H2 POWERBOX

Clean Energy. Simple. Future-Proof.

IMAGINE YOUR ENERGY IS EMISSION-FREE, FLEXIBLE, AND EASY TO USE.
OUR HYDROGEN-BASED PLUG-AND-PLAY ENERGY SYSTEM MAKES IT POSSIBLE!

By using green hydrogen as an energy carrier, we offer a reliable and environmentally friendly alternative to fossil fuels—helping to significantly reduce CO_2 emissions and actively contribute to the energy transition.

HIGHLIGHTS AT A GLANCE

No harmful emissions:
Generate both electrical and thermal energy.

Modular expansion:
Need more Power? No Problem.
Simply connect additional modules.

Hybrid-Ready: Easily combine the system with batteries to achieve maximum efficiency and flexibility.

SYSTEM BENEFITS

- **Easy installation:**
  Plug-and-play technology enables quick and straightforward setup.
  With user-friendly configuration and standardized connections, the system can be operational in no time—without complex preparations.

- **Adaptable to your needs:**
  Whether for private use or commercial applications—the system can be customized to meet your requirements. This flexibility allows usage in both small applications like supplying a single-family home and larger commercial setups.
- **High efficiency and cost savings:**
  The combination of hydrogen technology and battery storage ensures highly efficient energy generation and usage. Surplus energy is stored and used when needed, reducing energy costs and maximizing efficiency.

Choose a sustainable energy solution that is easy to use and future-proof. Benefit from a system specifically designed to provide energy supply that is emission-free, efficient, and flexible.

TOGETHER, WE LAY THE FOUNDATION FOR A MORE SUSTAINABLE WORLD!

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TECHNICAL SPECIFICATIONS

Model	**XS – 2**	**XS - 5**	**XS – 8,6**

Electric Interface			
Current Range [A]	0-180		
Voltage Range [VDC]	52 - 60		
Peak Power [kW]	2,5	6,5	9,2
Nominal Continuous Power [kW]	2,0	5,0	8,6
Minimum Continuous Power [kW]	0,4	1,5	1,5
Supply Voltage [VDC]	48 V		
Power Consumption at Peak Power [kW]	0,25	0,25	0,40
Electrical System Efficiency [%]	bis 57 ... 66 %	bis 59...66%	bis 57 ... 66 %

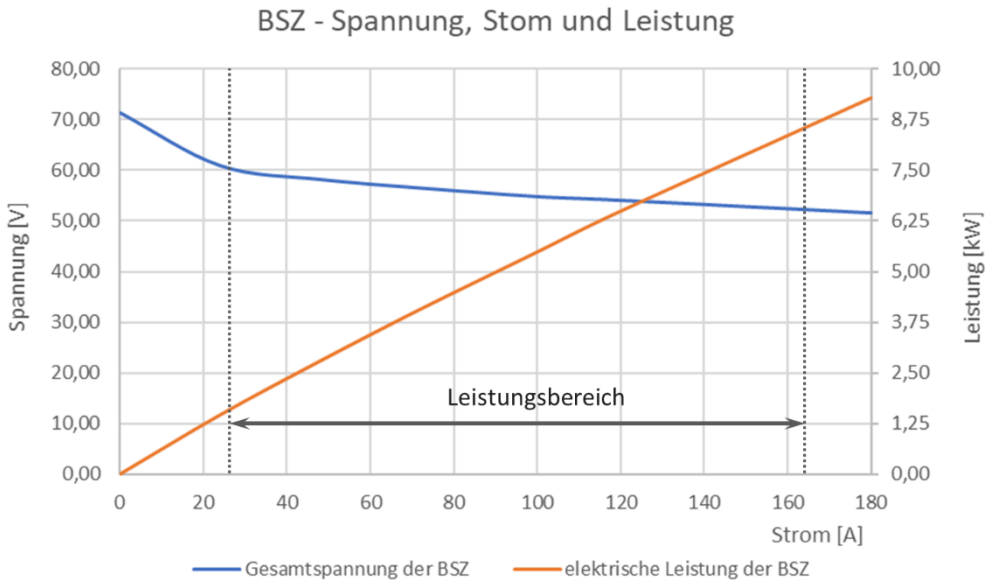
Hydrogen			
Hydrogen Quality [1]	ISO 14687-2 / SAE J2719		
Inlet Pressure [bar]	1,4	1,4	1,5
Hydrogen Consumption at Peak Power [kg/h]	0,14	0,34	0,42

Cooling Water Interface	
Flow Temperature [°C]	-20 to +45
Return Temperature [°C]	bis +70

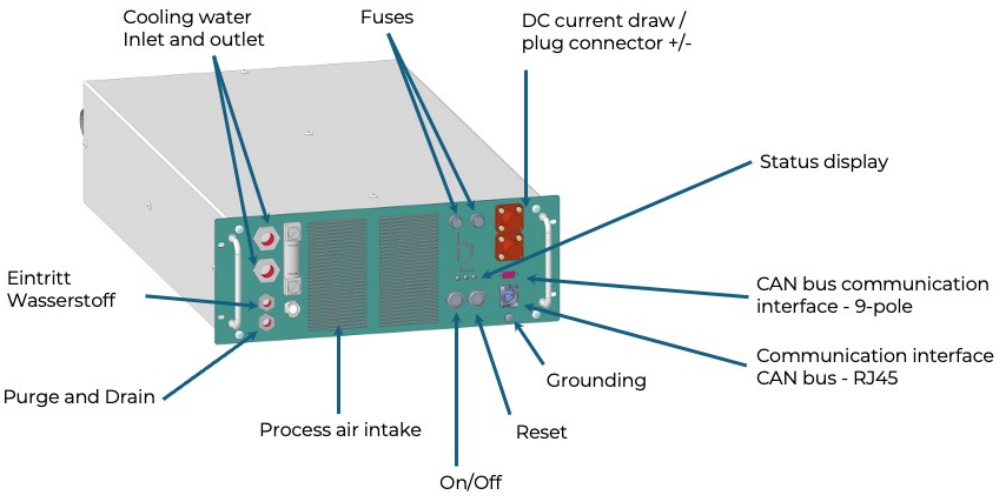
Environment	
Operating Ambient Temperature [°C]	-20 up to +45
Storage & Transport Temperature [°C]	-20 up to +60
Operating Altitude [m]	Up to 2000

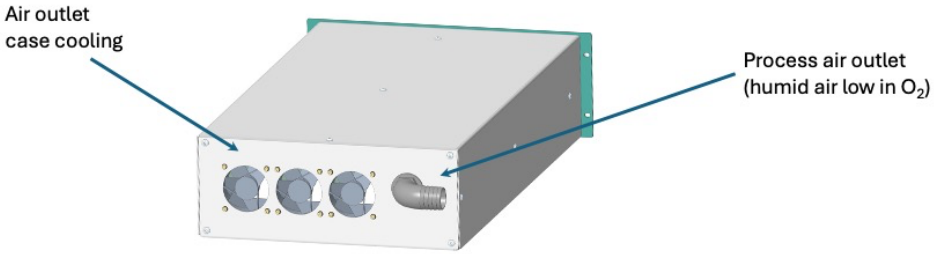
Dimension / Weight / Communication	
L x W x H [mm x mm x mm]	485 x 177 x 850
Weight [kg]	55
Communication [1]	CAN

POWER RANGE OF THE FUEL CELL SYSTEM

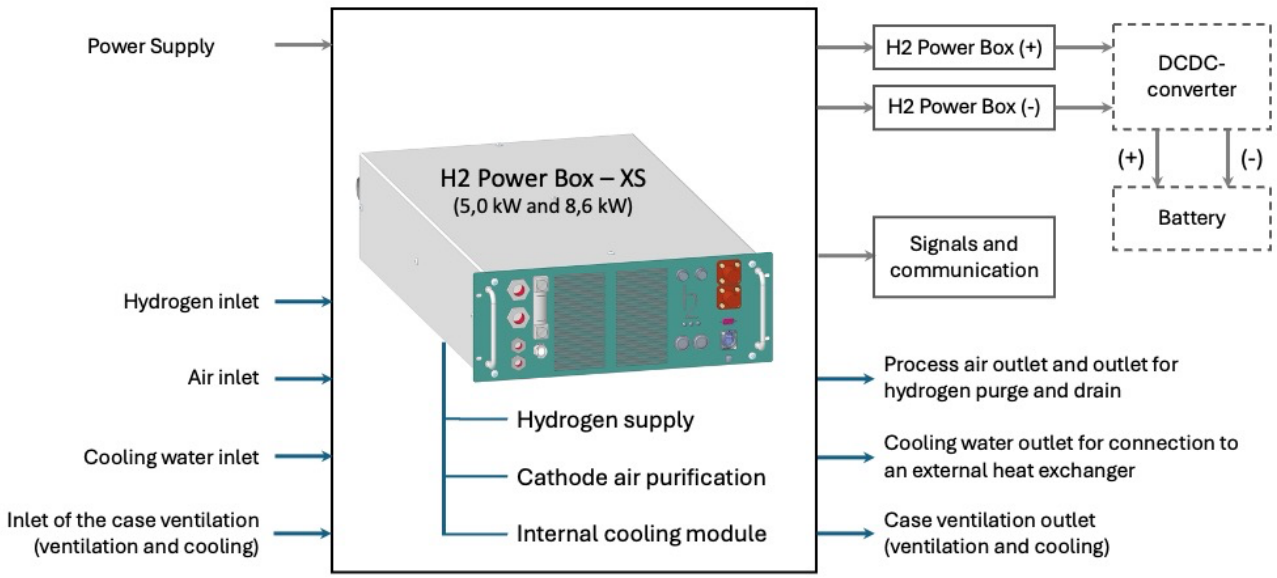


H2 POWERBOX





SCHEMATIC DIAGRAM OF THE H2 POWERBOX INCLUDING ACCESSORIES



ACCESSORIES

- External cooling module for independent cooling
- of the H2 POWERBOX (air cooling)
- DCDC converter for 48 V output voltage and
  an electrical output of 2.0 kW, 5 KW and 8.6 kW
- Single-stage (cylinder) pressure reducer for the use of
- up to 350 bar hydrogen storage pressure
- Additional special accessories available on request