Plasma & Reactive Gas Solutions

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SEMOZON® AX8410 PRIME

ULTRA CLEAN, ULTRA HIGH CONCENTRATION, ULTRA HIGH FLOW OZONE GENERATOR

The SEMOZON® AX8410 PRIME is the initial product offering in MKS's next generation platform of compact, high concentration, high flow, ultra clean ozone generators. It features a newly designed cell and power structure to achieve twice the ozone output of earlier models with a similar footprint.

The SEMOZON AX8410 PRIME converts oxygen to ozone through silent electrical discharge. Its novel patented cell design supports new process requirements requiring higher ozone concentrations at flow rates up to 80 slm. The increased flow rate and higher concentration position the AX8410 PRIME generator to meet the ozone requirements for the next generation of semiconductor processes.

Features & Benefits

Compact, Powerful Generator Providing Ultra High Purity Ozone

- Ozone concentration up to 375 g/Nm^3 or 24.2 wt% at 5 °C supports new process requirements and fast processing speeds
- O_2 flow rate from 5 slm to 80 slm enables process flexibility
- Patented cell structure design improves gap uniformity to enable production of high concentration ozone
- High ozone output enables innovative system design opportunities
- Closed-loop operation for tighter process control

Advanced Control and Data Options

- New multi-parameter touch screen interface for smart front panel operation and control
- Expanded data logging capabilities
- Backwards compatible communication interface with SEMOZON AX8407

Designed for Reliability

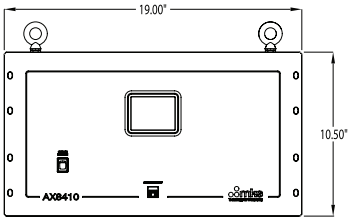
- Reliability tested to >100,000 hours

Specifications and Ordering Information

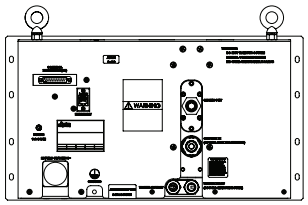
Model	AX8410 PRIME
Maximum Ozone Output with 17 °C Cooling Water	335 g/Nm³ (21.8 wt%)
Maximum Ozone Output with 5 °C Cooling Water	375 g/Nm³ (24.2 wt%)
O_2 Flow Range	5 - 80 slm
Operating Range	
Ambient Temperature	10 - 40 °C (50 - 104 °F)
Nominal Cell Pressure (Delivery)	15 - 45 psig (100 - 310 kPa)
Pressure	Maintain process pressure at 20 - 50 psig
Control Interface	Front panel control and remote operation
Feed Gas	
Oxygen	Grade 6 or better O_2
Nitrogen	100-1000 ppm Grade 5 or better N_2
Cooling Water	
Temperature	5 - 25 °C (41 - 77 °F)
Filtration	100 microns
Quality	Resistivity ≥ 50 KΩ/cm
Water Flow	22.7 lpm (6.0 gpm) minimum
AC Power	
Voltage	208 VAC (±10%)
Phase	3Ø & GND, no Neutral
Current	50A
Frequency	50/60 Hz
Weight	77 kg (170 lb)
Dimensions (W x D x H)	483 x 521 x 267 mm (19.0 x 20.5 x 10.5 in)
Compliance	SEMI S2-0302, SEMI F47, UL 61010-1, CAN/CSA-61010-1

Please contact your local MKS office for price and availability information.

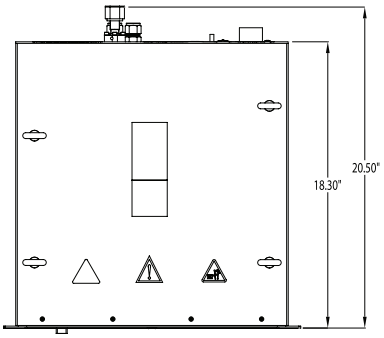
AX8410 PRIME Front View



AX8410 PRIME Rear View

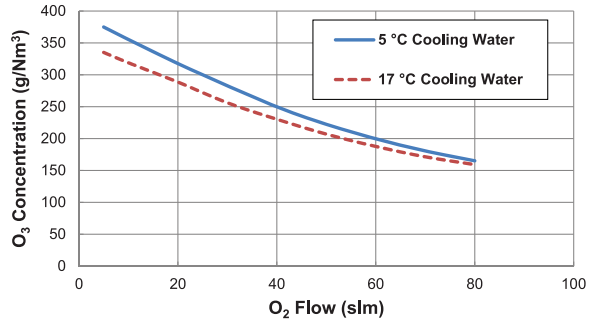


AX8410 PRIME Top View



Dimensional Drawing —

Note: Unless otherwise specified, dimensions are nominal values in inches.



Performance Chart —

Typical Ozone Output

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