

# Product information

Electrolysis systems



**dinotec**  
Water & Pool Technology

**Membrane cell electrolysis system without brine return, with Marathon technology in compact design for producing a low chloride, highly active fresh disinfection solution based on hypochlorite.**

Membrane cell electrolysis system MZE 2000 OS  
as frame structure with switch and control cabinet

**Art. no.: 0547-200-00**



## Short description

The dinotec membrane cell electrolysis process with Marathon technology provides a stock of concentrated, highly active sodium hypochlorite solution on site on the basis of a saline solution. With the integrated dinotecNET+ control with Marathon technology, the most important operating parameters are recorded and controlled, meaning the system is always operated at the optimum operating point with continual self-optimization. The Marathon technology ensures that the proven system achieves an extremely high level of efficiency, combined with a low material stress. The result in an up to 15% lower energy consumption, and an extremely economic service life of the electrolysis cells. Transparent safety, intelligent control and easy accessibility of the technology are additional obvious advantages of the system.

## Description

Including all system components in a free standing and self-supporting frame bearing structure made of high-quality stainless steel. Use of chemically resistant and process-compatible materials such as titanium, PVDF, PVC-C and PVC-U. Due to the specially developed control and optimization system, the clear text display for all operating conditions and control states allows the query and remote control of all important parameters! In addition, the system features a BUS interface and a special protocol routine for further electronic archiving (e.g. event logs).

## Technical data

### System-specific connections:

|                              |                         |
|------------------------------|-------------------------|
| Connected power:             | 15 kVA, 3 x 400V/50Hz   |
| Fresh water consumption:     | approx. 195 l/h,        |
| Fresh water supply pressure: | mind. 3 bar, max. 8 bar |
| Fresh water temperature:     | 8°C to 15°C             |

### Process technology

|                                 |   |
|---------------------------------|---|
| Production output:              | approx. 2.0 kg active chlorine/h, max 48 kg/day (depending on local operating conditions)                                   |
| Product concentration:          | approx. 3% - corresponds to water hazard class 1  |
| Energy demand:                  | approx. 3.6 kg/1 kg chlorine  |
| Salt demand:                    | approx. 2.3 kg/1 kg chlorine  |
| Hydrogen pipe:                  | min. d110 x 5.3 – continuously rising   |
| Mounting frame:                 | high-alloy stainless steel 1.4301 with additional special passivation of profile surface, free-standing and self-supporting |
| Length of pipe to product tank: | < 5 m   |
| Dimensions (wxhxd):             | 900 x 2150 x 1580 mm  |
| Mass/weight:                    | approx. 245 kg  |

### Power module

|                     |                     |
|---------------------|---------------------|
| Dimensions (wxhxd): | 600 x 1300 x 400 mm |
| Mass/weight:        | Approx. 160 kg      |

Can be set up separately from electrolyser unit.

### Specifications for the installation room

|  |                          |
|--|--------------------------|
| Supply air port for installation room: | min. 800 cm <sup>2</sup> |
| Permissible room temperature:          | +10 to +30 °C            |
| Ceiling height:                        | min. 2.6 m               |

## Application

Ecological and safety-conscious production of a low chloride, highly concentrated and long-term stabilized disinfection solution for use in professional pool water treatment as well as drinking water disinfection to maintain and safeguard the quality of the hygiene parameters (TVO - German drinking water regulations, § 11 UBA - German Federal Environment Office). The freshly produced electrolysis product is taken from the product storage tank as required, and added to the water to be treated by means of a separate measuring, control and dosing station that is independent of the electrolysis system.

## Safety information

No handling of or contact with hazardous materials required.

Minimum energy input. Installation in residential areas possible without the need for prior coordination of possible damage with public authorities (police, fire brigade etc.). Clear text display and clearly visible operating states. Controlled hydrogen discharge to the outside.

## Disposal informations

There are no waste products that require a special form of disposal.

## Storage instructions

The regulations of § 19 WHG (German Federal Water Act) apply. There are no further requirements for storage of products < 1000 l. Chlorine produced by electrolysis is classified as "WGK 1", low hazardous to waters according to water pollution classes. When storing quantities of > 1000 l of the product, only a separate drip pan with integrated leakage probe is required. (As per 2015)

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Photos of items may be different.

Do you have any questions? Our hotline will be happy to help.

**Status: 05.05.2023**

*Simply enjoy the best water!*