

## **Warranty for UV-lamps Powerline S**

The lamps of the series Powerline S with the capacity of 0,65 - 3 kW are designed for a lifetime of approx. 8.000 operating hours.

In case of a lamp failure within the first 2.000 operating hours ProMaqua will compensate 100% for the lamp's material value.

Between 2.000 and 8.000 operating hours from 100% to 10% of the material value will be compensated (compensation rate [%] = 145 - 0.022 x operating hours).

A lamp failure is given, if the minimum irradiance is not maintained despite of a checked sensor, a clean lamp protection tube and sensor window as well as a proved correct water transmission (minimum irradiance = 50% of the initial radiation after burning in the lamp, which is approx. after 2-10 operating hours after start-up).

Warranty can only be granted, if the following preconditions are met:

- 1. Installation and commissioning of the UV-system by an authorised ProMaqua customer service.
- Installation and commissioning of the lamps had been documented with a commissioning protocol, which had been countersigned by the client and contains the following information:
  - a) serial number of the lamp and the complete system
  - b) operating hours and system start-ups
  - c) commissioning date of the new lamps
  - d) water transmission at 254 nm at the time of starting new lamps
  - e) irradiance according to the display of the Dulcodes system after the burning in period (value must be reported by operator approx. 2-10 hours after start-up)
- 3. A warranty claim has to be applied at ProMaqua by indicating the following data ascertained by an authorised customer service:
  - f) commissioning protocol of the lamp
  - g) operating hours of the lamp and lamp starts as well as operating hours and starts of the complete system
  - h) water transmission at 254 nm at the time of lamp problem
  - i) irradiance according to the display of the Dulcodes system
  - j) irradiance according to the display of the Dulcodes system after cleaning of the lamp protection tube and sensor window as well as after a sensor check using a exchange sensor if applicable
- 4. Up to the final decision the reclaimed lamp have to be stored by the authorised customer service and, if required, sent to ProMinent Heidelberg at its own expense.