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(54) **ACTIVATION SYSTEM AND METHOD FOR OPERATING AN ELECTRIC MACHINE**

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(57) **ABSTRACT**

An activation system for operating an electric machine includes a control circuit device for activating a rotor winding, and having a highside switch, a semiconductor component, and a de-excitation switch. A first terminal of the rotor winding is connectable to a positive supply terminal via the highside switch and to a negative supply terminal via the semiconductor component. A second terminal of the rotor winding is connectable to the negative supply terminal via the de-excitation switch. The activation system is configured to attain a secure state, when at least one fault is present, by disconnecting the rotor winding from the positive supply terminal and/or by de-exciting the rotor winding. A diagnosis may be carried out using an additional highside switch supplied with power via another activation circuit, and/or a fault detection circuit is provided, whose output signal does not change during a de-excitation.