# **OZONIA**

## **OZAT® CFS SERIES**

Second Generation Compact Ozone Generators

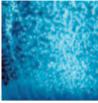


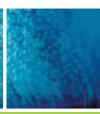












QUALITY

LOW-COST

**VERSATILITY** 

PERFORMANCE

- ← Applications
- Bottled water plants
- Cooling towers
- Aquaculture, etc.



- Advanced technology
- Fully assembled and tested
- Compact dimensions

The OZAT® CFS ozone generators are a range of small units which incorporate the same features as Ozonia's larger units such as AT dielectrics and IGBT power electronics.



#### **MAIN FEATURES**

- → Production rates from 53 to 690 gO<sub>3</sub>/h from oxygen
- → Production rates from 37 to 470 gO<sub>3</sub>/h from air
- → Robust industrial quality for reliability and long service life
- → High ozone concentration at full-load
- → Very compact dimensions for easy integration
- → Low maintenance and service personnel requirement

#### **OZAT® CFS SPECIFIC TECHNOLOGY**

The CFS range is Ozonia's second generation development of generators for small to medium sized ozone applications. The design is based on feedback from hundreds of operators and includes the latest technology to ensure continuous operation at full-load in industrial environments.

An OZAT® CFS unit is made-up from the ozone generator part, the power supply for the high voltage medium frequency supply to the generator, control system, process related control equipment and interconnections. The control system ensures flexible operation and allows integration into all types of plant concepts.

#### HOW IT WORKS

Ozone, the triatomic form of oxygen, is generated by recombining oxygen atoms with oxygen molecules. This process takes place in the gap between the dielectric layer on the high voltage electrode and an earth electrode in the ozone generator. When high voltage is applied to this arrangement a silent electrical discharge occurs in the gap which excites the oxygen molecules in the feed gas flowing through the gap which causes them to split and combine with other oxygen molecules to form ozone.

## **Product Highlights**

- → High performance
- → Compact and versatile
- → Low-cost
- → High ozone concentration
- → Low specific power
- → User friendly
- → Easily integrated
- → Low service requirement



#### **TECHNICAL DATA**

	Ozone Pr	oduction	Oxygen Requirement	Air Requirement	Outlet p	ressure	Cooling Water	Power
OZAT® CFS-2G Model	Oxygen 10 wt%	Air 3 wt%	10 wt%	3 wt%	Oxygen Air Cooling Water Consumption	Consumption		
	g/h	g/h	Nm³/h	Nm³/h	barg	barg	m³/h	kW
CFS-1	53	37	0.37	0.96	< 0.7	< 2.0	0.09	0.7
CFS-3	160	112	1.11	2.89	< 0.7	< 2.0	0.27	2.0
CFS-7	350	240	2.45	6.18	< 1.0	< 2.0	0.56	4.4
CFS-14	690	470	4.79	12.10	< 1.0	< 2.0	1.1	8.6

The recommended concentration range is between 6wt% and 12wt% when fed with oxygen and 3wt% to 5wt% when fed with dry air.

#### **▶** Standards

- Design standards: EN, IEC, ISO, SN

- Protection class: IP 42 - Conformity:

#### **►** Materials

- Enclosure: powder coated mild steel

- In contact with ozone: stainless steel 316, PTFE, PVDF, Viton - In contact with water: PE, brass, stainlesse steel 304/316

#### ▶ Remote controls and alarms

- Supply ON/OFF

- Enable REMOTE

- RESET

- Production STOP

- Collective ALARM

### **Technical Features**

→ Voltage:

• CFS-1 & CFS-3:

• CFS-7 & CFS-14:

→ Frequency:

→ Ambient temperature: → Design altitude:

→ Humidity: → Feed gas inlet pressure:

→ Cooling water pressure:

→ Cooling water inlet temp: 20°C / 68°F

#### **DIMENSIONS**

- Gas valves OPEN

OZAT® OFC OO Madal	lxhxw	Weight	
OZAT® CFS-2G Model	mm	kg	
CFS-1	720 x 800 x 370	70	
CFS-3	720 x 800 x 370	85	
CFS-7	1000 x 800 x 450	200	
CFS-14	1300 x 1450 x 670	420	
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