



Bearingless Electrical Machine With Floating Capacitor

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The Invention

A machine drive includes a suspension force inverter, a torque inverter, and a capacitor. The suspension force inverter provides suspension force electrical signals to suspension force electrical terminals. Each suspension force electrical terminal connects to a suspension coil of a stator winding. Each suspension force electrical signal provides a phase to a single suspension force electrical terminal. A single stator winding is associated with each phase. The torque inverter provides torque electrical signals to torque electrical terminals. Each torque electrical signal provides the phase to a single torque electrical terminal. Each torque electrical terminal connects to both the suspension coil and a torque coil of the single stator winding of the associated phase. The capacitor connected in parallel across the suspension force inverter. The torque inverter is connected to a voltage source. The capacitor is connected to the voltage source through the torque inverter and the suspension force inverter.

Additional Information

For More Information About the Inventors

- [Eric Severson](#)

Tech Fields

- [Engineering : Electric machines](#)

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867