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Goodson

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(54) **ELECTRICAL WIRING SYSTEM AND METHOD**

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(57) **ABSTRACT**

An electrical wiring system/method implementing transient voltage suppression is disclosed. The system/method incorporates HOT, NEUTRAL, GROUND wiring in conjunction with a series drop resistor (SDR) on the HOT conductor that supplies current to the load device. Parallel shunting metal oxide varistors (MOVs) are used in conjunction with corresponding shunt diode rectifiers (SDRs) to suppress transients on the HOT conductor to either the GROUND conductor and/or NEUTRAL conductor. The parallel shunting MOV/SDR pairs may be integrated into a singular structure that is encapsulated in an insulating material to permit implementation of the transient protection wiring system/method into electrical loads and common power distribution equipment such as electrical outlets and power strips.

27 Claims, 64 Drawing Sheets

