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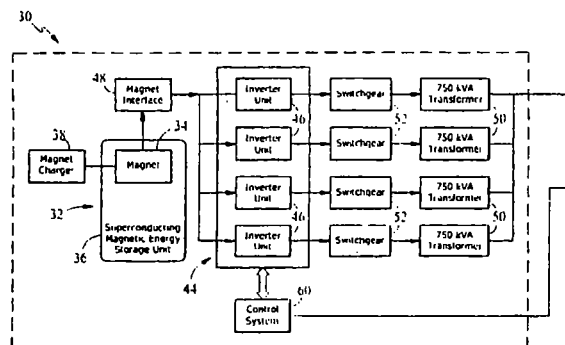
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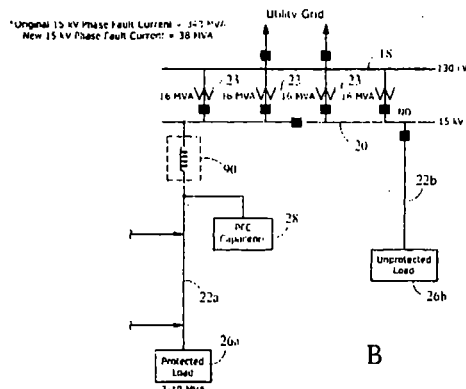
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- (71) Applicant: **AMERICAN SUPERCONDUCTOR CORPORATION [US/US]**; Two Technology Drive, Westborough, MA 01581-1727 (US).
- (72) Inventors: **KEHRLI, Arnold, P.**; 3716 Lexington Circle, Middletown, WI 53562 (US). **NELSON, Bradley, D.**; 5505 Hammersley Road, Madison, WI 53711 (US).
- (74) Agent: **OCCHIUTI, Frank, R.**; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).
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(54) Title: METHOD AND SYSTEM FOR PROVIDING VOLTAGE SUPPORT TO A LOAD CONNECTED TO A UTILITY POWER NETWORK



A



B

(57) Abstract: A voltage recovery system and its method of operation provides voltage protection to a load connected to a distribution network of a utility power system or network by boosting the voltage on a distribution line, during a momentary voltage sag caused by a fault or other contingency. The method includes voltage protection from a voltage recovery system to a load connected to a distribution network of a utility power network. A voltage protection characteristic required by the load is selected. On the basis of electrical characteristics of the voltage recovery system and the distribution network, a determination is made as to whether the voltage recovery system is capable of providing the required first voltage protection characteristic. Determining whether the voltage recovery system is capable of providing the required voltage protection characteristic includes determining a fault current capability characteristic of the distribution network and the maximum voltage improvement characteristic that the voltage recovery system can provide. If the voltage protection characteristic is greater than the maximum voltage improvement characteristic, the fault current capability characteristic and the maximum voltage improvement characteristic are used to determine an impedance in the form of an inductor to be added to the distribution network.

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