

Validated
series



We developed, tested and optimized the Validated series to ascertain a reliable and economic disinfection of water with a transmittance between 80% and 99%. Depending on the transmittance of the water volumes of 0.5m³/h up to 148m³/h can be treated. The optimized design resulted in a widely applicable system that for instance

can be used for the potable water market, the processing industry, shipping, building utilities, and installation engineering. By performing a validation according to the NEN-EN 14897 standards, the disinfection achievements of Validated systems are measured and really proven, a sound and safe disinfection guarantee.

Characteristics

- Validation according to NEN-EN 14897
- Reliable and effective disinfection
- Low in maintenance and easy to use
- Energy efficient
- Low-pressure lamps with a long lifespan and high UV-C efficiency

Specifications



Type	V090	V100	V110	V120	V130	V140
UV chamber						
Material	316L / 14404 Stainless steel					
In-/Outlet Connections	0,5" BSP-T	1" BSP-T	1" BSP-T	1" BSP-T	1,5" BSP-T	1,5" BSP-T
Pressure drop	< 0.1 bar					
Max. Pressure	16 bar at 25°C					
Mounting orientation	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal/ Vertical
Diameter - A (mm)	60	60	60	89	129	129
Height - B (mm)	63	63	63	77	103	103
Installation dimension - C (mm)	390	554	554	548	547	547
Length - D (mm)	522	690	690	698	708	708
Required working space - E (mm)	900	1244	1244	1255	1275	1275
Weight (KG)	3.0	3.7	3.7	4.9	6.8	6.8

UV-C lamp

Lamp type	18 W Regular	25W Regular	50W Regular	50W Regular	50W Regular	60W Long Life
Preferred water temperature (°C)	5 °C - 30°C					
Total UV-C output (Watt)	5.7	7	15	15	15	19
Lamp lifespan (hours)	8000					16000
Number of lamps	1	1	1	1	1	1

Control Unit

Material	Aluminium and ABS					
Dimensions (lxbxh)	300x160x110 mm					
Weight (KG)	2.1					
Control features	Lamp status, lamp hours, system running time, volt free alarm contacts					
Sensors (optional)	UV sensor (UVS), Temperature safety sensor (TSS), Temperature Safety Dumpvalue (TSD)					
Operating Voltage	230 VAC, 50/60 Hz					
Electrical connection	6A C-char./4A D-char.					
Protection rating	IP55					
Preferred ambient temperature (°C)	5°C - 35°C					
Total Power Consumption (W)	21	30	60	60	60	70

Power Consumption

In Wh/m ³ at doses 300 J/m ²	24.5	30	31.6	19.4	8.2	8.2
In Wh/m ³ at doses 400 J/m ²	37.5	37.5	40	24	16.7	10.9

Approvals

Complies with	Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, Machinery Directive 2014/42/EC
Validated according to	NEN-EN 14897:2006, WRAS Approved, Kiwa ATA

Specifications



Type	V150	V160	V170	V180	V190	V200	V220
UV chamber							
Material	316L / 1.4404 Stainless steel						
In-/Outlet Connections	2" BSP-T	2" BSP-T	2" BSP-T	2,5" BSP-T	3" BSP-T	DN100 PN16	DN100 PN16
Pressure drop	< 0.1 bar						
Max. Pressure	16 bar at 25°C						
Mounting orientation	Horizontal/ Vertical	Horizontal/ Vertical	Horizontal	Horizontal	Horizontal	Horizontal/ Vertical	Horizontal
Diameter - A (mm)	129	129	89	129	129	204	204
Height - B (mm)	103	103	82	110	120	159	159
Installation dimension - C (mm)	1041	1041	1340	1336	1604	1131	1431
Length - D (mm)	1207	1207	1499	1512	1790	1321	1621
Required working space - E (mm)	2270	2270	2855	2880	3440	2640	3100
Weight (KG)	10.8	10.8	9.7	13.2	15.7	37	41.2

UV-C lamp

Lamp type	80W Regular	120W Long Life	205W Long Life	205W Long Life	325W Long Life	120W Long Life	205W Long Life
Preferred water temperature (°C)	5 °C - 30°C						
Total UV-C output (Watt)	27	38	58	58	116	114	174
Lamp lifespan (hours)	8000	16000					
Number of lamps	1	1	1	1	1	3	3

Control Unit

Material	Aluminium and ABS					Coated steel	
Dimensions (lxbxh)	300x160x110 mm					600x600x250 mm	
Weight (KG)	21					18	
Control features	Lamp status, lamp hours, system running time, volt free alarm contacts						
Sensors (optional)	UV sensor (UVS), Temperatur safety sensor (TSS), Temperature Safety Dumpvalue (TSD)						
Operating Voltage	230 VAC, 50/60 Hz						
Electrical connection	6A C-char./4A D-char.					16 A C-char./10A D-char.	
Protection rating	IP55					IP54	
Preferred ambient temperature (°C)	5°C - 35°C						
Total Power Consumption (W)	90	140	230	230	365	435	690

Power Consumption

In Wh/m ³ at doses 300 J/m ²	7.6	7.9	9	6.1	6.5	4.6	6.1
In Wh/m ³ at doses 400 J/m ²	10.1	10.5	12	8.1	8.7	6.1	6.9

Approvals

Complies with	Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility Directive (EMC) 2014/30/EU, Machinery Directive 2014/42/EC						
Validated according to	NEN-EN 14897:2006, WRAS Approved, Kiwa ATA						

Specifications



Capacities in m³/h at a dose of 300 J/m²

Unit	T10 80%	T10 85%	T10 90%	T10 95%	T10 99%
V090	0.8	0.8	0.9	0.9	1.0
V100	0.6	0.7	0.8	1	1.3
V110	1.4	1.6	1.8	1.9	2.1
V120	2.2	2.4	2.6	3.1	3.6
V130	2.4	2.8	3.6	4.8	6.3
V140	4.8	6.1	7.3	8.4	9.3
V150	4.6	5.9	8.2	11.9	16.5
V160	12.2	13.2	14.9	17.8	21.3
V170	17.4	18.9	21.4	25.5	30.6
V180	20	23.2	28.8	37.9	49
V190	34.8	38.6	45.1	55.9	69.1
V200	40.7	50.7	67.5	95.3	129.3
V220	56.6	66.9	84.3	113.1	148.2

Capacities in m³/h at a dose of 400 J/m²

Unit	T10 80%	T10 85%	T10 90%	T10 95%	T10 99%
V090	0.6	0.6	0.7	0.7	0.7
V100	0.6	0.6	0.7	0.8	0.9
V110	1.2	1.3	1.4	1.5	1.6
V120	2	2.1	2.3	2.5	2.7
V130	1.8	2.1	2.7	3.6	4.7
V140	3.6	4.6	5.5	6.3	7
V150	3.5	4.5	6.1	8.9	12.3
V160	9.1	9.9	11.2	13.3	16
V170	13.1	14.2	16.1	19.2	23
V180	15	17.4	21.6	28.4	36.8
V190	26.1	29	33.9	41.9	51.8
V200	30.5	38	50.7	71.5	97
V220	45.2	55.3	72.3	100.4	134.7

