

# Disinfection of water

DINOTEC ELECTROLYSIS SYSTEMS

Safe Reliable Economical Ecological

Production of a highly active disinfection solution on site

Simply enjoy the best water!

## Simply brilliant...

dinotec electrolysis systems use salt, water and electricity for an on-site production of fresh, highly active chlorine used for effective disinfection of water.

#### Malaysia

Petronas Cooling tower water treatment, VoDes TWIN, 4x17 kg Cl<sub>2</sub>/h

### **Circulation water**

Swimming pool water, fountains, theme parks, etc.

### **Drinking water**

Water supply companies, municipalities, hospitals, hotels, etc.

#### **Process water**

Food industry / beverage industry, livestock breeding, agriculture, etc.



## Continuous operation with triple safety

#### Effective and dependable

Fresh, ultra-pure, highly active – these are the characteristics of chlorine produced with dinotec electrolysis systems

Fresh = Production on site, no age-related loss of effectiveness
Ultrapure = Without impurities and supplemental additives

**Highly active** = High efficiency, high stability, high disinfection effect. This refers, among other things, to the multi-disinfection effect of the produced oxidants, which positively support the disinfection process.





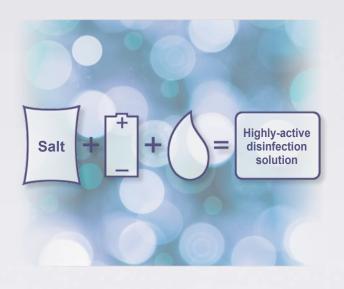
### Safe operation

dinotec electrolysis systems are used worldwide, even under extreme conditions. A reliable, continuous operation of the systems is a basic requirement, especially in remote areas. Sit back and relax. dinotec guarantees the reliable operation of its systems and offers various warranty packages up to a lifetime warranty (15 years\*).

#### Safe for the environment

No risks for nature or operating spaces No special security measures required No operational risks like those associated with chlorine gas systems No transport of hazardous materials/chemicals No regular handling of chemicals on site





## Simple and straightforward



No special storage facilities required

Reduces operating costs

## Common salt: an ecofriendly operating resource

- Low energy input for the production (hardly any contribution to the greenhouse effect)
  - Use of powder salt possible

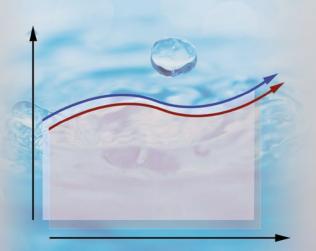
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EU Biocidal Product Regulation: dinotec is listed through Chemoform AG on the Article 95 List under "Active chlorine generated from sodium chloride by electrolysis" for product types 1-5 at ECHA.





## Demand-based, highly effective disinfection

0	Production of the disinfection solution on site
	••••••
0	Safe
	••••••
0	Cost-cutting, since demand-based
0	Highly effective





## Top safety due to remote maintenance via dinoRemote

Increased operational safety with dinotec remote monitoring

Protection of your investment

# Safety risks eliminated

No transport of hazardous materials

No special safety equipment needed

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Coca-Cola Knetzgau, Germany

Bottle washing, VoDes 500 g Cl<sub>2</sub>/h

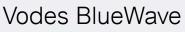


## Low storage and transport costs

0	Easy handling
	••••
$\mathbf{O}$	Low storage area requirements
	•••••
$\mathbf{O}$	Reduced handling and logistics costs
	•••••
$\mathbf{O}$	No hazardous materials
	••••
ß	Low acquisition price

#### **Overview of dinotec systems**





Tubular electrolysis systems 150 / 200 / 300 g  $\rm Cl_2/h$ 

0	Particularly robust
-	• • • • • • • • • • • • • • • • • • • •
0	Reliable operation, even under extreme conditions
0	Easy to install (comparable to a washing machine)
0	Low space requirements
U	
0	Peak demand periods are covered by a product storage tank
	Fear demand periods are covered by a product storage tank
•	
0	Easy operation
~	• • • • • • • • • • • • • • • • • • • •
0	Easy maintenance by trained personnel
	• • • • • • • • • • • • • • • • • • • •
0	Economically priced entry-level electrolysis technology
Ŭ	
0	Use of powder salt possible
0	Integrated control technology. Extension to a full-fledged
	measurement, control and dosing metering system possible
	measurement, control and dosing metering system possible
•	
0	Interface Modbus/RS 485
-	• • • • • • • • • • • • • • • • • • • •
0	3-year warranty*

## Examples of use

Drinking water disinfection up to approx. 90 m <sup>3</sup> /h
• • • • • • • • • • • • • • • • • • • •
Drinking water disinfection in domestic installations
Swimming pool water disinfection
(private, hotels, fitness centers, etc.)

\* According to dinotec terms of guarantee



## VoDes UD / VoDes UD TWIN

Tubular electrolysis systems 500 - 20,000 g Cl<sub>2</sub>/h

0	Particularly robust
0	Reliable operation, even under extreme con- ditions
0	Peak demand periods are covered by a prod- uct storage tank
0	Easy operation
0	Maintenance by factory service staff/contrac- tors
0	Top value for money
0	Remote maintenance via dinoRemote
0	Use of powder salt possible
TWIN	systems from 2,000 g Cl <sub>2</sub> /h
0	Increased system safety through TWIN tech- nology
0	Backup operation using TWIN technology
0	Lower investment costs thanks to TWIN tech- nology
Exa	mples of use
V	Drinking water disinfection for water treat- ment plants and in domestic installations
V	Swimming pool water disinfection (communal pools, water parks, etc.)
V	Food / beverage industry
V	Cooling towers. Disinfection of cooling water

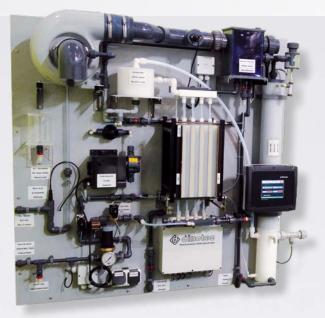




## Membrano EC

Membrane cell electrolysis systems 16 - 80 g Cl2/h

0	Developed for private and small public applications
0	Available versions: direct and tank
0	Simple compact design
0	Integrated water softening using reverse osmosis
0	Production of pH-neutral disinfection solution with the Membrano EC direct version
0	No addition of gas
0	Enhanced safety through integrated chlorine gas measure- ment
	ment
	• • • • • • • • • • • • • • • • • • • •
$\mathbf{O}$	Easy maintenance by specialist dealer
Ŭ	
0	Remote monitoring via dinoAccess app
	• • • • • • • • • • • • • • • • • • • •
U	3-year guarantee*



## MZE / MZE SMART

Membrane cell electrolysis systems 125 - 5,000 g CI2/h

0	High efficiency
	• • • • • • • • • • • • • • • • • • • •
$\mathbf{O}$	Low operating costs (electricity, water, salt)
~	• • • • • • • • • • • • • • • • • • • •
0	No carryover of salt
	• • • • • • • • • • • • • • • • • • • •
0	Robust process technology
	• • • • • • • • • • • • • • • • • • • •
0	Peak demand periods are covered by a product
	storage tank
	• • • • • • • • • • • • • • • • • • • •
0	Maintenance by factory service staff/contractors
	• • • • • • • • • • • • • • • • • • • •
0	Remote maintenance via dinoRemote
	• • • • • • • • • • • • • • • • • • • •
U	Reduced energy costs due to Marathon technol-
	ogy
	• • • • • • • • • • • • • • • • • • • •
U	5-year guarantee*

### **Examples of use**



Private, hotels, fitness centers, etc.

### Examples of use



Drinking water disinfection for water supply companies



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Swimming pool water disinfection (hotels, communal pools, water parks, etc.; particularly suitable for stainless steel pools)



Food / beverage industry

**Technical data** 

## VoDes BlueWave

(Tubular electrolysis)

## Higher efficiency with dinotec operating resources

Maximum efficiency and extended service life of the electrolysis system with dinosolit (type A salt quality\*).

 $^{*}$  Salt specifications for type A salt: NaCl min. 99.90 % / Hardness components (sum of Ca and Mg) max. 50 ppm /

Sulphate (SO<sub>4</sub>) < 400 ppm / Bromide (Br) < 75 ppm / Manganese (Mn) < 1 ppm / Iron (Fe) < 2ppm / Water-insoluble components < 0.1 %



		VoDes BlueWave 30	VoDes BlueWave 60	VoDes BlueWave 90	VoDes BlueWave 150	VoDes BlueWave 200	VoDes BlueWave 300 <sup>3</sup>
ance	Chlorine production up to Cl <sub>2</sub> /h	30	60	90	140	200	300
Performance	ø   Max. daily output $Cl_2$ /day, approx.	660   720	1320   1440	1980   2160	3080   3360	4400   4800	6600   7200
Perf	Chlorine concentration $Cl_2/l$ , approx.	6-7	6-7	6-7	6-7	6-7	6-7
	Operating mode	stand-alone	stand-alone	stand-alone	stand-alone	stand-alone	stand-alone
	Energy demand kWh operation	0.135	0.27	0.405	0.7	0.9	1.35
	Salt consumption g/h, approx.	108	216	324	540	720	1080
	Water consumption I/h, approx.	8	11	18	29	37	48
perties	Flow control	yes	yes	yes	yes	yes	yes
	Monitoring of backflow in hydrogen line	yes	yes	yes	yes	yes	yes
	Softening plant	integrated	integrated	integrated	integrated	integrated	integrated
Pro	Refill control in softener	yes	yes	yes	yes	yes	yes
	Product tank	yes	yes	yes	yes	yes	yes
	Process water inlet temperature (°C) max.	25	25	25	25	25	25
suc	Min./max. room temperature [° C]	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40
conditio	Closed hydrogen discharge to the outside	yes, continuously rising	yes, continuously rising	yes, continuously rising	yes, continuously rising	yes, continuously rising	yes, continuously rising
tion e	Ventilation of installation room	yes	yes	yes	yes	yes	yes
tallat	Special measures for storage	none	none	none	none	none	none
lns	Handling of hazardous materials	no	no	no	no	no	no
	Separate operating room	no	no	no	no	no	No
	Space requirements approx. w x d x h (mm)	1212 x 772 x 195	1212 x 772 x 195	1212 x 772 x 195	1212 x 772 x 195	1212 x 772 x 195	1212 x 772 x 195

#### Recommendations for use

Pool water disinfection private, ca.	up to 40 m <sup>3</sup>	40 m <sup>3</sup> - 200 m <sup>3</sup>	60 m <sup>3</sup> - 300 m <sup>3</sup>	up to approx. 500 m³	up to approx. 670 m³	up to approx. 900 m³
Pool water disinfection public, ca.	up to 40 m <sup>3</sup>	40 m <sup>3</sup> - 100 m <sup>3</sup>	40 m <sup>3</sup> - 200 m <sup>3</sup>	up to approx. 250 m³	up to approx. 330 m³	up to approx. 450 m³
Drinking water supply municipal, communal (TVO, § 11 UBA)	yes	yes	yes	yes	yes	yes
Drinking water supply on ships or the like (TVO, § 11 UBA)	yes	yes	yes	yes	yes	yes
Water treatment: beverage industry	yes	yes	yes	yes	yes	yes
Water treatment: circulation water	yes	yes	yes	yes	yes	yes
Water treatment: waste water	yes	yes	yes	yes	yes	yes
Water treatment: aquaria, fish farming	yes	yes	yes	yes	yes	yes
Water treatment: livestock breeding	yes	yes	yes	yes	yes	yes
Water treatment: nuclear power plants	no	no	no	no	no	no
Water treatment: others	yes	yes	yes	yes	yes	yes

1 = The actual output can deviate from the rated capacity by +-5%.

<sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.

<sup>3</sup> = For export only

Additional system sizes available on request.



Ruanda Drinking water treatment

VoDes UD 5000 and 1500, total 29 kg Cl2/h

Drinking water for about 4 million inhabitants



VoDes UD

(Tubular electrolysis)

-		VoDes UD 1000	VoDes UD 2000	VoDes UD 3000	VoDes UD 4000	VoDes UD 5000	VoDes UD 6000	VoDes UD 7000	VoDes UD 8000	VoDes UD 10000	VoDes UD 15000
	Capacity approx. g Cl <sub>2</sub> /h	1000	2000	3000	4000	5000	6000	7000	8000	10000	15000
Performance	Rated capacity <sup>1</sup> kg Cl <sub>2</sub> /d approx.	24	48	72	96	120	144	168	192	240	360
	Concentration of hypochlorite solution [g/l] approx.	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7
	Operating mode	stand-alone									
	Operating material dinosolit salt tablets or equivalent	recommend- ed									
	Energy demand kWh	4.5	9.0	13.5	18.0	22.5	27.0	31.5	36.0	45.0	67.5
mption	Consumption of (tablet) salt per operating hour (kg/h) approx.	3.6	7.2	10.8	14.4	18.0	21.6	25.2	28.8	36.0	54.0
Consu	Fresh water consumption <sup>2</sup> (I/h) approx.	140	280	420	560	700	840	980	1120	1400	2090
	Fresh water consumption for cooling	No									
	Duplex water softener with swelling resin sensor	integrated									
	Air flow sensor	integrated									
erties	Level control brine and product tank	integrated									
Prope	Frame of the electrolysis system coated in stainless steel	yes									
	Remote monitoring	included									
	Networking with the dinotecNet+ control	optional									
	Mains connection (V/Hz)	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50
	Connected load (kVA)	9	17	26	32	39	45	51	58	75	118
	Min./max. room temperature (°C)	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40
	Required operating pressure fresh water (bar)	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5
	Process water inlet temperature (°C) max.	20	20	20	20	20	20	20	20	20	20
	Supply air opening for installation room	yes									
	Hydrogen discharge to the outside	yes, continu- ously rising									
Dimensions	Dimensions w x h x d (electrolyser unit) mm	1300 x 2200 x 700	1300 x 2200 x 700	1500 x 2200 x 700	1500 x 2200 x 700	1600 x 2200 x 700	1600 x 2200 x 700	1700 x 2200 x 700	2000 x 2200 x 700	2200 x 2200 x 700	2000 x 2200 x 1000
	Dimensions I x w x h (control cabinet) mm	600 x 1300 x 400	600 x 1300 x 400	600 x 1300 x 400	800 x 2250 x 800	1600 x 2250 x 800	1600 x 2250 x 800	1600 x 2250 x 800	1600 x 2250 x 800	1600 x 2250 x 800	1600 x 2250 x 800

1 = The actual output can deviate from the rated capactiy by +/- 5%.
 <sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.

Other system sizes on request.

## VoDes UD TWIN

(Tubular electrolysis)



1 = The actual output can deviate from the rated capactiy by +/- 5%.

<sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.







## Membrano EC

(Membrane cell electrolysis)

			EC 16 direct	EC 26 direct	EC 40 direct	EC 80 direct	EC 16 tank	EC 26 tank	EC 40 tank	EC 80 tank
	Capacity approx. g	Cl <sub>2</sub> /h	16	26	38	76	16	26	38	78
ø	Rated capacity <sup>1</sup> approx. g	Cl <sub>2</sub> /d	384	624	912	1824	384	624	912	1824
nanc	Energy demand	Wh	100	150	180	330	100	150	180	330
Performance	System output (%)		20 - 100 (controlled)	20 - 100 (controlled)	20 - 100 (controlled)	20 - 100 (controlled)	100 (constant)	100 (constant)	50 - 100 (controlled)	50 - 100 (controlled)
	Product concentration approx Cl <sub>2</sub> /h), depending on flow rate		according to de- mand request	6.5	10	9	9			
	Operating mode		stand-alone							
	Operating resource dinosolit s tablets or equivalent	salt	yes							
	Salt consumption (g/h) approx	х.	59	96	140	280	37	60	88	177
	Product pH level (pH) approx.		7 - 7.5	7 - 7.5	7 - 7.5	7 - 7.5	10.5	10.5	10.5	10.5
	Salt is carried over into produ	ct	None	none	none	None	minor	minor	minor	minor
	Product reserve (I)		Production in line with demand	Production in line with demand	Production in line with demand	Production in line with demand	1 I (optionally extendable)	1 I (optionally extendable)	40 I (stand- alone)	75 I (stand- alone)
rties	Softening plant						Reverse osmo- sis (integrated)			
Properties	Power module		integrated							
Ē	Level control brine and product tank		included							
	Remote monitoring		yes							
	Operation of 2 pools		No	No	Yes (extension set)	Yes (extension set)	yes	yes	yes	yes
	Transport weight (kg), approx		55	55	52 (plus pumps)	52 (plus pumps)	45	45	47	47
	Mains connection (V/Hz)		230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50
suo	Process water inlet temperature (°C)		10 - 25	10 - 25	10 - 25	10 - 25	10 - 25	10 - 25	10 - 25	10 - 25
conditi	Hydrogen discharge to the outside		yes, continu- ously rising							
Installation	Ventilation of installation room		Air exchange rate min. 2m³/h per m³ room volume							
	Min./max. room temperature (°C)		10 - 32	10 - 32	10 - 32	10 - 32	10 - 32	10 - 32	10 - 32	10 - 32
Dimensions	Dimensions W x H x D (wall mounting plate) mm		900 x 1030 x 250							
Dime	Space required for installatior (mm)	ו	500 x 1300							

1 = The actual output can deviate from the rated capactiy by +/- 5%.
 <sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.

## MZE SMART

(Membrane cell electrolysis)

#### With Marathon technology

			MZE SMART 125	MZE SMART 250
ance	Capacity approx.	g Cl <sub>2</sub> /h	125	249
Performance	Rated capacity <sup>1</sup> approx.	kg Cl <sub>2</sub> /d	3	6
Perfo	Product concentration approx. [g Cl <sub>2</sub> /h]	13	13	
	Operating resource dinosolit salt tablets o	r equivalent	yes	yes
ion	Energy demand	kWh	3.3	3.3
umpt	Salt demand (kg per 1 kg chlorine)		1.7	1.7
Consumption	Fresh water consumption <sup>2</sup> (I/h) approx.		20	30
	Softening plant		Reverse osmo- sis (integrated)	Reverse osmo- sis (integrated)
Properties	Brine tank and product tank (I) (standard)	100	200	
	Level control brine tank and product tank	included	included	
	Power module	integrated	integrated	
	Remote monitoring	yes	yes	
	Frame of the electrolysis system coated in steel	yes	yes	
	Transport weight (kg), approx.	70	80	
	Connected load (kVA / V / Hz)		1.0 / 230 / 50	1.0 / 230 / 50
	Fresh water supply pressure (bar) min./ma	2.8 / 6	2.8 / 6	
itions	Fresh water temperature (°C)		10 - 23	10 - 23
ondi	Max. length of pipe to product tank (m)		5	5
nstallation conditions	Hydrogen discharge to the outside		continuously rising, min. d63	continuously rising, min. d63
nstal	Supply air opening for installation room		yes	yes
	Min./max. room temperature		10 - 30	10 - 30
	Room height min.		2.3	2.3
	Dimensions W x H x D (wall mounting plate) mm		1000 x 1150 x 400	1000 x 1150 x 400

1 = The actual output can deviate from the rated capacity by +/- 5%.
 <sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.





Aquapark Olesnica Oleśnica, Poland

Swimming pool water treatment, MZE 2500 g Cl<sub>2</sub>/h

O System upgraded: savings per month about 2500 €



MZE (Membrane cell electrolysis)

#### With Marathon technology

Feak water         Sold         Ted         No.00         12.00         12.00         20.00         <													
Operating Particle aparty 1 approx.         kg Cl, d         10         15         20         25         30         40         50         60         80         11           Energy demand         kWh         1.8         2.7         3.6         4.5         5.4         7.2         9.0         10.8         14.4         14.4         14.4           Energy demand         kWh         1.8         2.7         3.6         4.5         5.4         7.2         9.0         10.8         14.4         14.4         14.4           Energy demand         kWh         1.8         2.7         3.6         4.5         5.4         7.2         9.0         10.8         14.4													MZE 5000
hypochionic solution [g/] approx.         30 - 35         <	Performance	Capacity approx.	g Cl <sub>2</sub> /h	500	750	1000	1250	1500	2000	2500	3000	4000	5000
hypochionic solution [g/] approx.         30 - 35         <		Rated capacity <sup>1</sup> approx.	kg Cl <sub>2</sub> /d	10	15	20	25	30	40	50	60	80	100
hypochionic solution [g/] approx.         30 - 35         <		Energy demand	kWh	1.8	2.7	3.6	4.5	5.4	7.2	9.0	10.8	14.4	18.0
Operating material dinosolit saft tablets or equivalent         yes         <				30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35
sait tablets or equivalent         yes         yes <thyes< t<="" td=""><td></td><td>Operating mode</td><td></td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td><td>stand-alone</td></thyes<>		Operating mode		stand-alone									
operating how (h) approx.         15         23         30         38         45         60         75         90         120         15           operating how (h) approx.         15         23         30         38         45         60         75         90         120         13           Consumption of fresh water for cooling (h) approx.         0.9         1.28         1.7         2.2         2.5         3.4         4.2         5.1         6.8         8           Consumption of fuelot(kg/h) approx.         0.9         1.28         1.7         2.2         2.5         3.4         4.2         5.1         6.8         8           Softening plant         optional         optional         integrated				yes									
Under the start per operating hour (kgh) approx.         0.9         1.28         1.7         2.2         2.5         3.4         4.2         5.1         6.8         8           operating hour (kgh) approx.         optional         optional         optional         integrated         integrate	Consumption			15	23	30	38	45	60	75	90	120	150
Under the start per operating hour (kgh) approx.         0.9         1.28         1.7         2.2         2.5         3.4         4.2         5.1         6.8         8           operating hour (kgh) approx.         optional         optional         optional         integrated         integrate				15	23	30	38	45	60	75	90	120	150
Operating         Integrated         Integrat		(tablet) salt per		0.9	1.28	1.7	2.2	2.5	3.4	4.2	5.1	6.8	8.5
Opposite         Optional	Properties	Softening plant		optional	optional	integrated							
Remote monitoring         optional         optional <td>Chlorine gas monitoring</td> <td></td> <td>integrated</td>		Chlorine gas monitoring		integrated									
Total         Trans of the electrolysis system         yes         <		Brine and product tank		optional									
oppose         yes         yes<		Remote monitoring		optional									
Connected load (kVA)         5         6.5         7.5         10         12.5         15         20         25         30         33           Hydrogen discharge to the outside         yes, contin- uously rising		, , ,		yes									
Image: Note of the outside         yes, contin- uously rising         yes, contin- rising         yes, contin- uously rising         yes, c	Dimensions Installation conditions	Mains connection (V/Hz)		400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50	400 / 50
Hydrogen discharge to the outside         uously rising		Connected load (kVA)		5	6.5	7.5	10	12.5	15	20	25	30	35
Installation room         yes				uously	yes, contin- uously rising								
Image: Transmission of the second constraints of the second consecond consecond constraints of the second constraints				yes									
Inlet temperature (°C) max.         15         16         16         16         16         16         16         16         16         16         16 <t< td=""><td></td><td></td><td>2 - 5</td><td>2 - 5</td></t<>				2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5	2 - 5
Toom temperature (°C)         10 - 30 </td <td></td> <td></td> <td>15</td>				15	15	15	15	15	15	15	15	15	15
Dimensions w x n x d (electrolyser unit) mm         1300 x 400         1300 x 400         1200 x 1330         2200 x 1600         2200 x 1600         2200 x 2070         2400 x 2440         2500 x 1700         2500 x 2070         2500 x 2440         2500 x 1300 x         1300 x </td <td></td> <td></td> <td>10 - 30</td>				10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10 - 30
Dimensions I X w X n 1300 x 13				1300 x	1300 x	2200 x	2200 x	2200 x	2200 x	2400 x	2500 x	2500 x	1300 x 2500 x 2440
		Dimensions I x w x h (control cabinet) mm		1300 x	800 x 1300 x 400								

1 = The actual output can deviate from the rated capacity by +/-5%.

<sup>2</sup> = Fresh water quality according to prevailing drinking water regulations.

Other system sizes on request.

**Marathon technology** 

Aquariohm Wellness und Sportbad Mücke, Germany

Swimming pool water treatment MZE SMART 250 g Cl<sub>2</sub>/h

Using smart technology to reduce operating costs

## **Electrolysis with Marathon technology**

#### The future has started!

The new Marathon technology enhances the efficiency of membrane cell systems and significantly extends the service life of the cell packages.

The new technology can also be described as "continuous self-optimization". All essential operating parameters of the system are recorded and regulated by the integrated dinotecNET+ control technology. This ensures that the system is always operated at its optimal operating point.

A comparison with a car explains the principle quite well: Conventional electrolysis technology is like a car that is cold started, then driven at full throttle, and then turn off again until the next use. This mode of operation significantly affects the service life. The Marathon technology is completely different: the system always runs at the optimal operating point, meaning with reduced system output and continuously at the "most efficient speed".

This results in a longer service life of the system and up to 15% energy savings since the electrolysis current is reduced, the electrolysis voltage decreases at the same time, and the number of start-up and shutdown cycles is reduced.

5 years

In connection with a standard maintenance contract\*, dinotec offers a five-year warranty for all systems with Marathon technology. Existing systems equipped with intelligent dinotecNET+ control technology can be upgraded.



## Comprehensive worry-free package

#### dinotec service contract

All financing options include an accompanying dinotec service contract - tailored to your requirements if desired. This ensures continuous system functionality throughout the contract duration. Your input of time and effort for the operation of the system is reduced to a minimum.





#### A good feeling

All maintenance and service works are carried out by the dinotec factory service or experienced contractors. A 24/7 service hotline and the option for remote access to the systems ensure quick troubleshooting. If things get critical, the service team can quickly provide on-site support

### More safety

We offer a range of warranty options for all dinotec electrolysis systems. Whether you need coverage for 5, 10, or 15 years, for specific components or the entire system we can accommodate your requirements.



Sibu Borneo

Drinking water treatment VoDes 6500, VoDes 4000, 21 kg Cl<sub>2</sub>/h

Reliable operation under extreme climatic conditions



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Simply enjoy the best water!