sunfire®

RENEWABLES
EVERYWHERE

SUNFIRE.DE

RENEWABLE HYDROGEN FOR ALL APPLICATIONS

SUNFIRE-HYLINK ALKALINE

PRODUCT

Sunfire-HyLink Alkaline is our established, large-scale electrolysis solution. With several decades of proven system runtime and pressurized hydrogen output, the electrolyzer is the cost effective, reliable and ready-to-use solution for any hydrogen project.

APPLICATIONS

The electrolyzer provides renewable hydrogen as an essential element for decarbonizing industries, mobility and energy.

+ Steel: Direct reduction of iron, blast furnace injection, protective atmosphere, etc.
+ Refineries: Desulphurization, hydrocracking, hydrogenation, etc.
+ Chemicals: Ammonia production, hydrogenation, isotope separation, etc.
+ Mobility: Fuel cell vehicles for road and rail
+ Energy: Industry and space heat, power balancing, etc.

CORE ADVANTAGES

+ **Robustness**
  Proven technology with demonstrated system runtime of more than 20 years
+ **CAPEX**
  Lowest electrolyzer costs reduce capital requirements
+ **Pressure**
  Renewable hydrogen is delivered at a pressure of up to 30 bar (g)
+ **Scalability**
  10 MW modular design enables effective scaling to large electrolysis capacities
+ **Adaptability**
  Easy integration into any environment – whether industrial or greenfield

SUNFIRE-HYLINK ALKALINE – TECHNICAL DATA

	HYLINK ALKALINE
Hydrogen production	
Net production rate	2,230 Nm^3/h
Production capacity dynamic range	20 % ... 100 %
Delivery pressure	30 bar (g) without additional compression
Hydrogen purity	> 99.6 % before gas cleaning**
Operation temperature	up to 85 °C
Power input and electrical efficiency	
Stack power rating (DC)	10,000 kW
Specific power consumption at system level (AC)	4.7 kWh/Nm^3
System electrical efficiency*	64 %
Feedstock	
Demineralized water consumption	1.9 m^3/h
Electrolyte	30 % KOH aqueous solution
Other specs	
Proven system runtime	> 20 years
Stack lifetime	> 90,000 h
Footprint***	~ 450 m^2
Ambient temperature	5 °C ... 40 °C

* Lower heating value of hydrogen referred to AC power input
** up to 99.998 % after gas cleaning
*** Average space requirement for a 10 MW system comprising all auxiliary systems

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