

## (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2024/0178716 A1 ROSENBERGER et al.

May 30, 2024 (43) **Pub. Date:** 

## (54) PRESSURE EQUALIZATION ARRANGEMENT AND ELECTRIC MACHINE

(71) Applicant: Bayerische Motoren Werke Aktiengesellschaft, Muenchen (DE)

(72) Inventors: Maximilian ROSENBERGER,

Muenchen (DE); Thomas SPIESS,

Muenchen (DE)

18/283,140 (21) Appl. No.:

(22) PCT Filed: Apr. 12, 2022

PCT/EP2022/059752 (86) PCT No.:

§ 371 (c)(1),

(2) Date: Sep. 20, 2023

#### (30)Foreign Application Priority Data

May 7, 2021 (DE) ...... 10 2021 111 907.3

### **Publication Classification**

(51) Int. Cl.

H02K 5/10 (2006.01)H02K 5/14 (2006.01)

U.S. Cl.

CPC ...... H02K 5/10 (2013.01); H02K 5/14 (2013.01); H02K 2205/09 (2013.01)

#### (57)**ABSTRACT**

A pressure equalisation arrangement for a compartment of an electric machine of a motor vehicle, in which a vent pipe, via which gas can flow out of the compartment for pressure equalisation, is connected to the compartment to be vented. A free end of the vent pipe protrudes from below into an upwardly closed recess which is provided by a component and in which a gas bubble collects as a water level rises, the free end of the vent pipe having a vent opening protruding into the gas bubble.

