



US 20220352723A1

(19) **United States**(12) **Patent Application Publication**
Brombach(10) **Pub. No.: US 2022/0352723 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **METHOD FOR FEEDING ELECTRICAL
POWER INTO AN ELECTRICAL SUPPLY
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Apr. 28, 2021 (EP) 21170991.0

Publication Classification(51) **Int. Cl.**
H02J 3/38 (2006.01)
H02J 3/18 (2006.01)
H02J 3/00 (2006.01)
H02J 3/12 (2006.01)
G05B 19/042 (2006.01)(52) **U.S. Cl.**CPC **H02J 3/381** (2013.01); **H02J 3/18**
(2013.01); **H02J 3/001** (2020.01); **H02J 3/12**
(2013.01); **G05B 19/042** (2013.01); **H02J**
2300/24 (2020.01); **H02J 2300/28** (2020.01);
G05B 2219/2639 (2013.01)

(57)

ABSTRACT

A method for exchanging electrical power between an infeed unit, in particular a wind power installation or a wind farm, and an electrical supply grid at a grid connection point is provided. The exchange comprises exchanging active and reactive power, and the exchange of the active power is controlled based on a frequency-dependent and voltage-dependent active power control function. The active power control function specifies an additional active power to be fed in based on a captured grid frequency and a captured grid voltage. The exchange of the reactive power is controlled based on a frequency-dependent and voltage-dependent reactive power control function, where the reactive power control function specifies an additional reactive power to be fed in based on the captured grid frequency and the captured grid voltage. The control functions are set based on at least one grid characteristic and/or at least one grid state of the grid.

