

# gateway

## SERIES



### Next generation alkaline electrolyzers for small-to-medium scale systems

- Low CAPEX – optimized Balance-of-Plant configuration
- Robust system – 10 years performance guarantee
- Low LCOH – due to high efficiency and 30 bar output pressure
- Turnkey solution – containerized full system for green hydrogen production

#### Technical specifications

Product	Gateway 01	Gateway 02	Gateway 04	Gateway 08	Gateway 10
Hydrogen hourly production rate [Nm <sup>3</sup> /h]	200	400	800	1600	2000
Hydrogen daily production rate [kg/day]	432	864	1728	3456	4320
Hydrogen pressure [barg]	30	30	30	30	30
Hydrogen purity [%]	> 99.999%	> 99.999%	> 99.999%	> 99.999%	> 99.999%
Oxygen purity [%]	> 99.7%	> 99.7%	> 99.7%	> 99.7%	> 99.7%
Installed electrical power [MVA]	1	2	4	8	10
Stack Consumption [kWh/Nm <sup>3</sup> ]	4.13	4.13	4.13	4.13	4.13
System efficiency (HHV) [%]	71.6%	71.6%	71.6%	71.6%	71.6%
System efficiency (LHV) [%]	60.5%	60.5%	60.5%	60.5%	60.5%
Operating range [%]	10-100%	10-100%	5-100%	5-100%	5-100%
Electrolyte	KOH	KOH	KOH	KOH	KOH
Electrical interface	0.4 kV, 50/60 Hz, > 0.9 PF	0.4 kV, 50/60 Hz, > 0.9 PF	0.4 kV, 50/60 Hz, > 0.9 PF	0.4 kV, 50/60 Hz, > 0.9 PF	0.4 kV, 50/60 Hz, > 0.9 PF
Pure water requirement [l/h]	164	328	656	1312	1640
System installation location	Outdoors (containerized)	Outdoors (containerized)	Outdoors (containerized)	Outdoors (containerized)	Outdoors (containerized)
Ambient temperature range [°C]	-20 to +40	-20 to +40	-20 to +40	-20 to +40	-20 to +40
Communication interface	Ethernet / Modbus	Ethernet / Modbus	Ethernet / Modbus	Ethernet / Modbus	Ethernet / Modbus

## Scope of delivery

Stack and Balance-of-Stack:

- Electrolyzer stacks
- Gas separation system
- Power rectifier
- Control system
- Lye loop

Balance-of-Plant:

- Gas purification system
- System (rectifier, stack, gas) cooling
- Water purification system
- Nitrogen purge system
- Process air compressor
- Safety system
- Backup power system
- Vent stacks
- Intercontainer process & electrical connections

## Optional extras

- MV Transformer & switchgear
- Wasteheat re-use system
- Hydrogen storage system
- Compressor system (up to 1000 bar)

## Certification

- Pressure Equipment Directive 2014/68/EU
- Machinery Directive 2006/42/EC
- Low Voltage Directive 2014/35/EU
- EMC Directive 2014/30/EU
- ATEX Directive 2014/34/EU
- ISO 22734-1

### Disclaimer:

Specifications are subject to change.  
Stargate Hydrogen reserves the right to make changes or updates at any time without prior notice