

## **Lightning safety against side flashes: influence of floating electrodes on gap breakdown**

### **ABSTRACT**

The experimental results that are presented in this paper show that there is a statistically significant influence of floating electrodes on rod-rod air gap breakdown under impulse current, when the floating electrode is close to either of the electrodes. The results are extrapolated to explain the influence of electrical floating metal parts in lightning side flashes, where the arcing distances are not that long. The experimental outcomes are still inconclusive with regard to direct lightning strikes where the final jump may be a gap of few hundred meters.

**Keyword:** Component; Lightning; Side flash; Direct strike; Floating electrode; Impulse current