Municipal and industrial water purification

Every government aims to provide its citizens with safe and clean drinking water.

If they can de-activate the micro-organisms in water cost-effectively by avoiding, or reducing, the use of chlorine, all the better. Philips is helping to do just that with a range of lamp systems designed to meet all the main municipal requirements.

Waste water must also be disinfected before it is discharged into the environment. Not only does this minimize the risk to the local population, it also helps to protect vulnerable natural eco systems in the discharge areas. Here too, our UV lamp systems are becoming increasingly popular. Highly cost-effective, they treat waste water without adding chemicals or residues. Safeguarding our communities and the environment.

Philips TUV Amalgam XPT System
page 18-19

Philips Dynapower System
page 20-21

Philips Medium Pressure Mercury
page 22-23

Philips TUV T5
page 24-25

Philips drivers
page 34-35

Philips TUV Amalgam XPT System

Philips TUV Amalgam XPT system consists of an electronic driver that operates one TUV Amalgam XPT lamp, mounted in a sleeve. The electrical specifications are tailored to the lamp, ensuring an optimized performance of the Philips TUV Amalgam XPT system. Thanks to extensive testing before a lamp system is released, we can ensure maximum reliability and long lifetime.

Main applications

- Deactivation of bacteria, viruses and other micro-organisms
- Municipal drinking water treatment equipment
- Municipal waste water treatment equipment
- Process water treatment equipment
- Swimming pool units
- Equipment for the production of ultra-pure water, for example for the semiconductor, pharmaceuticals and cosmetics industries (ozone version)

Features

- Short-wave UV radiation with a peak at 253.7 nm (UVC) for disinfection
- Special amalgam used for highest efficiency over wide temperature range
- Protective inside coating ensures constant UV output over the complete lifetime of the lamp
- Special lamp glass filters out the 185 nm ozone-forming radiation
- Philips electronic driver available for a perfect interface
- Universal burning position possible for the T6 range, depending on lamp type and sleeve dimensions
- Lamp can be made from special quartz (open / synthetic) to maximize 185nm Ozone generation

Benefits

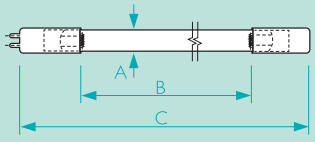
- High Power allows for design of compact installations
- High system efficiency
- Approximately 10% energy savings, because lamps can be dimmed to reach the same UV output compared to similar lamps on the market
- Effective disinfection over the useful lifetime of the lamp
- Best environmental choice because of long reliable life, less waste and industry leading low amount of mercury
- Extreme reliability of driver, with annual failure rate of less than 1%
- High efficiency during dimming thanks to unique amalgam temperature control of the 800W lamps

Technical data

Type	Cap-Base	Dim. no	Technical Lamp Wattage (W)	Lamp Voltage (V)	Lamp Current (A)	Useful life [2] (h)	UVC [1] at 0h (W)	UVC [1] at 100h (W)	Depreciation at useful lifetime (%)	Ordering number 12 NC
TUV 130W XPT SE	4 Pins Single Ended	1	140	67	2.1	12000	48	46	10	928101805112
TUV 180W XPT SE	4 Pins Single Ended	2	180	90	2.1	12000	63	61	10	928106805112
TUV 200W XPT SE	4 Pins Single Ended	3	200	94	2.1	12000	68	66	10	928106905112
TUV 325W XPT HO SE	4 Pins Single Ended	4	305	160	2.0	12000	118	115	10	928107005112
TUV 330W XPT SE	4 Pins Single Ended	5	275	78	3.6	12000	100	97	10	928101705112
TUV 800W XPT SE	4 Pins Single Ended	6	815	103	8.0	12000	277	265	15	928107605112

[1] Nominal UVC output (fixed current) under laboratory conditions
[2] Expected useful lifetime is 12000 h with an intensity decrease of 10% at 254 nm, based on the 100 h UVC value. **TUV800W depreciation is 15%
Lifetime and depreciation strongly depends on operation conditions

Lamp type	Driver	Ordering number 9137...
TUV 130W XPT SE	TUV 130W XPT driver	00729703
TUV 180W XPT SE	TUV 180-200W XPT driver	10054695
TUV 200W XPTSE	TUV 180-200W XPT driver	10054695
TUV 325W XPT HO SE	TUV 325W XPT (HO) driver	10054995
TUV 330W XPT SE	-	-
TUV 800W XPT SE	-	-



4 Pins Single Ended

Dim.* no.	A nom.	B nom.	C max.
1	19	740	842
2	19	930	1032
3	19	1040	1147
4	19	1480	1582
5	32	1440	1556
6	38	1609	1791

* Dimensions (mm)