

FCREX: Fuel Cell Range Extender with Cold Start Capability for Cargo Pedelecs

J. Mitzel, S. Helmly, M. Schulze, I. Bürger, J. D. Weigl, T. Maag, B. Offermann

German Aerospace Center (DLR), Pfaffenwaldring 38-40, 70569 Stuttgart, Germany



Knowledge for Tomorrow



Outline:

- Potential of Cargo Pedelecs
- Advantages of Fuel Cell Propulsion
- FCREX: Fuel Cell Range Extender with Cold Start Capability
- Hydrogen Supply for Cargo Pedelec Fleets



FCREX: Fuel Cell Range Extender with Cold Start Capability

Conclusion:

- New last mile delivery concepts needed due to growth of E-Commerce and online shopping
- Cargo pedelecs are environmental-friendly alternative
- Bottleneck of battery energy capacity results in limited range
- Fuel Cells can increase range and fasten refuelling
- FCREX:
 - Compact fuel cell module for different cargo pedelec concepts
 - Cold start module included for preheating for freeze start
- Different solution for hydrogen supply of cargo pedelec fleet

