Product Data Sheet (PHxG135-1-A)

2026-02-10

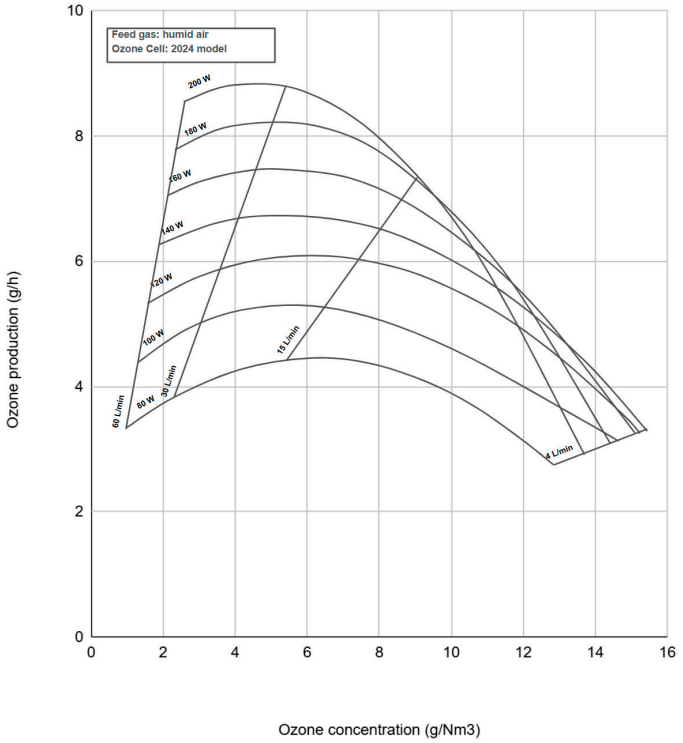
OZOREON

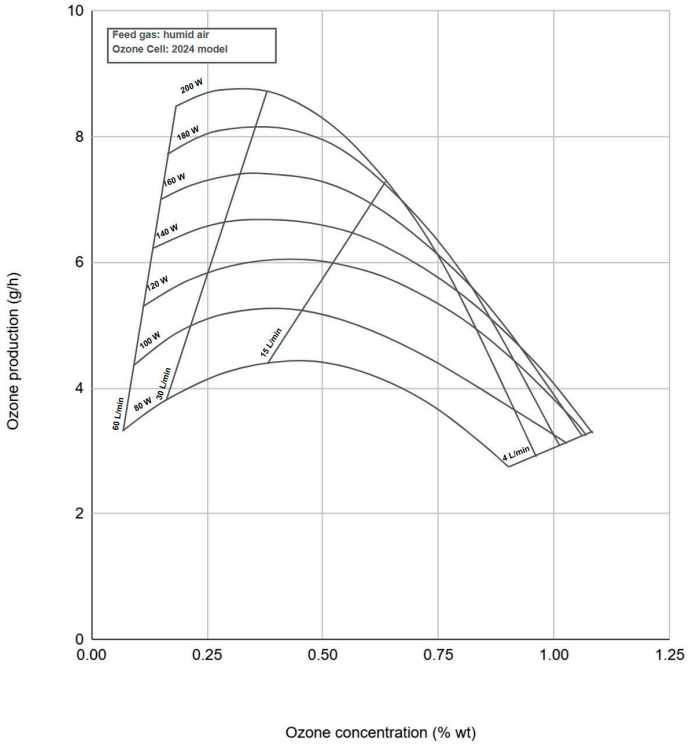
H-UNIT

Ozone concentration and capacity measured with untreated, humid air at 2 bar(g) and 200 W. (Values depend on feed gas specifications)				
Gas flow	Ozone concentration		Ozone production	
Air	at 17 °C	at 3 °C	at 17 °C	at 3 °C
4 lpm / 0,24 Nm³/h	13 g/Nm³	15 g/Nm³	3,1 g/h	3,6 g/h
15 lpm / 0,9 Nm³/h	7,3 g/Nm³	8 g/Nm³	6,6 g/h	7,2 g/h
30 lpm / 1,8 Nm³/h	4,5 g/Nm³	5 g/Nm³	8,1 g/h	9 g/h
60 lpm / 3,6 Nm³/h	2,1 g/Nm³	2,6 g/Nm³	7,6 g/h	9,4 g/h

Gas	
Feed gas:	Air (any humidity) or oxygen
Feed gas flow (max. through H-unit):	<300 lpm (<150 lpm at 260 cm tubing 4mm I.D)
Max gas pressure at inlet:	7 bar(g) / 101 psi(g) - recommended range 1-3 bar
Gas pressure drop (air feed @ 0 °C):	0.2 bar @ 40 lpm; 0.9 bar @ 100 lpm; 2.8 bar @ 200 lpm
Gas connections:	IN: 8 mm push-in; OUT: 4 × 6 mm push-on
Recommended tubing:	PTFE, FEP, silicone or equivalent (O_3 resistant)
Water cooling	
Cooling water connections:	Aluminium pipe 12 mm push on, or 8 mm push in
Required cooling water quality:	Suitable for use with aluminium piping. Preferably containing 50% glycol, depending on conditions/application.
Recommended cooling water flow:	>0.8 lpm
Max cooling water temp:	≤20 °C (at continuous operation @ 200 W) <36 °C (at continuous operation @ 150 W)
Max water pressure:	<6 bar(g)
Water pressure drop:	0.2 bar at 3 lpm
Ambient conditions (operation)	
Temperature	-40 to +40 °C (includes thermal safety switch)
Humidity, max	Any (≤100% R.H.)
Power supply (only use recommended)	
Voltage rating:	24 V DC (+/- 10%)
Power consumption:	≤200 W
Max fuse:	10 A
Electrical connections:	M12 connector
Dimensions (cylinder)	
Length × Ø:	383 x 150 mm (+25 mm at water connections)
Weight:	4.6 kg (7.9 kg with oil)
Oil volume (transformer fluid):	3.3 L (≈ 3.3 kg)

Compliance and Certifications	
CE: (see CE declaration)	LVD (2014/35/EU), EMC (2014/30/EU), and RoHS (2011/65/EU). Harmonised standards in particular: IEC 61010-1, -6-2/3, SS-EN 61882, SS-EN 60529:2014 edition 1.2 EN 61000-4-2:2009, -4-3:2020, -4-4:2012, -4-6:2014, EN 61000-6-2:2019, (-6-8:2020, -4-5:2014+A1:2017, -4-11:2020, -3-2:2019+A1:2019 +A2:2021 in combination with the OZOREON aut03 cabinets)
Noise level:	< 70 dB at 1 m. Operating frequency 2000-3000 Hz
IP class:	Standard IP67


Feed gas: humid air
Ozone Cell: 2024 model
200 W
180 W
160 W
140 W
120 W
100 W
80 W
60 L/min
30 L/min
15 L/min
4 L/min
Ozone production (g/h)
Ozone concentration (g/Nm3)
0
2
4
6
8
10
12
14
16


Feed gas: humid air
Ozone Cell: 2024 model
200 W
180 W
160 W
140 W
120 W
100 W
80 W
60 L/min
30 L/min
15 L/min
4 L/min
Ozone production (g/h)
Ozone concentration (% wt)
0.00
0.25
0.50
0.75
1.00
1.25

OZOREON

OZONE IN TOUGH CONDITIONS

Using only air and electricity, our H-unit® disinfects and cleans air, materials, and water endlessly*.

* Product lifespan: > 10 years with minimal maintenance, adaptable to even the harshest and most challenging environments.

- **Humid air and harsh conditions** – that's our thing. Equipped with a chemical- and water-resistant feed gas channel and reactor, our H-unit® utilizes ambient air with any level of humidity to generate ozone. (You could even introduce water directly into the gas inlet without causing any damage). This distinction** sets our product apart from prior art and enables us to operate efficiently without any feed-gas pretreatment, i.e. less sensitivity and complexity, with no peripherals such as air dryers needed.

  The gas channel and reactor are consequently easy to clean using a simple Clean-In-Place (C.I.P.) solution, circulating water and a cleaning agent to remove any potential build-ups.
- **Low energy consumption** – up to 200 W, 24 V DC. The H-unit® can run on a small solar panel or other alternative power sources.

  Ozoreon also offers customized, plug-and-play solar power kits.
- **Small physical size** – 38 x 15 cm (plus 25 mm at cooling water connections) in a cylinder shape.
- **Minimal maintenance** – No moving parts. No parts to replace. With a simple C.I.P. procedure 1-2 times a year, the H-unit® is ready to operate throughout its entire lifespan.
- **Long lifespan – 10+ years.** And then...through a deposit-return system, the H-unit® is returned to Ozoreon for recycling.
- **Robust and off-grid adapted** – Built to last, with highest quality industrial components. Shock-absorbing and vibration damping design. Suitable for harsh conditions with an impressive IP67 rating.
- **High pressures** – up to 7 bar (101 psi) operating pressure, enabled through proprietary components.
- **Water cooled** – enabling active cooling to be adapted for the specific applications.
- **Automation cabinet** – our Ozoreon H-unit® AUTO3 is the "extension" for full industrial automation, where our H-unit® either is housed in, or stands next to an IP55 metal cabinet comprising components for measuring ambient conditions, process parameters (flow, pressure, temperature, etc.), as well as ozone leakage detection and error indication. PLC operated, with communication via either Ethernet RJ-45 (ModBus TCP/IP), or through its access point (web interface).

** Patent Nºs:
SE 540593
EP 3563643
US 11096267
IN 384897

The beneficial interaction between ozone and high humidity is a known fact in the industry and has been documented for over 80 years. The synergistic effects result in higher oxidizing and disinfecting properties compared to dry ozone treatments. Ozoreon has the technology to harness this potential.

CLEAN. CLEVER SCIENCE.