



Jupiter Independence
Fuel Cell and Electrolyzer System
All in one - Energy harvesting, storage and supply

Jupiter Independence was developed for 4 applications:
▪ Backup Power ▪ UPS ▪ Smart Grid energy storage ▪ Off-Grid energy solutions in combination with renewables

Jupiter Independence is an environmentally friendly high availability power supply for extended runtimes without the need for fuel logistics and large battery banks

JUPITER INDEPENDENCE BASIC CONFIGURATION FEATURES

Fuel Cell Subsystem

Nominal Voltage	-48,0 VDC
Nominal Power	2x2 (=4) kW
Nominal Current	100 A
Response Time	uninterrupted
Hydrogen Consumption	11 slpm/kW
Electrical Energy Storage	18 Ah

Electrolyzer Subsystem

Hydrogen production	up to 5 slpm
Hydrogen pressure	30 bar
Power input	up to 1,8 kW
Water quality	DI-water (<2 µS/cm)

Hydrogen Subsystem

Storage volume	700 l
Storage Capacity	~ 27 kWh _{el}

Enclosure

Class	IP55
Dimensions (HxWxD in mm)	2187 x 2214 x 1053

The Jupiter Independence design incorporates the unique scalability concept of the Jupiter product family. Based on Jupiter Independence's standardized building blocks all subsystems can be scaled to meet customer specific needs, that includes fuel cell, electrolyzer, hydrogen storage, water tank and enclosure. In line with this approach the central controller intelligence has also been expanded to manage different power, hydrogen supply and storage combinations.

The Jupiter Independence outdoor enclosure is extendable side-by-side for larger system configurations and meets IP55 requirements. The basic configuration holds fuel cell, electrolyzer, energy management, hydrogen storage and water tank - all in one housing. For extra protection against vandalism the enclosure is optionally available in WK4 hardening (resistance class 4). This is required by the German Federal Agency for Information Security (Bundesamt für Sicherheit in der Informationstechnik/BSI) for high security communication networks.

The installation effort is reduced to an absolute minimum as all Jupiter Independence systems are delivered pre-assembled. Even for larger system configurations the extendable side-by-side design allows for minimum installation time.



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OUR APPROACH

Reducing complexity to **maximize reliability**

Applying cutting edge technology to **maximize durability**

The result: **meeting customer's exacting power demands – at minimized total cost of ownership**

HOW WE WORK

We offer customized solutions based on standardized products. If required, we scope a customer's precise power needs, including a complete power solutions analysis. We are able to offer engineering advice and full installation service. Our after-sales service includes training and maintenance right through to monitoring of our systems.

ABOUT US

FutureE Fuel Cell Solutions GmbH is a German company specialized in advanced fuel cell systems and energy solutions. High efficiency, low complexity and fast response are core values for us, both for our products and the organization. Our team is stable, enthusiastic and has a many years' experience in fuel cell technology. We are working with high motivation for a cleaner world.