

# gateway

SERIES



Next Generation alkaline electrolysers for small-to-medium scale applications.



modular and configurable system



Fully Automated remote operation



Full Maintenance support



High purity Hydrogen



RES - Following in dynamic operation



Low CAPEX

## Technical specifications

Product	Gateway 200	Gateway 400	Gateway 800	Gateway 1600	Gateway 2000
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	2.4	4.8	9.6	12
Stack consumption [kWh/Nm <sup>3</sup> ]	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] **	-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

\* Target purity achievable with optional purification system

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

# Scope of delivery

## Stack and Balance-of-Stack:

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

## Balance-of-Plant:

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



## Optional extras

- Gas purification system
- Water purification system
- Process air compressor
- Wastehat re-use system
- Low temperature package
- MV Transformer & switchgear
- Intercontainer process & electrical connections
- Hydrogen storage system
- Compressor system (up to 1000 barg)

## 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