



Featured Products Bulletin

CIRCUIT PROTECTION

Bourns Releases New Application Note

Riverside, California - February 8, 2010 - Bourns has released a new [generator interface protection application note](#). The new application note is posted in the Library of www.bourns.com.

Application Note
Generator Interface Protection

Generator manufacturers contend with a significant problem during installation that can result in a DCM (dead on arrival) equipment failure. The solution below describes a 'universal circuit protection' solution for low voltage generator interfaces.

BACKGROUND OF A TYPICAL GENERATOR INSTALLATION

The installation of a generator can be handled by a range of people from trained installers to your typical homeowner. The level of experience and skill required to install the generation equipment is not significant but small mistakes can cause damage that leaves the equipment inoperable. Because the installation handles both line voltage (120 VAC split phase, 240 V) and low voltage signals (less than 50 V), the opportunity for miswiring and resultant damage of equipment is quite easy and pronounced, creating a potential costly problem for the generator manufacturer. While manufacturers clearly mark and physically separate the terminals for each type of circuit, the installer can miswire the system by mixing high voltage with low voltage, quickly destroying sensitive circuits. A resettable overcurrent/overvoltage solution capable of handling line voltage and USD/EFT/current surge is required to protect low voltage generator interface circuits against this problem.

Previously, a typical protection circuit would include a relay, resettable fuse and MOV combination to protect against the above combination of threats. The response of this circuit, number of components and space constraints demanded a new circuit design with a faster response and smaller footprint, etc. The ultimate goal for this circuit protection scheme was to create a 'universal circuit protection' solution that could be used at all exposed low voltage terminals of the generator and which could be deployed throughout the complete line of generators.

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If you have any questions or comments, please feel free to contact us.