

# PROTECTA\*LITE LINE ARRESTER

## PERFORMANCE STUDY

Lightning strokes to transmission lines, both shielded and unshielded, may result in insulator flashover. Whether flashover occurs depends upon the lightning stroke current and the line parameters. Key line parameters include: ground flash density, soil resistivity, grounding, structure height and protective equipment employed. Line insulation can be protected from flashover by surge arresters spaced at appropriate intervals along the line. Arresters are connected electrically in parallel with insulators to prevent flashover of the insulation. This is the same function served when placed in parallel with transformers to protect the insulation from damage. Arresters can be applied to prevent backflash as well as direct stroke flashovers.

Hubbell Power Systems uses Sigma SLP software to calculate flashovers given a set of line characteristics and assumptions. The benefit of any study of this type is an understanding of the relative performance of various options. Recommendations are given for optimized arrester arrangements.

### THE USE OF PROTECTA\*LITE ARRESTERS CAN RESULT IN THE FOLLOWING BENEFITS:

- Improved lightning performance
- Reduced installation cost – shorter tower, lighter foundations and eliminate shield wire mounting
- Reduced right-of-way
- Reduced power losses
- Reduced EMF
- Lower profile
- Less wear and tear on equipment – such as circuit breakers and insulators

***Please contact your Hubbell Power Systems representative at 1.573.682.5521 for additional information on a distribution or transmission line study.***



*Hubbell has a policy of continuous product improvement. Please visit [hubbelpowersystems.com](http://hubbelpowersystems.com) to confirm current design specifications*

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