

Title (en)

METHOD FOR COMPENSATING FOR THE INTERNAL RESISTANCE OF AN ENERGY STORAGE DEVICE, AND SYSTEM FOR COMPENSATING FOR THE INTERNAL RESISTANCE

Title (de)

VERFAHREN ZUR KOMPENSATION EINES INNENWIDERSTANDS EINES ENERGIESPEICHERS UND SYSTEM ZUR KOMPENSATION DES INNENWIDERSTANDS

Title (fr)

PROCÉDÉ DE COMPENSATION DE LA RÉSISTANCE INTERNE D'UN DISPOSITIF DE STOCKAGE D'ÉNERGIE ET SYSTÈME DE COMPENSATION DE LA RÉSISTANCE INTERNE

Publication

EP 4378047 A1 20240605 (DE)

Application

EP 22741730 A 20220630

Priority

- DE 102021208096 A 20210727
- EP 2022068039 W 20220630

Abstract (en)

[origin: WO2023006330A1] The invention relates to a method for compensating for the internal resistance (R) of an energy storage device (11), in particular an exchangeable replaceable battery pack (10), comprising at least one energy storage cell (42). According to the invention, the internal resistance (R) is compensated for in an electric load (18) or charging device (16), which is connected to the energy storage device (11), on the basis of an exponentially declining approximation (Rapp(T)), the curve of which depends on the temperature (T) and the cell chemistry of the at least one energy storage cell (42). The invention additionally relates to a system consisting of at least one energy storage device (11) designed as an exchangeable replaceable battery pack (10) and an electric load (18) for discharging the exchangeable replaceable battery pack (10) and/or a charging device (16) for charging the exchangeable replaceable battery pack (10). The exchangeable replaceable battery pack (10), the electric load (18), and the charging device (16) each has an electromechanical interface (14, 20) with a plurality of electric contacts (12) for carrying out the method.

IPC 8 full level

H02J 7/00 (2006.01); **B25F 5/00** (2006.01)

CPC (source: EP US)

B25F 5/00 (2013.01 - EP); **H01M 10/443** (2013.01 - US); **H01M 10/46** (2013.01 - US); **H02J 7/00032** (2020.01 - US); **H02J 7/0047** (2013.01 - US); **H02J 7/0063** (2013.01 - EP US); **H02J 7/007182** (2020.01 - US); **H02J 7/007194** (2020.01 - EP US); **B25F 5/00** (2013.01 - US); **H01M 2220/30** (2013.01 - US); **Y02E 60/10** (2013.01 - EP)

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 102021208096 A1 20230202; CN 117730463 A 20240319; EP 4378047 A1 20240605; US 2024333015 A1 20241003; WO 2023006330 A1 20230202

DOCDB simple family (application)

DE 102021208096 A 20210727; CN 202280052587 A 20220630; EP 2022068039 W 20220630; EP 22741730 A 20220630; US 202218579999 A 20220630