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KOEDOOD
Brennstoffzellensysteme

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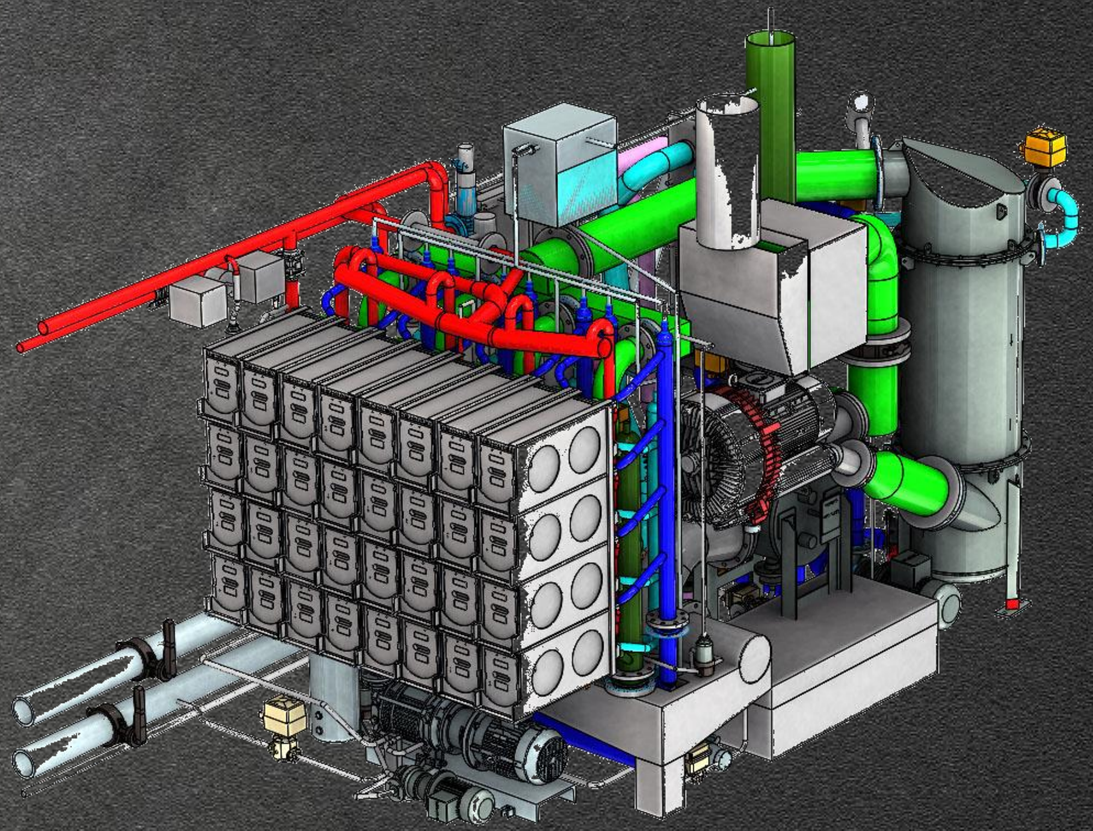
Verfügbare Systeme

- Insgesamt vier Systeme verfügbar
- Nominelle Leistungen 40, 80, 300 und 500 kW_e
- Je nach Leistung als Genset oder 20 ft Container



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Technische Daten

MT-FCPP-40

Elektrisch:

- Nennleistung: 40 kW_e
- Spannung: 680 VDC
- Strom: 0 - 80 A

Mechanisch:

- Gewicht: ca. 1250 kg
- Abmessungen: 2500 (L) x 825 (B) x 1250 (H) mm

Wasserstoff:

- Verbrauch: 4,0 kg/h bei Volllast
- Reinheitsgrad: ≥ 2,5 (99,5 %)

MT-FCPP-300

Elektrisch:

- Nennleistung: 300 kW_e
- Spannung: 450 – 920 VDC
- Strom: 0 – 670 A

Mechanisch:

- Gewicht: ca. 12.500 kg
- Abmessungen: 6100 (L) x 2440 (B) x 2590 (H) mm

Wasserstoff:

- Verbrauch: 65 kg/MWh_e
- Reinheitsgrad: ≥ 2,5 (99,5 %)

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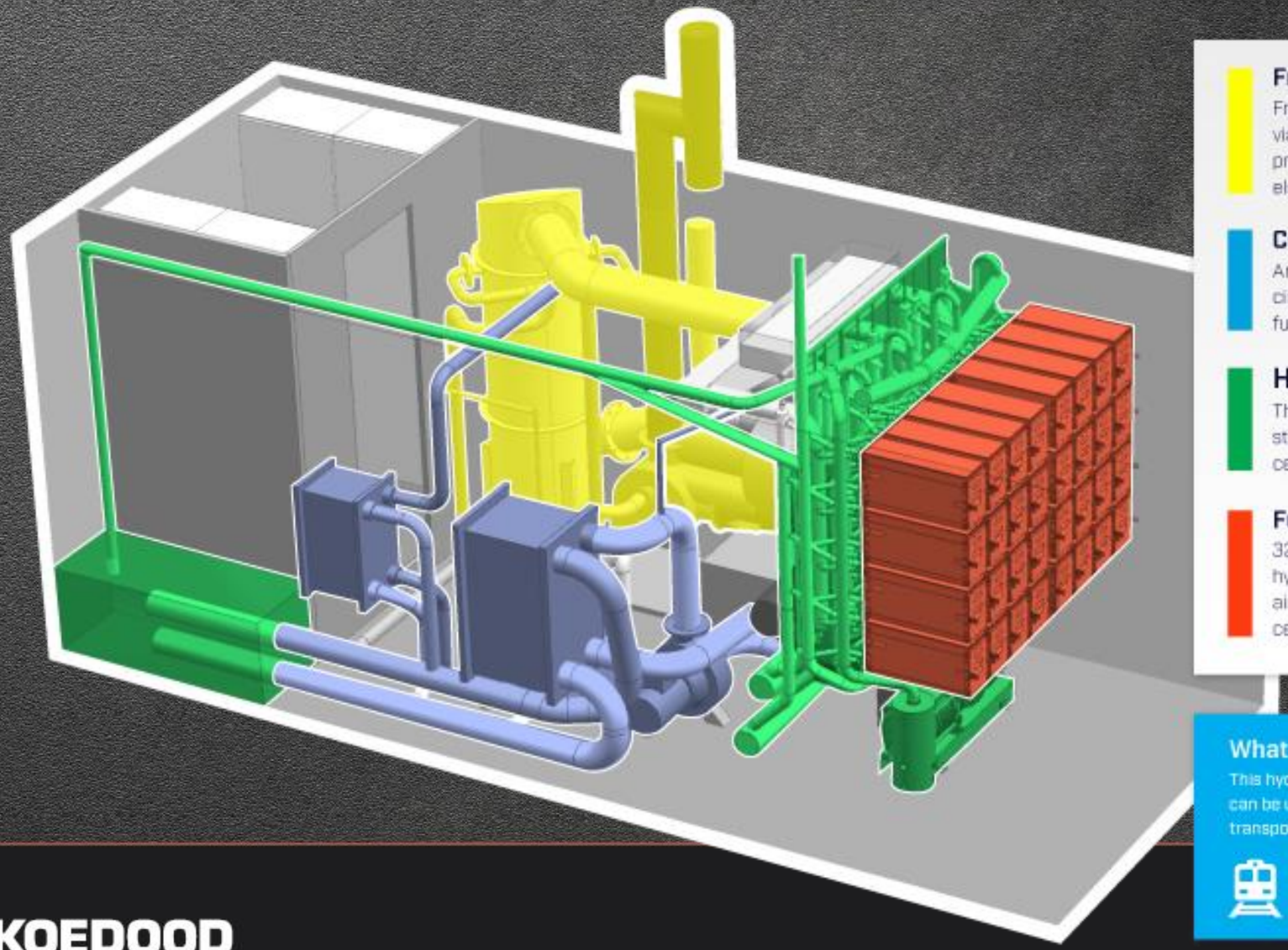
Aufbau 300 kWe System



Fresh Air
Fresh air is transported to the fuel cells via an air circuit, which is needed in the process to convert the hydrogen into electricity.

Cooling Water Circuit
An internal and external cooling water circuit cools the system, including the fuel cells.

H_2 System
The hydrogen is transported from the storage tank at low pressure to the fuel cells via the H_2 system.

Fuel Cells
32 PEM fuel cells convert the supplied hydrogen into 300 kWe after reaction with air. The only waste product from the fuel cell is water.

What can you do with it?
This hydrogen container delivers 300 kWe, which can be used in the energy supply of shipping, public transport, industry and construction projects.

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Sicherheit

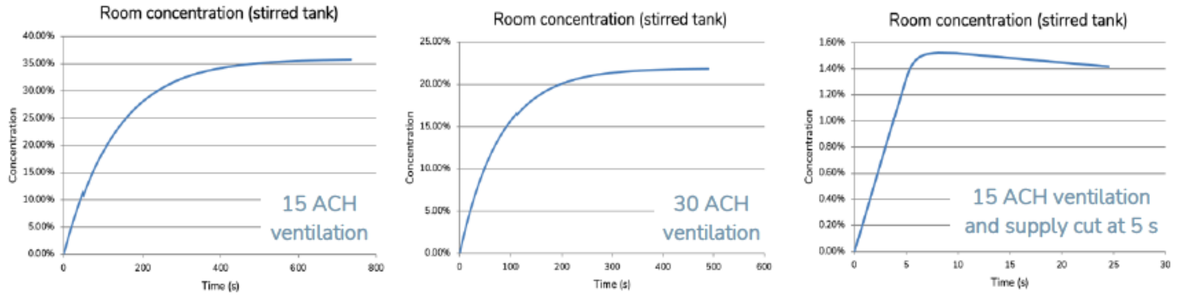
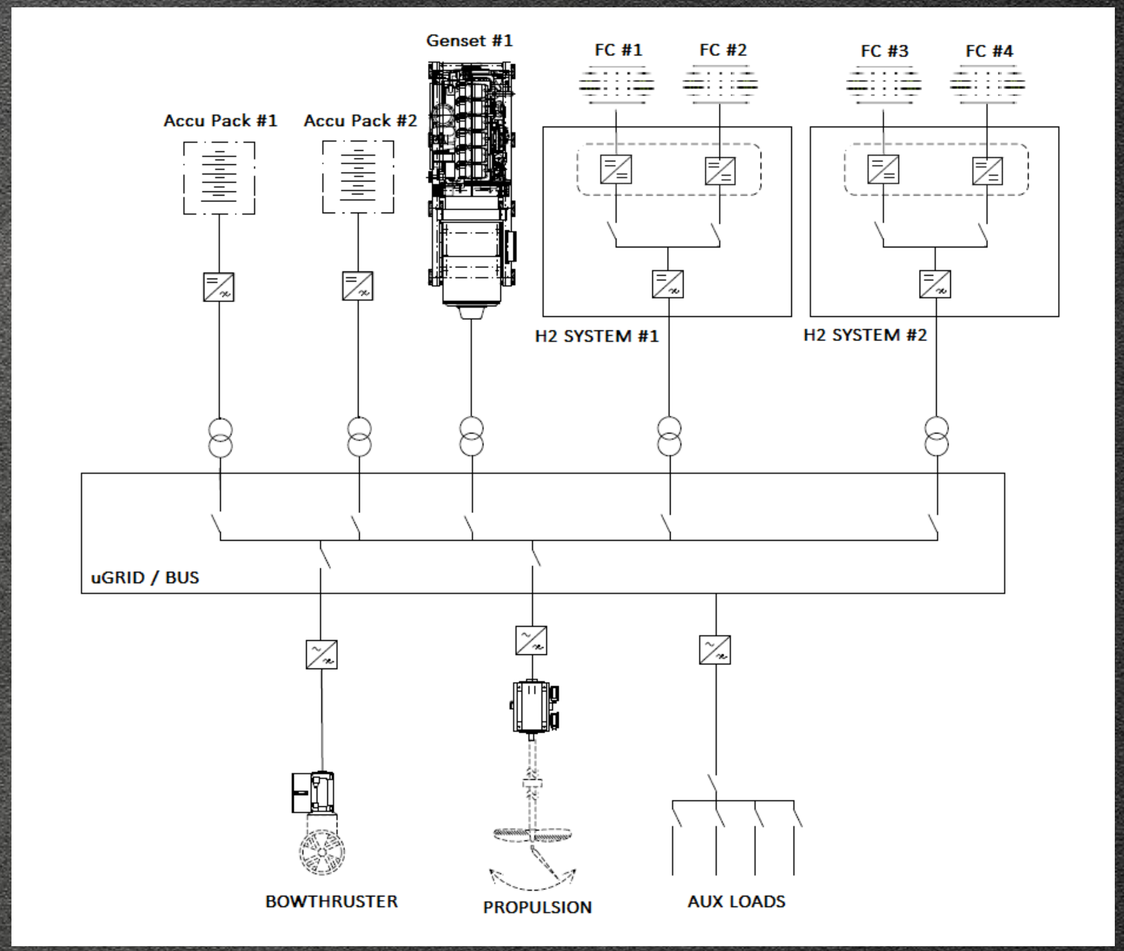


Figure 5.1: Estimated concentration build-up (stirred tank model) inside the fuel cell container following a steady 9 g/s leak with 15 ACH ventilation (left), 30 ACH ventilation (middle), and for a 15 ACH scenario with hydrogen supply cut after 5 s (right).

Fokus KOEDOOD

- Auslegung & Design des Antriebsystems
  - Brennstoffzellensystem
  - PMSM
  - Ggf. Genset für Hybridanwendungen
- KOEDOOD liefert und nimmt das System in Betrieb
- Keine Wasserstofftanks



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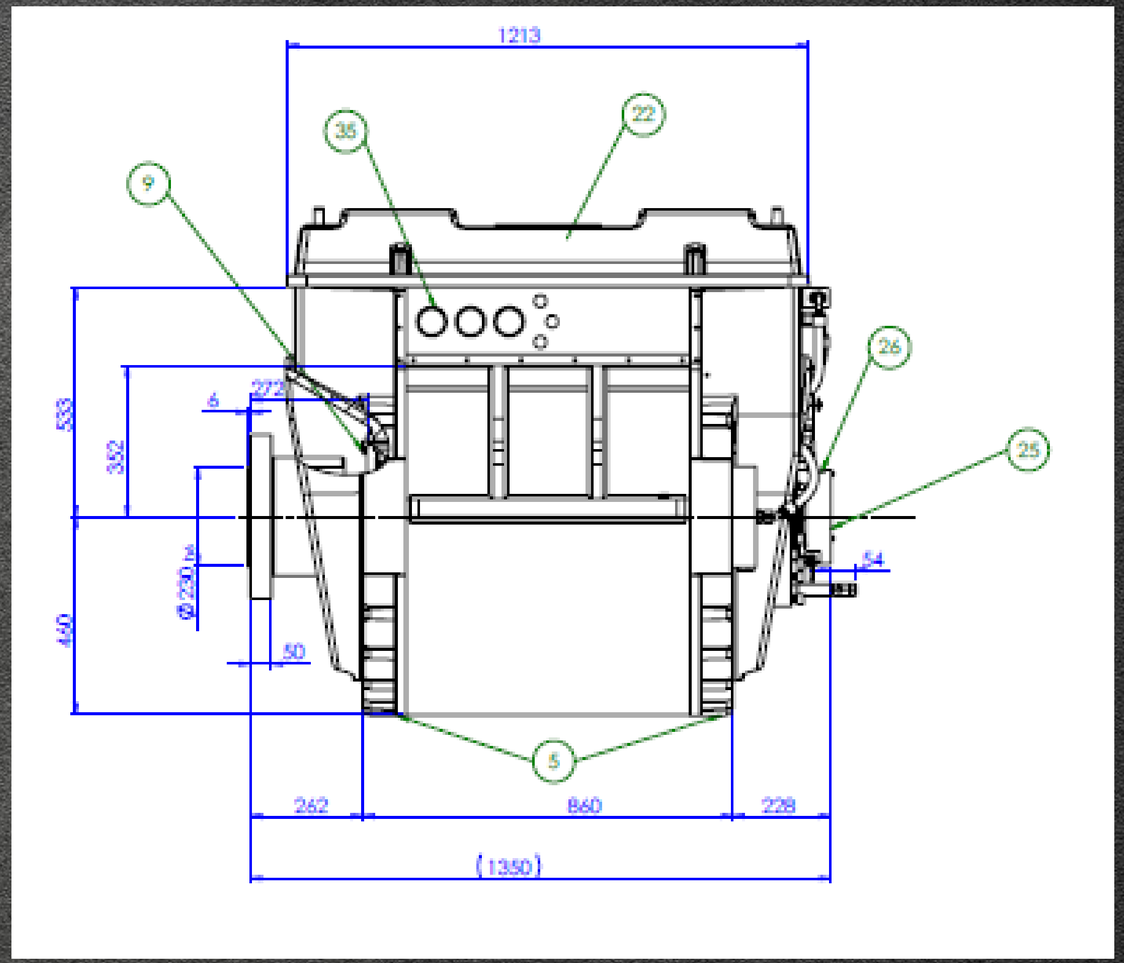
PMSM

Permanentmagnet-Synchronmotor

- 97-98% Wirkungsgrad
- Doppelte Spulenwicklung
- Kompakt
- Kein Getriebe
- Keine Ausrichtung notwendig
- Class Approved



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Beispiel FPS Maas

- Ca. 2000 t CO2-Ersparnis pro Jahr

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Weitere Infos

Web:

- www.koedood.nl
- www.hydrogenpoweronboard.com

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STORM
part of August Storm GmbH & Co. KG

Vielen Dank für Ihre Aufmerksamkeit

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