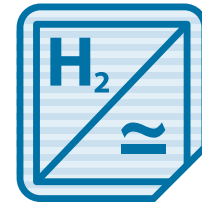


Smith Edison HyRange

*Electric vehicle with
Fuel cell range extender*



- Complete emission-free
- Ultra-quiet operation
- No vibrations
- High efficiency
- Quick and easy refuelling
- Range covers day shift



Technical data

- Speed ≥ 80 km/h
- Range ≥ 200 km
- Gross weight 4.6 t
- Load capacity 2.1 t (without body)
- Motor 90 kW Induction
- Batteries Lithium-Ion, ≥ 40 kWh
- Range extender Fuel cells, ≥ 5 kW
- Hydrogen ≥ 1.8 kg

Options

- Different body configurations
- Right and left hand drive
- Power supply for external usage
- Air conditioning
- Larger hydrogen tank volume



- ZERO EMISSION
- POSITIVE IMAGE
- TECHNICAL ADVANTAGE

Partner:



PM Cube S5 to S20

Modular construction system for fuel cell UPS



- Extended back up time
- From 5 to 20 kW
- Partly shut off possible
- Easy expandable
- Easy maintenance
- Online monitoring
- High reliability

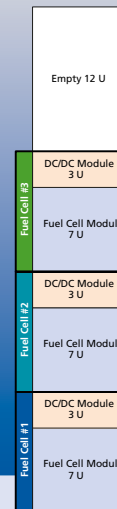


Certification in progress

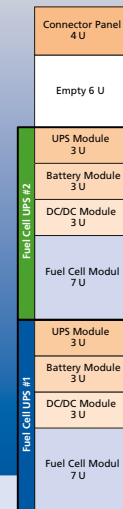


Example: Assembly for 10 kW

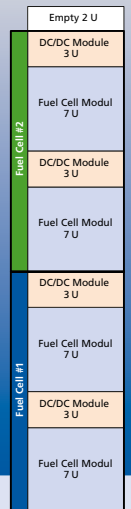
48V DC
3 x FC (15 kW)



230V AC, 1phase
2 x 6 kVA FC-UPS



400 V AC, 3phase
2 x FC (20 kW)



19" Fuel Cell Module PM Module S5

- Balance of plant included
- Certified safety architecture
- Internal control included
- Modular from 5 to 20 kW
- Battery management included



UPS Components by SPower GmbH

48 V DC

- UPS 230 V AC / 48 V DC
- Up to 1200 A
- Adaptable to any battery 48 V DC



230 V AC, 1phase

- 1phase UPS 230 V AC
- Modular from 6 kVA to 40 kVA
- Internal battery 240 V DC
- Opt. adaptable to any other battery 240V DC



400 V AC, 3phase

- 3phase UPS 230 V AC / 400 V AC
- Modular up to 320 kVA
- Internal battery 240 V DC
- Opt. adaptable to any other battery 240V DC



Fuel Cell Stack PM 200

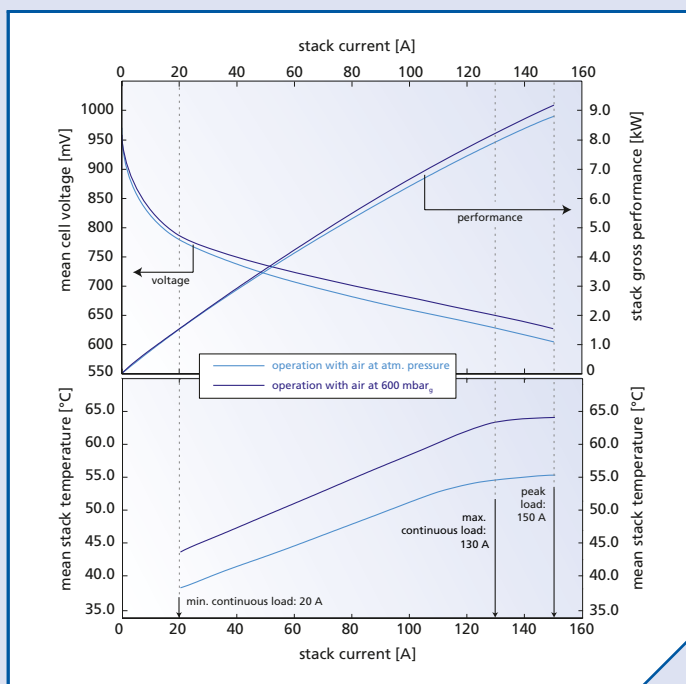
2.0 kW to 8.3 kW electrical power
for stationary & mobile applications



- Easy system integration
- No need for external humidification
- Customer specific adoptions
- Wide range of operation parameters
- High efficiency
- Reliable performance
- Easy maintenance
- Single cell monitoring optional



Certified based on: VDE 0130-201 / DIN EN / IEC 62282-2



Technical data for 96 cell stack*

- Rated power 8.3 kW
- Target lifetime >5000 h
- Length/width/height 402/245/135 mm
- Weight 15 kg
- Current up to 150 A
- Voltage range 55 – 100 V
- Efficiency** > 52 %
- Fuel neat hydrogen
- Fuel / Air pressure up to 600 mbar
- Pressure drop air < 150 mbar
- Coolant DI-water or ethyl.glycole
- Stack temp. up to 65°C***
- Ambient temp. range -20 – 60°C
- Min. startup temp. > 0°C

* Further configurations available on demand

** At rated power *** No need for external humidification