Amphenol[®] Application Note



Helios In-Line Fuse

BACKGROUND

Solar arrays are collections of individual solar panels. Each individual panel generates an amount of power determined by the geometry of the panel and the efficiency of the wafers used. The collection of this power is done through a system of wire harnesses that produce a desired voltage and ampacity. The generation of power by these numerous panels must be done in a manner that is safe and, in the event that something should fail, is able to be maintained without damage to subsequent panels.

PROBLEM

Generation of ground fault power from any number of sources, including lightning and short circuits from the panel itself, will result in damage to the panel, as well as, the possible ignition of the wire harnesses. Installation of fuse protection is necessary to limit the extent of damage from a ground fault short. The ability to quickly replace the fuse once the source of the fault is corrected reduces the amount of lost power generation from the Solar Array.

AIO SOLUTION

Amphenol's molded in-line fuse provides a quick replaceable solution for installing in-line fuses. The molded construction provides weather tight housing preventing moisture from getting to the fuse construction. The in-line fuse provides the needed electrical protection to prevent damage to the solar array should a ground fault occur. The connecterized fuse harness construction allows for rapid removal and replacement upon correction of a ground fault.