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TOWARDS SUSTAINABLE
SEAFARING**



Langh Tech

BATTERY SYSTEM



Langh Tech

Battery pack data

Rated capacity	310 Ah
Nominal voltage	51.2 V
Operating voltage range	40 V - 58 V
Cell chemistry	LFP
Mass	116 ± 3 kg
Standard C rate	0.5 C
Max C rate	1 C (310 A)
Ingress protection class	IP68

Battery string data

Packs in string	Max 20
Strings put together	Max 16
Cooling method	Forced liquid cooling
Nominal voltage	1024 V with max packs
Operational voltage	800 - 1168 V with max packs
Off gas management	Pack level
Dimensions	Flexible: depending on the number of packs inside

Example battery system

Number of packs per string	13
Number of strings	16
Capacity	3.3 MWh
Nominal voltage	665.5 V
Rated voltage range	520 V - 759 V
Dimensions	H/W/D: 2125/992/921 mm
Total mass	1830 ± 20 kg x 16

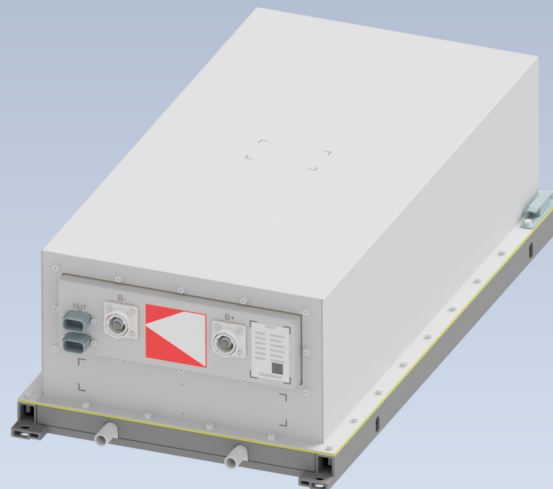
Powering Performance. Prioritizing Safety.

The Lanh Tech battery system is designed to provide the vessel with reliable electrical power for shore-side operations and to assist in or fully provide propulsion during cast-off — ensuring seamless, efficient, and environmentally conscious manoeuvring.

Built to meet the highest marine safety standards, the system features:

- ▶ **Direct Off-Gas Venting**
Each battery pack includes a dedicated off-gas duct, safely channelling gases out of the battery space to maintain a non-toxic and non-flammable environment.
- ▶ **Thermal Runaway Containment**
Advanced cell-to-cell isolation prevents the spread of thermal runaway, significantly enhancing onboard safety and system resilience.
- ▶ **Fire Protection**
Advanced fire protection system with early-stage threat detection.
Mitigates fire risks proactively—before ignition occurs.

- ▶ **IP68-Rated Protection**
The pack enclosure offers complete protection against dust and water ingress. Its high ingress protection rating also acts as a safeguard against fire risks in the event of off-gassing.
- ▶ **Liquid Cooling System**
Integrated liquid cooling providing stable and cozy environment for the cells. More accurate and efficient compared to air cooling. Engineered for easy installation and maintenance with minimized operational disruption.
- ▶ **Active Balancing**
Stay powered longer with smart battery care. Our active balancing software optimizes performance and extends battery life. Constant health check on CELL and PACK level.
- ▶ **String Cut Off Function**
Manual string cut-off enables continued operation in case of pack failure. Number of cut-off strings is limited by total system capacity—ensuring controlled redundancy and minimized downtime.
- ▶ **LFP Chemistry**
LFP chemistry offers superior thermal resistance and eliminates risk of thermal runaway, outperforming both traditional lithium-ion (e.g., NMC) and lead-acid batteries in safety, longevity, and environmental impact.



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