



Fire Protection Solutions  
For Battery Energy Storage System  
Save Lives  
Reduce Damage



High-pressure  
water mist fire protection



[www.ultrafog.com](http://www.ultrafog.com)

# Delivering fire protection solutions for battery energy storage system

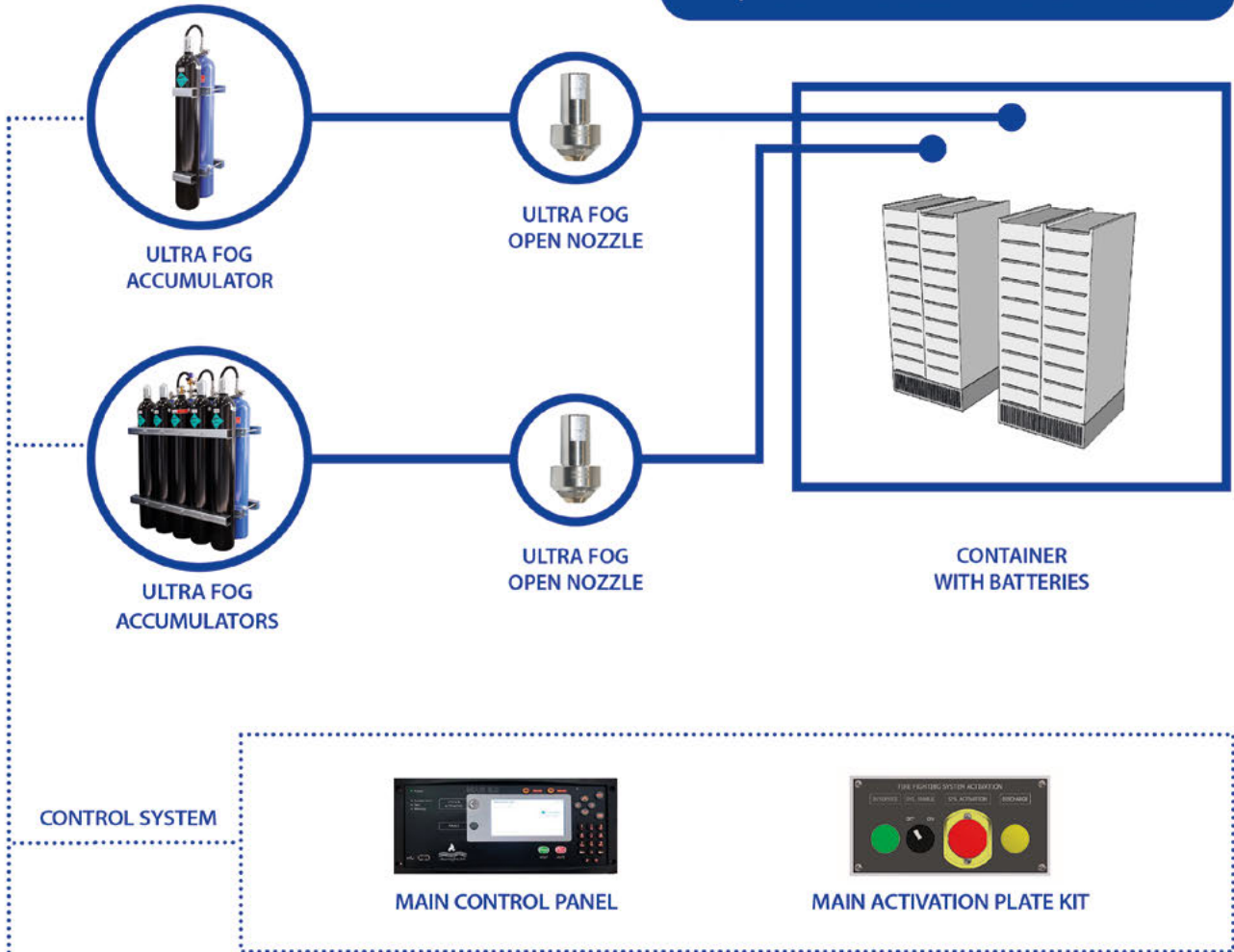
Appropriate temperature and ventilation are crucial for the safety of battery installations. Even though a new generation of batteries is highly efficient, significant heat can be generated throughout the heavy-duty cycle of discharge and recharge. To prevent thermal incidents in battery spaces, the whole battery installation must be covered by a safety assessment that considers internal and external failures, including fires. Battery systems in the battery spaces should be arranged at recommended distance and monitored with thermal and smoke detectors. Ultra Fog high-pressure water mist fire protection provides robust solutions suitable for vessels with hybrid and electric propulsion systems.

The Ultra Fog droplet size is rated as class 1 according to the National Fire Protection Association (NFPA, USA), which ensures a very high extinguishing effect relative to the amount of used water. In fact, due to the minimal amount of water deployed, it is particularly suited for sensitive environments like electrical equipment. It has the added benefit of being environmentally safe and ensuring the safety of people and equipment.

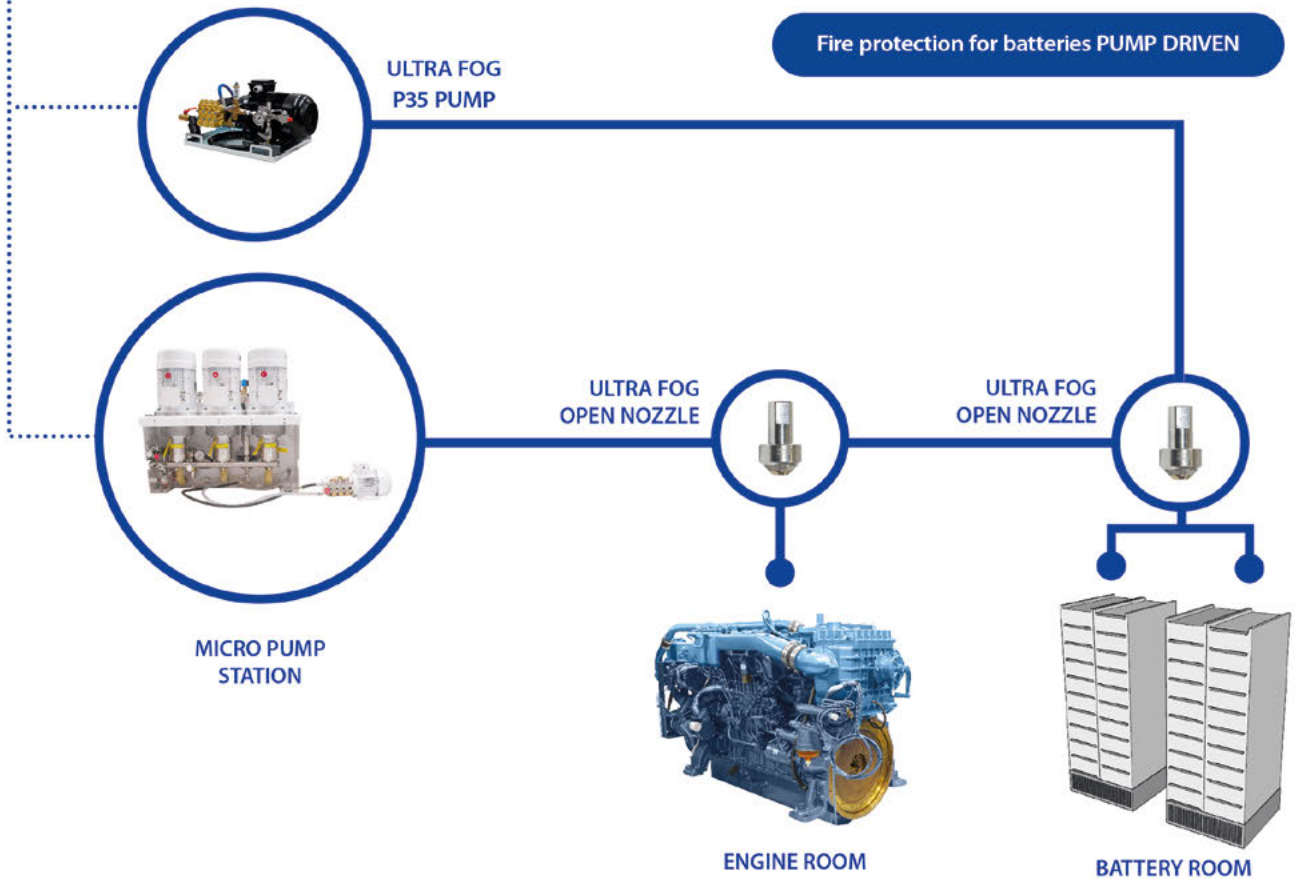


Diesel Electric Super Yacht | WIDER 165 M/Y Cecilia

Fire protection for batteries ACCUMULATOR DRIVEN



Fire protection for batteries PUMP DRIVEN



# Ultra Fog Classification Testing and Approvals

Ultra Fog's Water Mist System has been fire tested by the Swedish Test Laboratory (SP), SINTEF - Norway and Danish Fire Laboratory (DFL) which are fully authorised by IMO, and the Southwest Research Institute (SwRI), United States.

- USCG approval no. 162.135/17/0
- Ultra Fog has been tested and approved according to the IMO Res. A.800(19) and IMO Res MSC 265(84) for accommodation areas, stores and service areas.
- IMO MSC/Circ.1165 and MSC/Circ.913, machinery areas, total flooding in pump rooms and local applications.
- IMO MSC.1/Circ.1272 and IMO MSC.1/Circ.1430, protection of RoRo and special category spaces.
- IMO MSC.1/Circ.1268, protection of balconies.
- IMO MSC/Circ.1387, local applications.
- ISO 15371, for protection of galley cooking equipment (including deep fat fryers & galley hood).
- A performance Effectiveness Analysis was carried out by DNV, Norway.
- Component testing by the laboratory of UL, USA.

Since 1990, Ultra Fog has been committed to a continuous programme of product development and fire testing in response to the latest rules, regulations, and standards around the world. Ultra Fog products are 3rd party tested and approved, in accordance with internationally recognised test protocols.

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## Local Ultra Fog Distributor



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