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OBST et al.(10) **Pub. No.: US 2022/0360142 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **METHOD FOR DETERMINING A STATE OF
AN ELECTRIC MOTOR AND A
CORRESPONDING ELECTRIC MOTOR AND
FAN****Publication Classification**(51) **Int. Cl.****H02K 9/06** (2006.01)**H02K 11/20** (2006.01)**H02K 11/35** (2006.01)(52) **U.S. Cl.**CPC **H02K 9/06** (2013.01); **H02K 11/20**
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ABSTRACT

A method for determining a state of an electric motor having a stator (2) and a rotor (3) rotatably mounted relative to the stator (2) is disclosed. Due to a rotary motion of the rotor (3), a pressure difference (p) relative to an environment (15) of the electric motor (1, 1', 1'', 1''') is caused in an air space (16) inside the electric motor (1, 1', 1'', 1'''). Here, in a normal state of the electric motor (1, 1', 1'', 1'''), the pressure difference depends on an actual rotational speed (n) of the rotor (3). A corresponding electric motor suitable for carrying out this method is disclosed, wherein the electric motor may be part of a fan.

