

## PRESS RELEASE

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### ZOTUP PROTECTS 28 MUNICIPALITIES IN MANTUA PROVINCE

**ZOTUP**, Italian manufacturer of surge protection devices, has protected the LED public lighting systems in 28 municipalities in the Mantuan area, for a total of 1,000 distribution boards and 60,000 lighting points.



*Map of the Municipalities that joined the redevelopment project of the LED public lighting systems*

Suzzara, Mantua, Roncoferraro, Marcaria are some of the Municipalities that joined the redevelopment project of the LED public lighting systems. Projected by the Mantuan company *Tea Reteluce* and installed in 2017 by *A3M LUCE S.r.l.*, company from Ostiglia (Mantua province), the plants have been protected with SPDs of the new **ZOTUP** range.

Installing SPDs had the aim of guaranteeing the continuous performance of the plants as well as protecting the LED lighting structures. **ZOTUP** company was involved in the project after a long and careful selection among the top experts in the field of protection against lightning effects.

**ZOTUP**, founded in 1986, is the only Italian manufacturer specialized in SPDs. The company has its headquarters in Bergamo (North Italy) and offers surge protection devices for several different applications: SPDs for low and medium voltage, photovoltaic systems and wind turbines, public lighting systems (protection for LEDs), telecommunication and signaling, data transmission, railway installations and cathodic protection.

These are the features for which the company stands out: quality training provided by a team of expert engineers; constant support and solid advice for the project and the identification of the most suitable products for the clients' specific needs.

The *Tea Reteluce* company followed the planning phase. Founded in 2014, the company started the redevelopment project of municipal public lighting systems which, within a short time, have been equipped with the latest LED technology. *Tea Reteluce* is also involved in identifying the best lighting solutions to enhance the artistic, architectural and monumental heritage, and in designing public lighting systems and traffic light regulation systems. In addition to energy and plant requalification, the *Tea Reteluce* proposal includes "smart services" (video surveillance, recharging of electric vehicles, wi-fi, acoustic and atmospheric detection, etc.) with the adoption of "point-to-point" telecontrol, thanks to the transformation of the pole from a simple passive object to a provider of useful services to the community (*intelligent pole*).

The installation of the SPDs was carried out by the company *A3M LUCE S.r.l.*, a specialist in public lighting. The goal of *A3M LUCE* is the promotion and development of a higher quality of life, through the efficiency of the services offered by public administrations.

**ZOTUP**, working closely with these two companies, identified a protection solution suitable for the system type, offering SPDs able to protect against **both direct and indirect lightning effects, considering the location of the plants in extra-urban areas**. These SPDs are equipped with the new technology and therefore have the following characteristics:

- **PROGRESSIVE PERFORMANCE INDICATION:** the new SPDS allow to perform a daily diagnosis of the system by means of a dynamic performance indicator which, through a clean contact, displays the intermediate status of the arrester, that does not correspond to the end of life as for traditional SPDs. In the field of maintenance and verification of the functionality of SPDs in the plants, this is of fundamental importance as it allows to replace the SPD before its end of life.
- Should maintenance fail, these SPDs also have the **INTEGRATED FUSE FUNCTION**, which makes it possible to avoid inserting a support member above the SPD. This patent-protected function guarantees an open circuit failure mode.
- **POLLUTION DEGREE 3:** This feature guarantees the use of these SPDs even in particularly aggressive environments such as dust, salt, humidity and condensation. In the presence of conductive pollution, SPDs can suffer serious damage, even if there's absence of overvoltage. **ZOTUP**, thanks to an intensive research in materials, meets the requirements of the Pollution Degree 3 and Temperature Extended Range.



*The above photos show the product which was used in the 1,000 panels, both in the single-phase version (first photo) and three-phase plus neutral version (second photo).*

*The models used are: L 13/40 230 t ff for the protection of the phases and I 52 N-PE for the protection of the neutral. These models are able to protect both from direct lightning effects ( $I_{imp}$  of 13 kA per pole) and indirect lightning effects ( $I_n$  of 30 kA per pole), and they have a Maximum Continuous Operating Voltage  $U_c$  equal to 335 V ac, ensuring a total immunity to TOVs (temporary overvoltage at 50 Hz).*

*This family of SPDs guarantees excellent levels of protection  $U_p$ , in order to protect from overvoltage highly sensitive electronics.*

The project is an example of how **ZOTUP** technical team follows the work in a constant and direct manner. As it happens with every project, the team has assisted *Tea Reteluce* and *A3M LUCE* both in the planning and in the installation phase, giving its contribution also with professionalism and knowledge of the current regulations, namely the CEI EN 62305 ed. 2 standard (regulation of atmospheric discharges) and the CEI 64.8 standard (installation standard).

## **THE PROJECT**

**TYPE OF INSTALLED SYSTEM:** Redevelopment of LED public lighting system

**LOCATION:** 28 municipalities in Mantua province

**CUSTOMER:** Public Administration

**PROJECT:** Tea Reteluce S.r.l.

**INSTALLATION:** A3M LUCE S.r.l.

**SPDs SUPPLIER:** ZOTUP S.r.l.

**USED PRODUCTS:** L 13/40 230 t ff and I 52 N-PE



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