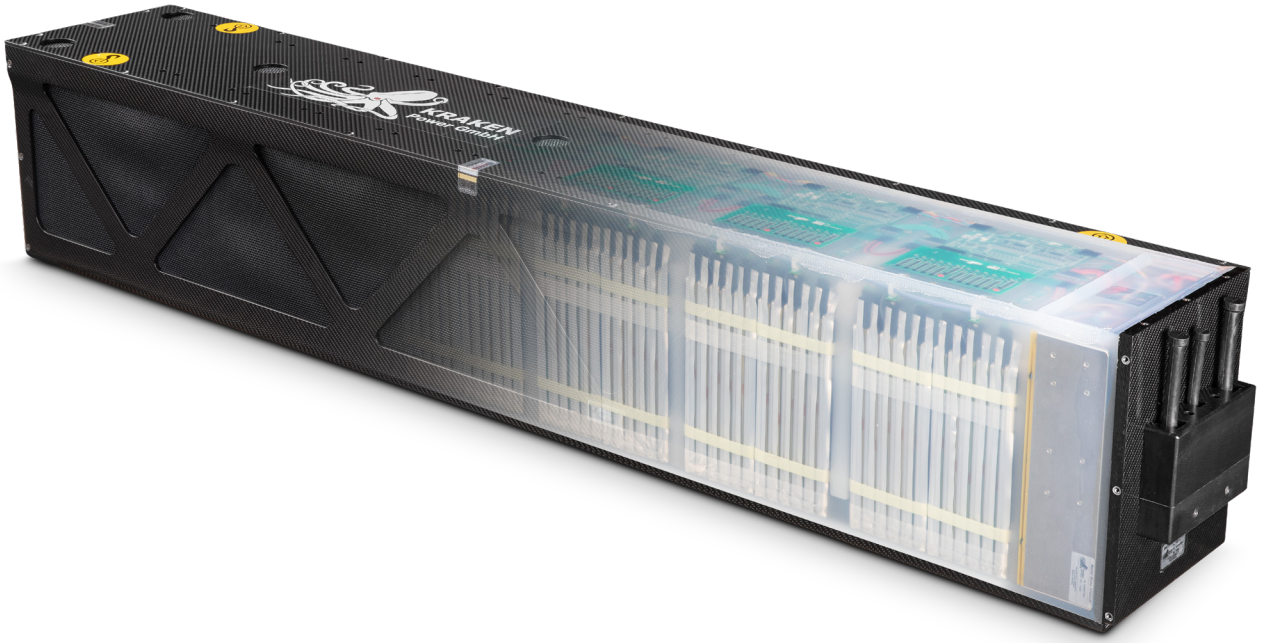


ADVANCED TECHNOLOGY

Kraken's SeaPower battery employs a pressure-neutral design that encases the battery cells and electronics in a polymer matrix, protecting them from water and allowing for pressure equalization without the need for housings, oils, or compensators. This design, along with high-capacity lithium-ion pouch cells, achieves an exceptional energy density of up to 260 Wh/l and 145 Wh/kg.

ENHANCED RELIABILITY

Kraken Batteries are essential for mission-critical operations, delivering consistent performance and dependability. The BMS includes a solid-state relay, with power over rails to reduce dependency on cables and connectors. Every cell is closely monitored for temperature and voltage, with system-wide communication managed through the CAN Bus to ensure reliable mission execution.

HIGH QUALITY

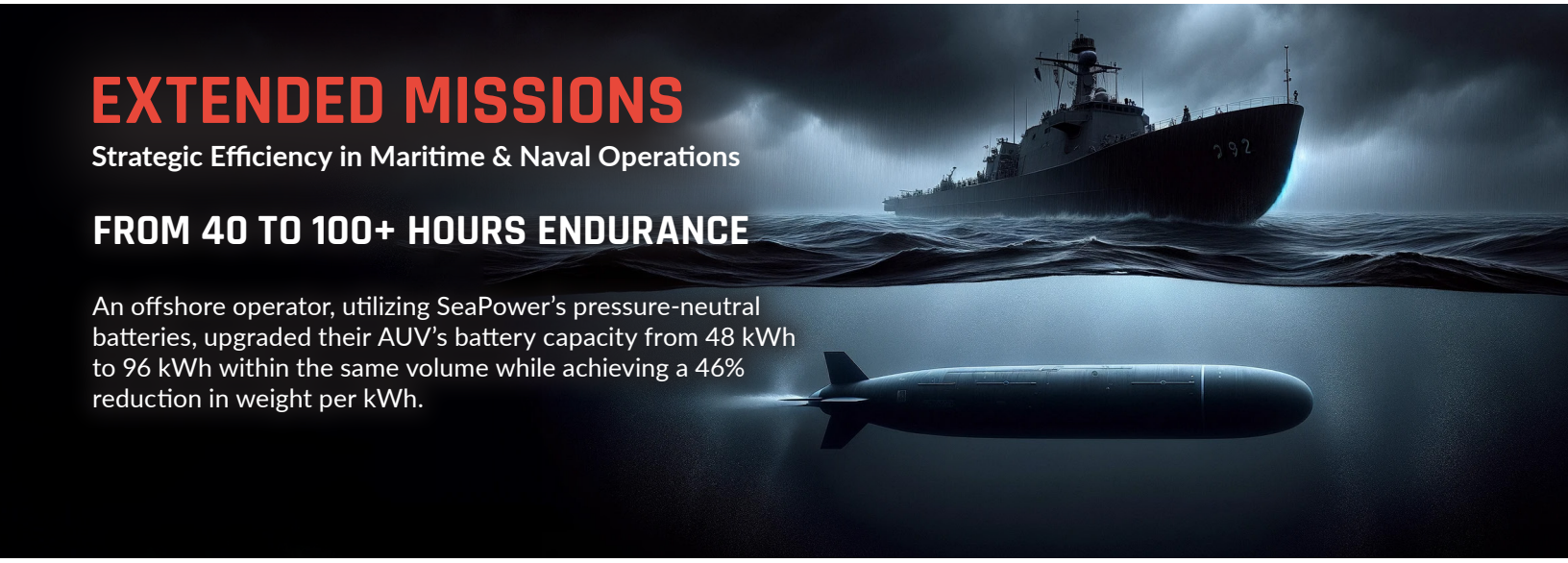
With engineering and production based in Germany, Kraken batteries are subjected to stringent ISO-certified quality control procedures. Each unit is rigorously pressure-tested to 660 bar to ensure reliability and durability. Adhering to UN38.3 standards, the batteries are certified for safe transport, and constructed to meet the challenges of offshore operations.

EXTENDED MISSIONS

Strategic Efficiency in Maritime & Naval Operations

FROM 40 TO 100+ HOURS ENDURANCE

An offshore operator, utilizing SeaPower's pressure-neutral batteries, upgraded their AUV's battery capacity from 48 kWh to 96 kWh within the same volume while achieving a 46% reduction in weight per kWh.



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