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(54) Title: PERMANENT MAGNET ROTOR WITH RESIN-COVERED MAGNET AND LAMINATION FOR THERMAL CONTROL

(57) Abstract: A method of forming a rotor includes placing a plurality of laminations into a stack having a plurality of longitudinally extending magnet slots, placing a plurality of permanent magnets into ones of the magnet slots, and injecting a low viscosity epoxy resin into the lamination stack, thereby substantially filling the magnet slots with a portion of the epoxy resin having a thermal conductivity greater than 0.3 Watts/(meter * degree Kelvin) and substantially filling axial spaces between adjacent ones of the laminations with a portion of the epoxy resin having a thermal conductivity less than that of the epoxy resin in the magnet spaces.

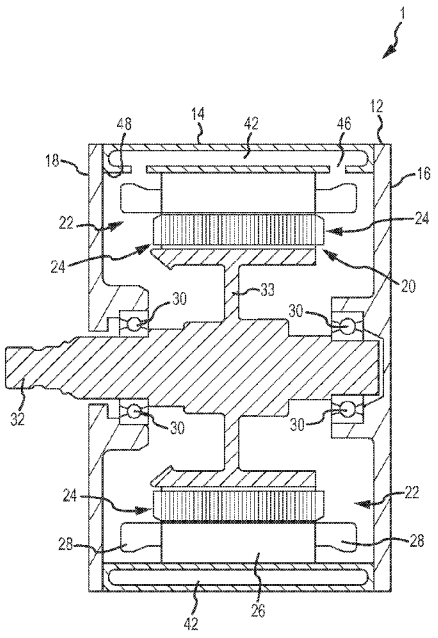

FIG.1

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