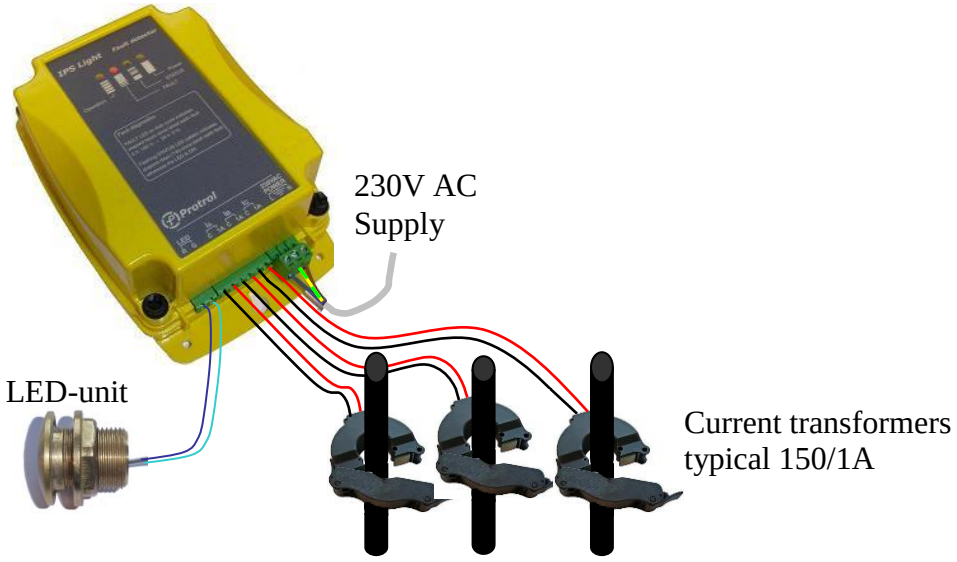
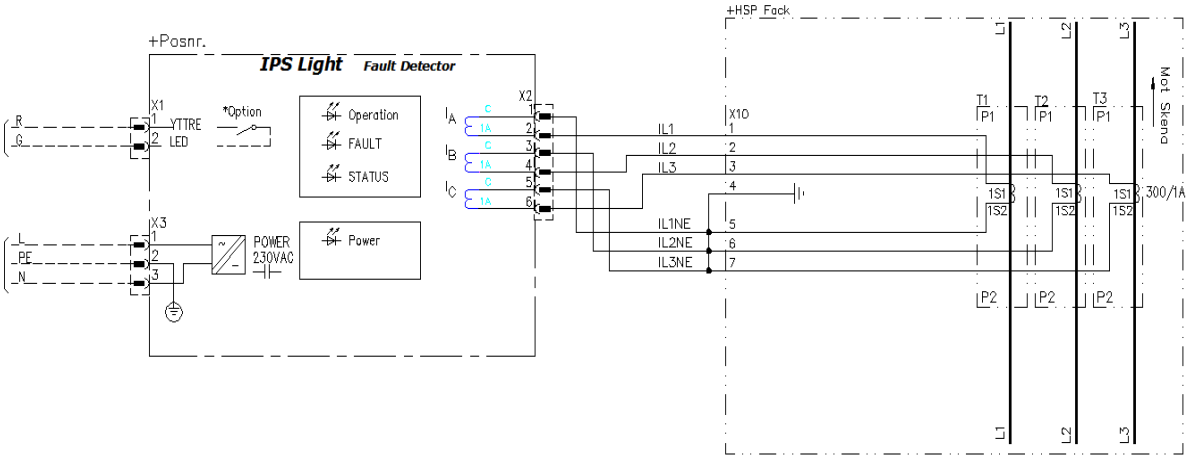
Commissioning of IPS Light

Simplified circuit



Circuit diagram

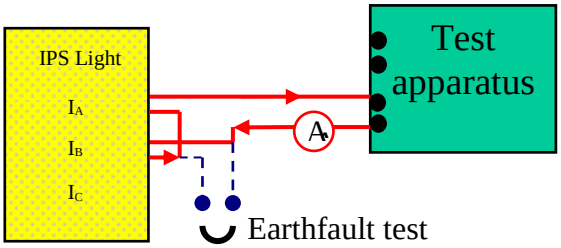


Installation and field testing

1. Install the three current transformers according to the circuit diagram above.
2. Connect the LED unit. The red marked terminal on the LED unit shall be connected to **R** on the IPS unit.
3. Connect the power supply to 230VAC, 50Hz. The **Power** LED shall now be lit up. Since the capacitors of the IPS Light are usually discharged, the **Operation** LED will flash with a frequency >>0.5 Hz until the charge is sufficient to start the detector. As the **Operation** LED starts flashing with 0.5 Hz and the **STATUS** LED is lit up continuously, the detector has started. This can take about 5 minutes.
4. **LED-test** is performed accordingly: Wait until the detector has started. Disconnect the power supply and observe the LED unit. If the LED unit is correctly installed it shall flash red once and then green. Since the detector has not seen any fault it will continue to flash green with a frequency of 0.67 Hz.
5. IPS Light has built-in **current circuit supervision**, which include phase sequence check and loss of phase supervision. The test requires some current in each phase (at least 1% av rated current). If the current level is zero when the detector is started it will try to do test every hour

until the test is completed. When the test is complete and approved the **Operation** LED flashes with an additional short pulse during the off-state of the 2 sec duty cycle. If the test is not approved the detector is blocked and the **Operation**, **Fault** and **Status** LEDs will display running lights. In this state IPS Light will restart after 2 minutes to repeat the test.

Current injection test



Test circuit

Connect the test apparatus to phase A and B according to the drawing above. The measured sum of phase A and B will now be zero.

Overcurrent

The standard overcurrent setting is 130% rated current during 100 ms.
Increase the current level until overcurrent is detected, which is displayed by flashing of the **FAULT** LED. Only if the power supply is lost within 15 sec, the external LED will start flashing with red light. If the power supply is not lost the detector will reset. The local **FAULT** and **STATUS** LEDs will continue to display the fault information according to the description on the unit.

Earthfault

The standard earthfault sensitivity is 4.2 mA. Only if the power supply is lost within 15 sec, the external LED will start flashing with red light. If the power supply is not lost the detector will reset. Inject 50 mA current. Now put a short circuit over phase B according to the drawing above. The current in the short circuit will correspond to the measured earth current. The short circuit must be applied for at least 100 ms. Earthfault is detected and displayed by flashing of the **FAULT** LED. The local **FAULT** and **STATUS** LEDs will continue to display the fault information according to the description on the unit.

Test of IPS Light after commissioning

Testing of earthfault detection is usually possible by simply short circuiting one of the phases directly on the input terminal.