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(54) **SELF-REGULATING HEATER CABLE**

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ABSTRACT

Embodiments of the invention provide self-regulating heater cables having improved heat transfer efficiency as well as improved reliability and endurance. The heater cable assembly includes an outer sheath that surrounds a core. The outer sheath includes a conductive ground layer disposed between an inner jacket and outer jacket. The core includes first and second bus wires configured to carry electrical power and a self-regulating resistive heating element that extends along a path to electrically connect the first and second bus wires and convert electric current into thermal energy. The path can be defined by an electrically insulating material disposed in the core and/or the inner jacket.

