

Title (en)

METHOD FOR OPERATING A POWER SUPPLY PLANT, AND POWER SUPPLY PLANT

Title (de)

VERFAHREN ZUM BETRIEB EINER ENERGIEVERSORGUNGSANLAGE UND ENERGIEVERSORGUNGSANLAGE

Title (fr)

PROCÉDÉ POUR FAIRE FONCTIONNER UNE INSTALLATION D'ALIMENTATION EN ÉNERGIE ET INSTALLATION D'ALIMENTATION EN ÉNERGIE

Publication

EP 4183019 A1 20230524 (DE)

Application

EP 21746701 A 20210719

Priority

- DE 102020119039 A 20200717
- EP 2021070191 W 20210719

Abstract (en)

[origin: WO2022013458A1] In a method for operating a power supply plant (11) having a plurality of inverters (10.1, 10.2, 10.3) and a plant controller (28), which is connected to the inverters (10.1, 10.2, 10.3) for communication, the power supply plant (11) has a grid connection (26), which is connected to an AC voltage grid (24). Via the grid connection (26), the inverters (10.1, 10.2, 10.3) exchange electrical interchange powers with the AC voltage grid (24) such that the power supply plant (11) exchanges a total interchange power, composed of the respective electrical interchange powers, with the AC voltage grid (24). By means of a respective regulator (50.1, 50.2, 50.3), the inverters (10.1, 10.2, 10.3) adjust their respective interchange powers depending on a respective deviation of a voltage profile of a grid voltage from a respective reference profile with respect to a respective reference frequency and/or depending on a respective voltage amplitude differential between a respective grid voltage and a respective reference voltage. The plant controller (28) influences the regulators (50.1, 50.2, 50.3) of the inverters (10.1, 10.2, 10.3) depending on a power differential between the total interchange power and a specified interchange power. A power supply plant (11) according to the application is designed to carry out this method.

IPC 8 full level

H02J 3/38 (2006.01)

CPC (source: EP US)

G05B 19/042 (2013.01 - US); **H02J 3/16** (2013.01 - US); **H02J 3/38** (2013.01 - EP US); **H02J 7/0048** (2020.01 - US); **G05B 2219/2639** (2013.01 - US); **Y02E 10/56** (2013.01 - EP)

Citation (search report)

See references of WO 2022013458A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102020119039 A1 20220120; CN 116491042 A 20230725; EP 4183019 A1 20230524; JP 2023533592 A 20230803; US 2023187942 A1 20230615; WO 2022013458 A1 20220120

DOCDB simple family (application)

DE 102020119039 A 20200717; CN 202180063165 A 20210719; EP 2021070191 W 20210719; EP 21746701 A 20210719; JP 2023502622 A 20210719; US 202318097535 A 20230117