

**CHLORINSITU® III 100 – 500 g/h**

The CHLORINSITU® III is especially designed for the production of sodium hypochlorite (NaOCl) with a low chloride and low chlorate content, according to the EN ISO 901 regulation. It is used for disinfection of water in a broad variety of applications like swimming pools, cooling towers and potable water. The CHLORINSITU® III is based on membrane technology, the salt and energy efficiency is high (85%). Due to the SMART production feature the sodium hypochlorite product is not subject to ageing.

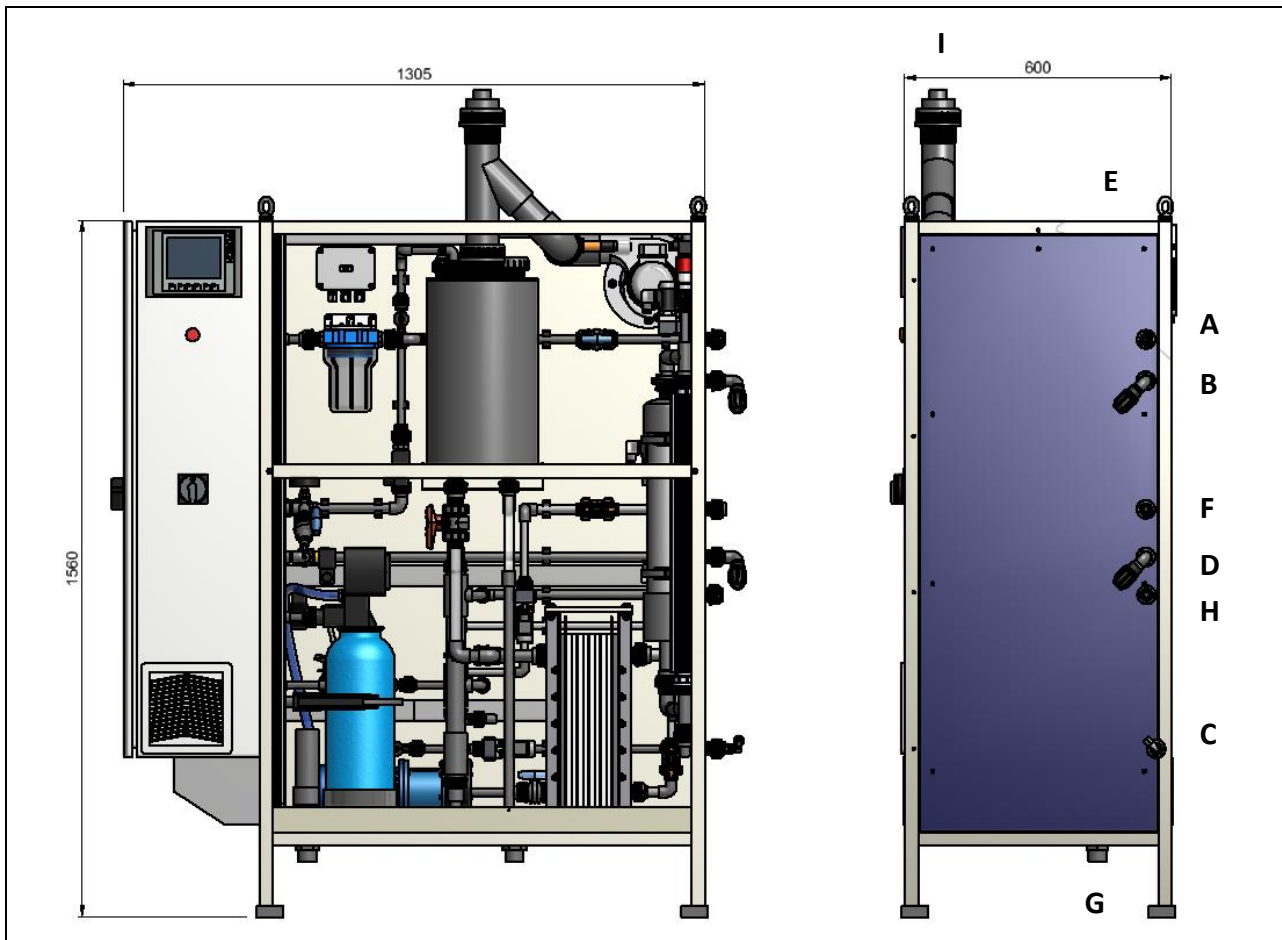
Installation capacity (FAC production)	100 g/h 2,2 kg/day	200 g/h 4,4 kg/day	300 g/h 6,6 kg/day	400 g/h 8,8 kg/day	500 g/h 11 kg/day
Production capacity	22 h/day <sup>1</sup>				
Salt conversion	1,9 kg/kg FAC				
Energy consumption	4,0 kWh/kg FAC				
FAC concentration <sup>2</sup>	25 g/l ± 10% (2,5% ± 10%)				
Chlorate content <sup>3</sup>	<1 g/l (<3,5%)				
pH product (approx.)	10,5				
Membrane cell type	HMC10-1	HMC10-2	HMC10-3	HMC10-4	HMC10-4
Capacity ATEX Blower	1 x 200 m3/h				
Product (NaOCl) volume IEC/EN901 regulation	4 l/h 88 l/day	8 l/h 176 l/day	12 l/h 264 l/day	16 l/h 352 l/day	20 l/h 440 l/day
Power supply	3x400Vac ± 10%, N, PE, 50 Hz				
Nominal Energy use	1,65 kW	2,25 kW	2,85 kW	3,45 kW	4,05 kW
Internal installation fuse	3x16A				
Cooling water use (approx.)	100 l/h@ 20 <sup>0</sup> C				
Salt consumption	190 g/h 4,2 kg/day	380 g/h 8,4 kg/day	570 g/h 12,6 kg/day	760 g/h 16,8 kg/day	950 g/h 21 kg/day
Salt requirements	Salt preferable to EN16370 <sup>4</sup>				
Maximum ambient humidity	85%				
Ambient Temperature	10 - 35 <sup>0</sup> C				
Ambient Conditions	Ambient air non condensating, non corrosive and dust free air within the installation room				
Storage tank	1- day production capacity				
Brine tank	200 Liter (φ600x910mm)				
Relevant regulations	IEC/ EN 2006/42/EC, 2004/108/EC, 2006/95/EC, ATEX 95, IEC/ EN 60204-1, IEC/ EN 61000-6.1- 6.2, EN ISO 12100, EN ISO 13849.				
Disinfection applications	Swimmingpool, Cooling tower, Potable water (WRAS), Process water, Food & Beverage.				

<sup>1</sup> Based on the regeneration of the softener ones a day for 80 minutes.

<sup>2</sup> The product quality is depending on water quality, water volume, temperature, salt specification.

<sup>3</sup> The maximum allowed sodium chlorate (NaClO<sub>3</sub>) content, according to the EN ISO 901:2013 is 5,4% of the available chlorine.

<sup>4</sup> EN16370 Chemicals used for treatment of water intended for human consumption. Sodium chloride for onsite electro chlorination using membrane cells. Consult supplier when intended use of other types of generic salts.



	Connections to be made onsite	Installation side		Piping	Specifications	
A	Water supply (drinking water quality)	DN15	d20 mm	PVCU	>2,5 bar(g)	Max. 15° dH
Return valve is needed in water supply.						
B	Brine supply membrane cell	DN15	d20 mm	d16, Nylon		
C	Brine supply softener	DN15	d20 mm	d10, PE		
D	Filling brine tank	DN15	d20 mm	PVCU		
E	Aeration production tank	DN15	d20 mm	PVCU	Connect to the outside	
F	Product to storage tank	DN15	d20 mm	PVCU		
G	Drain	DN32	d40 mm	PVCU		
H	Cooling water outlet	DN15	d20 mm	PVCU		
I	Diluted hydrogen discharge according to ATEX 95	DN50	d63 mm	d63 mm, PVCU	Max. 10 meter, horizontal, vertical and/ or rising	Max. 3 elbows/ bends Connect to the outside
J	Drain brine tank	DN20	d25 mm	PVCU		
	Ethernet cable	Connect in the electrical cabinet				

**CHLORINSITU® III 600 – 1.750 g/h**

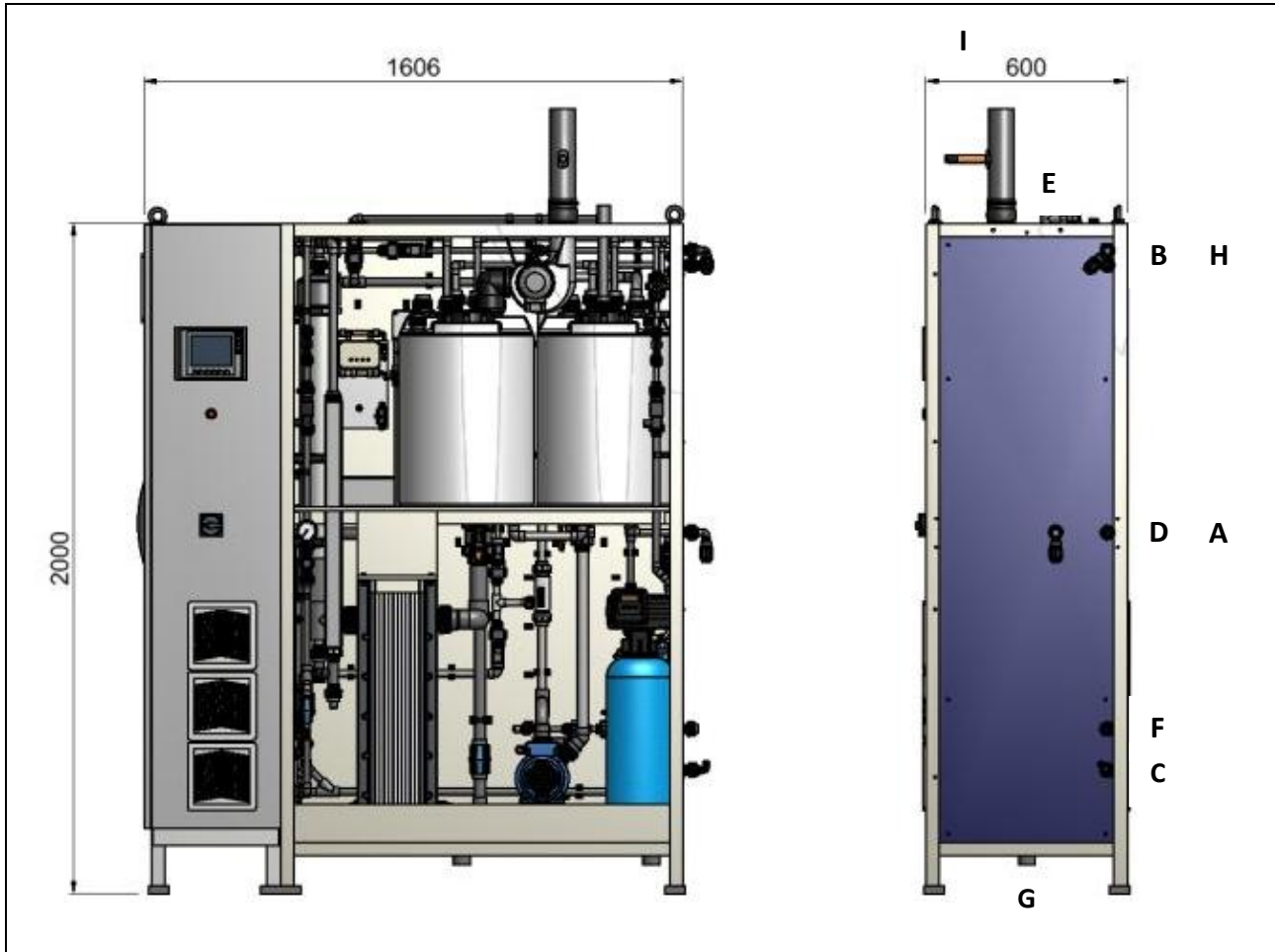
The CHLORINSITU® III is especially designed for the production of sodium hypochlorite (NaOCl) with a low chloride and low chlorate content. The CHLORINSITU® III product is used for disinfection of water in a broad variety of applications like swimming pools, cooling towers and potable water. Because the CHLORINSITU® III is based on membrane technology the efficiency is high. The CHLORINSITU® III produces a highly pure sodium hypochlorite disinfectant without any superfluous products. Due to the daily fresh production the hypochlorite product is not subject to ageing.

Installation capacity (FAC production)	600 g/h 13,2 kg/day	750 g/h 16,5 kg/day	1.000 g/h 22,0 kg/day	1.250 g/h 25,0 kg/day	1.500 g/h 33,0 kg/day	1.750 g/h 38,5 kg/day
Production capacity	22 h/day <sup>5</sup>					
Salt conversion	1,9 kg/kg FAC					
Energy consumption	4,0 kWh/kg FAC					
FAC concentration <sup>6</sup>	25 g/l ± 10% (2,5% ± 10%)					
pH product (approx.)	10,5					
Membrane cell type	HMC25-2	HMC25-3	HMC25-4	HMC25-4	HMC25-5	HMC25-5
Capacity ATEX Blower	1 x 200 m <sup>3</sup> /h					
Product (NaOCl) volume	24 l/h	30 l/h	40 l/h	50 l/h	60 l/h	70 l/h
IEC/EN901 regulation	528 l/day	660 l/day	880 l/day	1,100 l/day	1,320 l/day	1,540 l/day
Power supply	3x400Vac ± 10%, N, PE, 50 Hz					
Nominal Energy use	4,5 kW	5,5 kW	7 kW	8,5 kW	10 kW	11,5 kW
Installation fuse	3x35A					
Cooling water use (approx.)	200 l/h@ 20°C					
Salt consumption	1.140 g/h 25 kg/day	1.425 g/h 31,5 kg/day	1.900 g/h 42 kg/day	2.375 g/h 47,5 kg/day	2.850 g/h 62,5 kg/day	3.325 g/h 73 kg/day
Salt requirements	Salt preferable to EN16370 <sup>7</sup>					
Max. ambient humidity	85%					
Ambient temperature	10 - 35°C					
Ambient conditions	Ambient air non condensating, non corrosive and dust free air within the installation room					
Storage tank	1- day production capacity					
Brine tank	380 Liter (Ø760x870 mm)					
Relevant regulations	IEC/ EN 2006/42/EC, 2004/108/EC, 2006/95/EC, ATEX 95, IEC/ EN 60204-1, IEC/ EN 61000-6.1- 6.2					
Disinfection applications	Swimming pool, Cooling tower, Potable water (WRAS), Process water, Food & Beverage.					

<sup>5</sup> Based on the regeneration of the softener ones a day for 80 minutes

<sup>6</sup> The product quality is depending on water quality, water volume, temperature, salt specification.

<sup>7</sup> EN16370 Chemicals used for treatment of water intended for human consumption. Sodium chloride for onsite electrochlorination using membrane cells. Consult supplier when intended use of other types of generic salts.



	Connections to be made onsite	Installation side		Piping	Specifications	
A	Water supply (drinking water quality)	DN15	d20 mm	PVCU	>2,5 bar(g)	Max. 15 <sup>0</sup> dH
		Return valve is needed in water supply.				
B	Brine supply membrane cell	DN15	d20 mm	d16, Nylon		
C	Brine supply softener	DN15	d20 mm	d10, PE		
D	Filling brine tank	DN15	d20 mm	PVCU		
E	Aeration production tank	DN15	d20 mm	PVCU	Connect to the outside	
F	Product to storage tank	DN15	d20 mm	PVCU		
G	Drain	DN32	d40 mm	PVCU		
H	Cooling water outlet	DN15	d20 mm	PVCU		
I	Hydrogen discharge according to ATEX 95	DN50	D63 mm	d110 mm, PVCU	Max. 10 meter, horizontal, vertical and/ or rising	Max. 3 elbows/ bends Connect to the outside
J	Drain brine tank	DN20	d25 mm	PVCU		
	Ethernet cable	Connect in the electrical cabinet				

**CHLORINSITU® III 2.000 – 3.500 g/h**

The CHLORINSITU® III is especially designed for the production of sodium hypochlorite (NaOCl) with a low chloride and low chlorate content. The CHLORINSITU® III product is used for disinfection of water in a broad variety of applications like swimming pools, cooling towers and potable water. Because the CHLORINSITU® III is based on membrane technology the efficiency is high. The CHLORINSITU® III produces a highly pure sodium hypochlorite disinfectant without any superfluous products. Due to the daily fresh production the hypochlorite product is not subject to ageing.

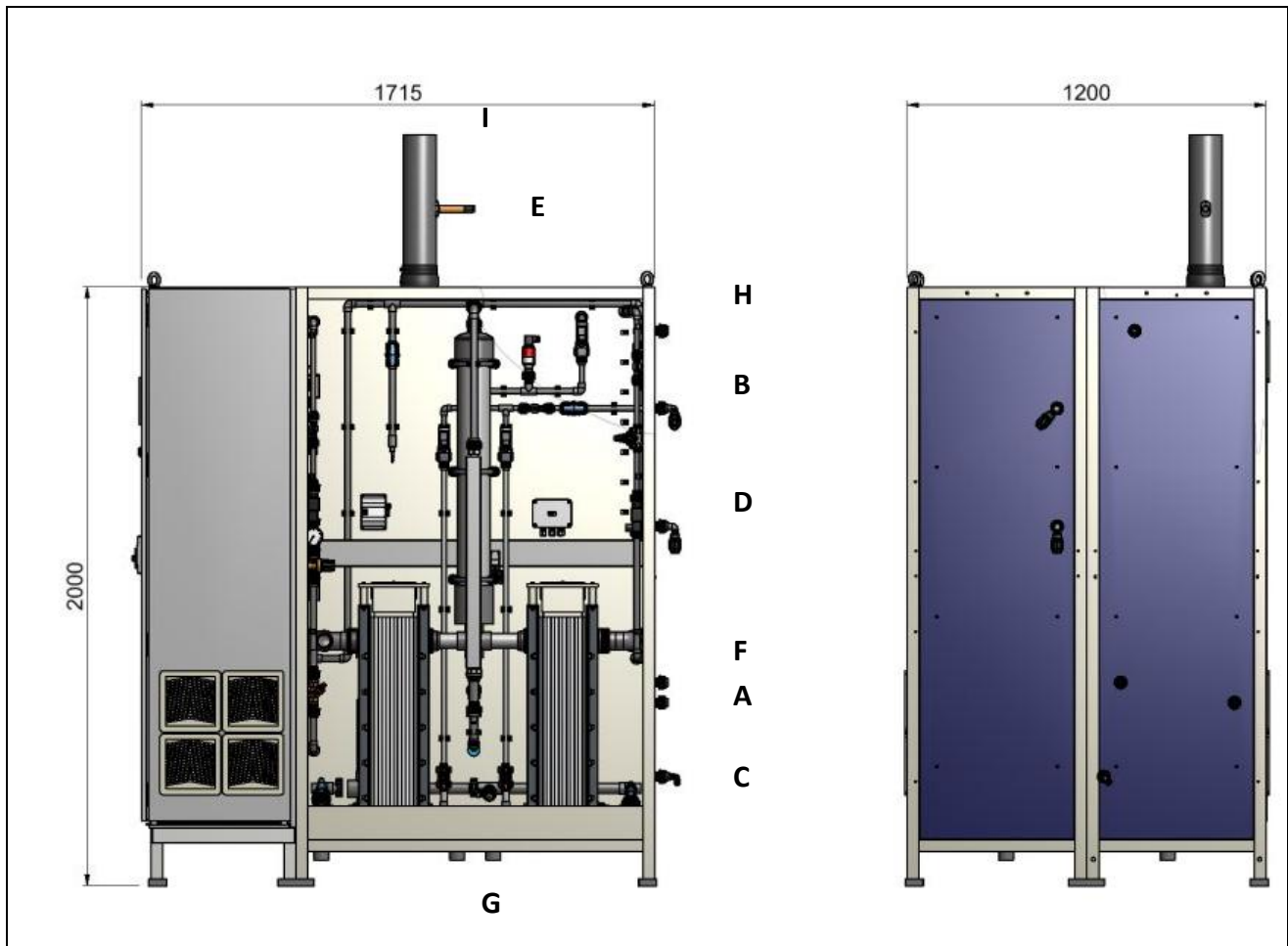
Installation capacity (FAC production)	2.000 g/h 48 kg/day	2.500 g/h 60 kg/day	3.000 g/h 72 kg/day	3.500 g/h 84 kg/day
Production capacity	24 h/day <sup>8</sup>			
Salt conversion	1,9 kg/kg FAC			
Energy consumption	4,0 kWh/kg FAC			
FAC concentration <sup>9</sup>	25 g/l ± 10% (2,5% ±105%)			
Chlorate content <sup>10</sup>	<1 g/l (<3,5%)			
pH product (approx.)	10,5			
Membrane cell type	2 x HMC25-4	2 x HMC25-4	2 x HMC25-5	2 x HMC25-5
Capacity ATEX Blower	1 x 500 m <sup>3</sup> /h			
Product (NaOCl) volume IEC/EN901 regulation	80 l/h 1.920 l/day	100 l/h 2.400 l/day	120 l/h 2.880 l/day	140 l/h 3.360 l/day
Power supply	3x400Vac ± 10%, N, PE, 50 Hz			
Nominal Energy use	13 kW	16 kW	19 kW	22 kW
Installation fuse	3x50A	3x63A		3x80A
Cooling water use (approx.)	350 l/h@ 20°C			
Salt consumption	3.800 g/h 91,2 kg/day	4.750 g/h 114 kg/day	5.700 g/h 136,8 kg/day	6.650 g/h 160 kg/day
Salt requirements	Salt preferable to EN16370 <sup>11</sup>			
Max. ambient humidity	85%			
Ambient temperature	10 - 35°C			
Ambient conditions	Ambient air non condensating, non corrosive and dust free air within the installation room			
Storage tank	1- day production capacity			
Brine tank	520 Liter (Ø925x1035)			
Relevant regulations	IEC/ EN 2006/42/EC, 2004/108/EC, 2006/95/EC, ATEX 95, IEC/ EN 60204-1, IEC/ EN 61000-6.1- 6.2			
Disinfection applications	Swimming pool, Cooling tower, Potable water (WRAS), Process water, Food & Beverage.			

<sup>8</sup> Based on the regeneration of the softener ones a day for 80 minutes

<sup>9</sup> The product quality is depending on water quality, water volume, temperature, salt specification.

<sup>10</sup> The maximum allowed sodium chlorate (NaClO<sub>3</sub>) content, according to the EN ISO 901:2013 is 5,4% of the available chlorine.

<sup>11</sup> EN16370 Chemicals used for treatment of water intended for human consumption. Sodium chloride for onsite electro chlorination using membrane cells. Consult supplier when intended use of other types of generic salts.



	Connections to be made onsite	Installation side		Piping	Specifications		
A	Water supply (drinking water quality)	DN15	d20 mm	PVCU	>2,5 bar(g)	Max. 15°dH	
		Return valve is needed in water supply.					
B	Brine supply membrane cell	DN15	d20 mm	d16, Nylon			
C	Brine supply softener	DN15	d20 mm	d10, PE			
D	Filling brine tank	DN15	d20 mm	PVCU			
E	Aeration production tank	DN15	d20 mm	PVCU	Connect to the outside		
F	Product to storage tank	DN15	d20 mm	PVCU			
G	Drain	DN40	d50 mm	PVCU			
H	Cooling water outlet	DN15	d20 mm	PVCU			
I	Hydrogen discharge according to ATEX 95	DN80	d110 mm	d125, PVCU	Max. 10 meter, horizontal, vertical and/ or rising	Max. 3 elbows/ bends Connect to the outside	
J	Drain brine tank	DN20	d25 mm	PVCU			
	Ethernet cable	Connect in the electrical cabinet					

**CHLORINSITU® III 5.000 – 10.000 g/h**

The CHLORINSITU® III is especially designed for the production of sodium hypochlorite (NaOCl) with a low chloride and low chlorate content. The CHLORINSITU® III product is used for disinfection of water in a broad variety of applications like swimming pools, cooling towers and potable water. Because the CHLORINSITU® III is based on membrane technology the efficiency is high. The CHLORINSITU® III produces a highly pure sodium hypochlorite disinfectant without any superfluous products. Due to the daily fresh production the hypochlorite product is not subject to ageing.

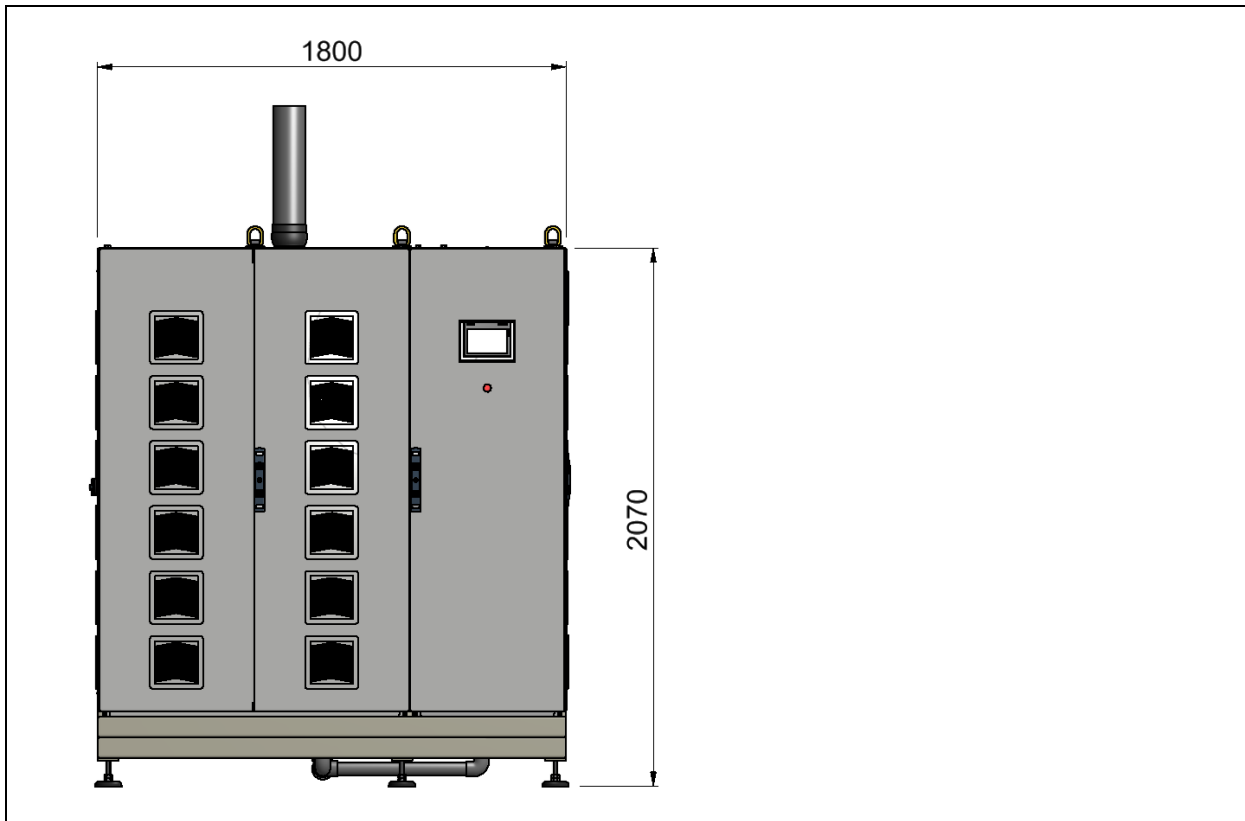
Installation capacity (FAC production)	5,000 g/h 120 kg/day	7.000 g/h 168 kg/day	8.500 g/h 204 kg/day	1.,000 g/h 240 kg/day
Production capacity	24 h/day			
Salt conversion	1,9 kg/kg FAC			
Energy consumption	4,0 kWh/kg FAC			
FAC concentration <sup>12</sup>	25 g/l ± 5% (2,5% ± 5%)			
Chlorate content <sup>13</sup>	<1 g/l (<3,5%)			
pH product	±10,5			
Membrane cell type	4 x HMC25-4	4 x HMC25-5	6 x HMC25-4	6 x HMC25-5
Capacity ATEX Blower	2 x 500 m3/h		3 x 500 m3/h	
Product (NaOCl) volume	200 l/h	280 l/h	340 l/h	400 l/h
IEC/EN901 regulation	4.800 l/day	6.720 l/day	8.160 l/day	9.600 l/day
Power supply	3 x 400Vac ± 10%, N, PE, 50 Hz			
Nominal Energy use	31.05 kW	43.05 kW	52.05 kW	61.05kW
Installation fuse	3 x 90A	3 x 100A	3 x 130A	3 x 160A
Cooling water use (approx.)	500 – 1.000 l/h@ 20°C			
Salt consumption	.9.500 g/h 228 kg/day	13.300 g/h 319 kg/day	16.150 g/h 388 kg/day	19.000 g/h 456 kg/day
Salt requirements	Salt preferable to EN16370 <sup>14</sup>			
Max. ambient humidity	85%			
Ambient temperature	10 - 35°C			
Ambient conditions	Ambient air non condensating, non corrosive and dust free air within the installation room			
Storage tank (recommended) <sup>15</sup>	1- day production capacity			
Brine tank	1150 Liter (Ø1380x1073)			
Relevant regulations	IEC/ EN 2006/42/EC, 2004/108/EC, 2006/95/EC, ATEX 95, IEC/ EN 60204-1, IEC/ EN 61000-6.1- 6.2			
Disinfection applications	Swimmingpool, Cooling tower, Potable water (WRAS), Process water, etc.			

<sup>12</sup> The product quality is depending on water quality, water volume, temperature, salt specification.

<sup>13</sup> The maximum allowed sodium chlorate (NaClO<sub>3</sub>) content, according to the EN ISO 901:2013 is 5,4% of the available chlorine.

<sup>14</sup> EN16370 Chemicals used for treatment of water intended for human consumption. Sodium chloride for onsite electro chlorination using membrane cells. Consult supplier when intended use of other types of generic salts.

<sup>15</sup> Dimensions storage tank including drip pan.



Connections to be made onsite	Installation side		Piping	Specifications		
	DN15	d20 mm		>2,5 bar(g)	Max. 15 <sup>o</sup> dH	25 l/min
Water supply (drinking water quality)	DN15	d20 mm	PVCU	>2,5 bar(g)	Max. 15 <sup>o</sup> dH	25 l/min
	Return valve is needed in water supply.					
Brine supply membrane cell	2 x DN15	2 x d20 mm	d16, Nylon			
Brine supply softener	2 x DN15	2 x d20 mm	d10, PE			
Filling brine tank	DN15	d20 mm	PVCU			
Aeration production tank	DN15	d20 mm	PVCU	Connect to the outside		
Product to storage tank	DN15	d20 mm	PVCU			
Drain	DN40	d50 mm	PVCU			
Cooling water outlet	DN15	d20 mm	PVCU			
Hydrogen discharge according to ATEX 95	2 x DN80	2 x d110 mm	2 x d125, PVCU	Max. 10 meter, horizontal, vertical and/ or rising	Max. 3 turns Connect to the outside	
Drain brine tank	DN20	d25 mm	PVCU			
Ethernet cable	Connect in the electrical cabinet					