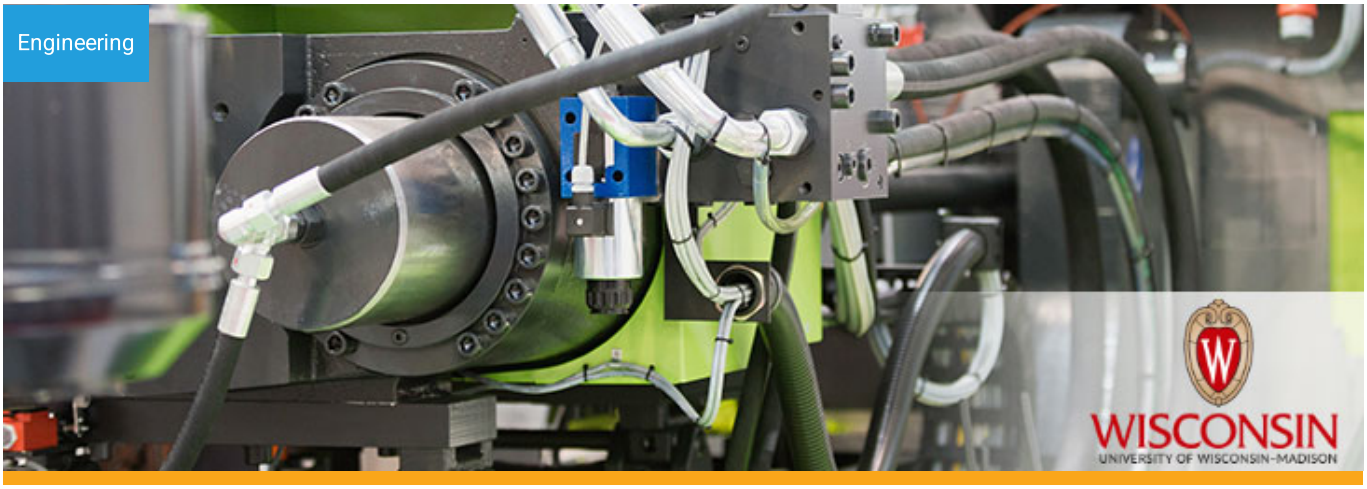
Engineering



BEARINGLESS ROTATING ELECTRIC MACHINE WITH FIELD WEAKENING

View U.S. Patent No. 12,341,405 in PDF format.

WARF: P230035US01

Inventors: Eric Severson, Bharat Ramadas

The Invention

UW researchers have discovered that a bearingless permanent magnet motors can be designed to operate in the field-weakening regime. They have found that the airgap length and permanent magnet thickness can be designed within specific parameters to prevent field-weakening from degrading the machine's force capability. Motors using these geometries, combined with field-weakening methods, enable near complete elimination/significant reduction of torque winding field impact on force creation.

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