

What is a solid state power controller (SSPC)?

Solid state power controllers (SSPC) are semiconductor devices that control power (voltage and/or current) supplied to a load. They perform supervisory and diagnostic functions in order to identify overload conditions and prevent short circuits.

How do you program a solid state power controller?

Programmable solid -state power controllers (SSPCs) can be programmed by a computer, or by a specialized or proprietary programming method. Dropout voltage is the voltage applied to the input at or below where the output is guaranteed to be in the 'off' state. It is also known as the must-release voltage or turn-off voltage.

What are the different types of solid state power controllers?

There are several basic types of solid state power controllers (SSPC). AC controllers are designed to switch alternating current (AC) voltages. DC controllers are designed to switch direct current (DC) voltages. AC/DC controllers are designed to switch both AC and DC voltages.

What are the requirements for solid state power controllers?

Solid state power controllers must adhere to certain standards to ensure proper design and functionality. For example, BS ISO 8816 describes the general requirements for solid state power controllers in aircrafts and ISO 27027 describes general performance requirements for the aerospace industry.

What is load voltage SSPC?

Load voltage is the constant voltage the SSPC will provide to the load. Improper voltages to the load will cause operational problems or even damage. SSPCs use switching to regulate output voltage so output voltage is constant and power transmission-to-output is as efficient as possible.

Why does an SSPC cut power?

An SSPC cuts power when there is too much energy transfer where a circuit breaker will trip only when the current gets to its trip point. If a short is about to happen in a system and the current slowly gets higher instead of instantly reaching the trip point, the I<sup>2</sup>T protection of an SSPC will turn the output off.

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Solid state remote power controllers (RPC's) are now available to control and protect all types of loads in both ac and dc power distribution systems. RPC's possess many outstanding qualities ...

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(Solid-State Power Controller,SSPC )? ...

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Abstract: Solid state remote power controllers (RPC"s) are now available to control and protect all types of loads in both ac and dc power distribution systems. RPC"s possess many outstanding ...

Technologies, Inc. designed, built, and installed a solid state power control system for the Advanced Light Source klystrons at Argonne National Laboratory (ANL). This system ...

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