

RENEWABLE HYDROGEN FOR ALL APPLICATIONS

SUNFIRE-HYLINK ALKALINE**PRODUCT**

Sunfire-HyLink Alkaline is our established, large-scale electrolysis solution. The electrolyzer uses water and KOH-electrolyte as feed to produce renewable hydrogen. 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**
Modular 5 MW stack 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	
Production rate	1,065 ... 1,090 Nm ³ /h
Production capacity dynamic range	15 % ... 100 %
Delivery pressure	5 ... 30 bar (g) without compression
Hydrogen purity	up to 99.999 % after gas cleaning
Operation temperature	up to 90 °C
Power input and electrical efficiency	
System power consumption (AC)	5,000 kW
Specific power consumption at stack level (DC)*	4.4 ... 4.5 kWh/Nm ³
Specific power consumption at system level (AC)*	4.6 ... 4.7 kWh/Nm ³
System electrical efficiency**	64 ... 65 %
Feedstock	
Water consumption	1 m ³ /h
Electrolyte	25 ... 30 % KOH aqueous solution
Other specs	
Proven system runtime	> 20 years
Stack lifetime	up to 90,000 h
Footprint***	~ 350 m ²
Ambient temperature	5 °C ... 40 °C

* Power consumption at operational pressure of 5 or 30 bar (g)

** Lower heating value of hydrogen referred to AC power input

*** Average space requirement for a 5.0 MW system comprising all auxiliary systems