Improve the reliability of LED street lighting system (three-phase network)

Reduce the maintenance & ensure longer service life with zero voltage contactors and overvoltage protection devices

Customer case
Due to the transition from conventional lighting technology to LED technology, the town hall technical department wants to have a compatible solution with all the light units on the market.

The solution must minimize maintenance operations thanks to increased reliability and it must be possible to interface it with existing installations.

Our recommendation
The use of the Acti9 ICT+ allows to reduce the peak current at power up and also the use of the circuit breakers without any derating. The amount of wear on the switchgear is therefore limited and its service life maximized.
Acti9 iQuick PRD surge arresters are used to protect power circuits. Acti9 iPRI surge arresters are used to protect communication systems that are sensitive to overvoltages.

Benefits
- Designers: complete, simple, integrated and scalable solution.
- Ease of installation: this solution allows existing facilities to be refurbished, has smaller physical dimensions, is simple to install and easier to implement.
- Optimized maintenance: protection against the effects of lightning.
- Improve the return on investment through an optimal technical and economic solution.
Solution

Diagram

Specifications

- A zero voltage contactor must be installed to limit the inrush current when the light units are powered up.
- An overvoltage relay is necessary to provide protection against temporary industrial frequency overvoltages.
- Energy network surge arresters that are coordinated and fitted with disconnectors must be installed in the distribution enclosure and in the base of each pole.
- Communication network surge arresters must be installed in the distribution enclosure and in the base of each pole.

Products used

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<th>Quantity</th>
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(*) If lightning rod close to the installation: use Type 1 + 2 surge arrester, Acti9 iPRF1 12.5r (A9L16632) + associated disconnector Acti9 iSW.

More about Acti9 iCT+

Scan or click on QR code