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(54) **METHOD AND CIRCUIT ARRANGEMENT FOR DETECTING AN ARC AND PHOTOVOLTAIC (PV) INVERTER HAVING A CORRESPONDING CIRCUIT ARRANGEMENT**

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(57) **ABSTRACT**

The disclosure describes a method for detecting an arc in a direct-current (DC) circuit comprising a DC load, a DC source supplying the DC load, and a circuit arrangement arranged between the DC source and the DC load. A power flow P between an input and an output of the circuit arrangement is suppressed by means of a switching circuit through cyclical interruption such that the power flow P is enabled in an active time window with the first period Δt_1 and the power flow P is suppressed in an inactive time window with the second period Δt_2. Via detection of an input current I_{in} flowing at the input and/or an input voltage U_{in} applied to the input and comparison of values of the input current I_{in} and/or input voltage U_{in} detected in the inactive time window with a current threshold value I_{TH} or a voltage threshold value U_{TH} an arc presence criterion is signaled if the input current I_{in} detected in the inactive time window falls below the current threshold value I_{TH} and/or the input voltage U_{in} detected in the inactive time window does not exceed the voltage threshold value U_{TH}. The application also describes a circuit arrangement for detecting an arc and a photovoltaic (PV) inverter including such a circuit arrangement.