



"Protecting the technology in your world"

"The colour purple is associated with higher awareness"

Lightning Protection - Information Upgrade

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LDU.....the lightning protection specialists

Welcome to the second bi-monthly newsletter from LDU. We are proud to be able to issue this newsletter to keep our customers up to date with what LDU has to offer in the field of lightning and surge protection. Since our last newsletter, we have added a number of new products to our earthing and datacom stable and have started on the redesign of our Gatekeeper Surge Filter the GKSF120-50. More on this next time. We are proud to have installed our first system in the Solomon Islands protecting a Sat Com and ISP facility.

.Why not visit our web site www.ldu.com.au to see if we have the answer to your problems. I and our team, look forward to working with you in the future.

Trevor Crunkhorn
CEO LDU Group.



13 years strong.....

Check out our new YouTube video at

http://youtu.be/y_y3De-Bwpl

Featured Solution: 21st Century lightning detection



The **Stormonitor** Lightning Warning System. After 7 long years of development, Indelec has released the most advanced lightning detection and warning system available.



The Stormonitor withstands twice the maximum value required by the standard EN 61000-4-4, in regards to immunity to electromagnetic radiation. This means that the unit will not be influenced by any other static generating source other than lightning, making it extremely reliable without any nuisance triggering. The system is easily installed with the antenna being attached to a hand-rail or the roof gutter, indoors or outdoors.



Key Benefits include:

- Ease of operation
- No Nuisance triggering;
- Will only track approaching storms;
- Gives up to 30 minutes advanced warning of an approaching storm.
- Reliably detects approaching storm up to 15 KLM distance;
- Can be used on any broadcasting site without interference;
- Can activate any type of alarm as required.



Contact LDU to obtain the data sheet





GKSD Range of Surge Protection



GKSD3-200

Product Review: Gatekeeper SPD

GATEKEEPER
SURGE PROTECTION

The *Gatekeeper* range of SPD's (Surge Protection Devices) have been designed to provide a very cost effective, high-energy surge protection for single and three phase power circuits. Being full 3-mode (Single Phase) or 10-mode (Three Phase) devices, the diverters have been designed for mounting at either main power switchboards, major distribution boards or sub-boards and should be installed in front of any surge filters or UPS's to maximise the protection offered to the load. Protection offered ranges from 50KA to a massive 320KA per phase. While a majority of the range are parallel connected surge diverters, the range also include the GKSF range of surge filters and the GKSS range of surge suppressors for 8, 10, 20 & 32 Amp applications. Both products boast a standard 50KA of front end surge protection.

The GKSD3-200 and 320KA SPD (see photo) a massive 200KA or 320KA per phase with thermal and over voltage protection built-in. The SPD is available in single phase or 3 phase with 10 modes of protection. As with the entire family, the GKSD is supplied in a full metal jacket for safety. On the GKSD3-200 & 320 external alarm contacts are standard. The Gatekeeper range of SPD's are fully compliant with the various standards.



Case study: Rio Tinto—West Angeles

Problem:

The HV supply feeding three water pumping station which are absolutely essential for the operation of the mine, were suffering severe damage due to lightning discharging onto the HV lines or poles. The massive over-voltage destroyed the HV insulators causing line failure. This means that the mine would go off line for at least 24 hours for the repairs to be undertaken only to have the same problem occur during the next storm..

An initial solution of an earth catenary wire was installed a number of years earlier with the intention of intercepting the lightning strike. Unfortunately this catenary wire solution was unsuccessful.

Solution:

In 2008 LDU was approached by the mine to investigate and propose a solution to the problem. The major problem was that the HV lines extended in 3 directions for kilometers, and we could not install a system on each and every pole. Therefore our consulting company, *LDU Consultants Pty Ltd*, conducted a statistical analysis of all the damage to the feeds for the past 10 years to discover a number of hot spots which indicated the common paths for lightning storms. Next we developed a plan and designed a trial which saw us install 14 systems consisting of a *Prevectron S6.60* terminal and a HV Surge protection for each phase, on the 14 poles, as shown in the photos above. The terminals were selected to protect not only the pole, but the cables in between the two poles where possible.

Outcome:

Since the installation completion in 2008, LDU has not received any reports of damage to the areas we protected. This means that the excessive downtime experienced by the mine were reduced considerably if not totally, saving millions of dollars of lost productivity..

For over a decade we have been using the Prevectron system to protect our Central Office/Distribution Hub facilities housing expensive telecom, datacom & IP equipment without any failures. Installing this system was ne of the best decisions we ever made.

Lee Sudmeier

Senior Engineer Power Systems Time Warner Telecom (TWTC)

Interesting Lightning Facts

30,000

Degrees is the temperature lightning heats the surrounding air before it strikes.

10 Kilometers

The distance lightning can strike ahead or behind a thunderstorm

Lightning

Will strike in the same place more than once.

1 Billion Volts

The highest calculated voltage of a major lightning strike

There are approximately

80,000

thunderstorms in Australia each year

Give our friendly professional team a call

Sales , Quotes and Project Estimating, Reseller Enquiries

Tony Nardi - National Business Development Manager

estimating@ldu.com.au

Project Management WH&S & QA, System Maintenance

Vic Vaha—Operations Manager

Projects@ldu.com.au

Accounts

Cindy—CFO Accounts@ldu.com.au

Technical Support & Consulting

Trevor—CEO LDU@ldu.com.au



Email or call us for the immediate support you deserve

1800 758 775

www.ldu.com.au

Check out our new YouTube video at

http://youtu.be/y_y3De-Bwpl

