

# ELA SERIES

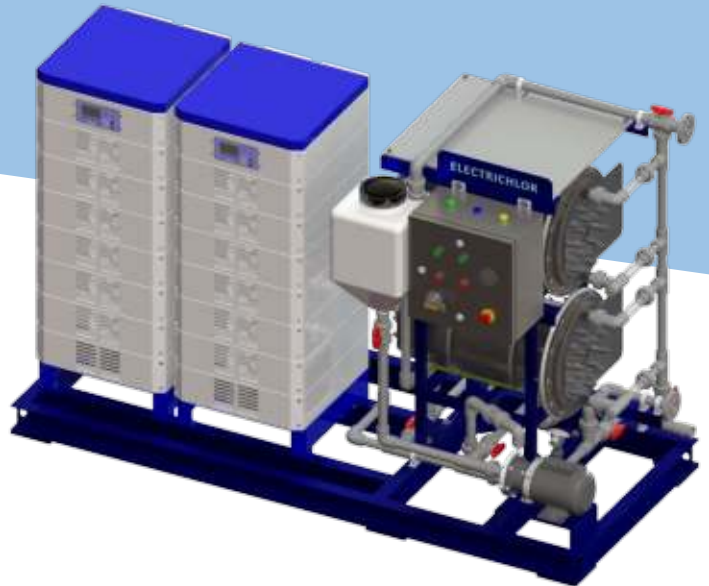
## AIR COOLED HYPOCHLORITE GENERATOR

### What is an ELA Series?

Electrichlor's ELA Series is an adaptative hypochlorite generator that converts salt water (brine or seawater) into sodium hypochlorite (NaOCl) by applying a low voltage DC current to the salt water as it passes through our patented cell technology. The ELA product line uses a modular air-cooled rectifier that improves reliability and produces a more compact system for installations that require a small foot print. The ELA Series makes industrial chlorination easy, efficient, and effective.

### How it works:

NaOCl production initiates with a salt water solution ( $\geq 20$  ppt either sea water or brine solution) flowing into the system. The ELA Series can handle a wide range of flow rates and is typically configured to automatically generate NaOCl upon application of the salt water without any need to electronically interface with an external control system. When feed water flow is detected, the system is automatically enabled, whereas, when the feed water flow is discontinued, the system is automatically disabled. The ELA Series can also be equipped with an electronic interface for remote start/stop functionality, as well as an installed HMI, based on project needs.



### Why choose an ELA Series?

**Upgradability:** The ELA Series has been designed on a modular platform, which enables simple upgrades to meet future project needs.

**Modular Design:** Allows for easy access to every component of the system for maintenance, upgrades, and service. Additionally, some models can easily upscale system capacity with minimal modifications to the base skid.

**Reliability:** Our systems are engineered with industry leading high quality components and manufactured in the USA.

**Automation:** The entire process from salt water feed to NaOCl output is streamlined and can be fully automated, with integrated safety, and quality monitoring.

## Standard Output

The sodium hypochlorite (NaOCl) production capacity for the ELA Series can be designed to meet specific project applications.

Productive Capacity: 0.2 kg/hr to 8.0 kg/hr

Salt Water Flow Rate: 1.0 to 10.0 m<sup>3</sup>/hr

NaOCl Output Concentration @ 1.0 m<sup>3</sup>/hr: 200 to 2000 mg/L TRO

NaOCl Output Concentration @ 10.0 m<sup>3</sup>/hr: 20 to 200 mg/L TRO

## EC2KL and EC4K Cell Design Specifications

Typical Voltage: 3.0 to 8.5 VDC

Typical Current EC2KL: 100 to 2000 Amps

Typical Current EC4K: 100 to 4000 Amps

Typical DC Power: 4.5 to 6.0 kW/(kg/hr)

## Power Requirements

The typical ELA Series requires either a 480VAC/3 phase or 240VAC/3 phase power source and a 120VAC/1 phase power source dedicated to power the control panel.

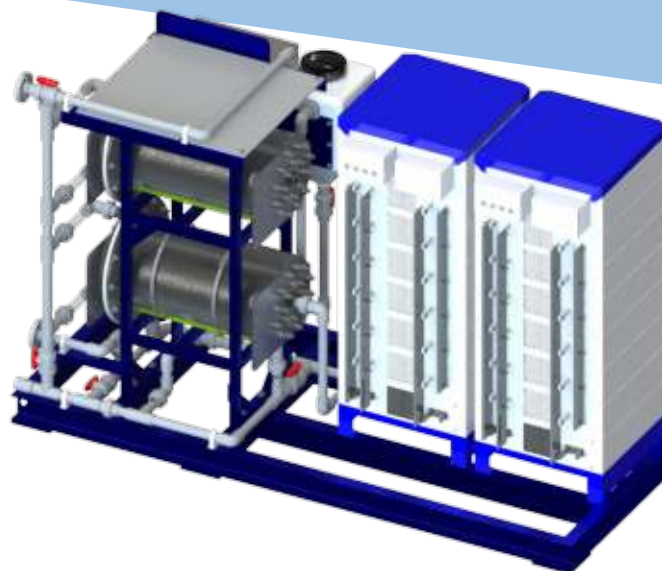
## System Dimensions

Footprint: Up to 65" W x 36-5/8" D (1651 x 931 mm)

Envelope: Up to 65" W x 36-5/8" D x 66" H (1651 x 931 x 1677 mm)

## Simple Maintenance

The ELA systems can be configured with an integrated acid wash, clean in place (CIP), cleaning system that is recommended for use after every 200 to 400 hours of operation. Alternatively, a self-cleaning, reverse polarity electrochemical cell is available.



## ELA Series Applications

**Water and Wastewater Treatment:** The ELA Series provides superior chemical water treatment by eliminating unwanted microorganisms in the water and conversion of ammonia to harmless nitrogen gas.

**Fishing Vessels/Sanitation Process:** ELA systems operate seamlessly in the sanitization of processing decks and facilities. The small footprint and easy integration with existing pipework and controls makes it an ideal solution for shipowners.

**Eliminating Biofouling:** ELA systems are a perfect choice for the mitigation of marine bio-growth in pipework and heat exchangers, especially within power plants and refineries.

**Industrial/Municipal/Commercial/Agricultural:** ELA Series systems are perfect for on-demand production of NaOCl for use in a variety of applications from sanitization to wastewater remediation.

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