



accelerate the shift™

# Fuel Cell Electric Train Systems

On the fast track to sustainability. ▣

## Smarter. Cleaner. Quieter.

- Reduced noise and vibration
- Fast refueling: less than 20-minute downtime with 18+ hours of operation between fueling
- Ability to turn existing non-electrified railway lines into zero-emission lines, without costly long-range electrification infrastructure
- Lower maintenance and reduced downtime
- Horizontal orientation of stacks enable flexible configurations and easier installations
- Fuel cell trains are driven by efficient electric motors — powered by high-output hydrogen fuel cells
- Cost-competitive, high performing, zero-emission alternative to diesel, fuel cell-powered trains play a key role in shifting the industry towards a carbon-neutral future

Range (600 miles)  
**1,000** km

Passengers  
**300**

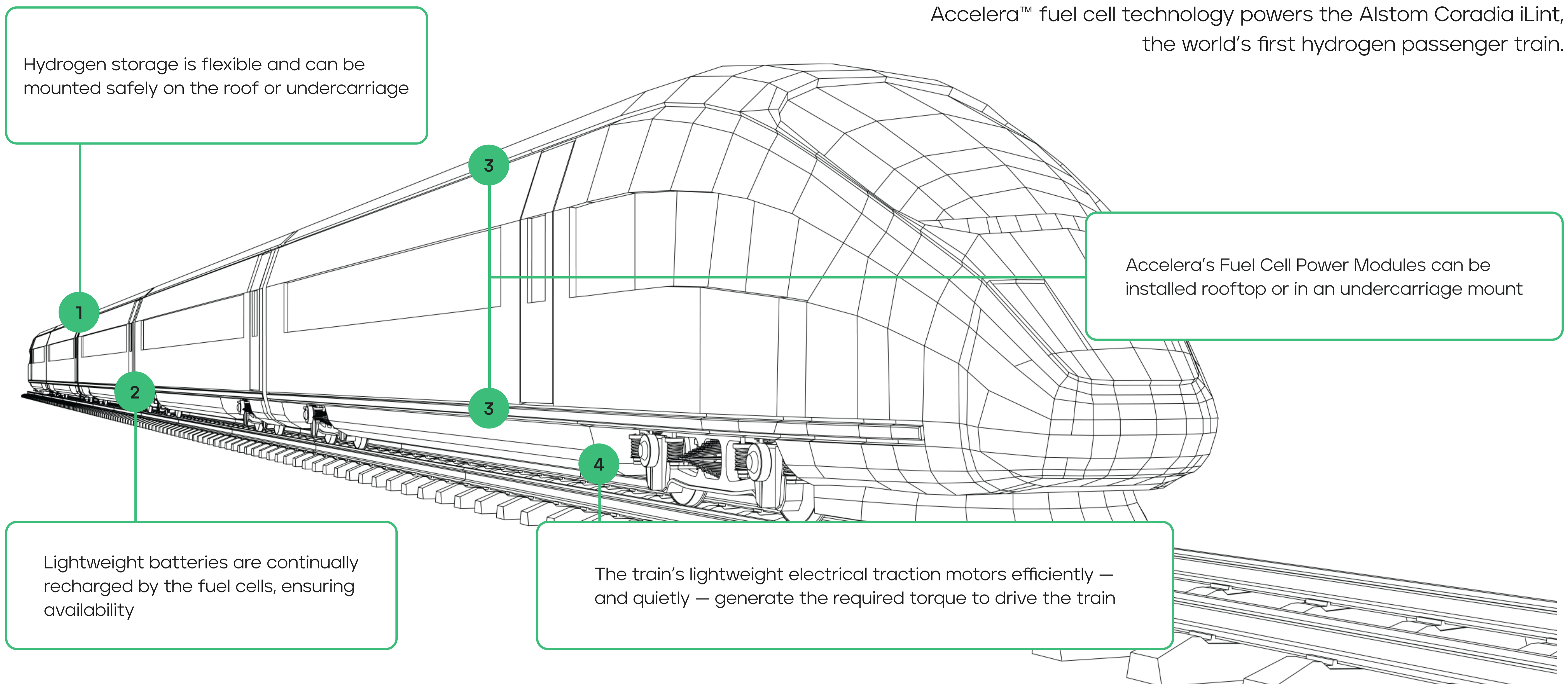
Top Speed (87 mph)  
**140** km/h





# Fuel Cell Train System Anatomy

Accelera™ fuel cell technology powers the Alstom Coradia iLint, the world's first hydrogen passenger train.



## Green energy infrastructure for all

Hydrogen can be generated locally and emission-free, using renewable energy. Our market-leading electrolyzers generate hydrogen from water and electricity, often provided from off-peak surplus from solar, hydroelectric or wind installations – all green energy that might otherwise be wasted. The hydrogen fueling infrastructure can also support fuel cell buses and trucks, reducing the dependence on fossil fuels for a variety of transportation applications.

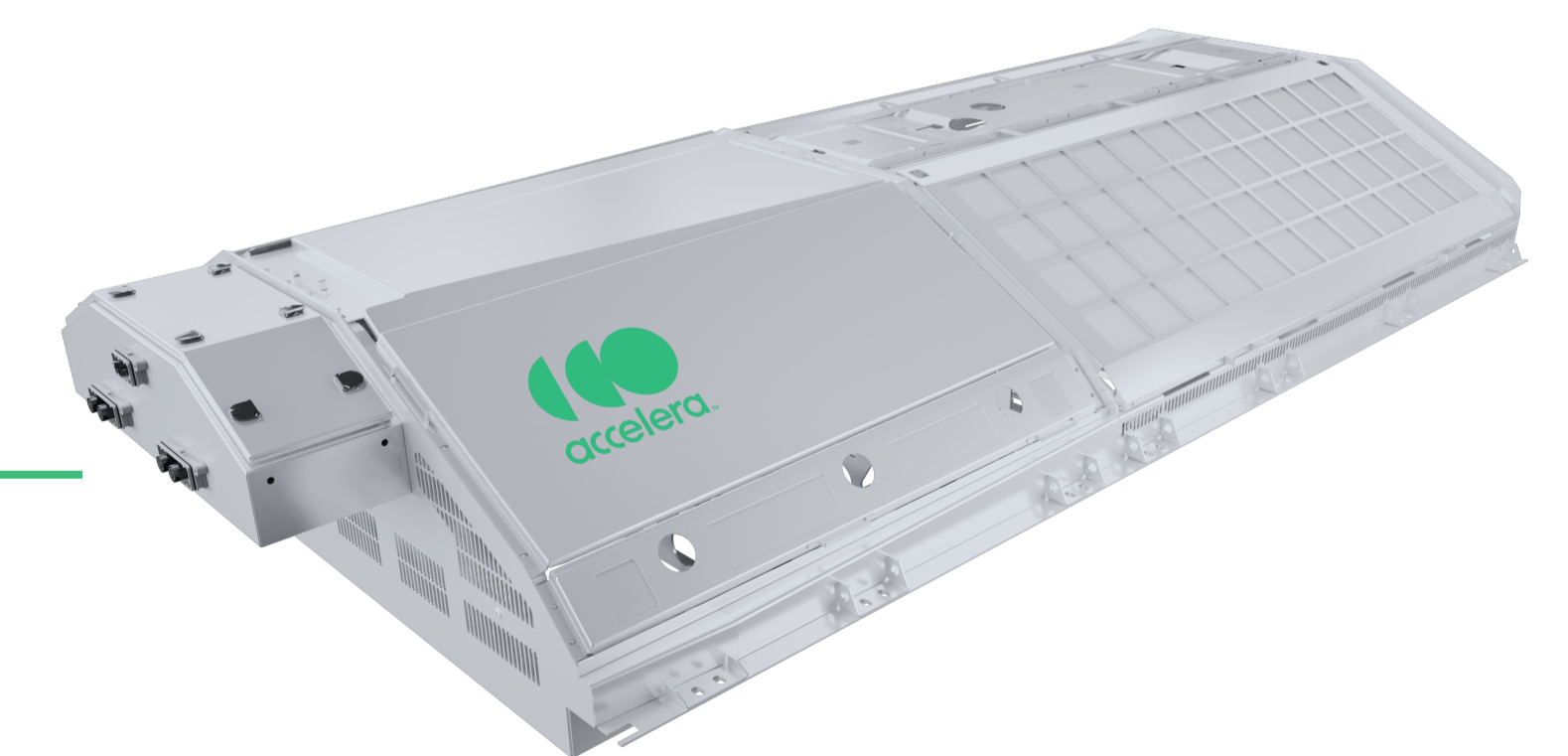


## By your side every step of the way

At Accelera, we've spent decades helping regional operators and vehicle integrators manage smooth transitions to hydrogen-powered transportation solutions, bringing our project experience to bear and building long-term support relationships. Over countless projects, we've provided our customers with the key ingredients for success: proven technology, focused execution and committed customer service.

### Fuel Cell Power Modules: Easy integration, proven performance

Our hydrogen rail solutions were designed to scale flexibly for a wide range of rail applications while providing the long runtimes, fast fueling (for shorter downtimes) and low maintenance that operators demand.



Multiple-core fuel cell stacks are combined, sharing integrated cooling, ventilation and output regulation. Accelera's fuel cell compositions combine our core cell stacks with sophisticated software for efficiency, reliability and durability, even in high-stress and subzero environments.

### We are Accelera

And we're on a mission to transition the world's most economically critical industries to zero-emissions power. Learn more at [accelerazero.com](https://www.accelerazero.com)

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