

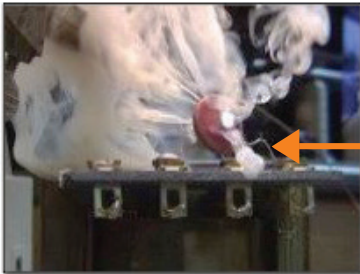


# LED Surge Protection Tech Tip #1

## SAFETY – An important consideration in the selection of an LED surge protector

**The Problem** - metal-oxide varistors (MOVs) are the primary component for protecting sensitive electronics from damaging overvoltage transients or surges. For normal operating conditions, the MOV absorbs random short duration transient currents, transforming the energy into heat. Over time the MOV breaks down and can no longer effectively dissipate the heat forcing the component to rupture and initiate a short circuit condition resulting in potential fire and smoke damage.

**The Solution** - this potential catastrophic failure was the catalyst for the design of the thermally-fused MOV (TFMOV). The approach is simple, if its metal-oxide disk is broken down or is approaching breakdown, the TFMOV disconnects from system power. The TFMOV design consists of a voltage clamping device and a disconnecting apparatus that monitors the status of the MOV.



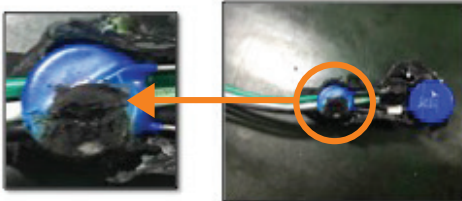
### The Hazards of Catastrophic MOV Failure



### Competitors

*No thermally fused components,*

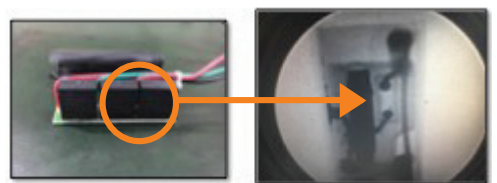
### DAMAGE TO THE CIRCUIT



### ABLE Power Products

*Thermal fuse opened,*

### NO DAMAGE



**Every Able Power Products Surge Protector is Designed with Thermally Fused MOV's**

