Product Data Sheet (1PHAR0XLxxxI-B)

OZOREON

AUTO3 XL

Element	Description
Latest update	2026-02-10
Application	The autO3 XL is an integrated ozone generation cabinet engineered for reliable and automated ozone production for a wide range of process applications.
Delivery scope	Fully integrated, PLC-operated ozone system for high (2–200 L/min) and low (0.3–25 L/min) gas flow applications. Delivered pre-assembled and factory-tested, with all internal electrical and fluidic components enclosed in an IP65-rated cabinet. • **Ozone production:** Up to 11 g O_3/h with dry air feed (humid air tolerated) • **Ozone-wetted materials**: SS316, aluminum, FEP, PTFE, borosilicate glass – Seals: Viton (FKM) and/or PTFE • **Cooling-water wetted materials:** Brass, aluminum, SS316 – Seals: NBR or FKM
Compliance & Assurance	The system conforms to applicable EU directives and harmonised standards: • **Directives:** Low Voltage (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU), REACH (EC 1907/2006) • **Key standards:** IEC 61010-1, IEC 60204-1 (Electrical safety), ISO 12100, EN 61000-6-2 / -6-8 (EMC industrial use), EN 60529 (IP rating)
Control cabinet	**Type**: Rittal lacquered sheet-metal enclosure **Dimensions (H × W × D)**: 600 × 600 × 250 mm – incl. external components: 620 × 735 × 290 mm **Protection class:** IP65 **External equipment:** – Main switch / emergency stop – Pressure regulator with pressure gauge – LED indicators for alarm, status, and operation **Internal equipment:** – Door safety switch – Thermostat and ventilation fan (IP54)
Internal components (typical configuration)	• Integrated OZOREON H-unit® ozone generator • Dual DIN rail power supplies: 240 W and 120 W (24 V DC) • Industrial PLC based on ESP32 architecture • High-efficiency process-air filter (0.01 µm) • Digital air-flow meter with integrated adjustment valve • Temperature and pressure sensors; safety pressure relief valve • Ozone-compatible solenoid and diaphragm valves • Shut-off valves for cooling-water circuit • Automatic fuses and main AC circuit breakers • Auxiliary components incl. ball valves, contactors, terminal blocks, cable ducts
Connection points	**Compressed air in:** G1/4" female thread or Ø8 mm push-in fitting **Ozone gas out:** G1/4" female thread or Ø6 mm push-in fitting **Cooling water in/out:** G1/4" female thread or Ø10 mm push-on (hose nipples) **Power supply**: Single-phase 230 V AC, 50 Hz, 10 A **Communication:** RJ45 (ModBus TCP/IP)
Air quality	0.01 µm process-air filter Output air quality class according to ISO 8573-1:2010 [1:7:2], provided appropriate pre-filtration
Operation & control	• Fully automatic operation via **ESP32-based PLC with ModBus TCP/IP** • Manual control mode (digital control of valves and sensors via HMI or network interface) • System logic includes safety interlocks and process sequencing

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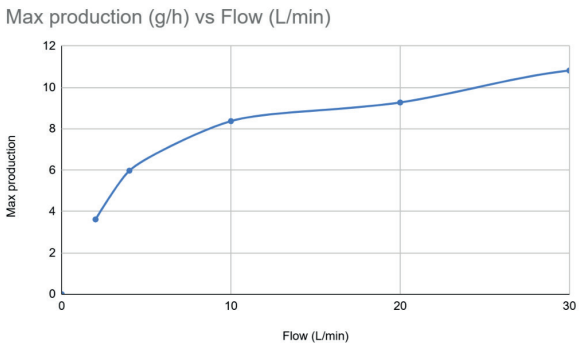
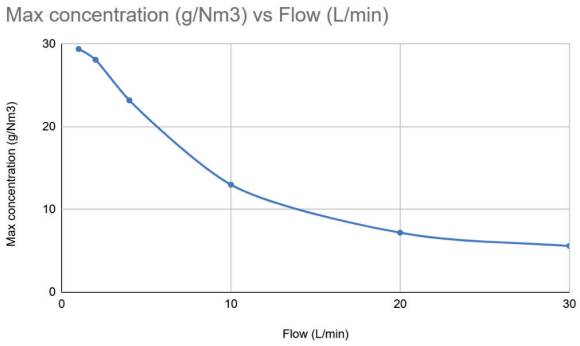
Monitoring parameters	• **Feed gas (air in):** Flow rate, pressure, temperature • **Process gas (ozone out):** Flow rate, pressure, temperature – Ozone concentration (via optional external sensor) • **Cooling water:** Temperature • **Ozone leakage detection** • **Error codes and system warnings** **Optional feature:** Ambient air monitoring for relative humidity, temperature, barometric pressure, and VOCs
Dimensions & weight	**Dimensions (H × W × D):** 600 × 600 × 250 mm – incl. external components: 620 × 735 × 290 mm **Weight:** 42 kg
Electrical specifications	**Operating voltage:** 230 V AC (single-phase) **Maximum current draw:** 10 A (incl. external equipment) **Internal system power consumption:** <300 W (excl. external equipment) **Note:** Electrical fuses and supply cables must be dimensioned for a maximum current draw of 10 A, including any connected external devices.
Performance & capacity	**Ozone output:** Up to 11 g/h with dry air feed at 20 °C - Output depends on feed-gas quality, temperature, humidity, pressure, and flow rate.  
Working limits	• Gas pressure (ozone path): Max 7 bar(g) • Cooling water pressure: Max 6 bar(g) • Gas temperature: Max 45 °C • Cooling water temperature: Max 35 °C Recommended treated-water pH: 6–8 (not a system limit)

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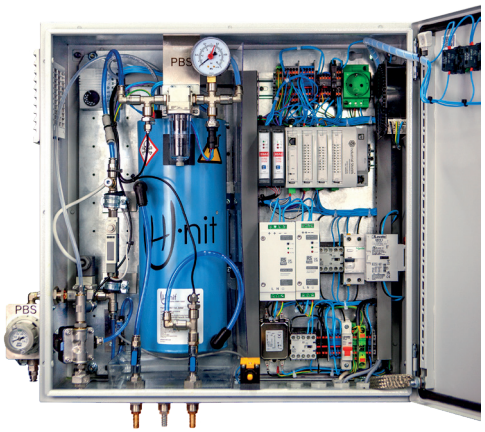
Uninsulated H-unit for general environments



Armaflex-clad version for condensation control

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