

gateway

SERIES



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

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

Technical specifications

Product	Gateway 200	Gateway 400	Gateway 800	Gateway 1600	Gateway 2000
Hydrogen hourly production rate [Nm ³ /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 [%] ¹	> 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	2.4	4.8	9.6	12
Stack consumption [kWh/Nm ³]	4.28	4.28	4.28	4.28	4.28
System efficiency (HHV) [%]	74.5%	74.5%	74.5%	74.5%	74.5%
System efficiency (LHV) [%]	62.9%	62.9%	62.9%	62.9%	62.9%
Operating range [%]	20-100%	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] ²	-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

¹ Target purity achievable with optional purification system

² Target temperature range available with optional extra package
Standard: +5 to +40° C



Scope of delivery

Stack and Balance-of-Stack:

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

Balance-of-Plant:

- System (rectifier, stack, gas) cooling
- Nitrogen purge system
- Safety system
- Backup power system
- Vent stacks

Optional extras

- Gas purification system
- Water purification system
- Process air compressor
- Wasteheat re-use system
- Low temperature package
- MV Transformer & switchgear
- Intercontainer process & electrical connections
- 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