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VANHEE et al.(10) **Pub. No.: US 2024/0178724 A1**(43) **Pub. Date: May 30, 2024**(54) **ELECTRIC MACHINE WITH A COOLING ASSEMBLY**(52) **U.S. Cl.**CPC **H02K 9/193** (2013.01); **H02K 1/20** (2013.01); **H02K 3/24** (2013.01)(71) Applicant: **Dana Automotive Systems Group, LLC**, Maumee, OH (US)(72) Inventors: **Steven VANHEE**, Hooglede (BE);
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Methods and systems for an electric machine. The electric machine includes, in one example, a stator with end windings and a stator core and a cooling assembly with a spray ring that is directly coupled to an axial face of the stator core. In the electric machine, the spray ring is configured to spray a coolant at the end windings and includes a first section that extends down the axial face of the stator core and a second section that extends axially away from the stator core.

